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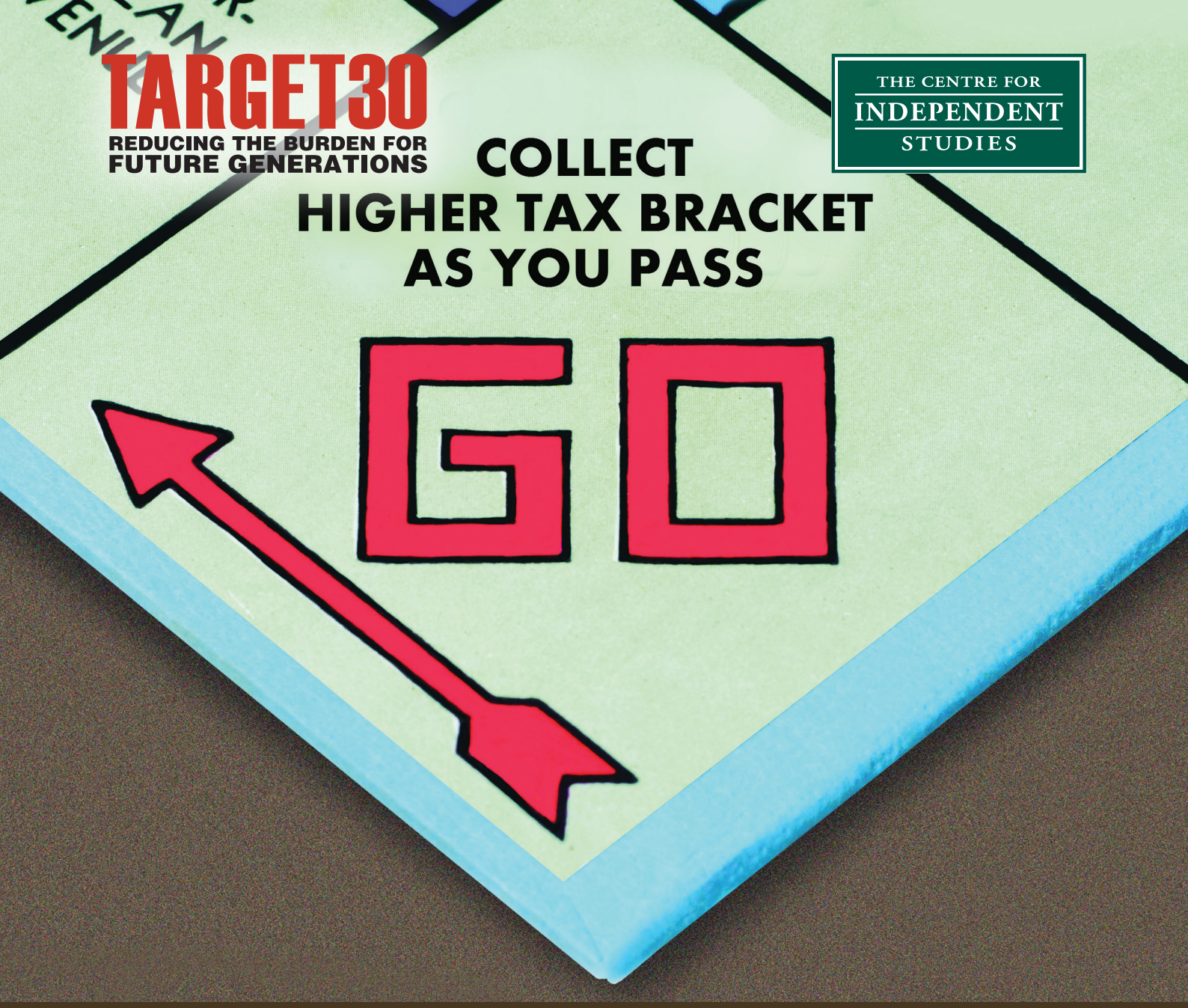

Exposing the stealth tax: the bracket creep rip-off

Robert Carling
Michael Potter

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However, any errors and omissions remain the responsibility of the authors.

Executive Summary

- Bracket creep occurs when taxpayers pay a greater share of their income in tax as a result of inflation and increases in average wages.
- It is a stealth tax: a tax increase that happens automatically with no intervention from the government, when tax thresholds are not indexed to average income growth.
- It is commonly thought bracket creep affects taxpayers only if they move into a higher marginal tax bracket as their income increases. However, bracket creep affects all taxpayers, regardless of what happens to their marginal tax rate.
- Even if a taxpayer's income is only keeping pace with inflation, they will still face a tax increase due to bracket creep.
- Bracket creep also occurs due to real wages growth (wages growing faster than inflation). If bracket creep were addressed only for inflation, there would still be tax increases every year that average real wages grow.
- Low inflation has not made bracket creep disappear. All Australian taxpayers have already been hit by bracket creep, with a modelled cost to Australian taxpayers of $6.4 billion cumulatively from 2012–13 to 2014–15 (and arguably more).
- If no action is taken, Australian taxpayers will be paying $16.7 billion more in tax in 2018–19 for bracket creep since 2012–13; the cumulative cost over the six years from 2012–2013 will be $50.9 billion. Of this cost, almost 90% is due to inflation and just over 10% is due to real wages growth.
- In 2018–19, the average Australian taxpayer will be paying $1,180 per year in extra tax, or $23 per week, due to bracket creep since 2012–13.
- Bracket creep will take the equivalent of a year's pay increase from the average worker by 2018–19.
- This is the average impact; low to middle income earners (earning between $28,500 and $86,500 in today's money) are hit harder than the average. As a result, bracket creep is broadly regressive.
  - Taxpayers in the income decile of $37,500 to $46,500 will be paying an extra $1,300 per year in tax due to bracket creep. Their take home pay will be 3.3% lower than if bracket creep were fixed.
  - Taxpayers earning $37,159 in today's money are estimated to face the largest impact, with their take home pay forecast to be 3.8% lower due to bracket creep since 2012-13.

- Bracket creep is harming employment, wages, growth, productivity and innovation, as personal tax is one of the less efficient taxes in Australia.
- Bracket creep is also causing large increases in the number of taxpayers facing higher marginal tax rates. In the six years from 2012–13, 4.3 million taxpayers (or almost one third of taxpayers) are expected to move into higher marginal tax brackets, with 2.5 million facing this change due to bracket creep.
- When combined with the withdrawal of welfare payments, bracket creep also creates higher effective marginal tax rates for second income earners and is likely to reduce female employment.
- Bracket creep has many other disadvantages, including:
  - It is not transparent.
  - It discourages budget discipline, making it easier for governments to avoid making tough decisions about limiting spending.
  - It can generate illusory tax trade-offs: for example, the government could fund the return of bracket creep by increasing the GST, but all this is doing is restoring tax rates to previous levels; meanwhile, the GST has been increased.
  - It is inconsistent for the tax system to increase taxes to adjust for inflation (eg fuel and alcohol excise), but fail to cut taxes to adjust for inflation (ie fixing bracket creep).
  - The impact of bracket creep is small per year, but the effect compounds and becomes quite large if nothing is done for many years. Even if the impact of bracket creep on taxpayers remained small, this would also mean the cost of fixing it would be small.
- Bracket creep is providing a substantial contribution to closing the budget deficit. However, the economic costs of doing this are too high. The government should instead be focussing on controlling growth in spending.
- While bracket creep provides governments with additional flexibility, the evidence shows that governments misuse this flexibility to increase taxes.
- There is no need to retain bracket creep to provide automatic fiscal stabilisers.
- To address bracket creep, the government should index tax thresholds to a measure of average nominal wages growth or set the thresholds at a fixed percent of average wages. Indexation should be legislated with no discretions as to whether indexation occurs each year.

Introduction

Tax reform is an important, but contentious, issue in Australia.

There is a large gap between what the Australian government raises in taxes and what it spends. As a result, the government has posted eight consecutive budget deficits[1], and the former Treasurer Joe Hockey has stated the budget may never get back to surplus under current policies.[2] In addition, many commentators are calling for additional revenue to be raised to reduce the budget deficit or provide scope for additional government spending.[3]

Nevertheless, there are many arguments against increasing personal taxes. Most importantly, they are inefficient taxes that have substantial harmful impacts on work, saving, investment and growth.[4] But also no clear case has been made to increase taxes instead of curbing spending growth.

The importance of tax reform has been acknowledged by many governments in Australia's recent history. The previous Labor government commissioned the Australia's Future Tax System Review, chaired by Dr Ken Henry, in 2008. The Final Report of the review was released in 2010;[5] however, most of the recommendations of the Henry review were not implemented.[6]

The Coalition government has now initiated its own tax review and released a discussion paper on 30 March 2015, called Re:think.[7] The government must seize the opportunity from this process to fix some of the glaring problems with Australia's tax system.

The Re:think discussion paper specifically raises the problem of bracket creep (or fiscal drag[8]), when average tax rates rise automatically in an economy with inflation and growing wages. Our paper shows bracket creep is causing substantial tax increases and as a result is reducing employment and labour force participation.

As the Re:think discussion paper notes, Australia relies more on income taxes than other developed (OECD) countries.[9] This causes our tax system to be more inefficient, because income taxes have more adverse effects than other taxes.[10] It also means that bracket creep has a greater impact in Australia than in other countries.

Importantly, bracket creep isn't just inefficient; this paper demonstrates it also is regressive because it disproportionately hits low- to middle-income earners.

