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Taxing Sugar Sweetened Beverages: a Comparative Perspective

This Briefing Paper aims to facilitate the Assembly's consideration of the proposed sugar tax amendment to the Health (Miscellaneous Provisions) Bill, as introduced in the Assembly by the Department of Health, Social Services and Public Safety on 30 November 2015. The Paper sets out the key societal and governmental developments in this area in the United Kingdom and provides a comparative perspective, highlighting attempts taken within various countries to tax beverages containing high levels of added sugar.

This information is provided to MLAs in support of their Assembly duties and is not intended to address the specific circumstances of any particular individual. It should not be relied upon as professional legal advice or as a substitute for it.

Introduction

On 30 November 2015, the Minister for the Department of Health, Social Services and Public Safety (DHSSPS) introduced the Health (Miscellaneous Provisions) Bill (the Bill). Thereafter, on 9 December 2015, a sugar tax amendment was proposed by two MLAs. This Briefing Paper aims to facilitate the Assembly's consideration of the amendment proposal.

The Paper is presented as follows:

- Section 1 outlines background information to contextualise a discussion about the proposed amendment;
- Section 2 summarises the merits and demerits of taxing sugar sweetened beverages;
- Section 3 outlines case studies highlighting a number of countries' experiences in this area; and,
- Section 4 provides some concluding remarks.

1 Background Information

This section seeks to contextualise discussion about the amendment proposal, explaining what the amendment states and outlining key societal and governmental developments in this area in the United Kingdom (UK).

1.1 The Amendment Proposal

The general aim of the Bill is to regulate the sale of nicotine products and tobacco, to amend the *Health and Personal Social Services (Northern Ireland) Order 1972* and the *Health (Miscellaneous Provisions) Act (Northern Ireland) 2008* in relation to the provision of health care, and for connected purposes.¹

The amendment proposal seeks to require the DHSSPS to consult about a levy on sugar sweetened drinks. It aims to prescribe key issues the DHSSPS should consult on, as well as which stakeholders should be consulted.² The amendment states as follows:

New Clause

After clause 5 insert -'Levy on sugar sweetened drinks

¹ <http://www.niassembly.gov.uk/assembly-business/legislation/primary-legislation-current-bills/health-miscellaneous-bill/>

² <http://www.niassembly.gov.uk/globalassets/documents/legislation/bills/executive-bills/session-2015-2016/health-misc-provisions/naa1---cs---09-12-152.pdf>

5A.—(1) *The Department must consult on a levy on sugar sweetened drinks within a year of enactment of the Act.*

(2) *The consultation required by subsection (1) should include—*

(a) *a definition of sugar sweetened drinks;*

(b) *which sugar sweetened drinks should be subject to a levy;*

(c) *factors to be considered in determining and administering a levy;*

(d) *the financial rate at which a levy may be set;*

(e) *the anticipated health and economic impacts of the levy; and*

(f) *the options for funding measures to address adverse health conditions associated with the consumption of sugary drinks derived from the levy revenue.*

(3) *The persons consulted under subsection (1) should include—*

(a) *members of the public;*

(b) *such organisations as appear to the Department to be representative of persons substantially affected by the making of the proposed regulations; and*

(c) *such other persons as the Department considers appropriate.*

(4) *The Department must publish notice of its consultation in such manner as the Department thinks is most likely to bring the consultation to the attention of any persons listed in subsection (3).*

1.2 Key Term Definitions: What are Sugar Sweetened Beverages?

One of the main sources of sugar in the human diet is Sugar Sweetened Beverages (SSBs). Regular consumption of them has been linked to weight gain, diabetes, dental problems and heart disease, which has led to additional costs for health services.³

The World Health Organisation (WHO) provides the following definition of SSBs:

Sugar-sweetened beverages contain added sugars such as sucrose or high fructose corn syrup and a 330ml or 12oz portion of sugar-sweetened carbonated soft drink typically contains some 35g (almost nine teaspoons) of sugars and provides approximately 140 kcal of energy, generally with little other nutritional value.⁴

The British Medical Association (BMA) defines SSBs as:

³BMA (2015) *Food for thought: promoting healthy diets among children and young people*: <http://bma.org.uk/working-for-change/improving-and-protecting-health/food-for-thought/sugary-drinks-in-the-media>

