

# **S C H O O L   O F** **ACCOUNTANCY**

**A Research Report Submitted to the Faculty of Commerce, Law and Management in  
Partial Fulfilment of the Requirements for the Degree of Master of Commerce  
(Specialising in Taxation)**

**A critical analysis of the rationale for the introduction and implementation of Sugar Tax**

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<b>DECLARATION</b>
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I declare that this research report is my own unaided work. It is submitted in partial fulfilment of the requirements for the degree of Master of Commerce (specialising in Taxation) at the University of Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination at any other institution.

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**Shuaib Ahmed Parker**

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## ABSTRACT

In the 2016 Budget Speech, the then Minister of Finance, Pravin Gordhan, announced a decision to introduce a Health Promotion Levy ('sugar tax') on sugar-sweetened beverages ('SSBs'). Sugar tax came into effect on 1 April 2018 in South Africa. In its Policy Paper released by the National Treasury in July 2016, titled "Taxation of Sugar Sweetened Beverages" ('Policy Paper'), the National Treasury outlined the proposed sugar tax. It argued that the primary objective of the introduction of sugar tax was to reduce excessive sugar intake and curb the growing problem of obesity.

Obesity and other non-communicable diseases ('NCDs') have significantly escalated over the past 30 years and has become a growing concern in South Africa. This has resulted in South Africa being ranked the most obese country in sub-Saharan Africa. The impact of SSBs on obesity and other NCDs has received widespread attention on the international stage and by the World Health Organisation ('WHO'). This is evident from the fact that South Africa is not the first country in recent years to introduce a form of sugar tax which has been gaining traction as popular intervention to combat the growing concern of NCDs.

The argument arises as to whether the tax is actually intended to meet its desired health benefits or simply increase revenue for the fiscus. This research will examine whether the implementation of sugar tax will contribute to its intended health objectives envisaged. In order to achieve this, a study will need to be undertaken with countries which have successfully introduced sugar tax including, Mexico, Norway, Denmark, the United Arab Emirates, Chile and United Kingdom. Lastly, this study will also explore the success of the implementation of sugar tax and the impact it has had on the fiscus of these countries.

**Key words:** Sugar tax; South Africa; obesity; revenue; sugar sweetened beverages; taxation; SARS; National Treasury; fiscus; Mexico; Norway; excise duty; non-communicable diseases; diabetes

## CHAPTER 1: INTRODUCTION

### 1.1 *Background and motivation*

In his 2016 Budget Speech, the then Minister of Finance, Pravin Gordhan, announced a decision to introduce a Health Promotion Levy ('sugar tax') on sugar-sweetened beverages ('SSBs'). Sugar tax came into effect on 1 April 2018 in South Africa.

The World Health Organisation ('WHO') (WHO, n.d.), argues that excessive consumption of sugar has been linked to the growing epidemic of non-communicable diseases ('NCDs') including obesity, heart disease, type 1 diabetes and type 2 diabetes. Furthermore, NCDs may also contribute to poor health and result in absenteeism in the workplace and schools in the case of children. These factors are bound to have a negative impact on the South African economy and may also lead to placing a strain on the economy due to increased health expenditure and a decrease in productivity.

A Policy Paper (National Treasury, 2016a) released by the National Treasury in July 2016, titled "Taxation of Sugar Sweetened Beverages" ('Policy Paper') outlined the proposed sugar tax. In the Policy Paper, National Treasury argued that:

*Obesity is a global epidemic and a major risk factor linked to the growing burden of NCDs including heart diseases, type 2 diabetes and some forms of cancers. NCDs are the leading causes of mortality globally, resulting in more deaths than all other causes combined, and the world's low and middle-income populations are the most affected. The problem of obesity has grown over the past 30 years in South Africa resulting in the country being ranked the most obese country in sub-Saharan Africa (National Treasury, 2016: 2).*

A number of countries around the world have implemented a form of sugar tax which in some instances is colloquially referred to as a sin tax. Countries that have implemented such a tax include but are not limited to: Mauritius, Mexico, France, Hungary, Columbia and various states within the United States of America. The intended purpose of this tax is to charge an excise tax on SBBs as they have the ability to place a burden on the economy and be harmful or costly to society similar to tobacco products and alcohol. Although the primary objective is to deter people from engaging in socially harmful activities and behaviours, it is also intended to provide a source of revenue for governments.