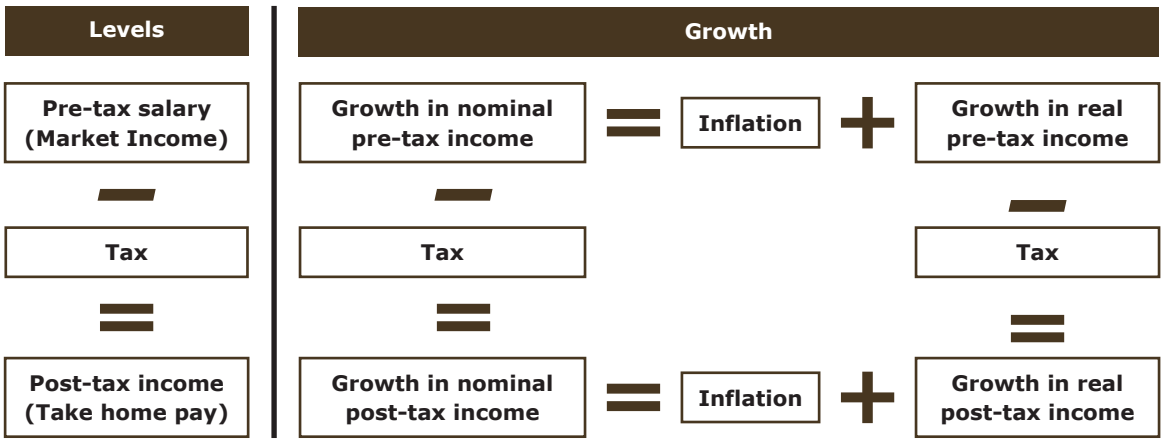
Nevertheless, the excuses not to fix bracket creep multiply as the demands for increased government spending continue and a number of spending commitments, such as the National Disability Insurance Scheme (NDIS), are locked in.

However, as this report will show, the consequences of ignoring bracket creep are severe. Fixing bracket creep must be a serious priority for all politicians.

What is bracket creep?

Bracket creep refers to the increase in average tax rates that occurs automatically due to inflation or growing real wages. In Australia, bracket creep is mainly discussed in the context of personal income tax, but it also applies to other taxes such as stamp duty (see Box 2). The terms used in this paper are defined in the graphic below.

Bracket creep can be driven by inflation as well as real wages growth. In fact, each of these causes is just as much bracket creep as the other, as discussed in more detail in Box 1.



Example 1 of bracket creep: driven by inflation

The classic example of bracket creep occurs when a worker's salary increases in line with inflation, causing them to pay more tax. As a result their real disposable (or after-tax) income falls.

For example, an individual taxpayer earning $40,000 in 2015–16 pays $5,347 in personal tax in 2015–16 (calculated as $3,572 + 32.5% of income above $37,000, plus 2% Medicare Levy). Their after tax income is $34,653 and their average tax rate is 13.4%.

If the taxpayer receives an increase in market income of 2% in 2016–17, their market or pre-tax income is $40,800. Assume inflation is also 2%.

Also assuming tax thresholds haven't changed, the taxpayer now pays $5,623 in tax and their after tax income is $35,177, while their average tax rate has increased to 13.8%.

This example is shown in Table 1 below.

Table 1: Impact of bracket creep caused by inflation on taxpayer earning $40,000

	Income before tax	Tax	Income after tax	Average tax rate	Marginal tax rate
2015–16	40,000	5,347	34,653	13.4%	34.5%
2016–17	40,800	5,623	35,177	13.8%	34.5%
Change ($)	+800	+276	+524	-	-
Change (%)	+2%	+5.2%	+1.5%	+0.4 pp	0 pp

Note: Marginal tax rate includes Medicare Levy.

The taxpayer's take home pay (after-tax income) has gone up by 1.5%, but this is less than inflation: their real after-tax income has gone down by 0.5%. This is despite the taxpayer's pre-tax income remaining unchanged in real terms. The taxpayer is worse off, entirely due to bracket creep. This example shows how bracket creep driven by inflation causes a decrease in real take home pay and living standards.

Note also that the taxpayer is affected by bracket creep even though they haven't changed marginal tax rates (discussed below).

Example 2 of bracket creep: driven by real wages growth

Bracket creep also occurs for incomes growing faster than inflation (in this paper called 'real bracket creep'). Real wage growth can result from improvements in productivity that are passed on to wages, or from job promotion, or both. Real wages growth will increase the effects of bracket creep and its cost to taxpayers and the economy.

The reasons why 'real bracket creep' is still bracket creep are examined in Box 1.

As an example of real bracket creep, assume a taxpayer earns $40,000 in 2015–16, so they pay tax of $5,347 that year (as in the previous example).

The taxpayer then receives an increase in income of 5% in 2016–17, while inflation is 2%, meaning their (pre-tax) income is $42,000 in the next year. Assume the tax thresholds haven't changed, so the taxpayer is affected by bracket creep due to inflation as well as real wages growth. They pay tax of $6,037 in 2016–17 and their post-tax income is $35,963.

As a result of real bracket creep, their after-tax income has increased by 3.8% and their real income after tax is up by only 1.8%, even though their real pre-tax income went up by 3%. As a result, the government is getting a more than proportionate share of the taxpayer's increase in income.

Details of this example are shown in Table 2 below.

Real bracket creep means that taxpayers aren't worse off after inflation, but instead a greater proportion of real wages growth is sent to the government rather than the taxpayer.

Given the arguments in Box 1, the term 'bracket creep' in this paper refers to the combined effect of inflationary bracket creep and real bracket creep.

Table 2: Impact of real bracket creep on taxpayer earning $40,000

	Income before tax	Tax	Income after tax	Average tax rate	Marginal tax rate
2015–16	40,000	5,347	34,653	13.4%	34.5%
2016–17	42,000	6,037	35,963	14.4%	34.5%
Change ($)	+2,000	+690	+1,310	-	-
Change (%)	5%	+12.9%	+3.8%	+1.0 pp	0 pp

Note: Marginal tax rate includes Medicare Levy.

Box 1: Is bracket creep only caused by inflation?

Bracket creep is caused by both inflation and real income growth.

If bracket creep is addressed only for inflation, taxpayers will face tax increases if they receive *any* real wage increase, even a below average increase. This 'real bracket creep' causes several problems including:

- Taxpayers will pay more of their income in tax over time as real wages grow, with resultant costs to jobs, growth and productivity.[11]
- The tax-to-GDP ratio will increase with growth in real incomes.
  - In the US, tax thresholds are indexed to inflation; despite this, the tax-to-GDP ratio is forecast to increase substantially over the next decade — the US Congressional Budget Office (CBO) argues[12] that real bracket creep will raise personal income tax in the US as a share of GDP by 0.6 percentage points between 2015 and 2025.
- Similarly, the size of government as a proportion of the economy will increase.
- Wage earners who are receiving below-average wage increases will nevertheless face a tax increase.
- The government will receive a more than proportionate share of increases in wages and incomes, and workers will receive a less than proportionate share.
- The regressive and inequitable impacts of bracket creep[13] will still occur.

Notably, the US CBO argues that real bracket creep is still bracket creep.[14]

Bracket creep isn't caused only by changes in marginal tax rates

There is a common misconception that taxpayers are affected by bracket creep only when they move into a higher marginal tax bracket. However, bracket creep is much broader than this, and it hits all personal taxpayers whether or not their marginal tax rate changes, as shown in the CIS modelling results. In fact, research suggests[15] that most of the revenue from bracket creep comes from taxpayers who don't change tax brackets, rather than from those who do.

A number of prominent organisations have used bracket creep too narrowly to cover only tax increases that are due to changes in marginal tax rates. A report by Deloitte Australia, *Shedding Light on the debate: Mythbusting tax reform* and the former Treasurer, Joe Hockey used the narrower definition.[16] The government's Intergenerational Report in 2015 used the narrower version on one page and the broader definition elsewhere.[17]

Many other organisations and researchers have used the broader definition preferred by CIS, including KPMG[18], ABC Fact Check[19], and Miranda Stewart of ANU.[20] In fact, several researchers have explicitly argued in favour of the broader definition of bracket creep:

- Ben Phillips of NATSEM argues that the broader definition is correct and "Bracket creep is not just about moving into higher tax brackets". [21]
- A paper by Peter Dawkins, John Freebairn and others argues "The definition of bracket creep is not simply people moving into higher tax brackets, rather it is about people facing higher average tax rates." [22]

Box 2: Does bracket creep occur for other taxes?

The process of bracket creep is best known in the context of personal income tax, but the same process occurs with other progressive taxes. Bracket creep occurs whenever a tax is applied at graduated rates and the thresholds for the different rate brackets are not adjusted for inflation or average wage increases.

