



Parliament of Australia
Parliamentary Budget Office

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Parliamentary Budget Officer

Senator Richard Di Natale
Leader of the Australian Greens
Parliament House
CANBERRA ACT 2600

Dear Senator Di Natale

Please find attached a response to your costing request, *Tackling Obesity: Sugar sweetened beverages* (letter of 1 July 2016).

The response to this request will be released on the PBO website (www.pbo.gov.au).

If you have any queries about this costing, please contact Colin Brown on (02) 6277 9530.

Yours sincerely

Phil Bowen

/ July 2016



Policy costing—during the caretaker period for the 2016 general election

Name of proposal:	Tackling Obesity: Sugar sweetened beverages
Summary of proposal:	<p>This proposal would apply an excise ('sugar tax') of 20 per cent of the retail value of sugar-sweetened beverages (SSBs) with greater than 5g of sugar per 100ml.</p> <p>The sugar tax would be paid by manufacturers, producers and importers (with an excise-equivalent import duty).</p> <p>The proposal would have effect from 1 September 2016.</p>
Person/party requesting costing:	Senator Richard Di Natale, Australian Greens
Date of public release of policy:	22 June 2016 http://greens.org.au/sugar-tax
Date costing request received:	1 July 2016
Date costing completed:	1 July 2016
Additional information received (including date):	<p>On 1 July 2016 the office of Senator Di Natale confirmed that:</p> <ul style="list-style-type: none">• the proposal would start on 1 September 2016• the definition of SSB would include any water-based, ready-to-drink, and non-alcoholic beverage that contains naturally occurring sugars and/or added caloric sweeteners such as sucrose, corn syrup or fruit juice concentrates<ul style="list-style-type: none">– this definition would include, but is not limited to, soft drinks, mineral water, fruit drinks, sports drinks, energy and vitamin water drinks, sweetened iced tea, and lemonade.
Expiry date for the costing:	Release of the next economic and fiscal outlook report

Costing overview

This proposal would be expected to increase the fiscal balance by \$2,085 million and increase the underlying cash balance by \$2,075 million over the 2016-17 Budget forward estimates period. On a fiscal balance basis, this impact reflects a net increase in revenue of \$2,060 million and a net decrease in expenses of \$25 million.

The fiscal balance impact differs from the underlying cash balance impact because of a lag in when sugar tax receipts would be received compared to the recognition of tax revenue.

This proposal would have an ongoing impact that extends beyond the 2016-17 Budget forward estimates period.

A detailed breakdown of the financial implications of this proposal over the 2016-17 Budget forward estimates period is presented at [Attachment A](#).

Based on an assessment of proposals with a similar degree of administrative complexity, additional departmental expenses have been estimated at \$7 million in each year the sugar tax is in operation, with \$7 million in additional set up expenses in the year of implementation.

This costing is considered to be of low to medium reliability. The estimates are based on Australian Bureau of Statistics (ABS) data, manufacturer and retailer survey data and several assumptions. While the assumed behavioural response is based on academic research, it is uncertain whether this would be representative of the response to a sugar tax of the magnitude proposed.

Table 1: Financial implications (outturn prices)^{(a)(b)}

Impact on (\$m)	2016–17	2017–18	2018–19	2019–20	Total
Fiscal balance	386.0	553.0	563.0	583.0	2,085.0
Underlying cash balance	386.0	543.0	563.0	583.0	2,075.0

(a) A positive number indicates an increase in the relevant budget balance, a negative number a decrease.

(b) Figures may not sum to totals due to rounding.

Key assumptions

The Parliamentary Budget Office (PBO) has made the following assumptions regarding this costing:

General assumptions

- The baseline estimates of the volume of SSBs are based on average daily consumption figures from the ABS Australian Health Survey in 2010-11, grossed up to account for participants underreporting their consumption, and grown in line with long run trends.

- The estimates of SSB prices are based on data on the value of beverages sold and purchased in Australia from various surveys of manufacturers and households.
- The mark-up between the price received by the manufacturer or importer and the retail price paid by the consumer is assumed to be 50 per cent.
- There is assumed to be a one month lag between the manufacture or importation of these beverages and their consumption.
- While the proposal is assumed to result in price increases of the affected beverages, this costing does not take into account any impact on the Consumer Price Index (CPI) or consequential CPI related impacts on transfer payments.

Behavioural response assumptions

- All price impacts from the sugar tax are passed through to the final consumers of SSBs. In response, consumers are assumed to decrease their consumption of SSBs.
 - This response effect largely offsets the increase in the retail price of beverages from the sugar tax, with the result that there is only a small change in the overall value of retail beverage sales and Goods and Services Tax (GST) revenue.
- Manufacturers are assumed to change the sugar content of some SSBs so that they are no longer subject to the sugar tax.
 - It is assumed that the closer a SSB's original average sugar content is to the threshold the more likely a manufacturer is to change the sugar content of a SSB.