⁴World Health Organization (2014) *Reducing consumption of sugar-sweetened beverages to reduce the risk of unhealthy weight gain in adults*: http://www.who.int/elena/bbc/ssbs_adult_weight/en/

*All non-alcoholic water based beverages with added sugar, including sugar-sweetened soft drinks, energy drinks, fruit drink, sports drinks and fruit-juice concentrates.*⁵

The broader industry category of SSBs includes carbonated drinks, still drinks, juice drinks, squash-style drinks, pure fruit juices and bottled waters (flavoured and unflavoured; carbonated and un-carbonated). In 2012, 39% of all soft drinks sold in the UK were considered to be SSBs, in that they contained added sugar.⁶

If introducing a SSB tax, the term SSB would need to be explicitly defined to ensure clarity about such a tax's scope of application, i.e. what types of drinks are included within the scope of this definition.

1.3 Key Societal and Governmental Developments in the UK

1.3.1 Societal Developments

Research was undertaken by the Public Finance Scrutiny Unit (PFSU) within RaISe to compile this Paper. Findings indicate that there are no actual, recent figures concerning the consumption of (SSBs) in Northern Ireland (NI).

In 2006, statistics relied on by the Northern Ireland Office (NIO) revealed that people in NI drank an average of 122 litres of SSBs every year, which was greater than any other region in the UK.⁷ This is compared to the UK average for that year of 105 litres a year per person. The average for the Republic of Ireland (RoI) was 109 litres.⁸

In 2015 a BMA report, entitled "*Food for thought: promoting healthy diets among children and young people*", recommended that SSBs should be taxed in order to improve health outcomes and the additional revenue collected should be used to subsidise the price of healthier foodstuffs, such as fruit and vegetables. The BMA report stated:

A tax should be introduced on all sugar-sweetened beverages, which increases the price by at least 20 per cent.

And:

*Consideration should be given to the introduction of fiscal measures to subsidise the sale of fruit and vegetables.*⁹

⁵ BMA (2015) *Food for thought: promoting healthy diets among children and young people*: <http://bma.org.uk/working-for-change/improving-and-protecting-health/food-for-thought/sugary-drinks-in-the-media>

⁶ British Soft Drinks Association, (2014) *Creating New Choices: The Drinks Report*.

⁷ BBC News, 2006. *NI people 'top of the fizzy pops'*.

⁸ BBC News, 2006. *NI people 'top of the fizzy pops'*.

⁹ BMA (2015) *Food for thought: promoting healthy diets among children and young people*: <http://bma.org.uk/working-for-change/improving-and-protecting-health/food-for-thought/sugary-drinks-in-the-media>

The BMA report indicated that a 2013 modelling study¹⁰ found that a 20% tax on SSBs is predicted to reduce the prevalence of obesity in the UK by 1.3% or around 180,000 people.¹¹

In addition, diet-related disease in the UK leads to approximately 70,000 premature deaths per year,¹² and costs the NHS up to £6 billion annually.¹³

In October 2015, a Public Health England¹⁴ (PHE) Report entitled *Sugar Reduction: The evidence for action*, stated the following:

*Research studies and impact data from countries that have already taken action suggest that price increases, such as by taxation, can influence purchasing of sugar sweetened drinks and other high sugar products at least in the short-term with the effect being larger at higher levels of taxation.*¹⁵

1.3.2 Governmental Developments

In the UK, there have been limited governmental developments in this area, as explained below.

Local Government

In 2015, Brighton and Hove City Council launched a voluntary sugar tax that asks shops to add a 10 pence levy to sugary soft drinks.¹⁶ This voluntary sugar tax campaign aims to drive down sugar consumption and cut diet-related illness.

Central Government

In August 2015, Sustain (a non-governmental food and farming organisation), launched an e-petition on the UK Government and Parliament e-petition website.¹⁷ The e-petition was titled *Introduce a tax on sugary drinks in the UK to improve our children's health*. Over 150,000 signatories to the e-petition called for the introduction of a tax on SSBs to raise revenue support for health strategies seeking to prevent childhood obesity and related disease.