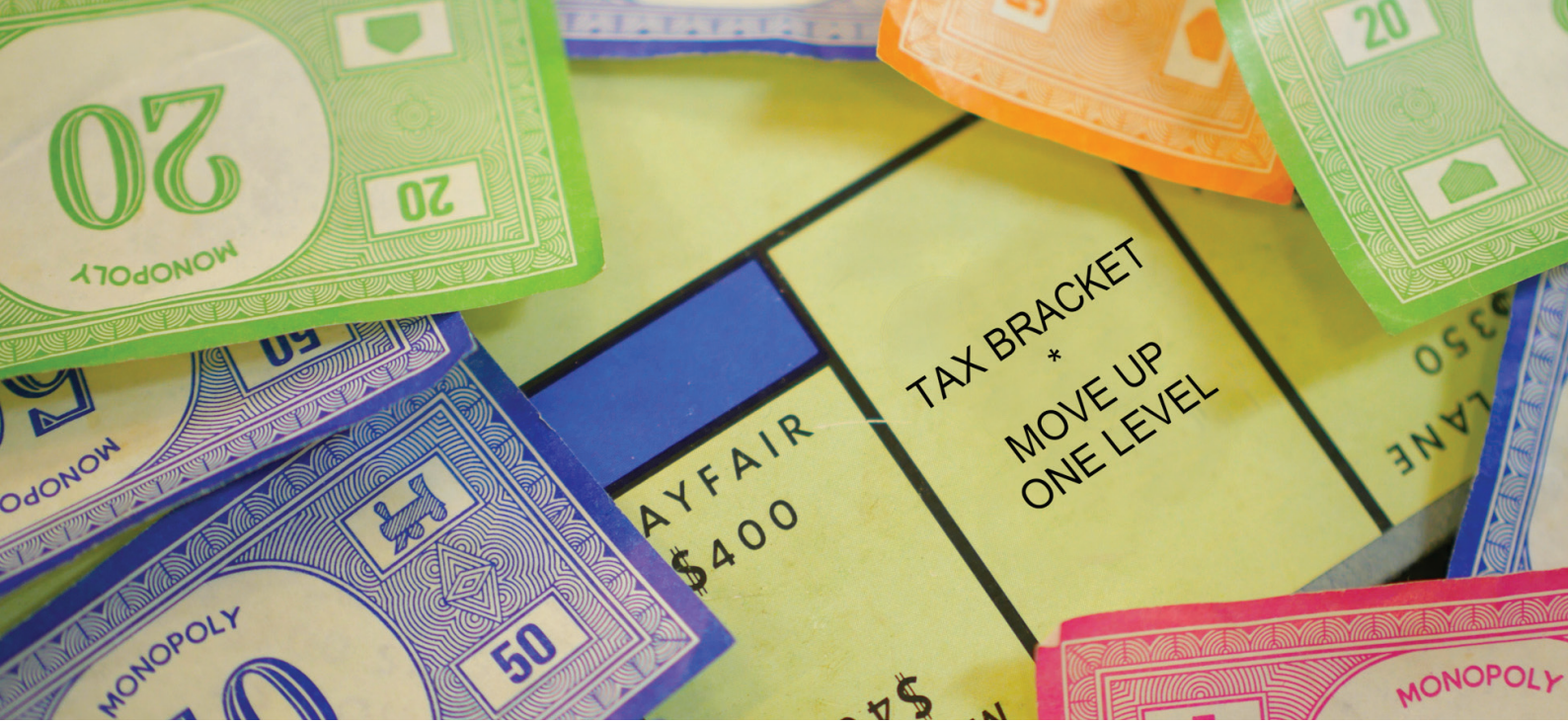
There are a large number of tax rebates and thresholds that aren't automatically indexed to inflation. These have similar effects to bracket creep, although they may not be seen as being strictly the same as bracket creep for personal taxes. Some examples for federal government taxes include:

- The GST registration threshold is generally $75,000, which is not indexed. The impact of the failure to index this threshold is smaller than bracket creep for personal tax.[23]
- A slightly lower company tax rate (28.5%) has been introduced for businesses with turnover below $2 million. The impact of the failure to index this figure will also be small compared to personal tax.[24]
- There is a rebate of Wine Equalisation Tax for small producers which is not indexed, but has been changed on an ad hoc basis;[25] and a rebate of excise for breweries. The impact of these would again be small compared to bracket creep for personal tax.[26]

A good example of bracket creep outside personal income tax is stamp duty on property transfers — a state tax applied at steeply graduated rates and with thresholds that are (generally) not adjusted for inflation. The interaction of the stamp duty scale and rapid appreciation of property values over many years has resulted in large bracket creep effects pushing up average rates of stamp duty.

In New South Wales, for example, marginal rates of stamp duty range from 1.25% to 7.0%. The rate scale and thresholds have remained unchanged since 1986 apart from the addition of the 7.0% rate on value above $3 million in 2004, prior to which the highest marginal rate was 5.5% above $1 million. In 1986 the median Sydney house sale price was around $75,000 and the average rate of stamp duty on such a transaction was 1.6%. In 2015 the median is reportedly around $900,000 and the average rate of duty is 4.0%, representing a more than doubling of the average rate on the median transaction value. Furthermore, the marginal rate at the median value has increased from 1.75% to 4.5%. Not surprisingly, stamp duty revenue for New South Wales has increased very rapidly over the period to its current level of more than $7 billion a year.[27]

While inflation and real wages growth affects many taxes, it is unlikely that the impact would be anywhere near as great as the impact on personal taxes, given the relative size of the personal tax take and the significant progressivity in this tax.



The impact of bracket creep in Australia

The CIS has modelled the impact of bracket creep since the last personal tax change in 2012–13.[28] Details of the modelling are in Attachment A. Consistent with the argument in Box 1, the modelling is for bracket creep caused by inflation as well as real wages growth.

Average impact on take home pay due to bracket creep

The CIS estimates that taxpayers will, on average, see take home pay (or post-tax income) reduced by 2.4% in 2018–19 because of bracket creep since 2012–13, representing $1,180 per year paid in extra tax, or $23 per week. While taxpayers will probably have higher post-tax income than today, it will be lower than it would be without the impact of bracket creep. All statements that follow about the impact of bracket creep on post-tax income should be interpreted this way.

The reduction in take home pay of 2.4% in 2018–19 is basically equivalent to losing a year's wage increase (at the current rates of wages growth). Equivalently, returning bracket creep to taxpayers would, on average, give them an extra year's growth in wages.[29]

Another way of looking at this is that bracket creep raises the same tax revenue in 2018–19 as an increase in the GST to about 12.5%.[30] If the GST were increased to 15% with no personal tax cuts, as some are proposing,[31] the combination of bracket creep and the GST increase will have the same impact on taxpayers as an increase in the GST to 17.5% in 2018–19, with no compensation.

Bracket creep has affected some taxpayers for longer

The modelling in this paper covers the period since 2012–13 when the last changes to personal tax scales occurred. However, the tax changes in 2012–13 didn't really deal with bracket creep for some taxpayers, because personal tax for those earning more than $80,000 has barely changed since 2010-11. Hence the modelling in this paper is an underestimate of the impact of bracket creep on taxpayers earning more than $80,000.

In addition, the threshold for the 37% tax bracket has remained at $80,000 since 2008-09, so there has been a substantial increase in the number of taxpayers facing marginal tax rates of 37% or more since then. This is shown in Table 3 below: the number of taxpayers paying the top two marginal rates has increased by 2.2 million from 2008-09 to today, and the increase is forecast to be 3.4 million by 2018–19.

Table 3: Proportion of taxpayers paying top two marginal tax rates

Year	2008-09	2015–16	2018–19
% of taxpayers	11.9%	28.4%	35.8%
Increase in percentage points from 2008-09	-	16.6 pp	23.9 pp
Increase in number of taxpayers from 2008-09	-	2.2m	3.4m

Source: ATO Tax Statistics & CIS modelling. Figures have been adjusted to exclude the impact of population growth, which would otherwise make the figures larger.

Further modelling of changes in the number of taxpayers in each tax bracket is shown below.

Impact of inflation and wages growth

As noted above, bracket creep has two components: the tax increase due to inflation, and the tax increase due to real wages growth. As argued in Box 1, bracket creep caused by real wages growth is still bracket creep.

Currently, growth in real wages is slow.[32] As a result, real wages growth is not causing substantial bracket creep. Instead, most of the impact of bracket creep is due to inflation.

As noted above, additional revenue from bracket creep in 2018–19 compared with the 2012–13 base year is estimated to be $16.7 billion. CIS modelling indicates this consists of a tax increase of $14.6 billion due to inflation, and $2.1 billion due to real wages growth.[33]

So almost 90% of the increased revenue from bracket creep from 2012–13 to 2018–19 is from inflation, and just over 10% is from real wages growth. This indicates that those who accept only the narrower definition of bracket creep (from inflation only) cannot deny there is a real problem to be addressed.

Bracket creep has a regressive impact on low and middle income earners

In general, bracket creep affects lower income taxpayers more than higher earners.

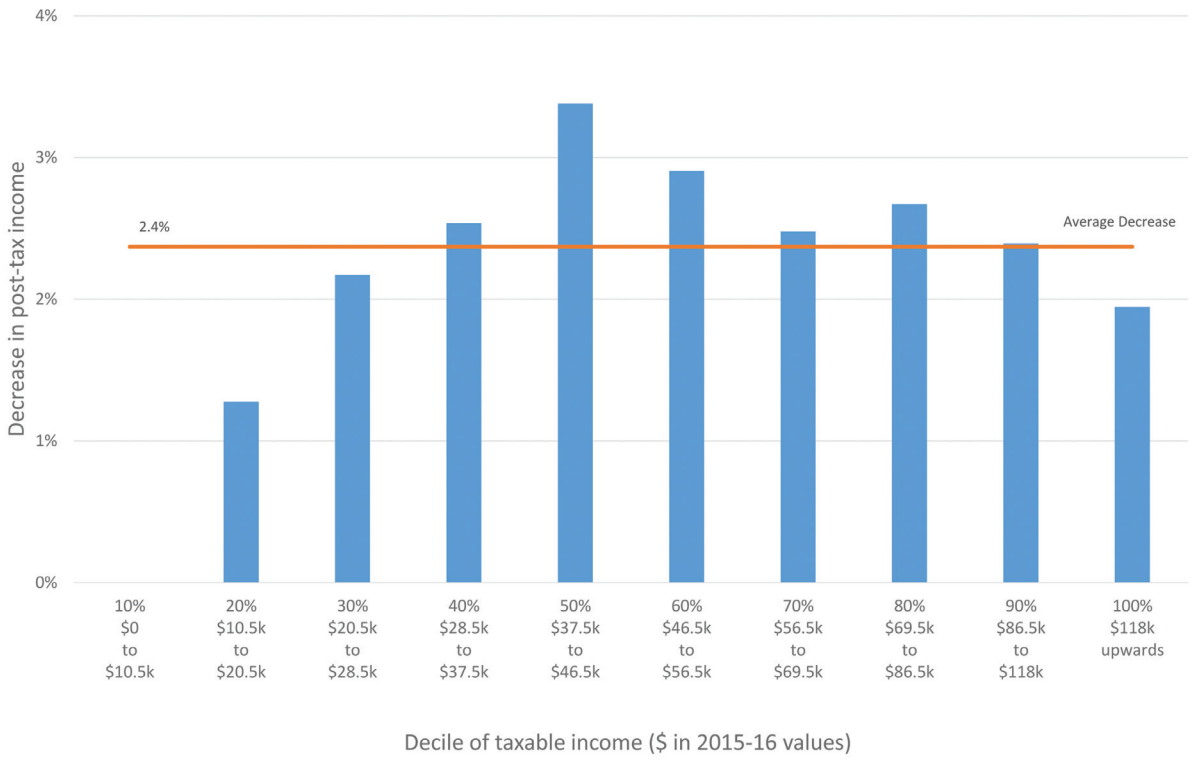
This point has also been made in a number of other papers, including the Government's Tax Discussion Paper, Re:think,[34] and papers by Deloitte Australia[35] and KPMG.[36]

The CIS modelling results bear this out.