The tax has had its fair amount of criticism from many concerned parties arguing that the implementation of sugar tax will not alter the behaviour of South African consumers. According to reports, by simply increasing the prices of sugary drinks, people will choose alternative sweet options that are not taxed, like confectionaries, chocolates and sweets. Alternatively, companies will seek to reformulate products providing alternatives to sugar in order to counter the impact on their bottom line. Lastly, it also emphasises that far more research needs to be undertaken before extreme government policies like sugar tax are implemented (Haynes, 2017: 1).

“The government policy on a tax on sugary beverages is driven by the health policy,” as explained by Ismail Momoniat, Deputy Director General of Tax Policy at the National Treasury during a debate hosted by the Mail and Guardian in March 2017. He stated that:

*Obesity is a global epidemic and a major risk factor for the growing burden of non-communicable diseases. In South Africa, obesity has grown over the last 30 years and this country is considered the most obese in sub-Saharan Africa, with over half of its adults overweight and obese (Haynes, 2017: 1).*

Momoniat further argued that consumers still have their democratic right to consume more sugar, however very few consumers will go so far as to put eight or thirteen spoons of sugar in their tea. Consumers are shocked at the quantity of sugar contained in carbonated beverages and if they had more knowledge as to what they are consuming they will be aware of the consequences and impact of their choices on their health (Haynes, 2017:2).

The stated intentions behind the introduction of the sugar tax are certainly commendable. It will therefore be interesting to monitor whether the introduction of the tax will have any actual material effect on consumer behaviour and usage patterns, concomitantly on the reduction of NCDs which it wishes to address. In this regard, the Policy Paper expressed the opinion that it should have a positive effect and states as follows:

*Globally, fiscal measures such as taxes are increasingly recognised as effective complementary tools to help tackle the obesity epidemic at a population level. Taxes/levies can play a key role in correcting for market failures and act as a price signal that could influence purchasing decisions of consumers (National Treasury, 2016: 2).*

The question then has to be asked as to whether such measures have yielded the intended results in other countries which have implemented such a tax?

The argument arises as to whether the tax is actually intended to meet the health benefits or simply increase revenue for the fiscus. One argument may be that sugar tax is required to increase the healthcare budget but the general practice in South Africa is not to earmark funding for specific purposes. Sugar tax has had its fair share of critics and many critics and public commentators argue that this is simply another attempt by National Treasury to increase the revenue of the fiscus, similar to the plastic bag or fuel levies which are not utilised for its intended purpose or the much debated Carbon Tax which will become effective on the 1 June 2019.

This research will examine whether the implementation of a sugar tax will contribute to its intended health objectives as envisaged. This will be achieved by comparing the impact of sugar tax in Mexico, Norway, Denmark, the United Arab Emirates, Chile and the United Kingdom. Interestingly enough, whilst many are aware of Mexico's aggressive drive to combat sugar consumption, Norway introduced its legislation as far back as 1922 (Harris, 2018:1). The reason as to why these countries are selected is due to their relevant experience in implementing sugar tax. Mexico and Chile, much like South Africa, are emerging economies. Lastly, this study will aim to explore the success of the implementation of the sugar tax and its impact on the fiscus in the countries in the study undertaken.

## **1.2    *Rationale for case study***

Mexico, Norway, Denmark, the United Arab Emirates, Chile and the United Kingdom were selected in order to conduct a comparative study of countries that have already implemented some form of sugar tax. These countries were specifically selected for inclusion in the research report due to their relevant experience in implementing sugar tax.

- In September 2013, Mexico's then president Enrique Peña Nieto, in his fiscal bill package, proposed a 10% tax on all soft drinks, especially carbonated drinks. The intention behind the introduction of sugar tax was to reduce the number of



patients with diabetes and other cardiovascular diseases in Mexico. At the time, Mexico had one of the world's highest rates of obesity. According to Mexican government data published in 2011, the treatment for each patient with diabetes cost the Mexican public health care system (the largest of Latin America) in the region of circa 708 USD per year. Additionally, Mexico is also an emerging economy similar to South Africa (Rodriguez, 2013).

