



Delta Pearl
Partners

Australian Superannuation Taxation Policy – Modelled Options Analysis

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Contact



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Executive Summary

Since the introduction of the Superannuation Guarantee 30 years ago, Australia's superannuation system has evolved into one of the largest private pension systems in the world, managing more than \$3 trillion in assets on behalf of over 15.6 million Australians. The success of this system in helping working Australians save for their retirement has been supported through favourable taxation settings on contributions and earnings within the superannuation system.

The new Australian Government has inherited a challenging fiscal position, with debt approaching \$0.977 trillion and a forecast budget deficit for the 2022-23 financial year of \$77.9 billion¹, further adding to national debt. As the Government prepares to deliver its first budget this October, a range of budget repair measures are being discussed publicly to address the budget deficit, including changes to superannuation taxation settings.

To contribute to this discussion, the Financial Services Council (FSC) engaged DeltaPearl Partners to perform economic modelling of six possible measures adjusting the current superannuation system in Australia to estimate how it would impact on the budget and to consider their alignment with the objective of superannuation.

These six measures were selected by the FSC from various proposals mooted in the media, the financial services industry, and policy circles and are informed by FSC's mission to assist its members to achieve an increase in the financial security and well-being of Australians, and to provide them with a comfortable retirement.

The modelling found three of the six measures produced relatively modest increases in tax receipts. These were:

- Measure 1: Introduction of a \$5 million limit on total superannuation balances. Individuals with a total balance (across all super accounts) above that level will be required to withdraw from super to bring their total balance below \$5 million.

*Modelled outcome is expected to raise approximately **\$1.04 billion** per year.*

- Measure 2: Reducing the tax concession on pre-tax contributions:

A. \$27,500 annual cap on pre-tax contributions to \$15,000

*Modelled outcome is expected to raise approximately **\$1.75 billion** per year. This measure would reduce retirement savings by up to 36 per cent for affected individuals.*

B. \$250,000 Division 293 tax threshold to \$200,000

*Modelled outcome is expected to raise approximately **\$558 million** and would reduce retirement savings by up to 27 per cent for affected individuals.*

- Measure 3: Introduction of a flat tax on all earnings in retirement at 15 per cent.

*Modelled outcome is expected to raise approximately **\$4.82 billion** per year in tax revenue, which would*

¹ Note: the Final Budget Outcome found the 2021-22 Underlying cash balance will improve by \$47.9bn to now be -\$32.0bn which is expected to improve future deficits and debt compared to the original Budget 2021-22 projections. Treasury, September 2022, https://archive.budget.gov.au/2021-22/fbo/download/fbo_2021-22.pdf

represent the equivalent of less than 1 per cent² of total budget revenue and would also pose a significant drag on retiree incomes. Under a depressed growth outlook (3 per cent growth instead of the estimated long-term average of 6 per cent) for asset markets, this measure would be expected to raise \$2.40 billion per year. Individuals will need to reduce their standard of living now or during retirement to ensure sufficient savings are available throughout retirement phase.

The modelling also found that the remaining three measures generated tax receipt reductions, but also resulted in gains in equity within the system. These were:

- Measure 4: Progressive tax settings on superannuation contributions. Replace the flat tax rate paid on superannuation contributions with a progressive tax rate linked to income. Employer superannuation contributions would be treated as individual income that is taxed at marginal personal income tax rates less a flat-rate refundable 20 per cent tax offset.

*Modelled outcome of this measure is expected to cost approximately **\$2.25 billion** per year.*

- Measure 5: Inclusion of superannuation contributions within the government paid parental leave (PPL) scheme.

*Modelled outcome is expected to cost approximately **\$213 million** per year. An individual could improve their superannuation balance by \$20,000 with SG paid on their PPL one child for five years.*

- Measure 6: Broaden the coverage of the Superannuation Guarantee to platform-based gig workers.

*Modelled outcome is that this measure could cost approximately **\$318 million** per year. A gig worker with five years in the industry could improve their superannuation balance by \$48,000.*

This analysis shows there is limited scope through superannuation taxation policy changes to raise revenue sufficient to make a significant impact on the Commonwealth Government's fiscal position. The most significant possible measure modelled (applying a 15 per cent tax on retirement income earnings) would raise the equivalent of less than 1 per cent³ of total budget revenue and would also pose a significant drag on retiree incomes. It would also bring other consequences for Government including increased spending on the Age Pension as well as reduced individual savings, which would in turn place increased reliance on Government-funded age and health care costs.

The analysis also suggests that policy changes should be focused on superannuation taxation policies that improve the equity of the system, rather than policies that would undermine the primary objectives of the superannuation system. It is critical, therefore, that any reduction of tax concessions in the superannuation settings must be assessed from an individual superannuation member's perspective, given that the accepted policy ambition of the superannuation system is to provide income to individuals in their retirement.

² Revenue raised in 2021-22 \$4.8 billion against reported budget revenue of \$566.4 billion in 2021-22

³ Revenue raised in 2021-22 \$4.8 billion against reported budget revenue of \$566.4 billion in 2021-22

1. Introduction

The Financial Services Council (FSC) commissioned DeltaPearl Partners to undertake research into potential areas of superannuation taxation reform. In particular, the FSC sought to assess:

“areas of superannuation taxation and contribution settings that might be considered for reform to help Government achieve its objective of addressing its ongoing structural deficit whilst not undermining the fundamental objective of superannuation.”

The initial focus of the research was on the following three areas of superannuation taxation and contribution settings that might be considered ways to raise additional revenue:

Revenue-raising focused measures⁴

Measure 1: Introduction of a \$5 million limit on total superannuation balances. Individuals with a total balance (across all super accounts) above that level will be required to withdraw from super to bring their total balance below \$5 million.

Measure 2: Reducing the tax concession on pre-tax contributions:

- A. \$27,500 annual cap on pre-tax contributions to \$15,000 and
- B. \$250,000 Division 293 tax threshold to \$200,000.

Measure 3: Introduction of a flat tax on all earnings in retirement at 15 per cent.

In addition, three separate measures were examined that focus on improving the equity of the superannuation system:

Equity improvement measures

Measure 4: Progressive tax settings on superannuation contributions. Replace the flat tax rate paid on superannuation contributions with a progressive tax rate linked to income. Employer superannuation contributions would be treated as individual income, that is taxed at marginal personal income tax rates less a flat-rate refundable 20 per cent tax offset.

Measure 5: Inclusion of superannuation contributions within the government paid parental leave scheme.

Measure 6: Broaden the coverage of the Superannuation Guarantee to platform-based gig workers.

Any change to current superannuation taxation arrangements will also have multiple implications in other sectors of the economy and over time. The model does not estimate these effects. For example, levels of accumulation in superannuation funds may change, future demand for social security payments will alter, and spending patterns throughout the economy will be affected. In particular, tax increases on super will likely come at a substantial cost in the longer term due to higher spending on the Age Pension. Lower superannuation balances result in higher Age Pension spending, particularly for individuals with moderate balances, a situation which applies for many Australians.⁵

⁴ These measures are framed as a focus on revenue raising but will also have an impact on equity of the system, depending on the actual implementation of the policy.

⁵ See FSC submission to Retirement Income Review, figures 5 and 19.

Tax increases on superannuation will also reduce the incentive to save, potentially by a substantial amount – a recent study⁶ showed that a change in the concessional contribution caps resulted in large changes in concessional contributions, consistent with the view that the tax and contribution rules for superannuation have a large impact on savings.

For the purposes of this analysis, the focus is on the impacts of the possible changes on Australian Government superannuation taxation receipts.

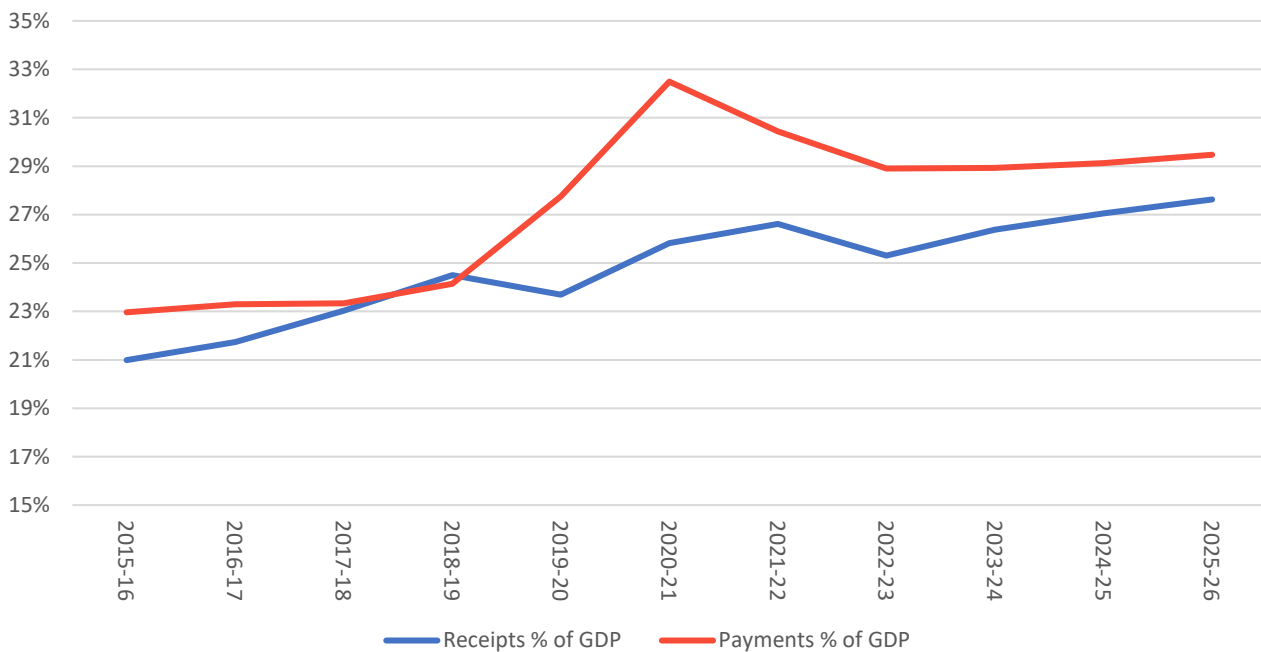
⁶ Chan, Morris, Polidano & Vu (2022) "Income and saving responses to tax incentives for private retirement savings", *Journal of Public Economics*, 206, see: <https://www.sciencedirect.com/science/article/abs/pii/S0047272721002346>

2. Drivers of the budget deficit

Understanding the Commonwealth Government's budget drivers for major revenue and expenditure items assists in understanding the scale of the future debt and deficit. Our approach was to complete research and modelling of the recent historical and current published Commonwealth Government budget data and future policies and spending programs. The review was of the aggregate budget figures and the assumptions underlying the fiscal projections put forward by Treasury. Using the current budget projections as a baseline, we were able to test scenarios of proposed changes to tax policy for the scale of possible impact.