Impact on after tax income

The impact of bracket creep on after-tax income (or take home pay) differs across income deciles as shown in Figure 1 below (a decile groups the population into ten brackets by income, with equal numbers of people in each bracket).

Figure 1: Decrease in after tax income in 2018–19 caused by bracket creep since 2012–13



Source: CIS modelling. Figures on horizontal axis are in 2015–16 dollars and are rounded to nearest $500.

The decile that is hardest hit is the 50% decile, which covers taxable income of about $37,500 to $46,500 (in 2015–16 dollars). A person at that decile would find their post-tax income 3.3% lower than it otherwise would be in 2018–19, which is a reduction of $1,300 per year or $25 per week, solely due to bracket creep. This is more than one year's wage increase (at current wage growth rates).

Deciles around the middle of the distribution, 40% to 80% (around $28,500 to $86,500 in today's dollars) all face above average cuts in take home pay — that is, cuts of more than 2.4%. The impact is smaller on low income and high income taxpayers.

As a result bracket creep is broadly regressive, as the impact is generally the greatest at low incomes.

Figure 1 above shows the modelled impact of bracket creep averaged across all incomes in each decile. However, the impact within deciles can vary substantially, as detailed in Figure 2 below. This shows the forecast impact in 2018–19 of bracket creep since 2012–13 for each dollar income level from $0 per year to $250,000 (dollar figures are in today's money).

The greatest impact in this Figure is for taxpayers earning around $37,100 in today's money. Taxpayers at this income are facing an estimated reduction in take home pay (after tax income) of 3.83% in 2018–19 due to bracket creep since 2012–13. This income is just below the 50% decile in Figure 1 above. The smallest impact is on a taxpayer earning around $154,200 in today's money.

The 'spikes' in Figure 2 are at incomes where taxpayers are just about to enter a higher tax bracket in 2013–14. These taxpayers face higher marginal tax rates in every year from 2013–14 onwards.

Figure 2: Reduction in after tax income in 2018–19 due to bracket creep (from base year of 2012–13)

Source: CIS modelling

Impact on average tax rates

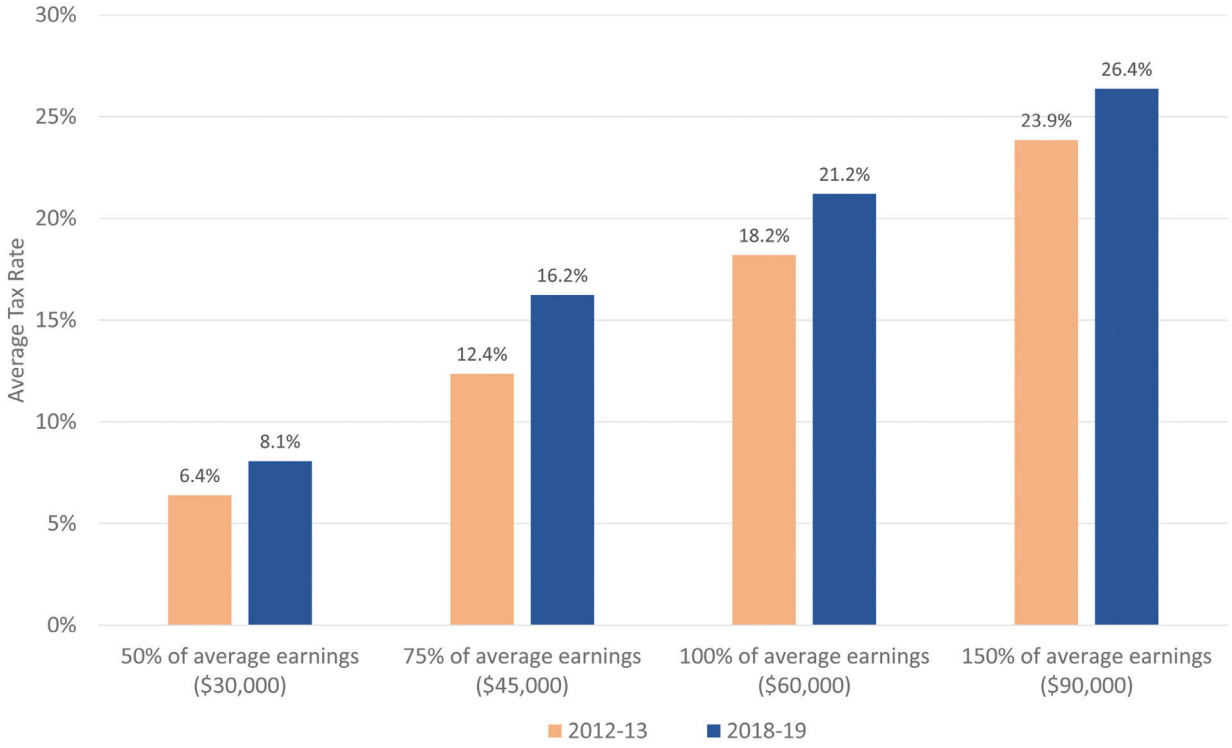
Bracket creep causes an increase in average tax rates. The forecast increase in tax rates in 2018–19 for taxpayers earning particular proportions of average income is shown in Figure 3 and Table 4.

The modelled increase in tax rates for incomes from $0 to $250,000 is shown in Figure 4. Note the similarity to the results in Figure 2, including the result that the greatest forecast increase in tax rates is at the income of $37,159 (in today's money). Taxpayers at that income are expected to face an increase in tax rate of 4.21 percentage points in 2018–19 due to bracket creep since 2012–13.

Left to its own devices, bracket creep not only increases the overall weight of personal income tax over time, but also shifts the distribution of the burden towards lower income taxpayers. If the personal income tax structure at a point in time reflects some deliberate notion of equity, then bracket creep over time works to frustrate the original intent of policymakers.

Conversely, whenever governments choose to unwind the effects of bracket creep through discrete tax changes, they give the false appearance of generosity to poorer taxpayers when all they are doing is reversing a tax increase that hits low income earners hardest.

Figure 3: Average tax rates, 2012–13 and 2018–19



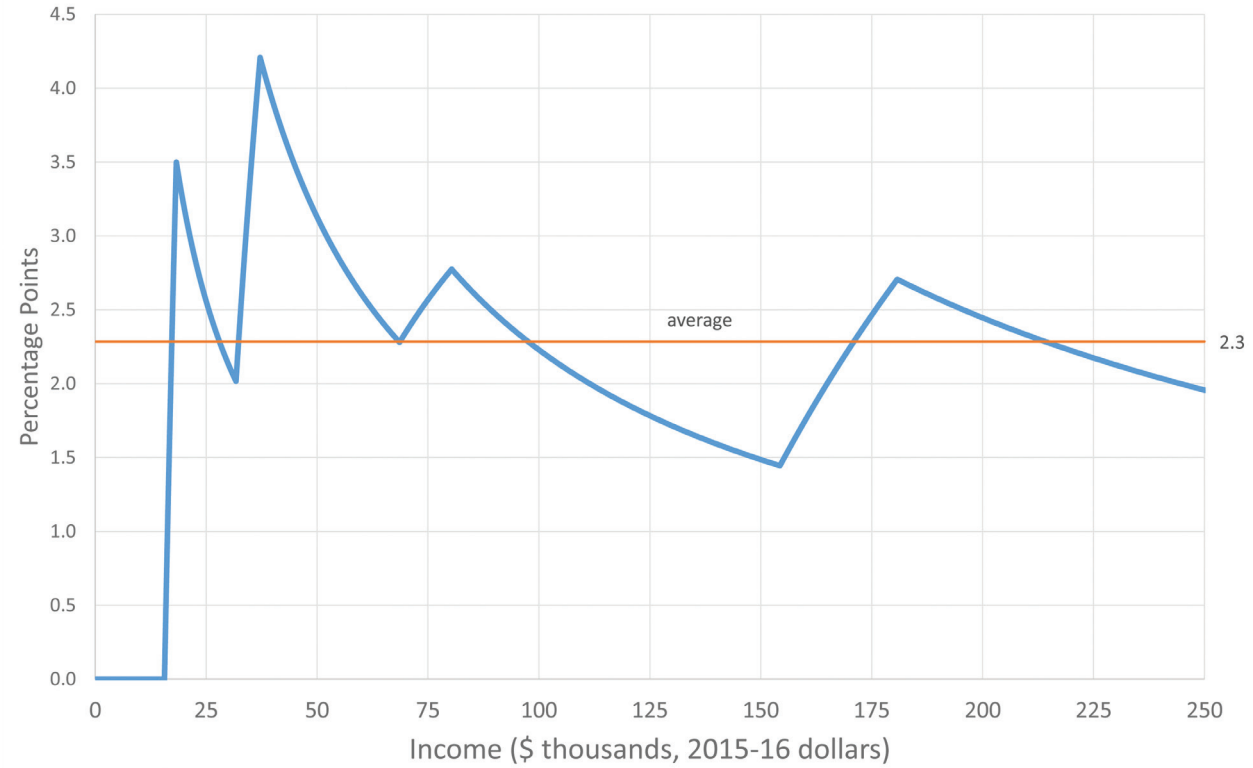
Source: CIS modelling. Dollar figures for average earnings (in brackets) are for 2015–16 and are rounded to nearest $500. This figure shows the estimated total change in tax rates while the portion attributable to bracket creep is in Table 4 below.

