THE STEALTH TAX

Exposing the bracket creep rip-off.

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.

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.

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%.

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.

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

Robert Carling is a Senior Fellow at the Centre for Independent Studies. Robert is researching and writing about fiscal policy, taxation and federalism. In addition to working on TARGET30 papers Robert has recently written reports called *Shrink Taxation by Shrinking Government! and States of Debt*. Prior to joining the CIS, Robert was Executive Director, Economic and Fiscal at the New South Wales Treasury from 1998 to 2006. Previous positions have been with Commonwealth Treasury, the World Bank and the International Monetary Fund.

Michael Potter is a Research Fellow at the Centre for Independent Studies. Michael has worked for the Parliamentary Budget Office, the Federal Departments of Treasury, Environment and Prime Minister & Cabinet (where he advised then Prime Minister John Howard on the introduction of the GST). He has also worked as Policy Manager, Economics at the National Farmers' Federation, and Director, Economics and Taxation at the Australian Chamber of Commerce and Industry.

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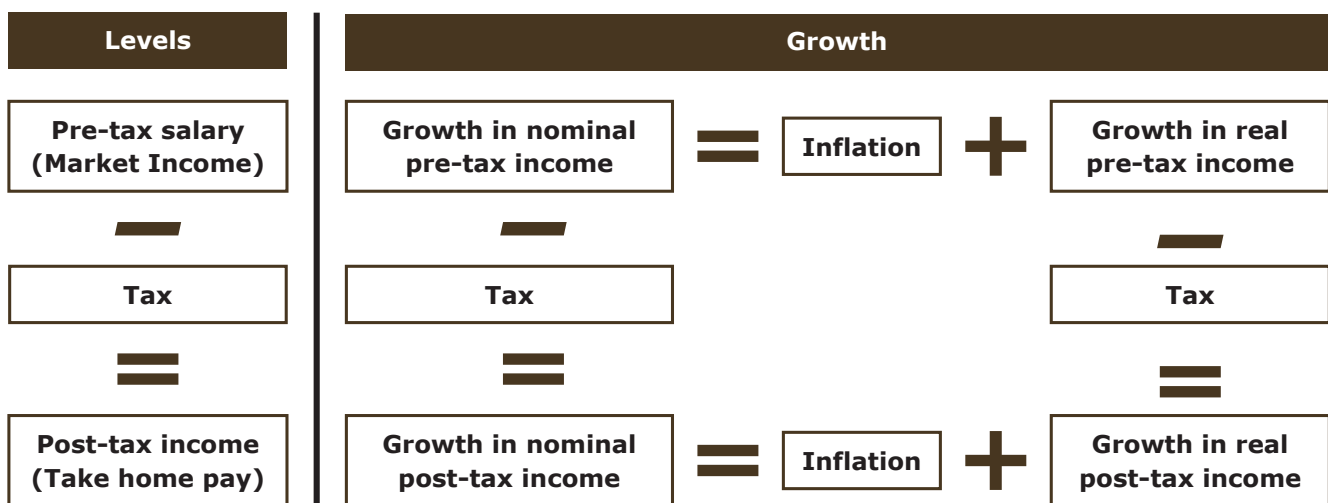
As an example of real bracket creep, assume a taxpayer earns $40,000 in 2015–16, so they pay tax of $5,347 that year (as in the previous example).

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.

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.

Levels	Growth

Pre-tax salary (Market Income)	Growth in nominal pre-tax income	=	Inflation	+	Growth in real pre-tax income
−	−				−
Tax	Tax				Tax
=	=				=
Post-tax income (Take home pay)	Growth in nominal post-tax income	=	Inflation	+	Growth in real post-tax income

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.[1] Details of the modelling are available on the CIS website. 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 $1,100 per year paid in extra tax, or $21 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.[2]

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%.[3] If the GST were increased to 15% with no personal tax cuts, as some are proposing,[4] 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.