Figure 1 below shows that the Commonwealth budget has been in deficit since 2008–09, except for a small surplus in 2018–19. Since that time, Australia has suffered from the impacts of the global COVID-19 pandemic, where the government supported the entire economy with wage support payments and other fiscal injections. The most recent budget projections indicate the structural deficit from increasing expenditure items means there are no expectations of budget balance at any time in the forecast period.

Figure 1: Commonwealth Government receipts and payments as a per cent of real GDP, 2000–01 to 2025–26⁷



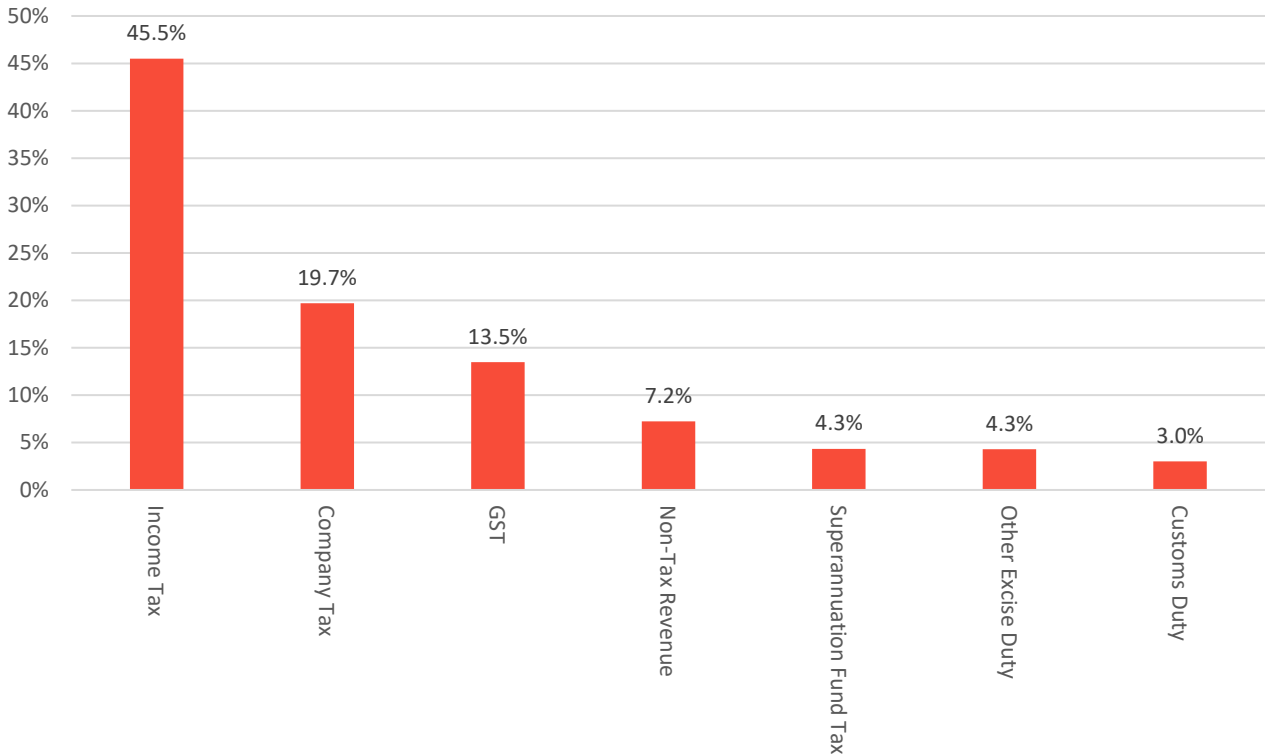
Continued budget deficits are driving larger government borrowing. Although the Commonwealth Government's debt is lower than those of other developed countries as a portion of GDP, the fiscal costs and risks are real. Reducing the overall government debt levels will provide reduced interest costs and allow for a larger fiscal response to any future unknown economic shocks.

⁷ The Treasury, 29 March 2022, Budget 2022-23, <https://budget.gov.au/2022-23/content/documents.htm>

2.1. Budget revenue

The Commonwealth budget revenue is largely driven by tax, with over 78 per cent of revenue from income tax, company tax, and GST – see Figure 2 below.

Figure 2: Selected Budget revenue items as a percent of total revenue, 2022–23⁸



The assumptions underpinning the revenue estimates are subject to changes. Australian Treasury pointed out in the Budget that if mineral and energy prices remain at elevated levels until the end of the September 2022, before declining to long run levels by end of March 2023, GDP would be \$135.2 billion higher and tax receipts would be \$29.5 billion higher by 2024–25.^{9,10} Recent history shows all commodity export prices have remained high and projections are they will remain high for several years. Therefore, the actual tax receipts in the upcoming budget should be much higher than predicted in the last budget.^{11,12,13.}

⁸ Parliamentary Budget Office, 29 March 2022, Data portal, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/Data_portal Note: Income Tax = gross income tax withholding plus gross other individuals less refunds.

⁹ The Treasury, 2022, Budget 2022-23, Budget documents, Budget Paper No.1: Budget Strategy and Outlook, <https://budget.gov.au/2022-23/content/documents.htm>

¹⁰ The Treasury, 2022, Budget 2022-23, Budget documents, Budget Paper No.1: Budget Strategy and Outlook, <https://budget.gov.au/2022-23/content/documents.htm>

¹¹ Trading Economics, 2022, Coal, Viewed 29 August 2022, <https://tradingeconomics.com/commodity/coal>

¹² KPMG, August 2022, Coal Price and FX Market Forecasts, June/July 2022, <https://assets.kpmg/content/dam/kpmg/au/pdf/2022/coal-price-fx-market-forecast-june-july-2022.pdf>

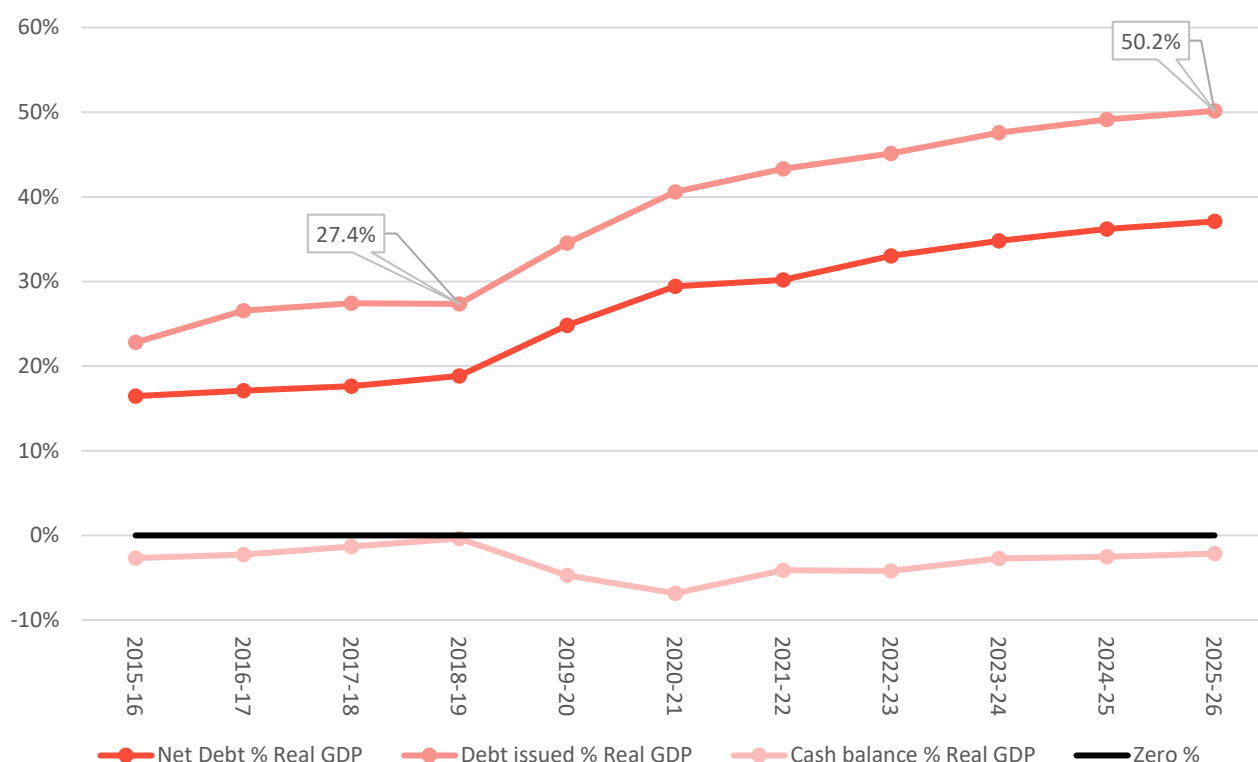
¹³ KPMG, August 2022, Coal Price and FX Market Forecasts, June/July 2022, Viewed 29 August 2022, <https://assets.kpmg/content/dam/kpmg/au/pdf/2022/coal-price-fx-market-forecast-june-july-2022.pdf>

2.2. Commonwealth Government Debt

According to the Parliamentary Budget Office (PBO), the Government net debt was approximately 28.9 per cent of GDP (\$531.9 billion) in 2017–18.¹⁴ Commonwealth Government gross debt \$0.977 trillion dollars (2022–23) and is expected to increase to over \$1.169 trillion in 2025–26 (approximately 50 per cent of real GDP). This is a low proportion compared with other countries, for example, the OECD average is 95 per cent, and the United States and the United Kingdom have debt to GDP ratios of 150 per cent and 143 per cent,¹⁵ respectively.

