Australian National University

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[redacted]

25 May 2018

Re: Inquiry into Treasury Laws Amendment (Personal Income Tax Plan) Bill 2018 [Provisions]

Please find attached a submission from Associate Professor Ben Phillips and Professor Matthew Gray from the ANU Centre for Social Research and Methods to the above inquiry.

The ANU Centre for Social Research and Methods has modelled the distributional and fiscal consequences of the tax changes proposed in the 2018-19 Federal Budget over the period 2018-19 to 2027-28.

The modelling has been undertaken using the ANU Centre for Social Research and Methods microsimulation model of the Australian Tax and Transfer system called PolicyMod. It is a full service microsimulation model that offers distributional and cameo style modelling as well budget impacts to be estimated. The ANU Centre for Social Research and Methods provides independent analysis and has no affiliations with political or business organisations.

Associate Professor Phillips and I would be happy to discuss our work with the committee.

Yours sincerely,

[redacted]

Professor Matthew Gray

Director

Centre for Social Methods and Research

Submission from the ANU Centre for Social Research and Methods to the Inquiry into Treasury Laws Amendment (Personal Income Tax Plan) Bill 2018 [Provisions]

25 May 2018

Introduction

This submission to the Inquiry into Treasury Laws Amendment (Personal Income Tax Plan) Bill 2018 [Provisions] is an extended version of an ANU Centre for Social Research and Methods Research Note.[1]

The Federal Budget for 2018-19 contains a number of changes to the personal income taxation system for Australia. The changes are in two stages. The first stage consists of modest tax cuts provided in 2018-19 that are directed towards low and middle income earners. The second stage are more significant tax cuts that are directed more towards middle and higher income earners. The Government's rationale for the tax cuts are that they are "… providing tax relief to encourage and reward working Australians ….. to make personal income tax in Australia lower, simpler and fairer" and that "The plan involves: immediate relief for low and middle-income earners; helping to protect Australians' earnings from bracket creep; and ensuring more Australians pay less tax by making personal taxes simpler and flatter." (Commonwealth of Australia 2018: 1-2)

This submission considers the distributional and fiscal consequences of the tax changes proposed in the 2018-19 Federal Budget over the period 2018-19 to 2027-28. We consider which household types gain the most and whether or not the tax cuts are sufficient to overcome bracket creep. The impact of a lower rate of wage growth than is projected in the 2018-19 Federal Budget are simulated.

Methodology

The approach adopted in this submission is to use the ANU PolicyMod model of the Australian tax and transfer system. This model is based on an Australian Bureau of Statistics (ABS) Survey of Income and Housing for 2015-16 and has been adjusted to for changes in the population since 2015-16 so that it better reflects the population of 2017/18 and projected population changes beyond 2017-18. This is achieved using a range of administration data, official statistics and ABS population projections. The model simulates the current policy settings of most of the Australian tax and transfer system. In this submission we simulate the proposed tax changes and apply the assumptions in the Federal Budget around wages and prices changes into the future. We compare the proposed

[1] Phillips, B., Webster, R. and Gray, M. (2018). 'Modelling of the 2018-19 Federal Budget Personal Income Tax Measures', Research Note 3/2018, ANU Centre for Social Research and Methods, Canberra.

policy with that of the existing policy to determine the overall fiscal impact of the policy change and the distributional impact for each year for Australian households.

The first part of the submission is an analysis of fiscal drag (bracket creep) and the second a distributional analysis of the impact of the policy change.

For the bracket creep analysis data from the 2017-18 base data is used to simulate the impact of each year's tax rates and thresholds, including a range of tax offsets. Thresholds for years other than 2017-18 are adjusted to be in 2017-18 terms. For years prior to 2017-18 tax thresholds are adjusted up using actual wages growth. For the years beyond 2017-18 the thresholds are adjusted down using forecasts and projections of wages growth from the budget. These adjustments allow us to estimate whether or not thresholds have kept pace with wages. If the tax thresholds, for a particular time period, have not kept pace with growth in wages then bracket creep is occurring which increases average tax rates and hence tax payed, unless the effect is offset by changes in the marginal tax rates.