Impact of inflation and wages growth

Tax increase due to bracket creep can be broken up into two components: the tax increase due to inflation, and the tax increase due to real wages growth. Currently, growth in real wages is slow.[5] As a result, real wages growth is not causing substantial bracket creep. Instead, most of the impact of bracket creep is due to inflation.

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.[6]

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.
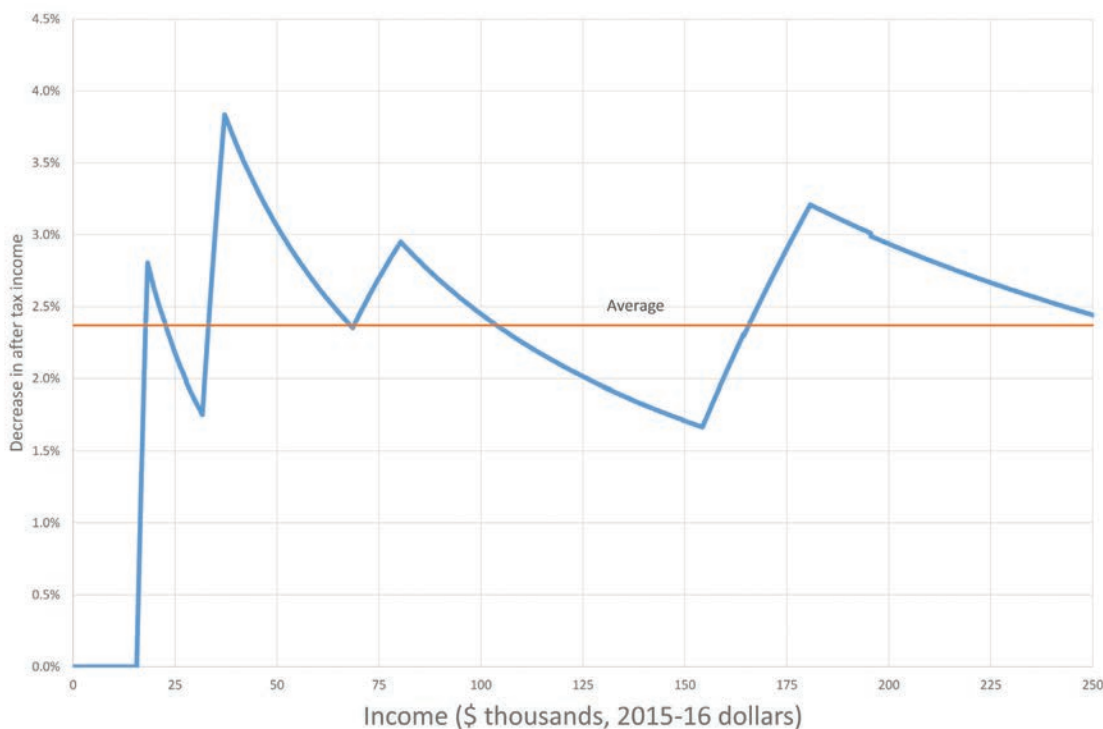
Impact on after tax income

The impact of bracket creep on after-tax income (or take home pay) differs across income deciles. 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 2: Reduction in after tax income in 2018–19 due to bracket creep (from base year of 2012–13)

Source: CIS modelling

The greatest impact is for taxpayers earning $37,159 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 'spikes' in Figure 2 above 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.

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 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 attributable to bracket creep.

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.

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 3. 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 Figure 3 shows that this has already cost Australian taxpayers $6.4 billion cumulatively to June 2015. Bracket creep is therefore a substantial contributor to increases in total tax revenue and personal tax revenue.