The new Government will be making changes to fiscal and economic policy, which may alter the future fiscal outcomes for the budget. However, underlying the surface fiscal changes are fundamental parts of the Australian economy that are more difficult to manage, including an aging population, risk of reductions in demand for Australian coal and gas exports, reducing carbon emissions, and the rise of Asia. *Figure 3* below shows that debt is increasing rapidly with a deterioration of cash balance.

Figure 3: Commonwealth Government Budget debt, net debt, and cash balance as a percent of real GDP, 2015–16 to 2025–26¹⁶



¹⁴ Australian Bureau of Statistics, 2020, Public sector debt analysis 2019-20, <https://www.abs.gov.au/articles/public-sector-debt-analysis-2019-20>

¹⁵ OECD Data, 2021, General Government Debt, Viewed 20 August 2022, <https://data.oecd.org/gga/general-government-debt.htm>

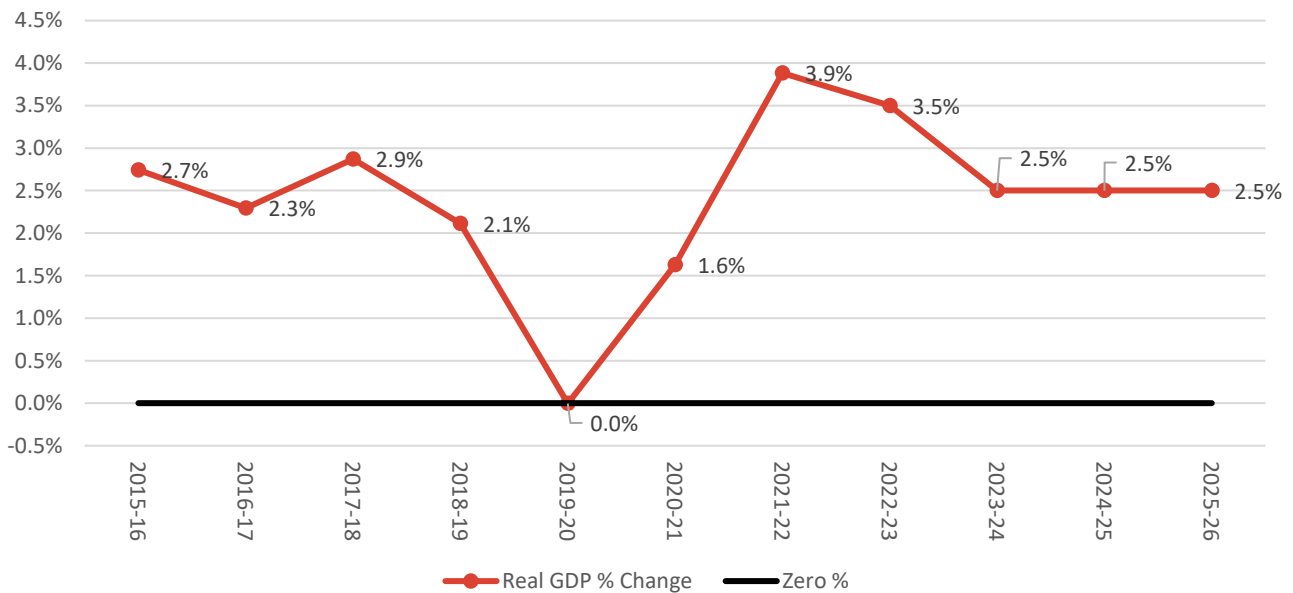
¹⁶ Parliament of Australia, Parliamentary Budget Office, 29 March 2022, Data portal, 2022-23 Budget https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/Data_portal. Debt Issued = Face value of AGS on issue

2.3. Budget repair options

There are three general approaches to improving the government’s fiscal position, namely reducing expenses, increasing revenue, and growing the economy. Reducing expenses can be achieved by reducing services or improving the effectiveness of the spending. Increasing revenue is complicated because increasing taxes can have adverse effects on the economy and welfare for the community. The preferred way of growing the economy at a faster rate is via productivity improvements.

Economic growth: Figure 4 below shows that the Australian GDP over the past decade has continued to grow. Australia has remained relatively resilient to economic shocks compared with other countries due to its vast mineral wealth and sound and steady policy environment. However, the annual percentage growth is trending down. Focusing on maintaining or increasing annual economic growth percentage consistently over the long term will be the main determining factor of welfare outcomes. Australia has a good wealth redistribution system to ensure a social safety net is available to all citizens.

Figure 4: Australian real GDP annual growth percentage 2000–01 to 2025–26^{17,18,19}



Increasing productivity in the Australian economy is more difficult politically than fiscal spending as changes must be made in the real economy, which will usually produce winners and losers. The changes will also take time and may not fit in with the political election cycle. The Productivity Commission’s most recent report *5 Year Productivity Inquiry: The Key to Prosperity*²⁰ explains some key issues and approaches needed to improve outcomes for Australia.

¹⁷ Reserve Bank of Australia, 2022, Statistical Tables, Output and Labour, Gross Domestic Product and Income, <https://www.rba.gov.au/statistics/tables/>

¹⁸ Parliamentary Budget Office, Data portal, 29 March 2022, Historical fiscal data, 2022-23 Budget, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/Data_portal

¹⁹ Nominal GDP adjusted using June inflation rates, Australian Bureau of Statistics, TABLES 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes, A2325847F, <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download> and assumption about future inflation at 2.5%

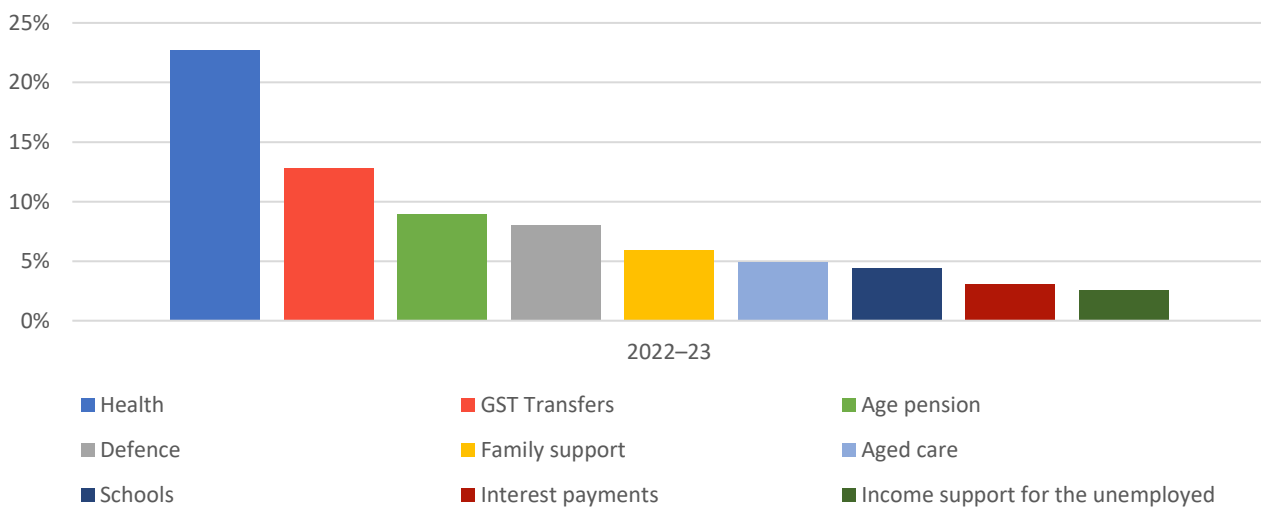
²⁰ Productivity Commission, August 2022, 5 Year Productivity Inquiry: The Key to Prosperity, Viewed 20 August 2022, <https://www.pc.gov.au/inquiries/current/productivity/interim1-key-to-prosperity>

Revenue changes: The 2010 Henry Tax Review (Australia's Future Tax System Review Final Report²¹) pointed out many options that have not yet been translated into action. One section of that report shows approximately 90 per cent of government revenue comes from only 10 taxes. Thus, “[m]any taxes detract from the overall efficiency of the system, with many of the least efficient taxes being levied by the States. Years of incremental policy change have eroded the bases of even potentially efficient taxes.” Improving the tax system is likely to improve the whole economy, reduce the tax burden, and allow for increased tax revenue.

If increasing taxes or adding new taxes are used to increase revenue, it would be wise to revisit the Henry Tax Review and to complete a new holistic review of the tax and transfer system to maximise the net welfare outcomes rather than introduce a short-term tax increase.

Considering the expenditure side of the budget, we examine the Treasury projections for a sample of the expenditure items in *Figure 5* below. The largest single expenditure is the GST allocations to State and Territory governments, but other expenditure items are driven by underlying demand for Commonwealth Government services, including the aged pension, aged care, Medicare, and NDIS. All these expenditures will be impacted in the long term by superannuation investments made now and in the future. Retirees with high levels of superannuation are less likely to be a burden on the Commonwealth budget for all these key areas of expenditure. The age pension is estimated to reach some \$80 billion per year. Ensuring more people save for retirement now will reduce the required tax take in the out years to meet the larger age pension and other old age-related expenditure items.

