

Item #21

Sugar tax presentation slides

Drafts of presentation slides prepared for cancelled December 2016 ELT discussion of sugar taxes, three versions: 7 December, 9 December, 12 December 2016

Sugar/Soda tax

Discussion with ELT 13 December 2016
Draft outline as at 7/12/16

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Summary

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1. History – why is this issue on the table?

2. Current state of play – policy
3. Current state of play - evidence
4. Emerging evidence and likely future issues

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Advocacy for a sugar tax of some kind probably arises from:

- Genuine desire for concrete action to address rising rates of obesity, diabetes and dental caries
- Introduction of soda / sugar / sugar sweetened beverages taxes in other countries
- Observed role of “tax” (actually a minimum price) in curbing smoking
- ?Attractive as a population-based silver bullet vs the alternative micro behavioural interventions

4

1. History – why is this issue on the table?
2. Current state of play – policy and positions
3. Current state of play - evidence
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5

Current state of play

- NZ Government position is that there is insufficient evidence that a tax will work to curb obesity, awaiting the outcome of robust research re the impact in Mexico
- New Zealand Medical Association and senior public health professionals – support
- Professor Sir Peter Gluckman – signalling effect matters, chair of key WHO commission
- WHO – should be part of a package of initiatives to curb childhood obesity and sugar consumption
- Opposition from economists, Treasury, NZ Initiative, NZIER.

6

Other countries' current positions

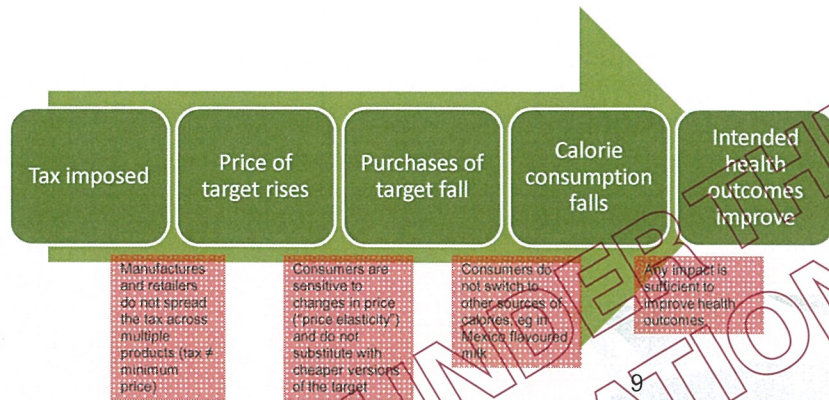
- Introduced in various countries, including
 - **Mexico**
 - **France** (includes artificially sweetened drinks)
 - Various **Pacific Islands**
 - **Norway** (all refined sugar products)
 - **Hungary** (all products with high sugar or salt content)
- Some **US** districts already have a tax, others voted to introduce in recent elections (eg Boulder Colorado)
- **UK & Ireland** – a tiered levy on producers, from April 2018
- **South Africa** – signalled it would introduce in 2017, but still under debate
- **Canada & Australia** – not at this stage
- **Denmark** – in 2011 introduced “fat” on top of pre-existing sugar-sweetened beverage tax, abolished both 13 months later

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1. History – why is this issue on the table?
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For a tax to have the intended impact...



- The problem with "evidence based policy" is that evidence is almost never definitive or universally agreed

A number of published studies report that a tax will decrease calorie consumption...

Economists' views	Public Health researchers' views
Changes in incentives often have unintended consequences – people do not respond to changes in price in a simple manner	
Taxes are costly, particularly in NZ given our flat and transparent structure, so before introducing need good evidence re impact	"What harm can it do to give it a go?"
Many published studies are based on <u>assumptions</u> rather than <u>empirical</u> evidence (eg if a tax is fully passed on then ...)	
Published studies do not establish a link between a tax and health outcomes	
Most published studies overestimate the price elasticity of demand (John Gibson)	
Most studies do not control for confounding influences	

BC1

1. History – why is this issue on the table?
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BC1 I hope that Fran, you and John P can populat this
Bronwyn Croxson, 7/12/2016

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- Ongoing pressure is likely
 - Public perceptions - surveys report substantial public support for a tax
 - Increasing number of other countries introducing
 - Ongoing increase in sugar consumption and related health risks, lack of evidence about effectiveness of other behavioural interventions.
- Emerging reports from Mexico that an initial fall in consumption has not been sustained
- Expect ongoing emergence of robust evidence, based on large panel datasets, controlling for confounders and for substitution effects.
- Emerging interest from manufacturers in product reformulation – based on new science and changing demand. New Zealand manufacturers have an incentive to follow suit (voluntary industry accord)

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Sugar/Soda tax

Discussion with ELT 13 December 2016

Draft as at 9/12/16

Outline

1. **History – why is this issue on the table?**
2. Current state of play – policy
3. Current state of play - evidence
4. Emerging evidence and likely future issues

Why is this issue on the table?