Figure 3: Extra tax revenue from bracket creep
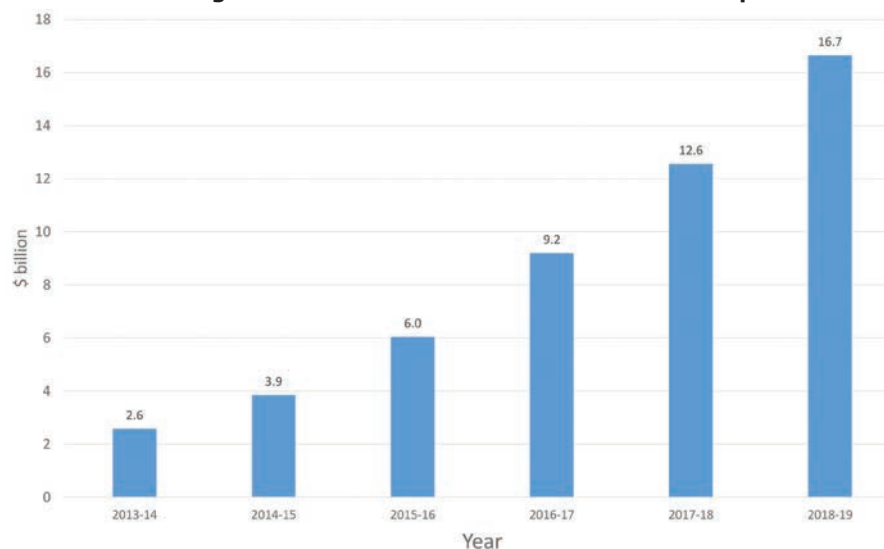
Source: CIS modelling. Note: bracket creep is relative to base year of 2012–13

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.

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.[7] This tax increase is providing substantial funding for higher spending. Therefore, bracket creep is supporting the lack of spending discipline.

> Without bracket creep, governments would need to apply tighter curbs to spending or turn to alternative and perhaps less inefficient revenue sources.

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".[8] The Henry Tax Review's Consultation Paper mounted a similar argument.[9]
- Bracket creep should be used to help reduce chronic budget deficits.[10]

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 also 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.[11] 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, 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.[12]

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.[13]

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,[14] 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.[15] 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.[16] 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[17] 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.

> Bracket creep results in taxpayers facing an increase in tax rates.

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.[18] 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',[19] a

term endorsed by the former Treasurer Joe Hockey in a recent speech.[20] 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 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,[21] although the cumulative impact is much larger as shown in the modelling results. 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 point has special relevance right now, as an income tax/GST trade-off is one of the tax reform options under discussion.

> Ideally, tax thresholds should be indexed to growth in taxable income.

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.

Solutions to bracket creep

Personal income tax bracket creep could very easily be stopped by applying the same automatic indexation that governments have eagerly applied to excise and pensions.[22] 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 including:

- an ever increasing tax-to-GDP ratio;
- tax increases for people receiving a below average wage increase; and
- the regressive and inequitable effects of bracket creep 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.[23] 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.

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 — 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.[24]

Australian and international experience with indexation of tax thresholds

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

In Australia,[25] 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."[26] 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[27] 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

> Whatever the chosen index is, it should be clearly specified.

Several countries with indexation have suspended or reduced the adjustment for several years, including Denmark from 2011 to 2013;[28] Sweden from 1995 to 1998;[29] France in 2011 and 2013;[30] and the Netherlands in 2013.[31]

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,[32] 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.[33]

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.

Endnotes

1   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.

2   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.

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

4   The Premier of South Australia, Jay Weatherill, has indicated support for an increase in the GST as long as funds aren't used to pay for tax cuts. See: Whyte, S 2015, 'GST rise: South Australian Premier Jay Weatherill backs increase - with one big condition', Sydney Morning Herald, 21 July.

5   The 2015–16 Budget forecasts real wages growth to be 0% in 2015–16 and 0.25% in 2016–17 and 2017–18.

6   The inflation component was based on modelling of indexation of tax thresholds to inflation (the CPI), and the real wage component is the residual.

7   Potter, M 2015, 'No, Australia does not have a tax revenue problem', ABC the Drum, 28 September

8   'The tax bite', 1981, Sydney Morning Herald, 7 May, page 4.

9   Henry, K et al 2008, Australia's future tax system Consultation paper, December, page 86

10 This is argued in Toohey, B 2015, 'Joe Hockey will not gain from ending bracket creep', Australian Financial Review, 1 September.