Figure 5: Sample of the Commonwealth Budget expenditure projections as a percent of total payments, 2022–23^{22,23}



²¹ The Treasury, Ken Henry, 2 May 2010, Australia's Future Tax System Review Final Report, <https://treasury.gov.au/review/the-australias-future-tax-system-review/final-report>

²² The Treasury, 29 March 2022, Budget 2022-23, <https://budget.gov.au/2022-23/content/documents.htm>, Note: NDIS = National Disability Scheme, PBS = Pharmaceutical Benefits Scheme, MBS = Medical Benefits Schedule, DSP = Disability Support Pension. Real values calculated using Australian inflation rates and assumption about future inflation at 2.5%

²³ Note: "Health" = a combination of MBS, PBS, NDIS, Public Hospitals, Disability support pension, Carer income support, Private Health Insurance Rebate; "Family support" = Family tax benefit, Childcare, Parenting Payments

Health spending in particular has a high rate of growth compared with general inflation²⁴. Health services expenditure throughout the economy is approximately 10 per cent of GDP²⁵ and Commonwealth Government health related spending is set to grow to more than \$200 billion per year. The highest average annual growth rate of these expenses is unemployment support (8.1 per cent), aged care (7.1 per cent), and health (6.2 per cent).

2.4. Reforming superannuation taxation settings

Over the years, discussions about superannuation reforms and taxation as a way to repair the Commonwealth Government budget have led to the exploration of many options. The six measures selected in this report are drawn from the new Government's documents and industry reports. As noted, three of these are focused on revenue raising, and three on improving the equity of the superannuation system.

2.4.1. Revenue-raising focused measures

Measure 1: Instituting a superannuation balance cap of \$5 million). Several groups²⁶ have recommended similar approaches to that modelled in *Measure 1*. Statements in policy submissions include, "members aged 65 or older with a total superannuation balance as of 1 July 2023 in excess of \$5 million, whether in accumulation, pension phase or a combination, should be required to withdraw the excess out of superannuation".

Measure 2: a. Instituting a reduced annual cap on pre-tax contributions and earnings: \$27,500 annual cap on pre-tax contributions to \$15,000. b. \$250,000 Division 293 tax threshold to \$200,000. Measure 2a is similar to the Australian Labor Party's proposed policy at the 2019 election²⁷ to reduce the non-concessional contributions cap from \$100,000 to \$75,000 and index the cap as per current arrangements. Other stakeholders²⁸ have suggested contributions from pre-tax income should be limited to \$11,000 per year. Several groups²⁹ have supported the approach modelled as Measure 2b by suggesting changes to the Division 293 tax on superannuation contributions to revise the threshold to \$200,000. For instance, the PBO assessed the Australian Labor Party's proposal at the last election to reduce the Division 293 threshold from \$250,000 to \$200,000³⁰.

²⁴ Parliament of Australia, Jennifer Phillips, Alex Grove and Lauren Cook, April 2019, Health Budget Review 2019-20, https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201920/Health#:~:text=Spending%20on%20health%20is%20expected,and%20medical%20services%20and%20benefits.

²⁵ Australian Government, The Treasury, 2021, 2021 Intergenerational Report, <https://treasury.gov.au/publication/2021-intergenerational-report>

²⁶ Association of Superannuation Funds of Australia Limited, 7 February 2022, ASF Pre-Budget Submission for the 2022-23 Budget, <https://www.superannuation.asn.au/policy/submissions/2022>

²⁷ Parliament of Australia, Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E – Australian Labor Party, Pg E-261, Viewed 7 September 2022, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

²⁸ Grattan Institute, John Daley, Brendan Coates, November 2018, Money in retirement More than enough, Viewed 7 September 2022, <https://grattan.edu.au/wp-content/uploads/2018/11/912-Money-in-retirement-re-issue-1.pdf>

²⁹ Association of Superannuation Funds of Australia Limited, 7 February 2022, ASF Pre-Budget Submission for the 2022-23 Budget, Viewed 7 September 2022, <https://www.superannuation.asn.au/policy/submissions/2022>

³⁰ Parliament of Australia, Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E – Australian Labor Party, Pg E-261, Viewed 7 September 2022, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

Measure 3: Introduction of a flat tax on all earnings in retirement at 15 per cent. Measure 3 has been supported by several commentators³¹³² who argued for an annual cap on post-tax contributions of \$50,000 a year, and that earnings in retirement should be taxed at 15 per cent.

2.4.2. Equity improvement measures

Measure 4: Progressive tax settings on superannuation contributions. Replace the flat tax rate paid on superannuation contributions with a progressive tax rate linked to income. Employer superannuation contributions would be treated as individual income, that is taxed at marginal personal income tax rates less a flat-rate refundable 20 per cent tax offset. This is broadly the same measure as recommended by the Henry Tax Review³³, and its principles have support from some prominent Australian policy leaders.

Measure 5: Inclusion of superannuation contributions within the government paid parental leave scheme. The FSC is also a long-time supporter of Measure 5 and have argued in previous submissions that maintaining the SG contribution when employees (typically female employees) take a break to care for a child, would have a significant effect in reducing the long-term savings gap between those who do and do not take breaks to care for a child.³⁴ Other stakeholders have supported the SG being paid on paid parental leave.³⁵

Measure 6: Broaden the coverage of the Superannuation Guarantee to platform-based gig workers. The FSC and others have supported Measure 6 for many years and have noted in various submissions that the superannuation system is not well designed for people who hold multiple jobs simultaneously, or people who switch jobs frequently. The FSC and others have argued that the Government should extend the SG regime to self-employed people and that a new category of workers should be introduced for workers who are best described as 'dependent contractors' and that SG contributions should be paid on their behalf.³⁶

³¹ Grattan Institute, John Daley, Brendan Coates, November 2018, Money in retirement More than enough, <https://grattan.edu.au/wp-content/uploads/2018/11/912-Money-in-retirement-re-issue-1.pdf>

³² The Treasury, Ken Henry, 2 May 2010, Australia's Future Tax System Review Final Report, 4.3 Improving retirement incomes, Viewed 07 September 2022, <https://treasury.gov.au/review/the-australias-future-tax-system-review/final-report>

³³ The Treasury, Ken Henry, 2 May 2010, Australia's Future Tax System Review Final Report, 4.3 Improving retirement incomes, <https://treasury.gov.au/review/the-australias-future-tax-system-review/final-report>. Note that the Henry review (broadly) proposed a 15% offset but in the context of a different personal tax system.

³⁴ Financial Services Council, February 2020, Retirement Incomes Review, FSC Submission, <https://fsc.org.au/resources-category/media-releases/1932-fsc-media-release-rir-submission/file>; FSC submission to Retirement Income Review, section 6.6.2.

³⁵ Australian Institute of Superannuation Trustees (AIST), 2022, AIST 2022-2023 Pre-Budget Submission to the Minister for Housing and Assistant Treasurer, Viewed 7 September 2022, <https://www.aist.asn.au/Media-and-News/News/2022/AIST-Submission-AIST-2022-2023-Pre-Budget-Submissi>

³⁶ Financial Services Council, FSC submission to Retirement Incomes Review, sections 6.7.2 and 6.7.3; see also ; Association of Superannuation Funds of Australia Limited, 7 February 2022, ASF Pre-Budget Submission for the 2022-23 Budget, <https://www.superannuation.asn.au/policy/submissions/2022>

3. Model Results

In this section, we present the model results for the six scenarios outlined above, the revenue-raising focused measures, and the equity-oriented measures supported by the FSC. The modelling results are only an indication of expected outcomes, given a range of simplifying assumptions, including that many factors in the economy remain stable; moreover, human behaviour (e.g. tax optimisation strategies) that will change the actual result when taxes or policy is changed has not been modelled. As Treasury notes in its discussion of superannuation taxation, the net revenue estimates rely on forecasts of equity returns or forecasts of human behaviour, and these elements are difficult to estimate and are typically volatile from year to year³⁷. The PBO³⁸ suggest altered behaviour to avoid the impact of a tax is a reduced expected revenue raised by 10 per cent after the first year. Behavioural change is very specific to proposed taxes and difficult to estimate, our simplified assumption is these changes would experience a 10 per cent reduction in revenue compared to modelled revenue.

Possible Measure	Modelling scenario	Modelling Result
1. Instituting a superannuation balance cap	Introduction of a \$5m limit on total superannuation balances. Individuals with a total balance (across all super accounts) above that level will be required to withdraw from super to bring their total balance below \$5m.	This measure, if not grandfathered, will remove approximately \$55bn from national superannuation balances. This measure is estimated to increase tax receipts by approximately \$1.15bn annually or \$1.04bn after behavioural change.
2. Reducing the tax concessions on pre-tax earnings	<p>A. Reduction in the \$27,500 annual cap on pre-tax contributions to \$15,000.</p> <p>B. Reduction in the \$250,000 division 293 tax threshold to \$200,000.</p>	<p>A. This measure will affect around 1.6m members, with the value of contributions impacted equating to around \$84.4B. It will raise approximately \$1.94bn tax revenue annually or \$1.75bn after behavioural change.</p> <p>B. Approximately 240,000 superannuation members have taxable income over \$250,000. Lowering the Division 293 tax threshold from \$250,000 to \$200,000 captures an additional 230,000 members. This measure would increase tax revenue by an estimated \$620m annually or \$558m after behavioural change.</p>

³⁷ Australian Government, The Treasury, 25 January 2018, 2017 Tax Benchmarks and Variations Statement, Ch 3, <https://treasury.gov.au/publication/2017-tax-expenditures-statement>

³⁸ Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E – Australian Labor Party, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

Possible Measure	Modelling scenario	Modelling Result
3. Introduction of taxes on earnings in the superannuation retirement phase	Introduction of a flat tax on all earnings in retirement at 15%.	This measure is expected to increase tax revenue by \$4.82bn annually. This estimation is largely a function of the expected portfolio return (assumed to be 6%). Lowering expected returns to 3% would reduce the increase in tax revenue to \$2.40bn .
4. Progressive tax settings on superannuation contributions	Replace the flat tax rate paid on superannuation contributions with a progressive tax rate linked to income. Employer superannuation contributions would be treated as individual income, that is taxed at marginal personal income tax rates less a flat-rate refundable 20% tax offset.	Noting that the effective tax rate of most individuals in the model is below 20%, this proposed measure would reduce total annual tax revenue by \$2.50bn or after behavioural change \$2.25bn .
5. Include superannuation guarantee to paid parental leave	Inclusion of superannuation contributions within the government paid parental leave scheme.	The cost of providing the superannuation guarantee as part of parental leave pay is approximately \$213m annually.
6. Broaden the coverage of the superannuation guarantee (SG)	Broaden the coverage of the Superannuation Guarantee to platform-based gig workers.	This measure could reduce taxation income by \$318m annually, with some less detailed work suggesting the estimate could be higher.