The distributional analysis is simpler with a direct comparison for the years beyond 2017-2018. For each year a base data set is created in PolicyMod using the existing legislated policies. A comparison data set is also created in PolicyMod using the alternative or proposed policy from the 2018-19 Budget – in this analysis as the policy relates to personal income taxation. Both data sets are based on the same underlying population, demographic and economic assumptions and survey data. For each year we can directly calculate the impact on each of the 17,000 income units (14,000 households) from policy change in the budget. These changes are then aggregated to household groups, such as low income or high income households or different family types.

The model does not attempt to impose or estimate any behavioural change on persons as a result of policy change. It should be expected that tax cuts would have some behavioural consequences relative to the current policy however these impacts are not estimated here. Our overall fiscal impact is very similar to that claimed in the Federal Budget of around $140 billion in tax cuts over the decade from 2018-19.

Policy Changes

The modelling in this submission considers only the personal income taxation changes over the forward estimates (2018-19 to 2021-22) and some more substantial changes that are proposed to be implemented in 2022-23 and 2024-25. The modelling extends over a 10 year period to 2027-28.

Modelled Changes:

1) *Low and Middle Income Tax Offset*

A benefit of up to $200 for taxpayers with taxable income of $37,000 or less. Between $37,000 and $48,000, the value of the offset will increase at a rate of three cents per dollar to the maximum benefit of $530. Taxpayers with taxable incomes from $48,000 to $90,000 will be eligible for the maximum benefit of $530. From $90,001 to $125,333, the offset will phase out at a rate of 1.5 cents per dollar. The benefit of the Low and Middle Income Tax Offset is in addition to the existing Low Income Tax Offset. This offset is available for the 2018-19 to 2021-22 financial years only.

2) From 2018-19 financial year the $87,000 tax bracket will be increased to $90,000 with the rate of 32.5 per cent continuing.
3) From 2022-23 the Low Income Tax Offset increases from $445 to $645 and the personal income tax bracket for the 19 per cent rate extended to $41,000 from $37,000. LITO withdrawn at 6.5 per cent between $37,000 and $40,000 and then removed at current 1.5 per cent rate.
4) 32.5 per cent tax rate threshold increased from $90,000 to $120,000 in 2022-23.
5) From 2024-25 the 32.5 per cent tax rate threshold extended to $200,000 and the top rate of 45 per cent applied beyond that threshold (up from the previous $180,000).

Results

Bracket Creep Analysis

The following considers the history of the tax system in Australia between2000-01 and the current financial year (2017-18) and then projects out to 2027-28. We attempt to compare like-with-like therefore base the analysis on the 2017-18 base world in PolicyMod with tax rates adjusted to 2017-18 wages as described above.

So, for example, the top marginal tax rate in 2000-01 applied from $60,000. This has been up-rated, using growth in average weekly earnings (AWE), to be $118,197 for comparison purposes with 2017-18. In other words, in the absence of any policy change from 2000-01 to 2017-18 but adjusting for the increases in average weekly earnings that occurred over this period, the threshold would have been $118,197 in 2017-18. Similarly, the existing top rate threshold in 2027-28 is $180,000 and this is down-rated to $128,853 using the 2018-19 budget assumptions for wages growth. In the new policy world in 2027-28 the $200,000 threshold (which comes into effect from 1 July 2024) reduces to $143,170 when down-rated to be comparable with 2017-18. This implies that higher income earners will pay less tax under the proposed new system than would have under the current tax system, but that the effects of bracket creep will not be fully eliminated by the proposed new system.