¹⁰ Briggs A, Mytton O, Kehlbacher A et al (2013) Overall and income specific effect on prevalence of overweight and obesity of 20% sugar sweetened drink tax in UK: econometric and comparative risk assessment modelling study. *BMJ* 347: f6189

¹¹ <http://www.telegraph.co.uk/news/health/news/11622500/Sugar-tax-to-pay-for-treating-obesity.html>

¹² UK Cabinet Office Strategy Unit (2008) *Food: an analysis of the issues*.

¹³ BMA (2015) *Food for thought: promoting healthy diets among children and young people*: <http://bma.org.uk/working-for-change/improving-and-protecting-health/food-for-thought/sugary-drinks-in-the-media>

¹⁴ Public Health England is an operationally autonomous executive agency of the UK Department of Health.

¹⁵ Public Health England (2015) *Sugar Reduction: The evidence for action*: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/470179/Sugar_reduction_The_evidence_for_action.pdf

¹⁶ <http://www.theguardian.com/uk-news/2015/oct/05/brighton-launches-voluntary-sugar-tax-in-effort-to-tackle-obesity>

¹⁷ <https://petition.parliament.uk/>

The e-petition states:

Experts believe a tax of just 7p per regular-sized can of soft drink with added sugar could generate £1 billion per year. We believe this crucial revenue should be ring-fenced to support much needed preventative strategies in the NHS and schools around childhood obesity and diet-related disease.¹⁸

The UK Government's response to the e-petition states:

The Government has no plans to introduce a tax on sugar-sweetened beverages. The Government will announce its plans for tackling childhood obesity by the end of the year.¹⁹

And:

The Government has committed to a tax lock to avoid raising the cost of living and to promote UK productivity and economic growth, however, the Government keeps all taxes under review, with decisions being a matter for the Chancellor as part of the Budget process.²⁰

Representatives of the e-petition gave evidence to the House of Commons Health Committee on 19 and 20 October 2015, to inform its Inquiry into childhood obesity. The Health Committee published its Inquiry report on 30 November 2015.²¹ Therein it made the following recommendation:

We [...] support Public Health England's recommendation for a tax on full sugar soft drinks, and recommend that it be introduced at a rate of 20% to maximise its impact on purchasing and help to change behaviour.

And:

A sugary drinks tax is an essential part of a wider package of measures to tackle childhood obesity.²²

The Health Committee's position on taxing SSBs seems to be at odds with that of the UK Government. During a further debate on 30 November, the Under Secretary of Health stated:

¹⁸ UK Government and Parliament Petitions (2015) *Introduce a tax on sugary drinks in the UK*: <https://petition.parliament.uk/petitions/106651>

¹⁹ UK Government and Parliament Petitions *Government Response (2015) Introduce a tax on sugary drinks in the UK*: <https://petition.parliament.uk/petitions/106651>

²⁰ UK Government and Parliament Petitions *Government Response (2015) Introduce a tax on sugary drinks in the UK*: <https://petition.parliament.uk/petitions/106651>

²¹ UK Health Committee (2015) *Childhood obesity—brave and bold action*: <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmhealth/465/465.pdf>

²² UK Health Committee (2015) *Childhood obesity—brave and bold action*: <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmhealth/465/465.pdf>

It is no secret that the Government have no plans to introduce a tax on sugar, although all taxes are kept under review. Such decisions are a matter for the Chancellor, as part of the Budget process. That being said, driving sustained behaviour change will require broad-ranging and concerted action of the kind we have discussed.²³

It appears at the time of writing this Paper that the UK Government currently has no plans to introduce a tax on SSBs.

2 Key Apparent Merits and Demerits of taxing SSBs

Since 1920, governments around the world have used SSBs excise taxes – often called ‘soft drink’ excise taxes²⁴ - primarily as a means to generate additional revenue.²⁵ Generally speaking government taxes on SSBs have been justified as a measure to:

- Reduce per capita sugar intake;
- Improve public health; and,
- Raise revenue for health and social care services.

Recently the BMA echoed this view, it stated:

We know that from experiences in other countries that taxation on unhealthy food and drinks can improve health outcomes, and the strongest evidence of effectiveness is for a tax on sugar-sweetened beverages.²⁶

In 2014, the WHO stated that taxing SSBs could contribute to reducing obesity, stating:

Particular attention has been paid to taxing sugar-sweetened beverages as evidence suggests that such taxes could substantially reduce consumption and may contribute to a reduction in overweight and obesity.²⁷

This section discusses key apparent merits and demerits of introducing a tax on SSBs, as discussed in the relevant literature, and then in the NI context.