Note: The amounts in this table are in 2022 dollars. SG = Superannuation Guarantee

Measure 1. *Instituting a superannuation balance cap. Introduction of a \$5 million limit on total superannuation balances. Individuals with a total balance (across all super accounts) above that level will be required to withdraw from super to bring their total balance below \$5 million.*

Our modelling indicates there are approximately 16,500 accounts with balances greater than \$5 million currently (versus 11,000 stated in the *Retirement Income Review*). The superannuation balances are estimated as a distribution, as shown in *Figure 6*. Although it is impossible to precisely match the actual distribution of balances, we are confident that the output is sufficiently accurate for the purposes of this assessment, where we are considering the relative scale of outcomes.

Removing balances above \$5 million from the system would remove approximately \$55 billion from the system. This \$55 billion would then be taxed at non-concessional rates and would increase Commonwealth Government income tax revenue by approximately **\$1.15 billion** annually. Our model compared the difference between the concessional accumulation tax rate and each individual's modelled effective tax rate.

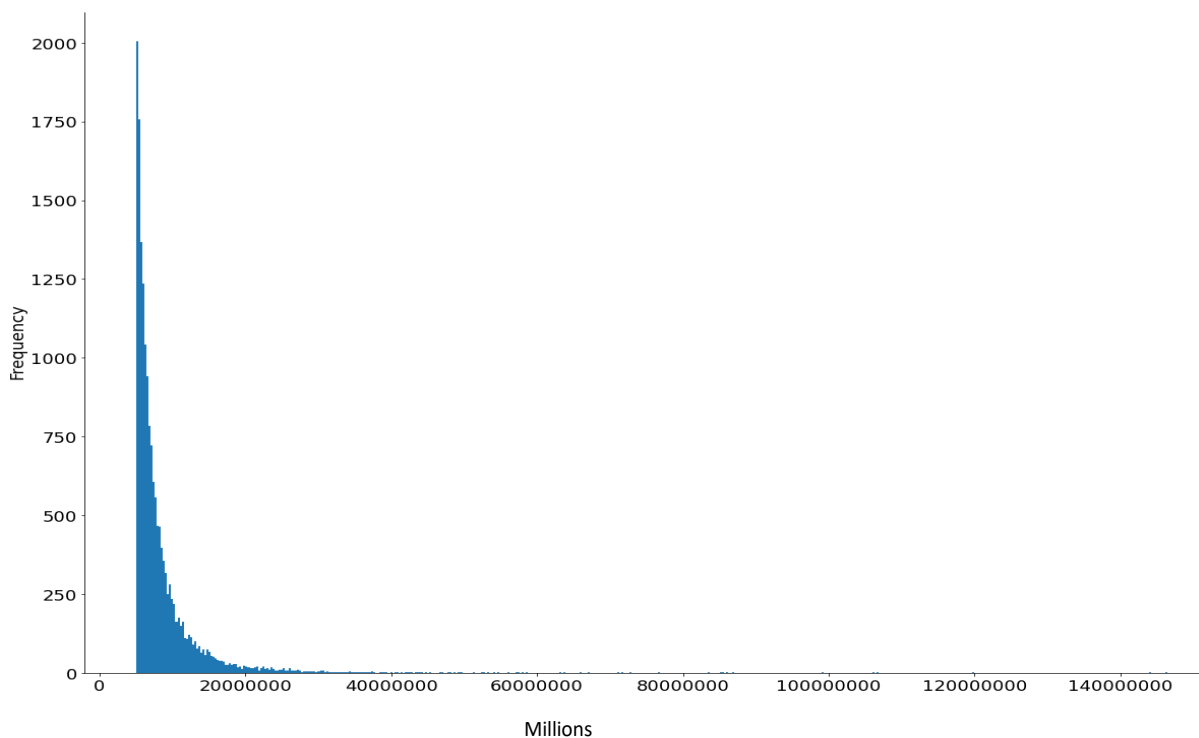
Capital gains tax was not modelled as part of this assessment given the high amount of uncertainty, but it is assumed that it would add to this modelled tax revenue, although not significantly. A practical measure in

the implementation of Measure 1 would be to allow assets to be transferred within the same asset class³⁹ to avoid large sell offs of assets and transaction costs.

There are complications with the practical implementation of this policy around the treatment of physical assets held in superannuation portfolios, including real estate, which are more difficult to move from one portfolio to another.

Behavioural change is an important factor when understanding the practical outcomes of these sorts of changes to policy. Treasury point out in their 2021 Tax Benchmarks and Variations Statement using a revenue gain approach to understanding tax changes is better than a tax foregone approach as it will take account of behavioural response⁴⁰. People with large wealth accumulations are likely to have significant capacity and knowledge of the Australian and other taxation systems and seek alternative methods of reducing taxes. Therefore, the real outcome of this approach is likely to raise less tax than modelled, as wealthy people will shift investment offshore or into other tax optimisation structures. If the behavioural change reduced the total collection by 10 per cent as indicated by Treasury⁴¹, the net collections could be **\$1.04 billion**⁴². This arguably is a conservative estimate of the behavioural change induced by the measure.

Figure 6: Distribution of superannuation balances⁴³



³⁹ Thomas Nickoll, LegalVision, 13 January 2021, *What is an In-Specie Transfer?* Viewed 16 August 2022, <https://legalvision.com.au/what-is-an-in-specie-transfer/>

⁴⁰ Australian Government, The Treasury, 31 January 2022, 2021 Tax Benchmarks and Variations Statement, Ch 4, Viewed 9 September 2022, <https://treasury.gov.au/publication/p2022-244177>

⁴¹ Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E, page E-261, E-265 and 266), Viewed 9 September 2022, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

⁴² Calculated as 90% of the modelled outcome (\$1.15 billion) to estimate behavioural change using Treasury estimate of a 10% reduction in tax revenue

⁴³ Result of DeltaPearl Partners modelling

Measure 2: Reducing the tax concession on pre-tax earnings, either through:

- A. \$27,500 annual cap on pre-tax contributions to \$15,000
- B. \$250,000 division 293 tax threshold to \$200,000.

In part A of this scenario, we modelled the impact of taxing contributions above \$15,000 at each individual's modelled effective tax rate. In aggregate, this represents around 1.6 million members with a total "excess contribution" of around \$84.4 billion. Effectively taxing this excess at each individual's marginal tax rate rather than the concessional contribution rate would raise around \$1.94 billion in tax revenue annually. Behavioural change could reduce the total collected by 10 per cent, which would make the amount collected **\$1.75 billion**.

Impact on individuals — reduce the \$27,500 annual cap on pre-tax contributions to \$15,000

This measure will affect around 1.6 million members, with the value of contributions impacted equating to around \$84.4 billion. It will raise approximately \$1.94 billion tax revenue annually.

In considering the impact of this policy on an individual earning \$200,000 per year, before the new cap their annual super is approximately \$21,000 per year. With the introduction of this lower cap, the individual is assumed to only invest up to the cap of \$15,000. Assuming their superannuation contributions increase as proposed from 10.5 per cent to 12 per cent in 2025 and accumulate over the next 20 years before retirement assuming the annual growth in those investments would have been 6 per cent per year this individual **will lose approximately \$313,600 in savings or 36 per cent** of their superannuation saved over that period (equivalent to \$191,376 when expressed in today's dollars).

However, if this individual invested the funds outside superannuation, they would gain the growth but lose in terms of the added taxes, estimated at approximately \$31,000 in income taxes and \$15,500 in capital gains tax, for a total increase in tax paid of \$47,500.

Using an example of a **second person** who earns \$150,000 per year, before the new cap their annual super contribution was \$15,750 and will now have that reduced to \$15,000 per year. Assuming their superannuation contributions increase as proposed from 10.5 per cent to 12 per cent in 2025 and accumulate over the next 20 years before retirement assuming the annual growth in those investments would have been 6 per cent per year this individual **will lose approximately \$97,000 in savings or 15 per cent** of their superannuation saved over that period (equivalent to \$59,000 when expressed in today's dollars).

However, if this individual invested the funds outside superannuation, they would gain the growth but lose in terms of the added taxes, estimated at approximately \$8,000 in income taxes and \$4,000 in capital gains tax for a total increase in tax paid of \$12,500.