Timing

- The sugar tax payments are assumed to be made to the Australian Taxation Office (ATO) weekly and in arrears, similar to alcohol excise payments. On a fiscal balance basis all sugar tax revenue is recognised in the week the tax is levied on the manufacturer or importer. On an underlying cash balance basis sugar tax receipts are recognised when they are collected by the ATO.
- On a fiscal balance basis all GST revenue is recognised in the year the tax is levied on the consumer. The payment of GST to the states and territories is recognised as an expense when GST is received by the Commonwealth.
- On an underlying cash balance basis GST receipts are recognised when they are collected by the ATO. This reflects the fact that GST payments are made to the ATO in arrears, and accounts for the fact that businesses can either remit their GST annually, quarterly, or monthly. In aggregate, it is assumed that a proportion of GST is received in year and the remainder is received in the next year.
- There is assumed to be no delay between the receipt of GST by the Commonwealth and associated payments to states and territories.

Methodology

The revenue impact of the proposal consists of the estimated amount of sugar tax and the estimated change in GST revenue. The impact on receipts was calculated by modifying the revenue impact to reflect timing of sugar tax collections and GST payments.

Sugar tax estimates were rounded to the nearest \$10 million. Impacts on GST were rounded to the nearest \$5 million. Departmental expense amounts were rounded to the nearest \$1 million.

Data sources

- Population Projections as at the 2016 Pre-election Economic and Fiscal Outlook
- ABS Consumer Price Index, Australia, March 2016
- ABS Australians Demographic Statistics, December 2015
- ABS Australian Health Survey: Nutrition First Results - Foods and Nutrients, 2011-12
- ABS Household Expenditure Survey, Australia: Summary of Results, 2009-10
- Retail World, 49th Annual Report - December 2015
- Sharma et al (2014), 'The Effects of Taxing Sugar-Sweetened Beverages Across Different Income Groups', Health Economics
- Capps and Hanselman (2012), 'A Pilot Study of the Market for Energy Drinks', Journal of Food Distribution Research
- Cawley & Frisvold (2015), 'The Incidence of Taxes on Sugar-Sweetened Beverages: The Case of Berkeley, California', National Bureau of Economic Research Working Paper
- 'How much sugar is in ... ?', Rethink Sugary Drink website: www.rethinksugarydrink.org.au/how-much-sugar

Attachment A: Tackling Obesity: Sugar sweetened beverages—financial implications

The following tables include the detailed financial implications for this proposal.

Table A1: Tackling Obesity: Sugar sweetened beverages—Fiscal balance^{(a)(b)}

(\$m)	2016–17	2017–18	2018–19	2019–20	Total to 2019–20
Revenue	390.0	545.0	555.0	570.0	2,060.0
<i>Sugar tax revenue</i>	<i>400.0</i>	<i>560.0</i>	<i>570.0</i>	<i>590.0</i>	2,120.0
<i>GST revenue</i>	<i>-10.0</i>	<i>-15.0</i>	<i>-15.0</i>	<i>-20.0</i>	-60.0
Expense	-4.0	8.0	8.0	13.0	25.0
<i>Administered - GST expense</i>	<i>10.0</i>	<i>15.0</i>	<i>15.0</i>	<i>20.0</i>	60.0
<i>Departmental expenses</i>	<i>-14.0</i>	<i>-7.0</i>	<i>-7.0</i>	<i>-7.0</i>	-35.0
Total	386.0	553.0	563.0	583.0	2,085.0

(a) A positive sign for the fiscal balance indicates an increase in revenue or decrease in expenses or net capital investment in accrual terms. A negative number for the fiscal balance indicates a decrease in revenue or an increase in expenses or net capital investment in accrual terms.

(b) Figures may not sum to totals due to rounding.

Table A2: Tackling Obesity: Sugar sweetened beverages—Underlying cash balance^{(a)(b)}

(\$m)	2016–17	2017–18	2018–19	2019–20	Total to 2019–20
Receipts	390.0	535.0	555.0	570.0	2,050.0
<i>Sugar tax receipts</i>	<i>400.0</i>	<i>550.0</i>	<i>570.0</i>	<i>590.0</i>	2,110.0
<i>GST receipts</i>	<i>-10.0</i>	<i>-15.0</i>	<i>-15.0</i>	<i>-20.0</i>	-60.0
Outlays	-4.0	8.0	8.0	13.0	25.0
<i>Administered - GST outlays</i>	<i>10.0</i>	<i>15.0</i>	<i>15.0</i>	<i>20.0</i>	60.0
<i>Departmental outlays</i>	<i>-14.0</i>	<i>-7.0</i>	<i>-7.0</i>	<i>-7.0</i>	-35.0
Total	386.0	543.0	563.0	583.0	2,075.0

(a) A positive number for the underlying cash balance indicates an increase in receipts or a decrease in outlays or net capital investment in cash terms. A negative number for the fiscal balance indicates a decrease in receipts or an increase in outlays or net capital investment in cash terms.

(b) Figures may not sum to totals due to rounding.