²³ UK Parliament (30.11.15) *Sugary Drinks Tax Debate*:

<http://www.publications.parliament.uk/pa/cm201516/cmhansrd/cm151130/halltext/151130h0001.htm#1511301200001>

²⁴ An excise tax is an indirect tax charged on the sale of a particular good, for example tobacco or alcohol.

²⁵ Fletcher J (2010) *Can Soft Drink Taxes Reduce Population Weight?* <http://www.theguardian.com/society/2015/jul/13/doctors-tax-sugar-drinks-uk-obesity-bma-children>

²⁶ The Guardian (2015) *Doctors demand a 20% tax on sugary drinks to fight UK obesity epidemic*:

²⁷ World Health Organization (2014) *Reducing consumption of sugar-sweetened beverages to reduce the risk of unhealthy weight gain in adults*: http://www.who.int/elena/bbc/ssbs_adult_weight/en/

2.1 Merits of Taxing SSBs

One apparent reason lawmakers focus on SSBs is that they are relatively easy to define and therefore tax. This makes raising revenue comparatively straightforward for governments.

Another concerns the assumption that SSBs are unhealthy and their consumption can potentially cause obesity. Taxation is often used to make certain foodstuffs or products less attractive to consumers. Much attention is given to the issue of taxation to modify behaviours by discouraging particular lifestyle choices. This was reflected in an Irish Times article in 2011, which states:

We put heavy taxes on cigarettes and alcohol in an effort to limit their usage, and to help pay for the damage they create. Junk food should be targeted in exactly the same way, with tax revenues ring-fenced to make healthier foods more affordable.²⁸

In 2012, the WHO recognised the significance of price in determining a healthy diet, stating:

There is strong evidence that price has a major effect on consumption choices and that changes in price can be used to improve population health.²⁹

However, the WHO also suggested authorities exercise some caution before introducing a wholesale introduction of taxes and subsidies on foodstuffs. It stated:

..In implementing food-related taxes, care needs to be taken that price changes do not increase socio-economic inequalities. Many taxes are likely to cause a greater financial burden on low income consumers because they spend a larger share of their income on food than high-income consumers.³⁰

Several leading public health bodies in the UK have been sympathetic to the use of fiscal instruments to promote better health. In January 2013, the non-governmental organisation Sustain - supported by 61 health promotion groups – called for a 20 pence per litre excise duty on SSBs. Its report argued that:

A sugary drinks duty could be an important way to help shift people's consumption to healthier (e.g. 100% fruit juice) and often much cheaper

²⁸White, T (2011). *Debate on Obesity can no longer be avoided*. The Irish Times, 10 October.

²⁹World Health Organisation, (2012). *Population-based approaches to Childhood Obesity Prevention*. Geneva: WHO Document Production.

³⁰World Health Organisation (2012). *Population-based approaches to Childhood Obesity Prevention*. Geneva: WHO Document production.

*options (tap water). The duty could also raise substantial revenue for a Children's Future Fund to be used to make good food more accessible.*³¹

It further noted that the amount of a sugary drinks levy is largely determined by the aims of the policy. It explained that where the duty aims to primarily raise a certain amount of revenue, and is less concerned with behavioural change, then a smaller duty can be effective. This may prove less controversial, and therefore easier to implement.³² Conversely, a larger tax may both change behaviour and raise substantial revenues; though it is more likely to face opposition from industry groups and other parties.

In February 2013, the Academy of Royal Medical Colleges also called for a 20% excise-style tax on SSBs³³, as part of a wider policy package to tackle obesity. About a year later - in March 2014 - the Chief Medical Officer of NHS England stated that government should contemplate a "move towards some form of sugar tax" to tackle the forthcoming 'obesity epidemic'.³⁴

At the very least, it seems such a tax may serve to modify some peoples' behaviour. If so, this could positively impact on their health, potentially reducing their potential, future health care demands relating to, for example, obesity and tooth decay.³⁵

2.2 Demerits of taxing SSBs

Generally speaking the argument against taxing SSBs is that it may be:

- Regressive and unfair;
- Likely to cause job losses;
- Unlikely to increase government revenues; and,
- Ineffective.