We find that, over the period 2000-01 to 2017-18, the tax system had the lowest average tax rate for households in 2008-09 at just 16.6 per cent of gross income and that The highest was 19.8 per cent in 2002 (Figure 1). Projecting beyond 2017-18 we find that without adjustment to tax rates and thresholds average tax rates would have increased substantially from 18.6 per cent in 2017-18 to 21.6 per cent by 2027-28. With the adjustments proposed in the 2018-19Budget the average rate increases to 20.2 per cent. Effectively, the proposed tax cuts are not significant enough to fully eliminate bracket creep. This level of bracket creep is dependent upon strong wages growth of 3.5 per cent from 2020 onwards. Around 40 per cent of wages growth is assumed beyond the current financial year to 2027. If wages grow more slowly than projected then the extent of bracket creep will be less or potentially removed entirely and average tax rates could be lower than current levels. This also would imply lower tax receipts over the forward estimates and beyond.

Figure 1 Average Tax Rates, Households $2017-18, 2000-01 to 2027-28

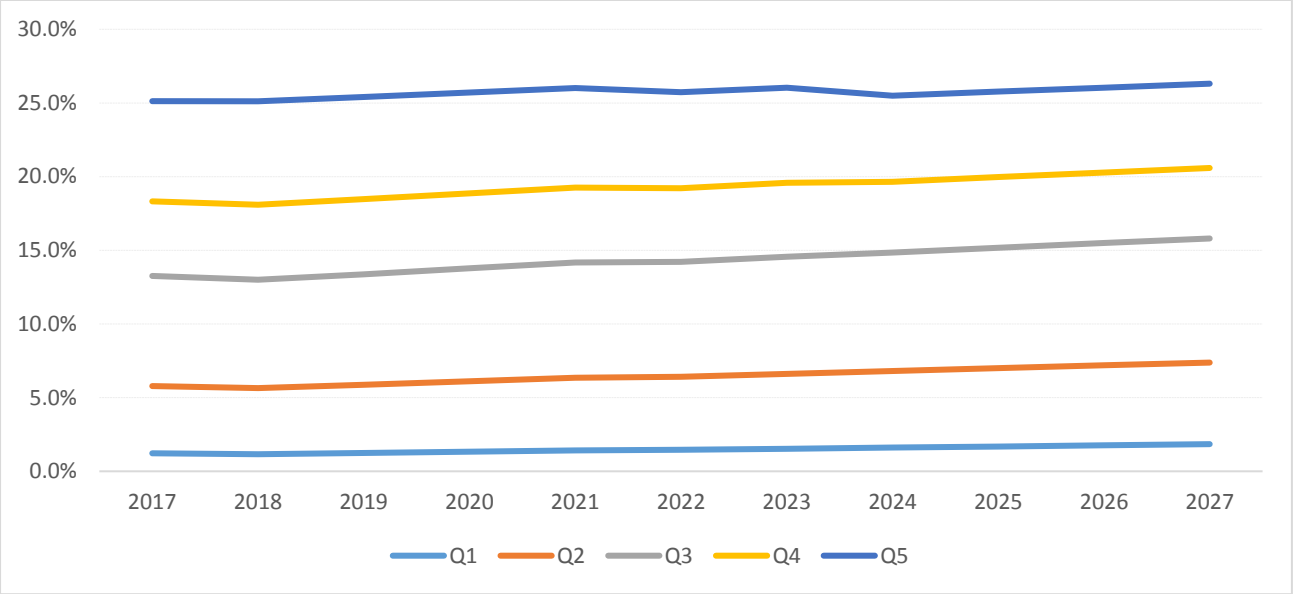
Notes: All tax thresholds adjust to $2017 using Average Weekly Earnings

Source: PolicyMod, ANU.

When we consider the projected distribution of average tax rates by income level we find that average tax rates are increased for all income levels in spite of the significant proposed tax cuts (Figure 2).[2] The increases are across the income spectrum, but are modestly more significant for low income households in percentage change terms. This result is largely the result of more generous tax cuts for high income earners with lower rates applying across a broader spectrum of incomes for these households.