Table 4: Impact of bracket creep for particular incomes in 2018–19 relative to 2012–13

Income		Effect of bracket creep	
$ per year (pre tax)	% of average earnings	Increase in average tax rate	$ increase in tax per year
30,000	50%	1.9 pp	590
45,000	75%	3.4 pp	1,440
60,000	100%	2.7 pp	1,440
90,000	150%	2.7 pp	2,050
180,500	300%	2.6 pp	3,510

Source: CIS modelling. Income figures are rounded to nearest $500, tax to nearest $10. Income figures are for 2015-16, while impact is for 2018-19. 'pp' means percentage point. The increase in average tax rate in this table is the portion of the total increase (shown in Figure 3) attributable to bracket creep. The dollar increase in tax is the same at $45,000 and $60,000 because marginal rates do not change in this range, and this shows how the tax increase hits lower income earners harder.

Figure 4: Increase in average tax rate in 2018–19 due to bracket creep since 2012–13



Source: CIS modelling.

Why does bracket creep hit low income earners harder?

The regressive effect of bracket creep comes about because income tax scales are steeply progressive, with marginal tax rates climbing rapidly across middle incomes. A low income person pays relatively little tax and has a very low average tax rate, well below the marginal rate. As their income increases, the extra tax is paid at their marginal rate and so the increase in the average tax rate is correspondingly large. Conversely for a high income earner, most of their income is already at the top marginal tax rate, so an increase in income has a smaller effect on their average tax paid.[37]

The following examples illustrate this point. At a low taxable income of $40,000, the average tax rate is 13.4%. A 5% increase in income lifts the average rate to 14.4%, an increase of 1.0 percentage point. In the case of the high income taxpayer on $360,000, a 5% increase in income causes the average tax rate to increase from 40.7% to 41.1%, an increase of only 0.4 percentage points.

Comparison with other modelling results

The Grattan Institute estimated[38] the impact of bracket creep by income decile, producing similar results to the CIS modelling above, although the period covered is different.

Deloitte Australia also estimated the impact of bracket creep for taxpayers at several incomes,[39] finding that bracket creep had the greatest impact on individuals earning half of full time wages. This is in line with the CIS modelling, which estimates that bracket creep has the greatest impact at this level (around $40,000). However, the detailed results from CIS' modelling are not comparable with those in the Deloitte paper, because Deloitte models the impact of bracket creep in 2024-25, while the modelling in this paper focusses on 2018–19 to show the more immediate impact of bracket creep.

Associate Professor Helen Hodgeson of Curtin Business School has estimated[40] the impact of bracket creep for an employee earning average full time wages (around $80,000) or earning 150% of average full time earnings (around $120,000). A comparison of her results and the CIS results (in Table 5) show similar conclusions.

Table 5: Increase in average tax rate due to bracket creep, 2014–15 to 2017–18

Income	Increase in average tax rate	
	CIS modelling	A/Prof Helen Hodgeson modelling
100% of average full time wages	1.18 pp	1.10 pp
150% of average full time wages	0.77 pp	0.86 pp

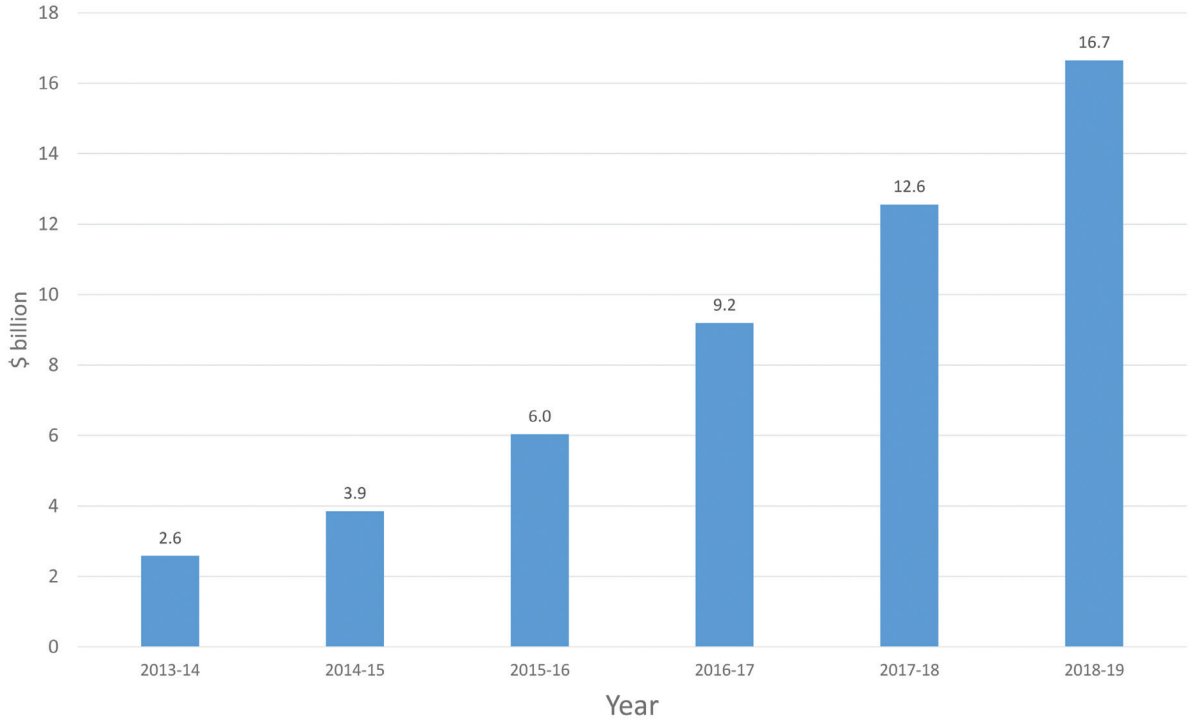
Impact on tax revenue

The extra annual tax due to bracket creep relative to the 2012–13 base year increases every year, from $2.6 billion in 2013–14 to $16.7 billion in 2018–19. This is additional personal tax revenue in 2018–19 of 7.7% compared to the situation where bracket creep is addressed. The extra revenue is shown in Figure 5. The cumulative cost of bracket creep to taxpayers for the years 2013–14 to 2018–19 is $50.9 billion.

Australian taxpayers have already been hit by bracket creep. Nothing has been done to adjust tax scales since 2012–13, and this has already cost Australian taxpayers $6.4 billion cumulatively to June 2015 (as noted above this figure is likely to be an underestimate).

Bracket creep is therefore a substantial contributor to increases in total tax revenue and personal tax revenue. Further details are in Box 3.

Figure 5: Extra tax revenue from bracket creep



Source: CIS modelling. Note: bracket creep is relative to base year of 2012–13

Box 3: How much is bracket creep contributing to the Budget?

Over the period 2012–13 to 2018–19, bracket creep is set to cause just under half of the increase in total tax revenue and personal tax revenue, and around one third of the improvement in the budget deficit. This is shown in Table 6 below.

Table 6: Contribution of bracket creep to budget

Modelled increase in tax due to bracket creep ($bn) in 2018–19	$16.7bn
Increase in tax-to-GDP ratio	
In percentage points (pp)	1.8 pp†
In $bn (18-19 dollars)	$35.7bn
Proportion of total tax increase due to bracket creep	47%
Increase in personal tax-to-GDP ratio	
In percentage points (pp)	1.8 pp†
In $bn (18-19 dollars)	$34.5bn
Proportion of personal tax increase due to bracket creep	48%
Improvement in budget balance as % of GDP	
In percentage points (pp)	2.0 pp†
In $bn (18-19 dollars)	$38.6bn
Proportion of improvement in budget balance due to bracket creep	32%

Source: Budget paper No 1, Statement 10; CIS modelling
† Note: Comparison is made with year when revenue was lowest or deficit was highest.

The CIS modelling results are consistent with the statements of the Treasury and the Parliamentary Budget Office (PBO), but not as consistent with the statements of Deloitte Australia. A more detailed comparison with these results is in Attachment B.

Comparison with other modelling results

The modelling in this paper is for bracket creep since 2012–13, which is when the last change was made to personal tax thresholds. CIS also modelled bracket creep since 2014–15, to provide comparability with modelling done by other organisations. CIS estimates that personal tax revenue over the four years 2014–15 to 2018–19 will be (cumulatively) $27.2 billion higher due to bracket creep. The estimate by the Commonwealth Treasury was $25 billion over this period,[41] and the estimate from the National Centre for Economic Modelling is $26.5 billion.[42]

These figures are broadly comparable. The estimate in Deloitte Australia's modelling[43] is $21 billion, which is lower than the other results.

The Grattan Institute estimates[44] the impact of fiscal drag to be $25 billion in 2018–19 alone (ie not a cumulative figure), which is well above the CIS modelling result of $16.7 billion. The reason for this difference is the Grattan Institute includes all factors that cause personal tax to grow faster than GDP, not just wages growth; in particular the Grattan results include the impact of growth in non-wage income.

The harmful impact of bracket creep on employment, growth, incomes and innovation

Bracket creep has an impact on all taxpayers, whether or not they change tax brackets. However, there are additional disincentives for taxpayers who move into higher tax brackets.

Bracket creep already has a disproportionately high impact on low income taxpayers, and this impact is exacerbated for those who are also transitioning off welfare and face fairly high withdrawal rates from these payments. The combined effect of marginal tax rates and welfare withdrawal generates Effective Marginal Tax Rates (EMTRs), where a worker could lose 50 cents in the dollar from their welfare payment as well as 21 cents (or even 34.5 cents) of every dollar they earn in tax. These high EMTRs are increased by bracket creep for people who move into higher tax brackets. This creates a disincentive for earning additional income, causing harmful effects on employment. The impacts of high EMTRs are particularly strong for second income earners[45] who are usually female.

Lower employment causes a range of problems, including more jobless families, higher poverty and a reduced ability to escape poverty.[46]

At higher income levels the adverse impacts of increased marginal tax rates include:[47]

- discouraging innovation;[48]
- encouraging tax avoidance;[49]
- encouraging emigration/discouraging immigration of skilled workers;[50]
- discouraging investment in skills and education;
- discouraging employment and investment for unincorporated businesses; and
- distorting saving and investment decisions.