11 See https://www.ato.gov.au/Business/Excise-and-excise-equivalent-goods/Excise/Excise-rates/

12 Potter, M 2015, 'No, Australia does not have a tax revenue problem', ABC The Drum, 28 September

13 See Hockey, J 2015, Intergenerational Report: Australia in 2055, and Parliamentary Budget Office 2015, 2015–16 Budget: medium-term projections, Report 02/2015.

14 See Hockey, J 2015, Intergenerational Report: Australia in 2055, page xviii.

15 See: Potter, M 2015, 'No, Australia does not have a tax revenue problem', ABC The Drum, 28 September.

16 See for example: Tax Policy Centre 2008, Economic Stimulus: How to automatic stabilizers work?, The Tax Policy Briefing Book.
    Auerbach, A & Feenberg, D 2000, 'The Significance of Federal Taxes as Automatic Stabilizers', NBER Working Paper 7662, April; and
    Henry, K et al 2008, Australia's future tax system Consultation paper, December, page 86

17 Immervoll, H 2006, 'Fiscal Drag – An Automatic Stabiliser?', in Olivier Bargain (ed.) Micro-Simulation in Action (Research in Labor Economics, Volume 25) Emerald Group Publishing Limited, pp.141 - 163

18 See: Sumner, S, 2014, 'Why the Fiscal Multiplier is Roughly Zero', Policy Magazine, 30(2).
and Carling, R 2009, Are we all Keynesians again?, CIS Issue Analysis 106.

19 See for example:
Hodgson, H 2015, 'Taxation by stealth: bracket creep and the budget', The Conversation, 14 May.
Moss, D 2015, 'The sneaky trick being used to tax you more', The New Daly, 17 May.
ABC FactCheck 2015, Fact file: How much extra tax are Australians expected to pay because of bracket creep?, 26 June.

20 Hockey, J 2015, The economic case for personal income tax cuts, Address to the Tax Institute and Chartered Accountants Australia and New Zealand, 24 August.

21 This is argued in Toohey, B 2015, 'Joe Hockey will not gain from ending bracket creep', Australian Financial Review, 1 September.

22 See https://www.ato.gov.au/Business/Excise-and-excise-equivalent-goods/Excise/Excise-rates/

23 Under the CIS modelling, the average personal tax rate still increases even if thresholds are indexed to wage growth, and taxpayers still move into higher tax brackets (see Figure 5).

24 See for example Chipman, L 2004, The very idea of a flat tax, CIS Policy Monograph 66 and Humphreys, J 2005 Reform 30/30: Rebuilding Australia's Tax and Welfare Systems, CIS Policy Monograph 70.

25 This account is drawn from Morgan, D 1983, Personal Income Tax Indexation: The Australian Experience, Ch. 5 of 'Taxation Issues of the 1980s', John Head (ed), Australian Tax Research Foundation, Sydney.
Ibid.

26 Ibid.

27 OECD 2008, Taxing Wages 2006-70, Special Feature: Tax Reforms and Tax Burdens 2000-2006, page 53.

28 IMF 2010, Article IV Consultation Staff Report.
See also Danish Ministry of Taxation 2009, Danish Tax Reform 2010, Paper to the OECD WP 2 meeting November 2009.

29 OECD 2001, Economic Surveys: Sweden, page 105.

30 Institute for Public Policy 2014, 1914-2014: One Hundred Years of Income Tax in France IPP Policy Brief No 12, page 3.

31 See: http://ec.europa.eu/economy_finance/indicators/economic_reforms/taxation_reforms_database/

32 See: US Internal Revenue Service 2014, 'IRS Announces 2015 Pension Plan Limitations; Taxpayers May Contribute up to $18,000 to their 401(k) plans in 2015', October 23.

33 This section is taken from Pope, T & Roantree, B 2014, A Survey of the UK Tax System, page 9.
See also Gutierrez, R, Immervoll, H and Sutherland, H 2005, How European Union Member States adjust tax and benefit systems for inflation, EUROMOD.