[2] The income quintiles are calculated using equivalised disposable (after-tax) household income and are based upon the income distribution for the entire population. The new OECD equivalence scale has been used to adjust for differences in household size and demographic composition which effect costs of living. This scale takes the value of 1 for a single person household and adds 0.5 for each subsequent adult and 0.3 per child.

Figure 2 Projected Average Tax Rate by Equivalised Household Income Quintile (2017-18 base data), 2017-18 to 2027-28



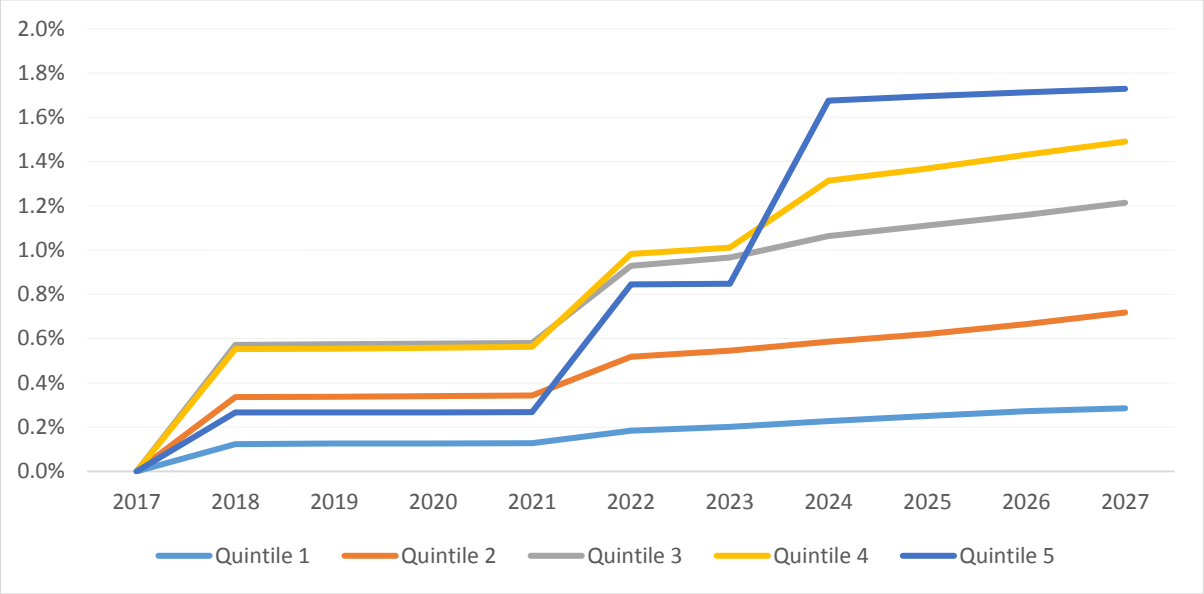
Notes: All tax thresholds adjust to $2017 using Average Weekly Earnings. Q1= lowest quintile of equivalised household income and Q5=highest quintile of equivalised household income.

Source: PolicyMod, ANU.

While future average tax rates do increase compared to 2017-18, average tax rates are lower when we compare the existing tax system with the proposed system in the Budget for each year beyond 2017-18.

From a distributional perspective when we compare tax rates in the current policy with the proposed policy we find that average tax rates are lower over the forward estimates and beyond (Figure 3). As a consequence of coming off a much lower base of taxation low income households do not receive as significant reductions in their average tax rate. The highest income households (Quintile 5 = top 20 per cent of income distribution) gain by nearly 1.8 per cent of gross income while the bottom 20 per cent gain by only 0.3 per cent by 2027-28. The introduction of the more significant tax cuts from 2022-23 means that the gains accelerate from that time.