In part B of this scenario, we estimate there are approximately 240,000 individuals with a taxable income of greater than \$250,000 (currently subject to Division 293). Lowering the threshold to \$200,000 would capture an additional 230,000 individuals (giving 470,000 total). Taxing the individuals' extra contributions at 15 per cent⁴⁴ would raise \$620 million in tax revenue annually. There may be additional impacts from implementation of both these changes, including reductions in voluntary contributions for the affected cohort. The PBO have estimated this policy, with behavioural changes, where people with wages between

⁴⁴ https://www.ato.gov.au/Individuals/Super/In-detail/Growing-your-super/Division-293-tax-information-for-individuals/?=redirected_division293

\$250,000 and \$200,000 would reduce their voluntary concessional contributions by 10 per cent⁴⁵. Therefore, the part B scenario is estimated to raise **\$558 million**⁴⁶ after behavioural changes.

Impact on individuals — reduce the \$250,000 Division 293 tax threshold to \$200,000

This measure would capture an additional 230,000 members and increase tax revenue by an estimated \$620 million annually.

Consider an individual who is currently just below the \$250,000 cap as a simple example. The change of the cap will mean this individual is now subject to the Division 293 tax. Assuming their superannuation contributions increase as proposed from 10.5 per cent to 12 per cent in 2025 and accumulate over the next 20 years before retirement this individual will **lose approximately \$162,000 in savings or 27 per cent** of their superannuation saved over that period (equivalent to \$99,000 when expressed in today's dollars). These losses arise from the Division 293 tax being applied to the superannuation payments and the related lost asset growth.

Given the bracket creep problems in the Australian taxation system, this change would capture a lot of people and will likely create a behavioural response for higher wealth individuals to avoid tax (for example, by leaving the country) or to employ tax reduction strategies, which would result in deadweight loss to the economy.

Measure 3: Introduction of a flat tax on all earnings in retirement at 15 per cent.

This proposal is to replace the 0 per cent tax rate on pension phase income with a 15 per cent tax rate, which would mean all earnings from superannuation in retirement would be subject to a tax rate of 15 per cent. From an individual's perspective, this will be a tax increase on pension balances, with earnings after tax going down by (approx. 15 per cent). Capital gains is subject to a lower tax rate in accumulation phase (still zero in pension phase), the assumption is this proposal would mean the special CGT rate for accumulation would be extended to pension phase.

Taxing retirement earnings at 15 per cent (though the effective tax rate is lower given long-term capital gains discounts) is estimated to raise **\$4.82 billion** in tax revenue annually. This is largely a function of the expected portfolio return of an assumed 6 per cent per year; lowering the expected return to 3 per cent would lower the tax revenue to \$2.40 billion annually.

There are some equity issues related to the application of this tax, especially as all people would be taxed at the same rate, even those holding lower superannuation balances. Under the current tax settings, individuals with a superannuation balance of generally up to \$1.7 million that is in a pension account receives relatively progressive tax treatment as compared to those individuals with a higher superannuation balance above \$1.7 million. A disproportionate impact on lower superannuation holders may mean there will need to be special limits set to manage the negative impacts, which will reduce the total additional tax revenue. See impacts on individuals in this report for examples.

⁴⁵ Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E, page E-261, E-265 and 266), Viewed 9 September 2022, https://www.apb.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

⁴⁶ Calculated as 90% of the modelled outcome (\$620 million) to estimate behavioural change using Treasury estimate of a 10% reduction in tax revenue

Impact on individuals — tax all earnings in retirement at 15 per cent

This measure is expected to increase tax revenue by \$4.82 billion annually.

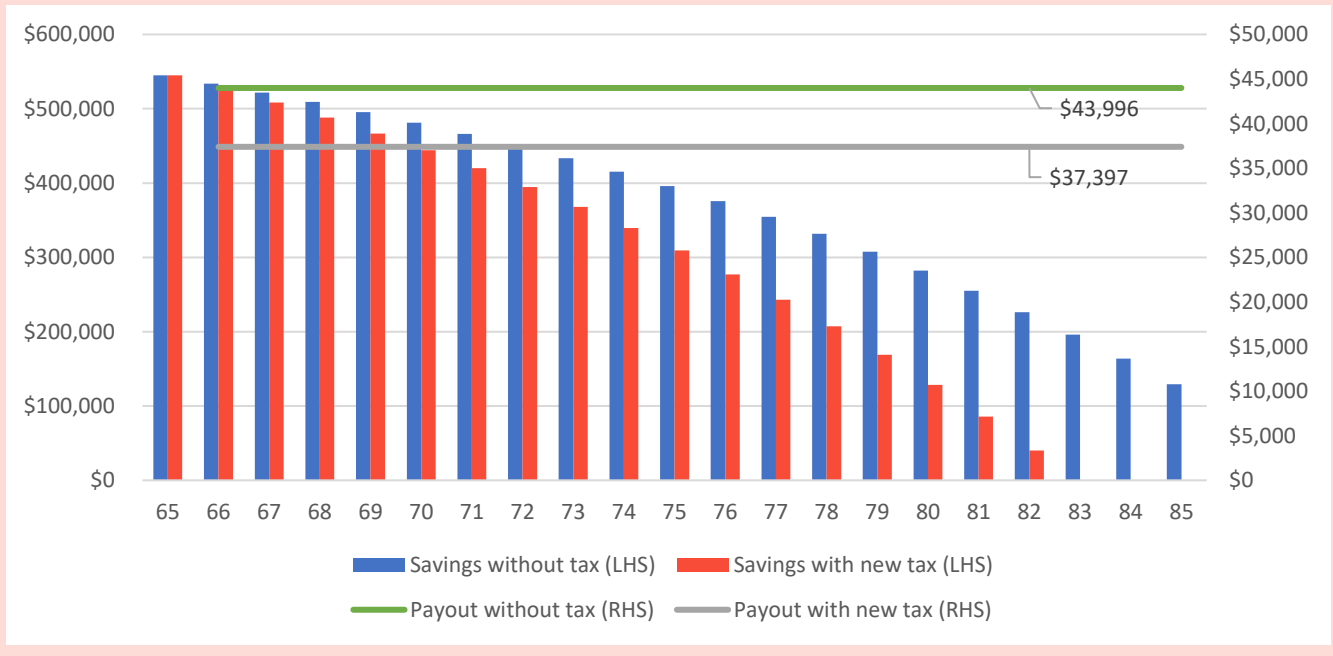
The population of superannuation members in Australia as a wide distribution of savers, with large differences in the amounts being saved at different rates over their life, given a range of factors. It can be inferred that a proportion of the population will have enough at retirement and a portion that will not.

This proposed measure is assumed to be applied to all superannuation holders regardless of net wealth, which makes it highly detrimental to lower income people who face substantially lower retirement incomes if their super balances are reduced (see FSC submission to Retirement Income Review, figures 5 and 19). People will need to either take more out of their wages to put more into super today or reduce their retirement standard of living. Those who are already in retirement or close to it will not have an opportunity to prepare and so will have little choice but to reduce their retirement living standards.

Younger people will need to readjust their superannuation savings rates to increase the amount saved to allow for taxation throughout retirement. The lost wages will reduce their standard of living for the rest of their life. All workers are likely to be worse off and people at the lower end of the superannuation balance are likely to be most impacted in terms of lifestyle outcomes.

A simplified example of this effect is if a person has the Association of Superannuation Funds of Australia (ASFA)⁴⁷ “comfortable” amount of savings (\$545,000) and uses the comfortable level of annual drawdown from age 65 and lives to age 85. Assuming an annual growth in assets of 6 per cent and a tax of 15 per cent. The person can either take a lower amount each year (\$37,397 instead of \$43,996) which would enable them to keep some savings in the event they live longer than expected.

Otherwise, the person can continue to take the comfortable living income (\$43,996) and they will be expected to run out of savings at approximately age 83.

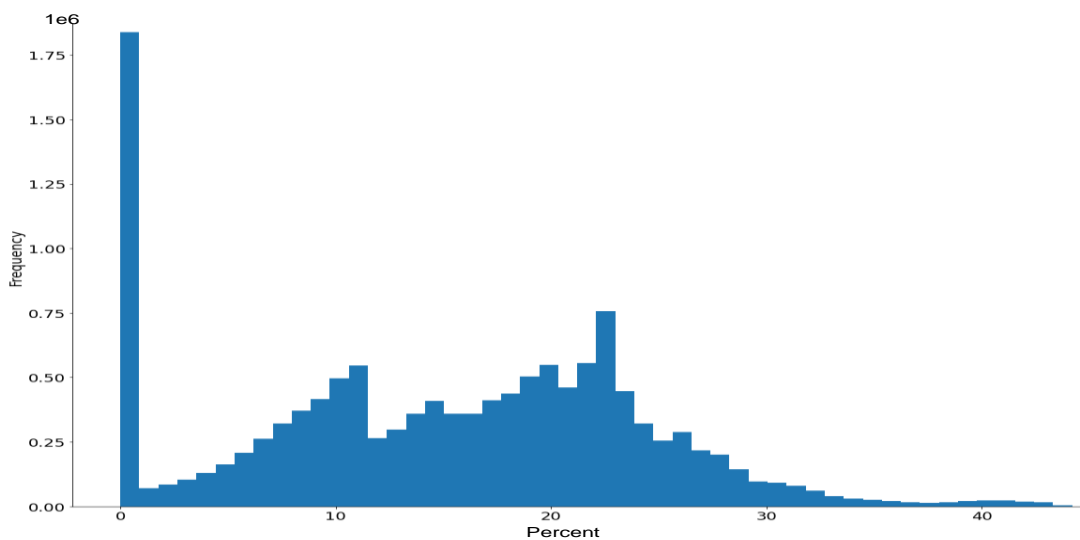


⁴⁷ Association of Superannuation Funds of Australia (ASFA), June 2022, Retiring What happens at retirement?, <https://www.superguru.com.au/retiring/how-much-super-will-i-need#:~:text=According%20to%20the%20Association%20of,and%20couples%20will%20need%20%24640%2C000.>

Measure 4: *Progressive tax settings on superannuation contributions. Replace the flat tax rate paid on superannuation contributions with a progressive tax rate linked to income. Employer superannuation contributions would be treated as individual income, that is taxed at marginal personal income tax rates less a flat-rate refundable 20 per cent tax offset.*

In this scenario, each individual’s contributions are taxed at their *marginal tax rate*⁴⁸ as extra income tax, which reduces the current estimated concessional contribution tax to zero. In addition, individuals are provided with a tax offset valued at 20 per cent of their contribution. In this way, individuals contributing to their superannuation will continue to receive a concessional tax treatment compared with other savings, but concessions are distributed more equitably between low-, medium-, and high-income earners. As shown in *Figure 7* below, most individuals in the model have an *effective tax rate*⁴⁹ of below 20 per cent and, therefore, this proposal reduces total tax revenue by approximately \$2.50 billion per year. If the behavioural change reduced the total collection by 10 per cent as indicated by Treasury⁵⁰, the reduction in revenue could be **\$2.25 billion**⁵¹.