The economic cost of the personal income tax system depends on effective marginal rates and the numbers of taxpayers in each marginal rate bracket. The higher the effective marginal rate, and the more taxpayers subject to it, the higher the economic cost. This cost increases more than proportionately as effective marginal rates increase.

Modelling results

In the six years to 2018–19, CIS estimates that 4.3 million taxpayers (almost one third of the taxpayer population) will face an increase in marginal tax rates.[51] Of this increase, CIS estimates 2.5 million (or almost 60%) is due to bracket creep.[52]

The increase in taxpayers facing higher marginal rates includes 2.3 million taxpayers moving into the lower two brackets (1.2 million of them due to bracket creep). The adverse impacts of increased marginal tax rates on low income taxpayers are noted above.

The details of these estimates are in Table 7.

The growth in the proportion of taxpayers moving into higher tax brackets is shown in Figure 6.

Figure 6: Percentage of taxpayers moving into higher tax bracket (compared to 2012–13)

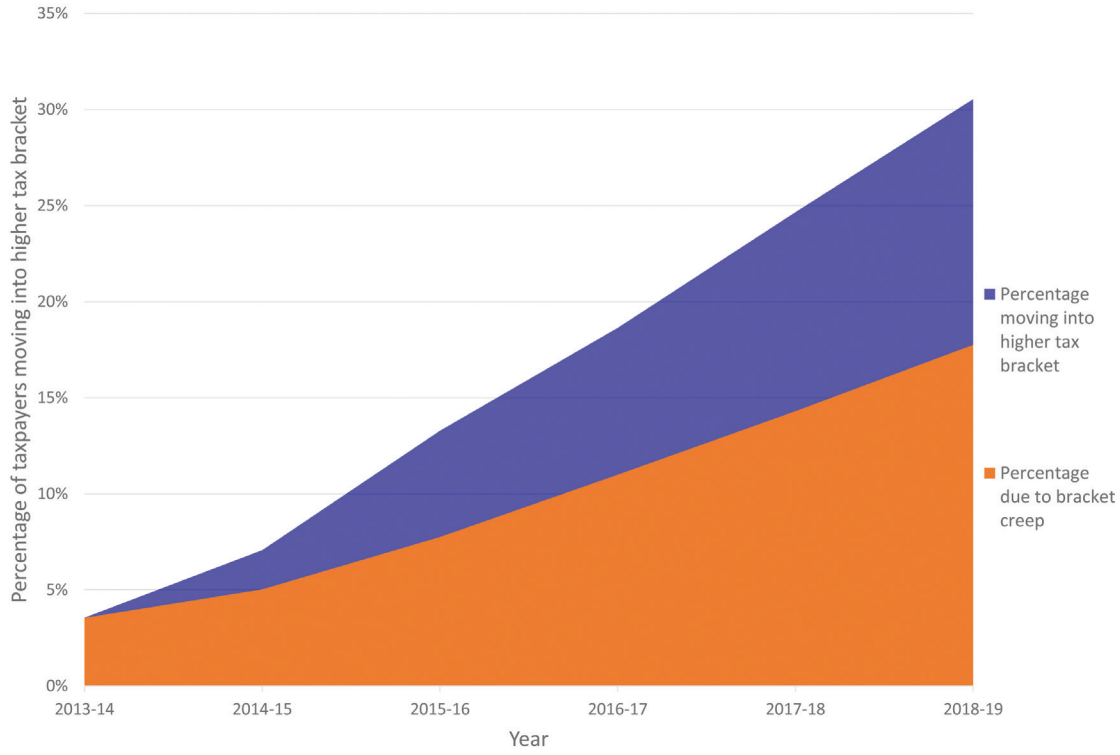


Table 7: Number of taxpayers moving into a higher tax bracket from 2012–13 to 2018–19

	Tax Bracket				
Taxpayers moving into higher tax bracket	**1**	**2**	**3**	**4**	**Total**
Percentage points	5.3pp	10.8pp	11.8pp	2.6pp	30.5pp
Number of taxpayers	0.7m	1.5m	1.7m	0.4m	4.3m
Of which, number due to bracket creep	0.4m	0.8m	1.0m	0.2m	2.5m*
Note: Marginal tax rate in 2018–19 (excl Medicare Levy)	19%	32.5%	37%	45%	-

Source: CIS modelling. This is an estimate of the taxpayers who move into each bracket from a lower bracket. Figures have been adjusted to exclude the impact of population growth, which would otherwise make the figures larger. Percentages relate to proportion of population submitting tax returns. * Numbers may not add due to rounding.

This problem is expected to worsen in subsequent years. Based on Treasury figures, CIS estimates an additional 6% of taxpayers will move into the top two brackets in the six years to 2024-25, if the current scale of rates and thresholds remain unchanged.[53] This will mean a total increase in the proportion of taxpayers in the top two brackets of 20 percentage points since 2012–13.

Modelling by the Australian Treasury[54] and KPMG[55] indicates that personal taxes are the second most inefficient federal government tax (after company tax). The Treasury argues[56] its modelling is actually an underestimate of the efficiency costs of personal tax, because it doesn't incorporate progressivity of the tax, and does not model varied (heterogeneous) households.

The CIS has also published research showing the substantial efficiency costs of personal taxes.[57]

In practical terms, this means that employment, wages, growth, productivity and innovation are all harmed by personal taxes being too high. These findings are consistent with research showing that failure to adjust tax scales in the US for bracket creep reduces employment, savings and output in that country.[58]

Australia already relies more heavily on personal income taxes than other OECD countries;[59] bracket creep intensifies this reliance, because other taxes are not as affected by bracket creep or inflation: see Box 2 above. As argued by the former Secretary to the Treasury, Dr Martin Parkinson,[60] the relative inefficiency of income taxes means that Australia should be moving away from taxes on personal income; but bracket creep moves us in the opposite direction. This increased reliance on income taxes will be exacerbated if the share of indirect taxes (excise and the GST) continues its long-term decline. Dr Parkinson argued this is neither desirable nor sustainable.

These facts lead to the conclusion that Australia's personal income tax system already has a relatively high economic cost, and the broader imposition of higher marginal rates via bracket creep will increase this cost further by discouraging work, saving and investment.

Impact of bracket creep on the budget

Weaker budget discipline

Bracket creep makes it easier for governments to increase taxation in a non-transparent way either to finance higher government spending or to reduce a deficit. With tax revenue growing faster than income growth, bracket creep facilitates growth of expenditure and makes it easier for governments to avoid the hard task of expenditure restraint.

Without bracket creep, governments would need to apply tighter curbs to spending (CIS' preferred approach) or turn to alternative and perhaps less inefficient revenue sources.

As noted in Box 3 above, the additional revenue from bracket creep is substantial, with personal taxes $16.7 billion higher in 2018–19 due to bracket creep since 2012–13, with a cumulative increase in tax of $50.9 billion over the six years. This is a substantial contributor to growth in total tax revenue, with the tax-to-GDP ratio forecast to grow strongly and reach levels well above historical averages.[61] This tax increase is providing substantial funding for higher spending. Therefore, bracket creep is supporting the lack of spending discipline.

Two arguments are sometimes used against indexation of tax thresholds to address bracket creep:

- Indexation reduces the government's "Budget flexibility to respond to changed economic circumstances".[62] The Henry Tax Review's Consultation Paper mounted a similar argument.[63]
- Bracket creep should be used to help reduce chronic budget deficits.[64]

These views are misguided, as they ignore the substantial costs of bracket creep noted elsewhere in this paper. Budget flexibility or repair are not appropriate reasons for a regressive tax increase that causes an increase in marginal tax rates for 2.5 million Australians.

In addition, the same results (flexibility and budget repair) could be achieved with greater transparency through explicit tax increases or, preferably, expenditure cuts. Moreover, the contribution of bracket creep to flexibility and budget repair is illusory to the extent that bracket creep is used for higher government spending. And this is in fact what is happening now. The tax-to-GDP ratio is around historical averages, and set to go well above this ratio (see above). Therefore, it is clear that most, if not all, of the deficit is due to spending increases rather than a revenue shortfall, and bracket creep is (partly) funding this spending. Similarly, the lack of budget flexibility at the moment is due to spending increases.

If Governments wish to have budget flexibility or reduce deficits, they should preferably explore spending restraint, rather than using the inefficient and inequitable tax increase through bracket creep.

Consistent budget treatment of inflation

Indexation is common in government budgeting. In fact, not indexing personal tax brackets is glaringly inconsistent with the current practice of indexing fuel and alcohol excise duties for inflation, and indexing tobacco excise to wages growth.[65] Excise indexation is designed to ensure that real revenue doesn't fall due to inflation, while income tax bracket creep acts to *increase* the real value of revenue.

In effect, the government is saying to the taxpayer: "heads you lose, tails I win."

There are many other areas where inflation impacts on income tax. For example, inflation increases the effective rate of tax on interest income and the effective deduction for interest expenses. These impacts offset to some extent. In addition, inflation increases the effective tax on capital gains and reduces the effect of depreciation allowances. These impacts are (partly or fully) addressed by the reduced taxes of capital gains, and accelerated depreciation (expensing) for assets. However, these issues are beyond the scope of this paper.

Inflation affects other federal taxes, such as the GST and company tax, as discussed in Box 2 above, which all act to cause revenue to increase as a share of GDP. However, the relative size of the personal tax take, and the significant progressivity of the income tax system, means it is likely that the inflationary effects are small for taxes other than personal tax.

The combination of these above factors, particularly bracket creep, means that total revenue grows faster than inflation, and the tax-to-GDP ratio increases, if nothing is done. This is in fact what is currently occurring, and forecast to occur in coming years.[66]

On the spending side, there are a variety of approaches but in very general terms, government payments per person or per service are usually indexed to a measure of cost, price or wages.[67]

A conclusion of the above discussion is that indexation is found in most areas of government taxation and spending — and the largest exception is personal taxes, which seem excluded for largely political reasons. It therefore cannot be argued that personal taxes are just one of many parts of the budget that aren't adjusted for inflation. In any case, failure to address inflation/wages growth in any other area of the budget is a poor reason for failing to act on bracket creep.