Figure 3 Proposed Tax Rate Reductions, Current vs Proposed Tax Structure, 2017-18 to 2027-28



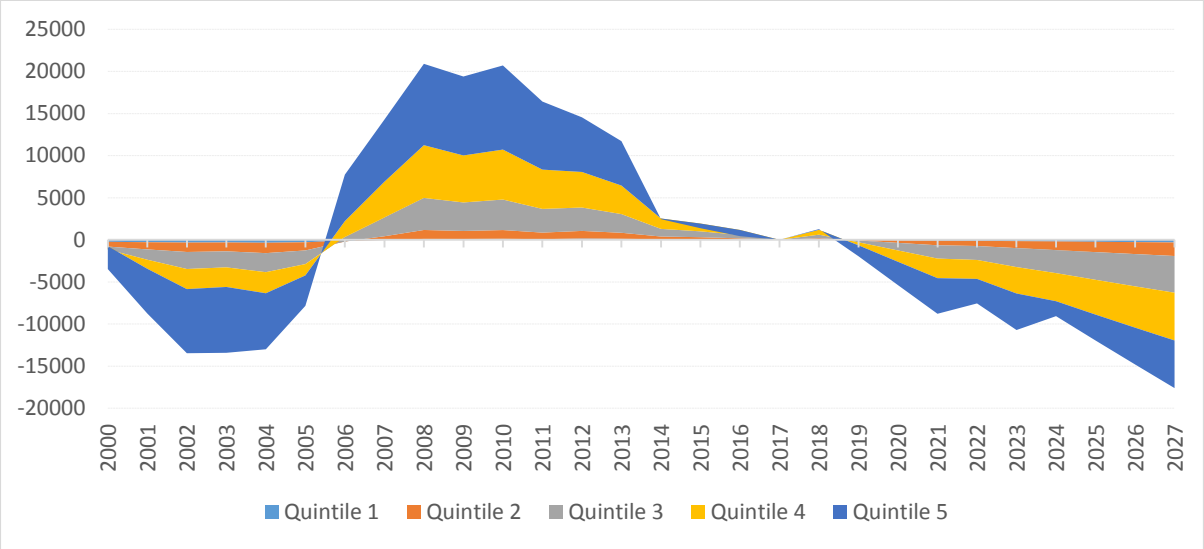
Notes: All tax thresholds adjust to $2017 using Average Weekly Earnings. Q1= lowest quintile of equivalised household income and Q5=highest quintile of equivalised household income.

Source: PolicyMod, ANU.

While the proposed tax system does provide significant tax cuts and average tax rates will be lower for all household types relative to the current policy trajectory it remains the case that bracket creep will mean that all taxpayer households will be paying a higher rate of tax in 2027-28 compared to 2017-18 rates. Most of the dollar impact will be felt by high income households.

While the reductions in tax paid are higher for high income families in comparison with the base tax system, as a simple consequence of high income families paying the bulk of income taxation they still face the largest share of the increase in tax receipts. Of the increase in tax revenue between 2017 and 2027 (due to bracket creep impacts being greater than the tax cut impacts) around two-thirds falls upon the top two income quintiles (Figure 4).

Figure 4 Household Gains and Losses for tax systems 2000-01 to 2027-28



Notes: Q1= lowest quintile of equivalised household income and Q5=highest quintile of equivalised household income.

Source: PolicyMod, ANU.

Distributional Impact of Tax Change Analysis

The above analysis considered just the 2017-18 base year but varied the tax system applied from the 2000-01 system to the 2027-28 projected system. This approach was useful in comparing past and future systems with 2017-18. The distributional analysis below directly compares each year separately between the current policy and the proposed policy. For example, for 2024-25 we develop a base year on 2024-25 data with prices and wages projected for that year and simulate the current policy. An analogous approach is used for the proposed policy. In this section we directly compare the two simulations to estimate the direct impact of the new policy in comparison with the existing policy.