2.2.1 Regressive and unfair

Taxes on SSBs may be considered regressive because people on lower income disproportionately consume them.³⁶ However, greater health gains from an SSB duty also may be expected, given that people on low incomes are generally more sensitive

³¹Sustain,(2013). *A Children's Future Fund: How food duties could provide the money to protect children's health and the world they grow up in.*

³²Sustain(2013). *A Children's Future Fund: How food duties could provide the money to protect children's health and the world they grow up in.*

³³Academy of Royal Medical Colleges, (2013). *Measuring Up: The Medical Profession's Prescription for the Nation's Obesity Crisis.*

³⁴NHS England, (2014). *2015 Forward View*, London: Department for Health

³⁵ Public Health England (2015) *Sugar Reduction: The evidence for action:*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/470179/Sugar_reduction_The_evidence_for_action.pdf

³⁶OECD (2012) Obesity Update 2012.

to price rises, consume greater quantities of SSBs and have a much higher incidence of chronic disease related to poor diet and SSB consumption.³⁷

2.2.2 Likely to cause job losses

In April 2013, the Danish Government announced that it was abandoning a tax on SSBs. The tax on soft drinks was halved in Denmark in July 2013, and then abolished in January 2014. It had been in place since the 1930's and was one of the highest in Europe.³⁸

In abolishing it, the Danish Government acknowledged the negative impact of the SSBs on regional jobs close to the borders and the consequent adverse environmental impact arising from border trade. In response to the tax's abolition, the Union of EU (European Union) Soft Drinks Associations (UNESDA), stated:

*... the cost and negative effects of such duties in terms of jobs and economic growth are higher than any expected benefit. The abolition of the excise tax is expected to recoup most of the 5,000 jobs lost when Danish people went across the borders to Germany or Sweden for their beverage purchases.*³⁹

This is particularly noteworthy in the context of NI, where it borders with the RoI.

2.2.3 Unlikely to increase government revenues

Introducing a tax on SSBs may have an unintended effect on other forms of tax revenue. The revenue generated *via* corporation tax and other employment related taxes paid by SSB producers, wholesalers and retailers may reduce, if profits from the sale of SSBs were to be affected by reduced sales caused by the increase cost of SSBs.

Taxing SSBs in the UK (and hence NI) may encourage consumers to purchase more SSBs in the RoI. This cross border effect may limit the amount of revenue collected by the UK Government. In addition, it may limit the impact of the tax's resultant health benefits.

2.2.4 Ineffective

It is difficult to predict how consumers may react to price changes caused by a SSB tax. For example, a wide range of goods and beverages may be consumed as substitute sources of sugar and calorie intake may not reduce as a result. Therefore,

³⁷Graff, H. (2012) *What is the role of health-related food duties?* National Heart Forum Discussion Piece.

³⁸ UNESDA (2015) *Why Food & Drinks Taxes Won't Work*: <http://www.fooddrinktax.eu/tax-doesnt-work/>

³⁹ UNESDA (2015) *Why Food & Drinks Taxes Won't Work*: <http://www.fooddrinktax.eu/tax-doesnt-work/>

the use of a targeted tax, like a levy in the same manner as an excise that is used on products like tobacco and alcohol, may be a largely ineffective policy.⁴⁰

UNESDA assert that the taxing of less-healthy food products relies on the following two assumptions:⁴¹

- The tax will be translated directly into price increases; and,
- Consumers will recognise the rise.

In relation to SSBs, UNESDA view both assumptions as unlikely for the following reasons:

..the pricing of soft drinks is extremely complex. Both nominal shelf prices and continuous price promotions vary between outlets, regions and seasons, even between supermarkets.

And:

*Discounts in the retail outlet mean that tax can be easily absorbed or concealed. As a result, it is difficult for consumers to determine the 'normal' price.*⁴²

Studies in Australia, the United States and the UK have all shown that sugar consumption is actually falling, despite obesity rates continuing to climb; all of which raises some doubt over the selective targeting of sugar alone.⁴³

3 SSBs: A comparative perspective

This section details key findings of research undertaken for this Paper to identify examples of SSB taxation in other countries, namely Finland, the RoI, Denmark and Mexico.