1. Health professionals frustrated by rising rates of obesity, diabetes and dental caries, seeking a solution

"A morbidly obese teenager weighing 270kg was crushed and killed by the weight of his own body in the [Middlemore Hospital] intensive care unit ... New Zealand's hospitals are full of these tragic, preventable tales and experts say they are at a loss as to how to deal with patients who are just too large for the equipment and cannot be examined or treated ... Middlemore Hospital intensive care specialist David Galler said much of his time was now spent dealing with preventable issues which stemmed from obesity. His job did not start out this way." (Stuff, 25/3/2014)

2. High consumption of sugar sweetened drinks in vulnerable groups

	%	Est. num children
Total population	18.3	145,000
Age group (years)		
2-4	9.3	17,000
5-9	17.3	54,000
10-14	25.0	74,000
Ethnic group (total response)		
Māori	24.9	51,000
Pacific	30.2	28,000
Asian	16.7	17,000
European/Other	15.0	86,000
Neighbourhood deprivation (NZDep2013)		
Quintile 1 (least deprived)	10.6	17,000
Quintile 2	15.4	25,000
Quintile 3	16.5	23,000
Quintile 4	20.1	31,000
Quintile 5 (most deprived)	27.3	49,000

- Introduction of soda / sugar / sugar sweetened beverages taxes in other countries (discussed further below)
- Observed role of “tax” (actually a minimum price) in curbing smoking
- ?Attractive as a population-based silver bullet vs the alternative micro behavioural interventions

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Current state of play

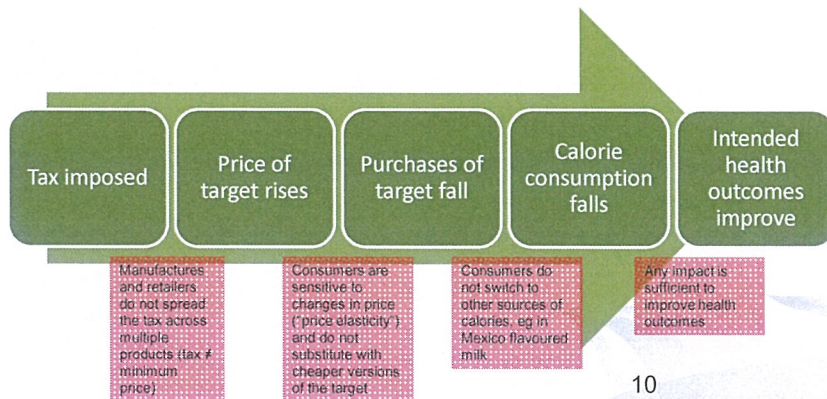
- NZ Government position is that there is insufficient evidence that a tax will work to curb obesity, awaiting the outcome of robust research re the impact in Mexico (Prof John Gibson's research, below)
- Support for a tax from New Zealand Medical Association and senior public health professionals
- Support for a tax from WHO – tax should be part of a package of initiatives to curb childhood obesity and sugar consumption
- Professor Sir Peter Gluckman – signalling effect matters, chair of key WHO commission
- Opposition to a tax from economists, Treasury, NZ Initiative, NZIER, OECD

Other countries' current positions

- Introduced in various countries, including
 - **Mexico**
 - **France** (includes artificially sweetened drinks)
 - Various **Pacific Islands**
 - **Norway** (all refined sugar products)
 - **Hungary** (all products with high sugar or salt content)
- Some **US** districts already have a tax, others voted to introduce in recent elections (eg Boulder Colorado)
- **UK & Ireland** – announced there will be a tiered levy on producers, from April 2018
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For a tax to have the intended impact...



The problem with “evidence based policy” is that evidence is almost never definitive or universally agreed

A number of published studies report that a tax will decrease purchases of sugar sweetened beverages / soda...