The results suggest a much more significant degree of redistribution. There are two years selected from the results. We consider 2018-19 and 2024-25. The 2018-19 year is the first tranche of tax change with a new low and middle income offset and an increase to the $87,000 threshold to $90,000. The 2024-25 year includes the changes for 2022 and 2024 financial years and hence the effects of the proposed policy change are more substantial.

Table 1 shows the changes for 2018-19 are modest. At a cost to the budget of around $4.2 billion each year the largest impact in dollar terms and share of

disposable income is the fourth quintile (between 60 and 80 percentiles).[3] The bottom two income quintiles (bottom 40 percent) experience only a modest impact as these households are made up of very low income households who do relatively little or no tax – very often age pensioners or unemployed or disability pensioners. The tax cuts are targeted to low and middle income individuals – who tend to mostly reside in middle to middle-high income households. There are still gains to the top income group as it is still possible for low or middle income individuals to reside in high income households.

Table 1 2018/19 Average change in disposable income per household

Average change in disposable income per household						
Household type	Q1	Q2	Q3	Q4	Q5	All
Couple Children	$117	$434	$686	$768	$594	$610
Couple Only	$29	$133	$368	$656	$663	$372
Lone Person	$3	$46	$336	$473	$308	$161
Other	$84	$184	$563	$937	$1028	$615
Single Parent	$39	$170	$439	$445		$240
All types	**$31**	**$178**	**$508**	**$721**	**$650**	**$415**
Proportion change in total disposable income						
Household type	Q1	Q2	Q3	Q4	Q5	All
Couple Children	0.3%	0.6%	0.7%	0.6%	0.3%	0.4%
Couple Only	0.1%	0.3%	0.6%	0.7%	0.4%	0.4%
Lone Person	0.0%	0.2%	0.8%	0.8%	0.3%	0.4%
Other	0.3%	0.3%	0.6%	0.7%	0.5%	0.5%
Single Parent	0.1%	0.3%	0.6%	0.5%		0.4%
All types	**0.1%**	**0.4%**	**0.6%**	**0.7%**	**0.3%**	**0.5%**

Notes: Estimates for single parent households for income quintile 5 are not presented due to the very small number of single parent households in this group.

Source: PolicyMod, ANU.

By 2024-25 the proposed tax reform in the budget is complete. In dollar terms Table 2 shows that high income households receive much more significant tax cuts. The overall tax cuts increase disposable income by around 1.5 per cent and this varies from just 0.2 per cent for low income households up to 2.2 per cent for high income households. The tax cuts are more significant for higher income households for a range of reasons including lower income households paying

[3] Each income quintile has 20 per cent of households. It does not follow that each household type also has 20 per cent of households in each quintile. Couples with children and couples only tend to be over-represented in the higher quintiles while lone persons and single parents are disproportionately in the bottom income groups.

little or no tax, the more significant degree of bracket creep requiring compensation for high income households and the policy changes from 2022-23 that tend to be more beneficial to higher income individuals in both absolute dollars and per cent terms. The absolute size of tax cuts increases to over $17 Billion in 2024-25 and increases to around $20 billion by 2027-28.

Table 2 2024/25 Average change in disposable income per household

Average change in disposable income per household						
Household type	Q1	Q2	Q3	Q4	Q5	All
Couple Children	$173	$696	$1,518	$3,366	$7,022	$3,223
Couple Only	$56	$182	$620	$1,209	$3,888	$1,338
Lone Person	$3	$88	$420	$694	$3,041	$571
Other	$108	$285	$819	$1,757	$4,981	$1,664
Single Parent	$64	$257	$781	$1,485		$666
All types	**$49**	**$278**	**$913**	**$1,953**	**$4,925**	**$1,613**
Proportion change in total disposable income						
Household type	Q1	Q2	Q3	Q4	Q5	All
Couple Children	0.3%	0.8%	1.3%	2.1%	2.5%	2.0%
Couple Only	0.2%	0.4%	0.8%	1.1%	1.9%	1.3%
Lone Person	0.0%	0.3%	0.8%	1.0%	2.2%	1.1%
Other	0.3%	0.4%	0.8%	1.2%	1.9%	1.3%
Single Parent	0.2%	0.4%	0.9%	1.3%		0.9%
All types	**0.2%**	**0.5%**	**1.0%**	**1.5%**	**2.2%**	**1.5%**

Notes: Estimates for single parent households for income quintile 5 are not presented due to the very small number of single parent households in this group

Source: PolicyMod, ANU.