*Figure 7: Effective tax rate distribution modelled (millions)*⁵²



Measure 5: *Inclusion of superannuation contributions within the government paid parental leave (PPL) scheme.*

The outcomes reported for this scenario do not rely on the model discussed above. The cost is calculated by Department of Social Services PPL budget 2021 was \$2.4 billion multiplied by the 2022 SG rate of 10.5 per cent, however, the government taxes the contributions, which is approximately **\$213 million** per year or \$1,300 per year per person post tax. As the SG rate changes, the cost will change proportionally.

If an individual receives five years of PPL SG their wealth will increase by approximately \$20,209 (\$7,085 net SG payments, \$13,124 investment returns over 20 years, 6 per cent annual returns).

⁴⁸ The highest rate of tax a taxpayer will pay on their income.

⁴⁹ The effective tax rate for individuals is the average rate at which their earned income are taxed.

⁵⁰ Parliamentary Budget Office, 2019, 2019 Post-election report, Appendix E, page E-261, E-265 and 266), Viewed 9 September 2022, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/General_elections/2019_general_election/2019_Post-election_report

⁵¹ Calculated as 90% of the modelled outcome (\$1.15 billion) to estimate behavioural change using Treasury estimate of a 10% reduction in tax revenue

⁵² Modelled by DeltaPearl Partners

This policy would disproportionately and positively benefit women, as it is well documented that women are often the primary carers for children and/or aging parents, which means time out of the workforce and/or part-time working hours for some portion of their career. The significant retirement savings gap between males and females is also well documented. Adding superannuation contributions to paid parental leave will improve women's retirement savings.

The Treasury Retirement Income Review said adding superannuation payments to PPL would narrow the gender retirement income gap and improve gender equity in SG coverage⁵³

The Australian Government's Paid Parent Leave Scheme

Australia introduced paid parental leave in Australia in 2011. At present, eligible employees who are the primary carer of a newborn or newly adopted child receive up to 18 weeks' paid leave under the paid parent leave scheme, which is managed by Services Australia and funded by the Australian Government.

Superannuation is not currently paid on paid parental leave by employers or the government. Services Australia, who administrate the paid parental leave scheme, advises employers that "You don't have to make superannuation contributions for Parental Leave Pay. But the Paid Parental Leave scheme doesn't prevent you from making voluntary superannuation contributions." This raises gender equity issues given that it is largely women who take paid parental leave and hence forgo super payments.

A recent estimate of the impacts of superannuation on paid parental leave⁵⁴ found that the policy change could mean as much as 4.5 per cent in additional super savings for an early childhood educator with three children, or 2.6 per cent more for an aged care professional with two children and that the measure would result in a mother of two having \$14,000 more at retirement than otherwise.⁵⁵

Measure 6: *Broaden the coverage of the Superannuation Guarantee to platform-based gig workers.*

Currently, self-employed people (sole-traders or those in a partnership) are exempt from the superannuation guarantee. In recent years, increased casualisation of the workforce has been noted as an area of concern; although it offers individuals more flexibility in their working arrangements, it means that they lose entitlements such as superannuation that are offered through more formal working arrangements. In particular, there has been a rapid rise of the 'gig' economy, where more individuals are securing ad-hoc work through digital platform providers (e.g., Uber, Deliveroo, Air Tasker). While some individuals treat this work as a supplement to their main source of regular income, others are regularly and substantially engaged through these platforms with such work representing their main source of income.

The measure proposed is to amend the law so that digital platforms would be required to provide employer-paid superannuation contributions to all platform-based gig workers (defined as sole-traders who derive income through digital platforms). There would be an associated transition period to phase in this change, which could be over a six-year period (2 per cent increase per year). This scenario is subject to substantial uncertainty given the lack of detailed information about the types of self-employed workers and which ones already make contributions.

At the one end of the spectrum, we can determine the maximum potential impact on the system by assuming that all the self-employed in the population do not currently make contributions (which we know to be false) and are forced to make contributions under the policy change. ABS data shows that the self-

⁵³ Treasury, 20 November 2020, Retirement Income Review – Final Report, <https://treasury.gov.au/publication/p2020-100554>

⁵⁴ HESTA (August 2022)

⁵⁵ <https://www.hesta.com.au/about-us/media-centre/new-hesta-modelling-paying-super-on-paid-parental-leave>

employment in Australia⁵⁶ accounts for approximately 17.3 per cent of total employment. Taking a random sample of our superannuation system model capturing 17.3 per cent of the accumulation account distribution (explicitly assuming the income distribution of the self-employed matches that of employees), the model estimates the tax impact of forcing this entire slice of workers to make concessional SG contributions from their current taxable income.

This scenario is expected to reduce taxation income by \$3.06 billion annually. The additional SG contributions to the system are estimated to be approximately \$16.53 billion in this financial year, adding to the current estimated total contributions of \$101.94 billion. Assuming a 6 per cent annual return growth rate and contributions remaining constant, these contributions would grow to a balance of around \$217.9 billion over the next decade.

While this scenario represents an upper value for the estimated outcomes, we highlight that the modelling in this section is highly uncertain due to data limitations. However, Australian Tax Office data for 2014–15 reported by ASFA⁵⁷ suggest that contributions from the self-employed are around half those of the regular labour force. If this is persistent and accurate, dividing the numbers above in half would provide a reasonable estimate of the impact (\$1.53 billion per year).

However, the most recent and more rigorous estimate is from an Actuaries Institute Green Paper in 2020⁵⁸ that estimated there are approximately 250,000 gig workers, which is approximately 1.8 per cent of all workers. Based on this figure, the best estimate of the cost of the measure would be **\$318 million per year**.⁵⁹

Although this scenario is likely to cost tax revenue in the short term, the long-term fiscal outcomes may be positive. Self-employed workers not saving for their retirement are more likely to depend on government pensions at retirement. The Age Pension is the Commonwealth Government’s second largest annual expenditure (projected to be approximately \$80 billion per year). Ensuring the self-employed save for retirement will reduce pressure on the long-term budget.

Putting the impact into an individual person’s impact we use the modelled simulation provided by the Actuaries Institute, where they compared the expected superannuation balance for a minimum wage employee from workforce entry until retirement, gig worker for five years then minimum wage employee to retirement, and a gig worker for 10 years then minimum wage employee to retirement⁶⁰.

Figure 8: Superannuation balance at retirement simulation⁶¹

	Minimum wage employee	Gig worker - 5 years	Gig worker - 10 years
Simulated superannuation balance at retirement	\$320,000	\$272,000	\$228,000
Difference relative to minimum wage employee		-\$48,000	-\$92,000

⁵⁶ <https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/working-arrangements/latest-release#data-download>

⁵⁷ https://www.superannuation.asn.au/ArticleDocuments/359/1803-Superannuation_balances_of_the_self-employed.pdf.aspx?Embed=Y

⁵⁸ <https://actuaries.asn.au/Library/Opinion/2020/GPGIGECONOMYWEBtest.pdf>

⁵⁹ This figure is 1.8% divided by 17.3% multiplied by \$3.06bn.

⁶⁰ Estimated using Australian government superannuation calculator with assumptions: 'Minimum wage employee' annual contribution is 9.5% of annualised \$753.80 weekly minimum wage (Fair Work Ombudsman, Minimum wages, 2020), Contributions made annually between ages of 18-67, Other base assumptions left on default setting (e.g. investment return and fees)

