Economic and Fiscal Effects of Rising Average Tax Rates

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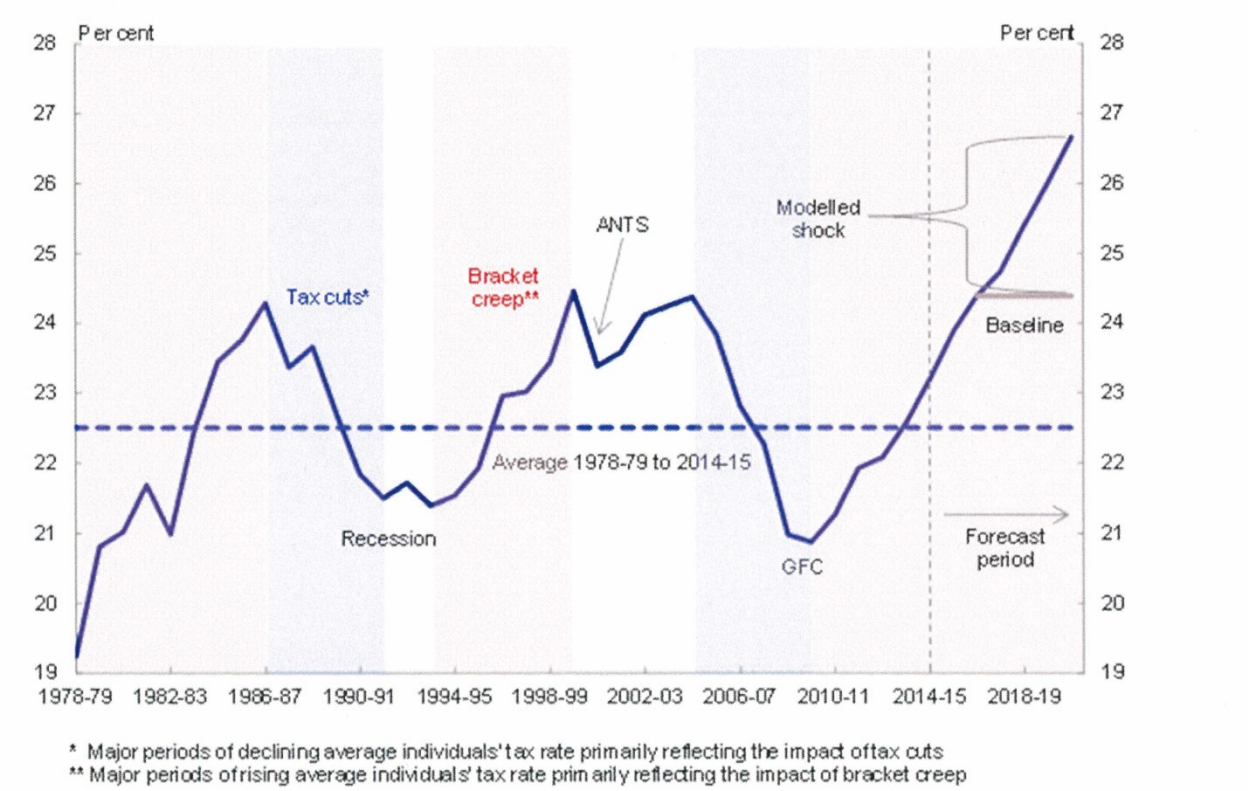
- By the end of the forward estimates, around half of the fiscal consolidation relies on increases in average tax rates due to the non-indexation of the tax scales.
- Individuals pay a higher fraction of their income in tax because incomes rise over time due to price inflation and increases in productivity. As such, the average personal income tax rate is forecast to be 24.4 per cent in 2016-17, before rising to 26.6 per cent by 2020-21.
    - Indexing the personal income tax thresholds to CPI removes the effect of inflation. However, average tax rates still continue to rise due to wage increases over time as a result of productivity gains.
    - Indexing the thresholds to average taxable income removes the effect of inflation and productivity. This leads to an unchanged average tax rate over time and does not change the progressivity of the tax system.
- Treasury has modelled the economic cost of allowing average tax rates to rise over this period. This modelling indicates that achieving a deficit reduction through an increase in average tax rate, relative to a strategy of maintaining a constant average tax rate and cutting government spending, leads to a 0.35 per cent contraction in GDP in the long term.
    - The long term economic cost of the increase in average tax rates (0.55 per cent of GDP) is only partly offset by the lift in economic activity from government spending (0.2 per cent of GDP).
    - Government spending has broader objectives than lifting economic activity. For example, providing an appropriate level of public services such as healthcare has a positive effect on living standards and this is not captured in the modelling.
- Such modelling is indicative at best and care should be taken with its use. This is not an alternative benchmark for the estimates of economic effects of a tax mix switch provided last week. But it does illustrate the economic cost of relying on bracket creep, rather than spending cuts to close the budget deficit.
- The economic cost of rising average tax rates is large (0.55 per cent of GDP) because it creates distortions in all sectors of the economy. The economic distortion from all taxes increases as personal income tax rates rise.