The effect of a lower rate of wage growth

The budget assumption is that wage growth will be 2.75 per cent in 2018-19, 3.25 per cent in 2019-20 and thereafter 3.5 per cent per annum. What difference would it make if wage growth was 2.5 per cent for each year from 2018-19 rather than the higher budget projections?

The average tax rates under the 2.5 per cent wage growth scenario are simulated to be about 1 percentage point less than they are under the budget assumption of 3.5 per cent wage growth by 2027-28. In 2019-20 the average household tax rate with 2.5 per cent wage growth is 18.7 per cent and with the wage growth assumed in the 2018 Federal Budget it is 18.8 per cent. In 2024-25 the average tax rates are 18.9 per cent and 19.4 per cent under the 2.5 per cent and Federal Budget wage growth scenarios respectively. By 2027-28, the

average tax rates are 19.4 per cent and 20.4 per cent under the 2.5 per cent and Federal Budget wage growth scenarios respectively.

While the assumed rate of wage growth makes only a relatively small difference to average tax rates paid by households, it does have a big impact on the level of tax revenue. Under the 2.5 per cent wage growth assumption we estimate that the government will receive about $39 billion less revenue in 2027-28 as compared to the higher wage growth scenario. We would add that some government expenditure will also be lower such as government pensions but since a significant contributor to this cut in revenue is from less bracket creep a large budget shortfall would be expected.

Conclusion

The 2018-19 Federal Budget contains significant taxation measures. Initially these measures are tax cuts targeted at lower and middle income individuals but by the middle of next decade the measures are weighted towards higher income individuals.

The bracket creep analysis shows that the tax cuts are significant but they do not entirely remove bracket creep and average tax rates increase across low, middle and high income households. They return to taxpayers some, but not all, of the fiscal drag being generated by the non-indexation of tax thresholds. The extent of bracket creep will depend on the level of wages growth in coming years and the standard Treasury projections for wages growth may well prove optimistic meaning that the impacts of bracket creep may be less significant than that estimated above. This would mean lower tax revenue but also lower average tax rates.

It is unusual for budgets to legislate tax changes that start beyond the ‘forward estimates’. Where this happens it should be expected that tax cuts would be applied to temper bracket creep. A natural consequence of a progressive tax system is that such tax cuts tend to ‘benefit’ higher income households.

We suggest caution be taken in interpreting the distributional analysis presented in this submission since it is unlikely, in reality, that our tax system would stay unchanged with no adjustment for bracket creep for the next 10 years. Nonetheless, the results do show significantly larger projected reductions in tax for higher income households. Most of the reductions in tax are directed

towards the top two income quintiles. However, as discussed, these are also the groups with the greatest expected losses to bracket creep in future years.

The targeting of the tax cuts more strongly favours higher income households over lower income households where the cuts are much more modest (both in dollar and percentage terms). However, it is important to remember that average tax rates of middle to higher income households are still projected to increase over the next decade.

Budgets are always subject to future risks. One risk is that wages growth may not be as strong as projected in the budget. Our analysis here shows that wages growth of 2.5 per cent (a full percentage point lower than the budget projections from 2020-21) would lower average personal income tax rates and lower projected revenue by around $39 billion per year by 2027-28.

References

Commonwealth of Australia (2018), *Budget Strategy and Outlook: Budget Paper No. 1 2018-19, Statement 1: Budget Overview*, Commonwealth of Australia, Canberra.