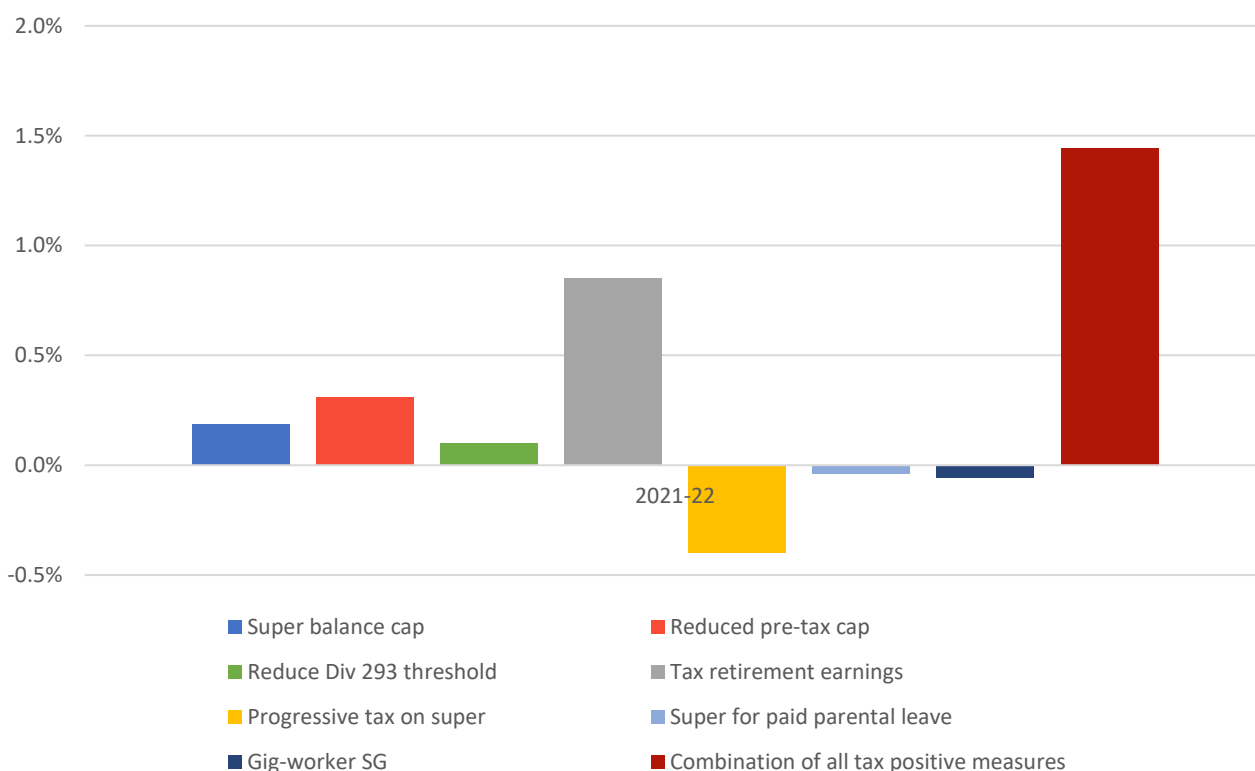
⁶¹ Actuaries Institute, December 2020, The Rise of the Gig Economy and its Impact on the Australian Workforce, Green Paper, <https://actuaries.asn.au/Library/Opinion/2020/GPGIGECONOMYWEBtest.pdf>

Using these assumptions, the range of individual impacts can be expected to be a reduction in superannuation balance at retirement of between \$48,000 and \$92,000 compared to a minimum wage employee.

3.1. Impact on the Budget

Considering the outcomes of the modelled measures, we show the net fiscal impact of each on the current projections of the Commonwealth Government budget as a net impact on the net financial worth. The Commonwealth Government’s debt is approaching \$0.977 trillion dollars (2022–23). The very large negative position of the budget where the forecast budget deficit in 2022–23 is \$77.9 billion, further adding to national debt. Therefore, the relatively small changes suggested in these superannuation scenarios have little impact. Even combining all the net positive tax changes modelled into one does not make a significant impact on the net financial worth as measured in the budget papers.

Figure 9: Net fiscal impact of modelled changes as a percent of total budget revenue⁶²



We note that even combining all the net positive tax changes from measures 1–3 (which would be \$8.1 billion in 2021-22) would represent 1.4 per cent of total budget revenue compared with the budget headline cash balance of negative 15.1 per cent of total budget revenue in 2021–22.⁶³

⁶² Parliamentary Budget Office, Data portal, 29 March 2022, Historical fiscal data, 2022-23 Budget, Viewed 29 August 2022, https://www.apb.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Budget_Office/Data_portal

⁶³ Raised revenue is sum of positive revenue modelled in 2021-22 (\$1.15bn + \$1.94bn + \$620m + \$4.82bn = \$8.53bn), the cash balance is calculated as Budget reported 2021-22 headline cash balance \$85.77bn divided by Budget reported revenue 2021-22 \$566.41bn (differences due to rounding may occur)

4. Conclusions

There are likely to be some sensible alterations around the current superannuation rules and tax policy that could improve the desired outcomes for the Commonwealth Government and the Australian economy. The vision of the Australian Government in setting up the compulsory superannuation system has greatly improved the long-term retirement outcomes for all Australians and has reduced the fiscal burden of the aging population.

In the long run, the Commonwealth Government is able to manage very large fiscal issues by seeking to improve the economic growth of the country, following advice from the Productivity Commission, the Treasury, and many other parts of the vast governmental advisory apparatus.

As discussed in this report, there are three typical approaches to repairing government budgets, including growing the economy, increasing revenue, and reducing expenditure. This report considers some limited options for changes to the rules around superannuation and, in that context, suggests a few broad areas of government action to reduce the budget deficit.

Key areas for budget repair should include:

- Increase economic growth:
 - Improving economy-wide productivity will help grow the economy faster, which will assist with improving tax revenue and GDP to debt or deficit ratios.
 - Population growth using a well-managed immigration policy would improve many economic drivers and reduce pressure on the aging population and skills shortage issues.
- Increase revenue: reform the tax and transfer system and work with companies to improve exports.
- Reduce government spending by focusing on improving the efficiency and effectiveness of the service delivery of Commonwealth, State, and Territory governments.
 - Health spending in particular has a high rate of growth compared with general inflation.

The results of the modelling demonstrate that some commonly discussed changes to superannuation taxation arrangements are not an effective way of materially addressing the significant budget deficit.

The analysis also shows that any tinkering of superannuation taxation settings must also be assessed from an individual perspective, given that the accepted policy ambition of the superannuation system is to provide income to individuals in their retirement. A tax increase on superannuation would reduce the incentive to save and would have an adverse effect on the main goal of superannuation – to provide income in retirement. Individuals in the superannuation system understandably want stability and certainty around superannuation tax settings to assist their retirement planning. Uncertainty or frequent changes to long-term tax settings undermines trust in the integrity of the system. Any changes to tax settings should first be properly debated to establish broad political and public support to avoid the risk of these changes being unwound or revised by successive future governments.

The analysis suggests that policy changes should be focused on superannuation taxation policies that improve the equity of the system, rather than policies that would undermine the primary objectives of the system.

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Appendix 1: Model Description

The core model being used to reach conclusions has been developed to replicate the superannuation system in its entirety. The foundation is a mapping of roughly 17 million account holders, with key variables, such as income, balance, contribution, age and account type, specified for each account holder. From this, we infer the impact of changes to the tax treatment.

To begin, we start with the detailed 2018-19 ATO superannuation statistics⁶⁴. We used this data set instead of the 2019-20 data due to the distortions of COVID-19 to the latter data. The ATO data provide us with the number of accounts and their average balance bucketed by age bracket, gender, and reported income tax bracket range.

To achieve more granularity on income, we use the individual detailed tables for that year⁶⁵ to break taxable income down further into 27 income brackets for each age bracket. Using this information, we populate a distribution of the system, drawing from the normal distribution, where the mean is the middle of the taxable income range, and the standard deviation is the difference between the upper and lower bounds of the bracket range. This generates an effective population that has broadly the same income characteristics (mean, standard deviation) as the sample provided by the ATO. The modelling results are displayed as a maximum impact to give a sense of the scale and the spectrum of potential outcomes.

To model balances, we take the ATO superannuation data (which provides mean balance by age, gender, and income tax bracket) and apply a lognormal distribution for each bucket with a standard deviation calibrated to roughly match the right-hand tail of high balances (based on the Retirement Income Review⁶⁶) for the system as a whole. Using lognormal distributions to model financial balances is common – balances cannot be below zero and they often display large right tails.

Contributions are a function of the Superannuation Guarantee (SG) rate and individual income, with the distribution calibrated so that the mean contribution for each bucket matches that provided in the ATO data. Contributions above the concessional cap were set to the cap. For each modelled individual, we calculate their income tax payable using the data estimated above.

Key assumptions

Given the very large data needs of this model, a number of simplifying assumptions were made, but the results are expected to be broadly reasonable. Assumptions include:

- Taxable income is always positive.
- Incomes are distributed normally within each income bracket, and balances are distributed log normally. Income is normal but people with higher incomes save more than people with lower incomes; therefore, the assumption of a skewed distribution of savings (log normal).
- Concessional contributions equal the 10.5 per cent SG to a maximum of \$27,500 per annum. We do not consider non-concessional contributions, although these are clearly present in the system. The model is a snapshot in time, not intertemporal, and therefore, the future changes in SG are not

64 <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Taxation-statistics/Taxation-statistics-2018-19/>

65 <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Taxation-statistics/Taxation-statistics-2018-19/?anchor=Individualsstatistics#Individualsdetailedtables>

66 <https://treasury.gov.au/publication/p2020-100554>

assessed. However, it is clear that the modelled outcomes will change in line with the SG increases over time.

- System wages growth in the past three financial years is proxied by growth in total earnings⁶⁷ (8.5 per cent in aggregate between FY 19 and FY 22).
- System balances were grown by three years' worth of modelled individual contributions and the Australian Super Balanced Option Performance⁶⁸ (70 per cent accumulation, 30 per cent pension – 18.2 per cent) in aggregate between FY 19 and FY 22.
- All nuances around individual tax treatment (deductions, excess contributions, spouse contributions etc.) have been omitted.
- We assumed that 21.75 per cent of accounts by value were in pension phase based on APRA superannuation statistics data⁶⁹.
- 80 per cent of capital gains relate to assets that were held for longer than 12 months (capital gains discount).
- The long-term Portfolio return is assumed to be 6 per cent⁷⁰.
- All modelled tax results reflect an expected outcome for FY 23 based on system balances, contributions, and incomes in that year.

⁶⁷ <https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/employee-earnings-and-hours-australia/latest-release>

⁶⁸ <https://www.australiansuper.com/compare-us/our-performance>

⁶⁹ <https://www.apra.gov.au/quarterly-superannuation-statistics>

⁷⁰ AQR, 2022, Asset Allocation, 2022 Capital Market Assumptions for Major Asset Classes, Q1 2022 – Portfolio Solutions Group, <https://www.aqr.com/Insights/Research/Alternative-Thinking/2022-Capital-Market-Assumptions-for-Major-Asset-Classes> Note: global developed dividend yield 38.6% of total return based on AQR long term forecasts. 15% tax on income and short gains. long gains taxed at .66*15%. 80% gains assumed to be long gains. 60% return assumed to be capital gain. Effective tax rate is 12.6%.