Additional Information

Economic effects of rising average tax rates

Chart 1 shows the average income tax rate for individuals from 1978-79 to 2014-15 and the forecast period. The average rate increases mainly because of bracket creep from rising incomes and decreases (or increases less quickly) because of policy.

Chart 1: Individual's average tax rate



In the baseline, Treasury modelling assumes that average income tax rates are kept constant at 2016-17 levels. The revenue shortfall is matched by a cut in government spending, to leave the budget balance unchanged . The alternative scenario assumes that average tax rates rise to its projected level in 2020-21.

Table 1: Treasury estimates – economy-wide effects of rising average tax rates

Policy	Indicative GDP impact (% deviation)
Increase personal income tax between 2016-17 and rate from 24.4% to 26.6%).	**-0.55**
Increase government spending using net revenue raised from rising	**0.2**
Total	**-0.35**

Alternative methods of measuring bracket creep

- There are different understandings of the concept of bracket creep. Different definitions will produce different estimates of the effect of bracket creep on receipts.

- The term bracket creep is often used in the context of a wage earner receiving a pay rise to compensate for inflation (such that the wage earner's real income is constant but is subject to a higher rate of tax).

    - Based on this approach, in 2018-19 bracket creep would account for around 10 per cent of the increase in total receipts since 2014-15 and 35 per cent of the increase in the ratio of total receipts-to-GDP over the same period.

- However, indexing personal income tax brackets to CPI does not wholly remove bracket creep, as in the long term wages are expected to grow at faster rate than consumer prices due to productivity increases.

    - As a result, indexing thresholds to CPI would still leave most taxpayers facing rising average tax rates over time.

    - To eliminate bracket creep completely , personal income tax thresholds would need to be indexed to average taxable income. Because average taxable income rises in response to both inflation and growth in real incomes, wage earners' average tax rate would remain constant through time.

    - If tax thresholds were indexed to average taxable income, in 2018-19 bracket creep would account for around 15 per cent of the increase in total receipts since 2014-15 and 50 per cent of the increase in the ratio of total receipts-to-GDP over the same period. Bracket creep would total around $37 billion over the period from 2015-16 to 2018-19.

Government spending multiplier

- Treasury modelling implies that, in the long run, a one dollar increase in government spending crowds out 70 cents of private activity. In the model, government spending is assumed to be comprised of government provision of goods and services (such as health and education) and government investment but does not include transfer payments.

- Consistent with international studies, the long-term multiplier estimated by Treasury is smaller than multipliers used to assess the short-term impact of fiscal policy. For example, the OECD estimates multipliers of around 0.6 for the first two years, implying that a one dollar increase in government spending crowds out around 30 to 40 cents of private activity in each of the first two years following the increase.

    - With this higher multiplier, achieving a deficit reduction through an increase in the average tax rate leads to a contraction in GDP of around 0.2 per cent.

    - The long-term multiplier is smaller because, in the long term, the economy operates at full capacity (full employment), hence government spending crowds out private activity. In the short term, there may be excess capacity in the economy and this reduces the crowding out effect.