Consistency with long term forecasts

The government assumes in its long term forecasts that bracket creep will be dealt with. The Intergenerational Report assumes that the tax-to-GDP ratio will increase from the current value of 22.3% (in 2015–16) to reach 23.9% in 2020-21, largely due to bracket creep,[68] and then tax cuts will be provided each year to maintain the tax-to-GDP ratio at this level.

Providing legislated indexation of tax thresholds would be one way this assumption could be delivered. However, it would not be appropriate to wait for the tax-to-GDP ratio to reach 23.9% before this is done: the tax-to-GDP ratio is currently around its long run average (of around 22.3%) and there is no need for it to go above this average.[69] Expenditure restraint should be the first call to close the budget deficit

Impact on fiscal stabilisation

It is argued that bracket creep may assist the budget with stabilisation of the economy.[70] When the economy is booming, tax revenues increase quickly, cooling the economy; and taxes rise more slowly when economic growth is sluggish — bracket creep even delivers an effective tax cut if there is deflation. These automatic stabilisers are often considered to be a desirable feature of budgets as they automatically reduce the scale of the business cycle and avoid some of the disadvantages of discretionary fiscal stabilisation policies, such as implementation lags. Indexation would, at the margin, weaken the automatic stabilisers.

However, automatic stabilisers still work without bracket creep, as the government budget balance is still counter-cyclical. In particular, unemployment benefits grow strongly in a downturn, and tax receipts grow naturally in an upturn because of increased employment.

In addition, some research indicates[71] that bracket creep can operate in exactly the opposite direction: it can drive increases in inflation if workers and their unions push for higher wages to compensate for the tax increase caused by bracket creep. This would lead to an overheating economy becoming even more overheated. Ultimately, however, the sustainability of inflation driven by higher costs depends on monetary policy accommodation.

But more importantly, the benefits of fiscal stabilisers are greatly overstated. The impact of the government budget balance on the whole economy is muted in an economy such as Australia with a floating dollar and an open capital market, meaning that automatic fiscal stabilisers also have a limited impact.[72] In addition, there are better approaches to deal with an overheating economy than to rely on bracket creep — in particular it is better to increase the supply of labour and capital and open the economy up to competition.

Government accountability and transparency

Bracket creep results in taxpayers facing an increase in tax rates due to inflation and real wages growth with no action from governments. This feature has earned it the popular label of a 'stealth tax',[73] a term endorsed by the former Treasurer Joe Hockey in a recent speech.[74] The increase takes the form of an increase in effective rather than statutory (or 'headline') tax rates. If legislators had to pass legislation to achieve the same revenue increase, it is likely that they would think twice about doing so.

The attraction of an automatic increase in revenue is political in that it comes without the attention and difficulty of legislation. Moreover, tax increases may be difficult to pass in the Federal Parliament, in which the government usually lacks an upper house majority. By

Box 4: Example of an illusory tax trade-off in New Zealand

The experience of New Zealand should make Australia wary of using a tax trade-off that uses an increase in the GST to pay for a refund of bracket creep, or indeed for any income tax cut.

The end result could be a higher GST and no net reduction in income tax.

In New Zealand, the introduction of the GST at 10% in 1986 accompanied a halving of the top personal income tax rate to 33%. Subsequently the GST was lifted to 12.5% and the top rate to 39%. The current government then lifted the GST further to 15% as a trade-off for restoring the top rate to 33%. The result is that the 33% rate has been paid for twice: once by the introduction of the GST, and again by increasing it to 15%.

Although the context is different, a similar result could well happen in Australia: an increase in the GST could be used to pay for tax cuts to fix bracket creep that has already occurred; the tax cut merely returns personal taxes to their original level, but the GST is permanently higher.

This would be just a disguised tax increase.

Taxpayers should be very wary of this scenario occurring. The budgetary cost of correcting bracket creep should not be accepted as a reason for raising the GST.

contrast, the parliament is not an obstacle to bracket creep, because bracket creep results from legislative *in*action.

Bracket creep detracts from transparency, which is a healthy feature of a democracy. Individual taxpayers may not notice the effect of bracket creep on their own tax payments because it happens without publicity and the cost per year is small,[75] although the cumulative impact is much larger as shown in the modelling results above. As a result, it promotes the illusion that taxes are lower than they actually are.

The additional revenue from bracket creep can also facilitate deceptive tax trade-offs. For example, after a period of bracket creep, a government may announce cuts in income tax in exchange for an increase in indirect tax — when in fact the income tax cuts are merely returning the proceeds of bracket creep. This process operated in New Zealand, see Box 4. This point has special relevance right now, as an income tax/GST trade-off is one of the tax reform options under discussion.

Even if there isn't a trade-off with increases in other taxes, bracket creep still works against transparency. Governments have managed bracket creep through periodic discretionary tax cuts. These tax 'cuts' are a fiscal illusion; they have often been nothing more than handing back the proceeds of cumulative bracket creep that would never have occurred in the first place had thresholds been appropriately indexed.

Similarly, politicians see a political advantage in bracket creep in that they prefer making specific announcements of large, discrete tax cuts instead of allowing smaller, annual, automatic cuts that would result from annual indexation.

Automatic indexation does not rule out discretionary tax changes, either up or down. It creates a more meaningful and transparent starting point for such discretionary adjustments and makes it clear that the adjustments are either genuine tax increases or tax cuts.

Bracket creep in a low inflation environment

Bracket creep was a more significant issue in a period of high inflation, such as the 1970s and 1980s. It has had a smaller impact in the low inflation era that has prevailed since.

However, the harmful effects of bracket creep still occur at low inflation — it just takes longer for them to cumulate. The modelling results (see above) show substantial impacts of bracket creep, even in Australia's current low inflation environment. In addition, bracket creep is also caused by real wages growth, which can occur regardless of inflation (see Box 1 above).

While low inflation reduces the cost to taxpayers of bracket creep, it also means the costs to the budget of dealing with bracket creep are lower: it is more feasible to deliver relief from bracket creep.

In addition, if the costs of a policy change have declined, then this is not a valid argument against making the change.

Solutions to bracket creep

Personal income tax bracket creep could easily be stopped by applying the same automatic indexation that governments have eagerly applied to excise and pensions.[76] In the case of personal income tax, it is not the tax rates that are indexed but the thresholds where these rates start.

Indexation of tax thresholds to inflation would deal with a substantial part of bracket creep, but not all of it—real bracket creep would not be addressed. Taxpayers would still face tax increases if they receive any real wage increase, which would cause numerous problems as noted in Box 1 above, including:

- an ever increasing tax-to-GDP ratio;
- tax increases for people receiving a below average wage increase; and
- the imposition of a regressive and inequitable tax increase will still occur.

As a consequence, bracket creep is only being fully addressed if tax thresholds are indexed to growth in income or wages. If this occurs, taxpayers who receive an average real wage increase will still be required to share this with the government; they just won't be forced to share *more than a proportionate* amount with government. The tax rate will go up for those receiving an above average wage increase, and will go down for those earning a below average wage increase. This is a fairer approach, closer to the intent of a progressive income tax system.

Nevertheless, indexation to inflation is better than no indexation at all.

Ideally, tax thresholds should be indexed to growth in taxable income. However, there is no timely index for growth in this measure. Growth in average wages would serve as a reasonable proxy, and has been used in the modelling in this paper. Other options for indexation include growth in nominal GDP or nominal national income. The benefit of these indexation factors is that they would deal with bracket creep that occurs if taxable income grows more quickly than real wages—and modelling for this paper indicates that this is currently occurring.[77] Of course, there is scope for governments to use discretionary tax adjustments to deal with taxable income growing faster than wages, but there are many disadvantages with a discretionary approach, as noted below.

Whatever the chosen index is, it should be clearly specified, published by an independent authority such as the Australian Bureau of Statistics, and not subject to government adjustment or discretion, as supported by the historical Australian evidence and the international evidence explored below.

The extent of bracket creep will also be reduced if marginal tax rates are lower, since bracket creep has a greater impact when average tax rates increase more quickly[78]—and the way to limit this increase is to have lower marginal tax rates. The CIS has long advocated lower marginal tax rates, noting that the distortions and inefficiencies from the tax system are smaller if marginal rates are reduced.[79]

Australian and international experience with indexation of tax thresholds

There is substantial Australian and overseas experience with indexation of tax thresholds.

In Australia,[80] tax thresholds were indexed in the 1970s, but the government made numerous and arbitrary adjustments to indexation, removing at times the impact of:

- increases in indirect taxes;
- a devaluation of the Australian dollar in November 1976;
- changes in health insurance arrangements; and
- world parity pricing for domestic oil production.

As was noted at the time, "If this argument for adjustment to the index is accepted, it is difficult to know where to stop."[81] In 1978, indexation was arbitrarily halved. It was subsequently suspended in 1979, and a half-indexation adjustment was made in 1980. The government declared that the 1980 adjustment would be the last. Over the five years when indexation was applied in some form, the cumulative indexation adjustment was less than half the increase in both the consumer price index and average weekly earnings.

The OECD noted[82] that the following countries had indexation of tax thresholds in 2008:

- Belgium
- Canada
- Denmark
- Finland
- France
- Hungary
- Iceland
- Mexico (partly)
- Netherlands
- Norway
- Portugal
- Slovak Republic
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

Several countries with indexation have suspended or reduced the adjustment for several years, including Denmark from 2011 to 2013;[83] Sweden from 1995 to 1998;[84] France in 2011 and 2013;[85] and the Netherlands in 2013.[86]

The lesson is that if indexation is introduced in Australia again, the legislation should specify an independently generated indexation factor and not allow any discretionary adjustment by the government.