Economists' views on this work	Public Health researchers' views
Changes in incentives often have unintended consequences -- people do not respond to changes in price in a simple manner	
Taxes are costly, particularly in NZ given our flat and transparent structure, so before introducing need good evidence re impact vs costs	"What harm can it do to give it a go?"
Many published studies are based on assumptions rather than empirical evidence (eg if a tax is fully passed on then price will increase...)	
Published studies do not establish a link between a tax and health outcomes	
Most published studies overestimate the price elasticity of demand (John Gibson, next slide)	
Most studies do not control for other changes occurring at the same time (eg in Mexico, part of a comprehensive public health initiative)	12
The tobacco tax is not a great comparator...	

BC1

BC1 I hope that Fran, you and John P can populat this
Bronwyn Croxson, 7/12/2016

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What is different about John Gibson's research?

- Most empirical studies measure changes in purchase from changes in total household spending on a category of goods, eg total spending in each year for each household on each of fruit and veges, meat, bottled drinks, and so on.
- So to assess the impact of a tax, most compare pre tax and post tax total spending on bottled drinks, for each household. Studies sometimes have data to distinguish households eg by number of people in the household, deprivation etc.
- However, total spending on a category of products is a poor measure of the impact of a tax because it does not measure change in quantity consumed.
 - eg my total expenditure on softdrinks might fall from \$100 to \$80 for a number of reasons, including purchasing ginger beer in 1.5L bottles rather than in 0.5L bottles, buying goods on sale, switching where I shop, or switching from Schweppes to supermarket own-brand soft drinks
- Controlling properly for quantity makes a four fold difference to the predicted impact of a tax. (In economeze, it reduces the price elasticity of demand).

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 - Increasing number of other countries introducing
 - Ongoing increase in sugar consumption and related health risks, lack of evidence about effectiveness of other behavioural interventions.
 - Emerging reports from Mexico that an initial fall in consumption has not been sustained
 - Expect ongoing emergence of robust evidence, based on large panel datasets, controlling for confounders and for substitution effects.
 - Emerging interest from manufacturers in product reformulation – based on new science and changing demand. New Zealand manufacturers have an incentive to follow suit (voluntary industry accord)
 - Need to identify other / complementary cost-effective ways of reducing sugar consumption, since even if a sugar tax is eventually introduced it will need to be as part of a package.
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Sugar/Soda tax

Discussion with ELT 13 December 2016

Draft as at 12/12/16

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5? Attractive as a population-based silver bullet vs alternative micro behavioural interventions

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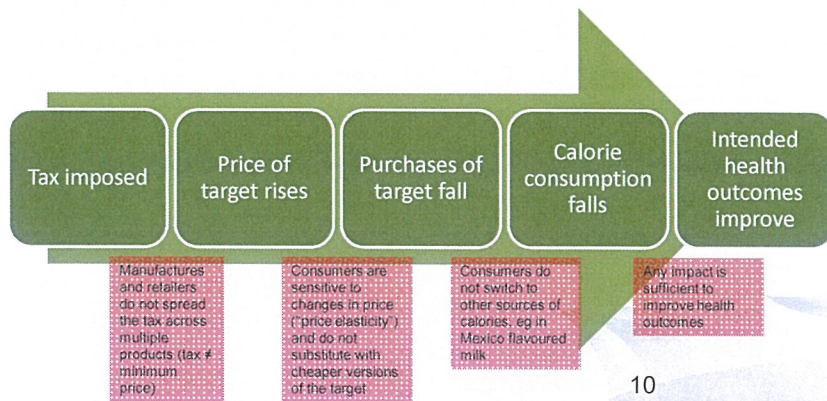
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- However, total spending on a whole category is a poor measure because it does not measure change in quantity consumed.
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(In 'economeze', reduces the price elasticity of demand)

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2. Current state of play – policy and positions
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4. Emerging evidence and likely future issues

- Ongoing pressure is likely
 - Public perception - surveys report substantial public support for a tax
 - As introduced in other countries
 - Ongoing increase in sugar consumption and related health risks
- Emerging evidence
 - Reports that initial fall in consumption in Mexico not sustained
 - Expect robust evidence of actual impact in Mexico and in US, based on large panel datasets, controlling for confounders and for substitution effects.
 - On impact of 'threat' or actual change on manufacturers & product reformulation – based on new science and changing demand.
- **Need to identify other / complementary cost-effective ways of reducing sugar consumption and obesity**
 - **even if a sugar tax is eventually introduced it will need to be as part of a package**

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