Generally speaking, findings indicate that these countries' attempts to introduce such a tax have produced mixed results in terms of public health outcomes and revenue-raising benefits. For a considerable time, they have taxed SSBs purchased *via* shops and restaurants. But the given taxes have not been on a fixed per unit basis. Rather, they have been set at relatively low rates, as a VAT or excise-style duty. Moreover, perhaps with the exception of Mexico, they have been intended for revenue-generating purposes, and not to impact behaviour.

⁴⁰ Preece, R. (2013) *The Effective Contribution of Excise Taxation on Non-alcoholic Beverages to Government Revenues and Social Objectives: A Review of the Literature*. World Customs Journal 7.1.

⁴¹ UNESDA (2015) *Why Food & Drinks Taxes Won't Work*: <http://www.fooddrinktax.eu/tax-doesnt-work/>

⁴² UNESDA (2015) *Why Food & Drinks Taxes Won't Work*: <http://www.fooddrinktax.eu/tax-doesnt-work/>

⁴³ Barclay, A., and J.Brand-Miller. "The Australian Paradox: A Substantial Decline in Sugar Intake over the Same Timeframe that Obesity Has Increased." *Nutrients* 3.4 (2011): 491-504.

3.1 Finland

Finland has had an excise tax on SSBs since the 1940s. The objective of the excise tax has been to raise revenue on what was perceived to be a 'luxury' good. Some adaptations were made to Finnish tax law in 2011, to repackage the tax as a health measure when the rate was increased by 66%. Despite these long-standing taxes, obesity levels in Finland continue to rise - albeit at a slower pace than in many other developed nations. In light of this, reliance on a solitary fiscal measure, such as a levy on a single category of product, may not be the most effective strategy to achieve the underlying health-related aim of the tax.⁴⁴

3.2 Rol

In 2011, the Rol Minister for Health proposed a 10% tax on SSBs as part of a package of policies to combat childhood obesity. The Rol Department for Health commissioned Ipsos MRBI and the Irish Heart Foundation (IHF) to measure public attitudes and behaviours towards steps to tackle the high consumption of SSBs.⁴⁵ The survey found that there was almost universal agreement that children in Rol consume too many SSBs. The survey reported that 44% of participants claimed they would consume fewer SSBs if their price increased; and 60% of respondents also claimed that they would drink more water if they drank fewer SSBs.⁴⁶

The IHF has since called for a 20% duty on sugary drinks in successive Rol budgets, arguing that such a measure would raise approximately €60 million in revenue. The IHF has requested that revenues raised from any such duty be used to reduce the price of fruit and vegetables or used for the establishment of a Children's Health Fund.

The current Rol Health Minister has recently indicated that he would have liked to see a sugar tax included in the Rol Budget 2016, but his request was not granted.⁴⁷ To date it appears that the Rol Government has no current plans to introduce a tax on SSBs.

3.3 Denmark

A tax – in some form - has been placed on soft drinks in Denmark since the 1930s. Snowdon's 2013 report, entitled *The Fat Tax Fiasco*,⁴⁸ argued that the impacts of Danish fat and sugar taxes were almost invariably negative in economic and public-health terms.

One notable observation that is relevant to NI as a region of the UK, which shares a land border with another EU member state, is Snowdon's finding that many Danes

⁴⁴Brownell, K., (2012). *SSBs: An Updated Policy Brief, Connecticut*: Yale Rudd Centre for Food Policy and Obesity.

⁴⁵Irish Heart Foundation, (2014). *Pre-Budget Report*, Dublin: IHF/IPSOS MRBI

⁴⁶Irish Heart Foundation, (2014). *Pre-Budget Report*, Dublin: IHF/IPSOS MRBI

⁴⁷Irish Examiner (14 October 2015) *Varadkar wanted a sugar tax in Budget 2016*:

<http://www.irishexaminer.com/budget2016/budget2016-latest/varadkar-wanted-a-sugar-tax-in-budget-2016-700676.html>

⁴⁸Snowden, C.,(2013). *The Fat Tax Fiasco*, London: Institute of Economic Affairs

found themselves switching to cheaper domestic brands of the same product or going to Sweden or over the border to Germany to do their shopping. Additionally, Snowden's report also noted that at least 10% of the fat tax revenues were diverted for administrative costs.