Implementation

Automatic indexation could be implemented by legislation requiring all thresholds to be increased on 1 July each year in line with the increase in the relevant indexation factor over the preceding 12 months for which data are available (most likely the year to the March quarter). The indexed thresholds would continue to apply unless Parliament explicitly passes legislation to change the thresholds.

Governments may have a desire for tax thresholds to be round amounts (eg $60,000 rather than $59,872). If so, thresholds could be left at rounded values and then adjusted when the relevant indexation factor has moved the threshold to the next rounded value. In the United States, some tax thresholds are rounded in various ways, including to the nearest $500,[87] while in the United Kingdom, some figures — such as the equivalent of the tax free threshold — are rounded to the nearest £10 while others are rounded to the nearest £100.[88]

Alternatively, employers may wish to have indexation adjustments occur less frequently than every year, in order to avoid the administrative cost of making small adjustments to wage deductions. If so, then indexation of scales could occur only after the cumulative increase in the chosen index exceeds a certain threshold, such as 5%.

Indexation could never be permanently entrenched because today's parliament cannot bind future parliaments, which are free to amend or repeal the relevant legislation. What can be said is that indexation requires a strong commitment from the outset and preferably bipartisanship. Once started, the longer the practice continues the more entrenched it will become and politically the more difficult to jettison. In today's parliamentary circumstances, if indexation were introduced it would be more difficult for any government to gain Senate approval for amendment or repeal.

Indexation of thresholds for offsets and levies (such as the Medicare Levy) should be implemented at the same time as indexation of the thresholds of the overall tax system.

Alternative approaches to indexation

There are a couple of alternative approaches to indexation of thresholds which are worth exploring.

KPMG has proposed[89] that tax thresholds be set at a fixed proportion of average yearly earnings. The thresholds would be adjusted every year in line with the movements in average earnings, so thresholds would increase at the same rate as the approach discussed above. This could be a simpler approach to explain and understand, as the thresholds would be a round percentage of average earnings rather than an arbitrary percentage. So for example, the $37,000 threshold is estimated to be 61.5% of average earnings in 2015–16 and 59.7% in 2016–17; this could be replaced by a threshold which is a constant 60% or 65% of average earnings in all years.

In 2007, former Treasurer Peter Costello announced[90] a long run goal for the tax system to have particular percentages of taxpayers facing each marginal tax rate: for example 45% of taxpayers would face a marginal tax rate of 15% or less, and 98% would face a marginal rate of 35% or less. Based on this approach, tax thresholds could be automatically adjusted each year so that the proportion of taxpayers at each tax rate would meet this target. This approach would be more affected by changes in income distribution and migration of high income earners than other methods, and as a result might have less certainty about its operation. It might also be less easy to understand than adjustments based on wage movements.

Why not continue with current approach using discretionary tax cuts?

While discretionary adjustments to tax thresholds *can* deliver the same effects as indexation, this doesn't mean that they *will* deliver these effects.

There are many reasons a discretionary approach doesn't work, as highlighted earlier in this paper:

- The current experience is that discretionary adjustments aren't delivering a return of bracket creep, which has cost taxpayers at least $6.4 billion so far, and will deliver a cumulative tax increase of $50.9 billion by 2018–19 if nothing is done. If discretionary tax cuts are so good, why haven't they worked in the last few years?
- Similarly, governments can misuse the 'flexibility' given by a discretionary approach to permit taxes to increase, with the resultant costs to efficiency and equity.
- Discretionary tax changes permit governments to weaken their approach to budget discipline.
- A lack of automatic indexation reduces transparency.
- A discretionary approach will facilitate illusory tax trade-offs, where a tax increase is used to pay for the return of bracket creep: this is just a disguised tax increase.

It is inconsistent with the automatic indexation of many taxes (such as excise) and expenditure items to costs, inflation or wages. If personal tax thresholds should only be increased in a discretionary way, why shouldn't excises and pensions?

Conclusion

Bracket creep is a tax increase that affects all taxpayers in Australia — and it hits low and middle income earners the hardest.

Bracket creep is more severe when inflation and real wages growth is higher. While both inflation and wages growth are currently low, bracket creep is still having a significant impact, and that impact is growing every year. The estimated impact of bracket creep in three years' time (2018-19) includes a reduction in take home pay by the equivalent of a year's pay increase, and 2.5 million people facing (often large) increases in marginal tax rates. The total tax increase in 2018-19 is estimated to be $16.7 billion, and the cumulative cost of bracket creep by then is forecast to be $50.9 billion.

There is very little to be said in favour of bracket creep. It is not helping to plug a revenue gap; instead it is being used to finance increased spending — when there are clear benefits for spending restraint to be used to return the budget to balance. The evidence to date is that governments misuse the flexibility given them by bracket creep to use this as a stealth tax increase. In addition, bracket creep allows governments to provide illusory tax cuts that are merely a refund of overpaid tax.

Bracket creep is also a clearly inferior way to stabilise the economy; there are much better ways to help, including opening the economy up to competition.

All the supposed benefits of bracket creep ignore its harmful effects, including reducing employment, innovation, productivity and economic growth. They also ignore the disproportionate harm bracket creep causes for low and middle income earners.

The indexation of tax thresholds will address this issue. Tax thresholds should be indexed to a measure of income growth, or set at a particular proportion of average wages. This will stop bracket creep and its harmful effects on the economy and society.

Attachment A: Details of Modelling

The modelling in this paper is based on the ATO's 2% confidentialised unit record file for 2012–13. Appropriate uplift factors were used to generate figures for later years.

The modelling is for indexation of personal tax thresholds only. Rebates are not indexed and the thresholds for the Medicare Levy are not indexed.

Tax thresholds are indexed to forecast growth in average wages, based on CIS modelling and the figures in the Federal Budget. Average earnings were used because this is the approach used in most other modelling.[91] The Budget forecasts are used for inflation and the ABS forecasts (series B) are used for population growth.

The CIS also conducted modelling on indexation of tax thresholds to the Wage Price Index (WPI) as forecast in the Federal Budget. Under this benchmark, the extra revenue from bracket creep is $16.4 billion in 2018–19, similar to the results used in this paper of $16.7 billion (a 1.4% difference). The distributional impacts are also very similar.

In addition, modelling was also done on indexation of the Medicare Levy thresholds: this has a small impact on the overall results, changing the estimated extra revenue from bracket creep in 2018–19 from $16.7 billion to $16.8 billion, a 0.8% increase. The distributional impacts are almost identical, except that there is a somewhat larger impact in the 20% and 30% deciles, which are the income levels where the Medicare Levy is phased in (and hence the incomes where indexation would impact).

Attachment B: Analysis of differences in modelling of impact of bracket creep on the Budget

The Parliamentary Budget Office (PBO) has forecast[92] that half the increase in the ratio of tax-to-GDP over the period 2014–15 to 2025-26 will be due to increases in personal taxes, and this increase is largely due to bracket creep. The PBO's conclusions are consistent with CIS's results (which are over a different period).

To allow comparison with other modelling results, the CIS estimated bracket creep revenue over the four years from 2014–15. The results are that bracket creep will contribute to nearly 60% of the increase in personal tax revenue and 31% of the improvement in the Budget over this four year period. These percentages are similar to the results for the six years from 2012–13 in Box 3.

The Grattan Institute estimated[93] that fiscal drag would cause around 74% of the improvement in the Budget deficit from 2014–15 to 2018–19, significantly above the CIS estimate of 31%. The difference is because the Grattan Institute estimate includes in fiscal drag all factors that cause personal tax to grow faster than GDP, not just wages growth. In particular, the Grattan Institute results include the impact of (faster) growth in non-wage income in fiscal drag, whereas the CIS results do not. Bracket creep is usually used more narrowly to only include tax increases caused by wage growth, not growth in non-wage income. Fiscal drag can refer to the broader reasons for tax increases.

The Leader of the Opposition has argued that bracket creep is driving 80% of the increase in tax revenue.[94] The source of this figure isn't clear, and neither is the period it covers, so a comparison with the CIS modelling cannot be made. The Leader of the Opposition may have been basing this on a media report stating "Treasury tax officials confirmed that about 80 per cent of the rise in revenue outlined in the budget will come from so-called bracket creep."[95]

However, at Senate Estimates, the Treasury argued the 80% figure is "not even close", arguing instead that bracket creep is causing a third to a half of the increase in the tax-to-GDP ratio.[96] This is consistent with the CIS modelling results of 47%.

Deloitte Australia argues that only 10% of the increase in tax revenue over the next four years is due to bracket creep.[97] This result is substantially lower than the figures used by the CIS, Grattan Institute and the Leader of the Opposition (and the broad statements of the PBO).

The Deloitte argument is quite misleading. Bracket creep is indeed around 10% of the *total dollar* increase in tax revenue of $235 billion over the next four years. But the Deloitte argument looks at increases in dollar terms, not increases in tax as a proportion of the economy. This means their analysis includes the impact of economic growth, inflation and population growth in the base.

To illustrate the problems with this approach, let us say for example that bracket creep causes taxes per person to go up by 10%, while the taxpayer population grows by 100% (perhaps due to migration), and there are no other increases in total tax revenue. In this simple example, revenue goes up by about 110%, and only 9% of the *total* revenue increase is due to bracket creep. But the revenue increase *per person* is fully (100%) due to bracket creep. It is incorrect to attribute only 9% of revenue growth to bracket creep, but it is the figure that would be generated by the Deloitte analysis.

Endnotes

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27 By comparison in 1991-92, the earliest year for which comparable data are available, the figure was $0.9 billion.

28 When the tax free threshold was substantially increased, other thresholds were left unchanged, and two marginal tax rates were increased. Source: ATO Taxation Statistics, Detailed Tables, Table 1.

29 The 2015–16 Budget forecasts wages growth to be 2.5 per cent in 2015–16, measured using the wage price index, but forecasts growth to accelerate to 3.25 per cent in 2018–19.

30 Based on forecast GST revenue in 2018–19 of $68,520m, converted into a percentage point increase in the GST.

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