A report by the Molinari Economic Institute⁴⁹ observed that whilst the level of taxation itself may not have been a problem, the Danish case highlights that collecting and instituting them has been especially costly – potentially weakening small and medium-sized enterprises in Denmark. Some studies have questioned the extent to which cross-border shopping was a major issue, with some quarters, arguing that the trend had been over-emphasised for political gain.

In April 2013, the Danish Government announced that it was abandoning a tax on SSBs and lowering the excise duties on beer. The tax on SSBs was halved in July 2013, and then abolished in January 2014.

3.4 Mexico

In Mexico, a 10% tax on SSBs was implemented on 1 January 2014. More than 30% of the Mexican population is obese.⁵⁰ The tax was introduced to combat the growing obesity problem in Mexico, not to raise revenue. The Mexican Government promised to use revenue from the tax to ensure free drinking water in schools as an alternative to the more calorific SSBs.

The Mexican National Institute of Public Health and the University of North Carolina have carried out an evaluation of the tax's impact. The evaluation shows that sales of SSBs have fallen by 6% during 2014.⁵¹ The largest impact was on lower income households, which cut their purchases of SSBs by an average of 9%. This appears to highlight the regressive nature of the tax.

Noting the decrease in sales of SSBs in Mexico, manufacturers (Coca-Cola, PepsiCo and the Dr Pepper Snapple Group) announced their aim to cut the number of sugary drink calories consumed by American citizens by 20% over the next ten years.⁵² This is not necessarily a healthy option, as there is some evidence to show that consumption of artificial sweeteners actually can contribute to obesity, rather than combat it.⁵³

⁴⁹Petkantchin, V.(2013).*Nutrition Taxes: The Costs of Denmark's Fat Tax*, Paris : Molinari Economic Institute.

⁵⁰ The Guardian (18 June 2015) *Mexican soda tax cuts sales of sugary soft drinks by% in first year*.
<http://www.theguardian.com/world/2015/jun/18/mexican-soda-tax-cuts-sales-first-year>

⁵¹ The Guardian (18 June 2015) *Mexican soda tax cuts sales of sugary soft drinks by% in first year*.
<http://www.theguardian.com/world/2015/jun/18/mexican-soda-tax-cuts-sales-first-year>

⁵² New York Times (8 October 2014) *The Next Battleground for Soda*.

⁵³ Ruopeng An, PhD. (2015) *Beverage Consumption in Relation to Discretionary Food Intake and Diet Quality among U.S. Adults, 2003-2012*. *Journal of the Academy of Nutrition and Dietetics*, September 2015 DOI:Suez.

4 Conclusion

It appears from research undertaken for this Paper that a consensus is yet to be achieved as to what fiscal and policy instruments represents the most proportionate and practical response to health and revenue-raising concerns in this area. In the UK, the BMA and the House of Commons Health Committee have called for a 20% tax on SSBs and recommended that the additional raised revenue be used to subsidise the price of healthier foodstuffs, such as fruit and vegetables. However, it appears at this time that the UK Government has chosen not to adopt the Committee's recommendations.

Across the world taxes are used to achieve a number of government objectives, such as modifying behaviours, as well as raising revenue to fund its public spending and repaying its borrowing.⁵⁴ Taxing SSBs is perhaps an attractive option for governments in that they are easy to define, and therefore easy to tax. Another advantage lies in the public perception that the consumption of foodstuffs with added sugar is unhealthy and may possibly be linked to obesity. A tax therefore may help to encourage people to modify their behaviour, causing them to abstain or reduce their consumption of SSBs. This may have a positive impact on their health and help to reduce demands on the NHS. Therefore, any increase in the price of SSBs *via* taxation may be more palatable for the electorate than another form of taxation, such as income tax or road tax, for example.

Arguments against taxing SSBs centre on the regressive nature of such a tax and the fact that the tax does not by itself combat obesity. People on lower incomes tend to drink more SSBs than people on higher incomes. In Mexico, a tax on SSBs resulted in a 6% drop in sales. However the largest impact was on lower income households, which reduced their purchases by an average of 9%. This appears to highlight the regressive nature of the tax.

Perhaps the biggest battleground for governments in relation to taxing SSBs is the health argument. It is clear that obesity is a growing problem across the world. However whether taxing SSBs contributes to tackling obesity and reducing demands on health systems for medical and dental care remains to be seen.

⁵⁴ Lymer A. and Oats L. (2013) *Taxation: Policy and Practice*.