- Norway introduced a generalised sugar tax measure on refined sugar products in 1922 already. The intention of the tax was to boost state income rather than reducing sugar consumption (Tisdall, 2007). Non-alcoholic beverages have since been separated from the general tax but then in 2017 the tax for sugary drinks was implemented. In January 2018, the Norwegian government increased the sugar tax level by 83% for general sugar-containing ready-to-eat products, and 42% for beverages. This applies both to beverages which are naturally or artificially sweetened (Tisdall, 2007).
- Denmark instituted a tax on sugary beverages as far back as the 1930s. In 2013, the Danish government decided that the sugar tax should be abolished and was eventually repealed in 2014. The aim of the abolishment was to create jobs and help boost the local economy (Scott-Thomas, 2013). Critics claimed that the taxes were notably ineffective in changing consumer behavior and in order to avoid sugar tax, consumers simply went to Sweden and Germany (Strom, 2012).
- In the United Arab Emirates ('UAE'), the rising incidence of obesity and diabetes has been a cause for concern for the public as well as the government, with public advocacy calling for taxes on sugar carbonated drinks principally to improve public health and reduce obesity and diabetes. Recently, this concern has been discussed among Gulf States and transformed into concerted action with the UAE imposing a law on excise taxes on energy and fizzy drinks starting from 1 October 2017. The prices of sugary carbonated drinks (for example, Coca-Cola, Pepsi, Sprite, Fanta, Mountain Dew) are now 50 percent more expensive, whereas the retail price of energy drinks has increased 100 percent. This excise tax is set to discourage the consumption of products that have ruinous effects on the health

of people, while generated revenue is expected to support advanced health services for the UAE community. (Anon., 2018b).

- In 2014, at the time of implementing sugar tax, Chile, as with many other countries had an increasing obesity problem. The condition was more widespread in poorer groups. In order to address this growing problem, Chile imposed a novel differential tax on SSBs. Whilst SSBs were previously taxed, they were all taxed at the same rate. Beverages containing more than 6.25 mg sugar per 100 ml are now taxed at 18% and drinks containing lower sugar content are only taxed at 10% whereas beverages containing no sugar are not taxed (Nakamura, 2018).
- In the 2016 United Kingdom ('UK') budget, the UK Government announced the introduction of a sugar tax, officially named the "Soft Drinks Industry Levy". The tax came into effect on 6 April 2018. Beverage manufacturers are taxed according to the volume of sugar-sweetened beverages they produce or import. The tax is imposed at the point of production or importation, in two bands. Drinks with total sugar content above 5g per 100 millilitres are taxed at 18p per litre and drinks above 8g per 100 millilitres at 24p per litre. Despite not being part of the United Kingdom the British Soft Drinks Industry Levy came into force on the Isle of Man on April 1st 2019. It was proposed that pure fruit juices, milk-based drinks and the smallest producers would not be taxed. For other beverages there was an expectation that some manufacturers would reduce sugar content in order to avoid the taxation. Indeed, manufacturer A.G. Barr significantly cut sugar content in their primary product Irn-Bru in advance of the tax (Triggle, 2018).

### **1.3    *The Research Problem***

#### **1.3.1   *The Statement of the Problem***

This research will examine whether the implementation of a sugar tax contributes to its intended health objectives as envisaged by comparing the impact of sugar tax in Mexico,

Norway, Denmark, the United Arab Emirates ('UAE'), Chile and the United Kingdom ('UK'), or is it just a revenue generating tax.

### *1.3.2 The sub-problem*

The first sub-problem is to provide a theoretical framework of the introduction of the sugar tax in South Africa and its intended objectives.

The second sub-problem is to determine the effects of the implementation of the sugar tax in Mexico, Norway, Denmark, the UAE, Chile and the UK. This report will explore whether this has achieved its intended objectives of reducing the consumption of sugary beverages and consequently obesity rates. This is important as South Africa considered some of these countries when developing and drafting its sugar tax legislation.

The third sub-problem is to determine what impact does the introduction of a sugar tax have on the various economies that have introduced such a tax?

The fourth and final sub-problem assesses whether the introduction of the sugar tax in South Africa will have a positive impact on NCD's or simply increase revenue for the fiscus.

## **1.4 Research methodology**

The research methodology employed will consist of a literature review, including books, electronic databases, electronic resources (internet), journal articles, and magazine articles, as well as the relevant legislation.

## **1.5    *Proposed Chapter Outline***

This research report is divided into four chapters:

**Chapter 1.** Introduction, Background and Context, develops the idea for the research as well as provides a motivation therefore. This chapter outlines the research problem as well as presents the objectives and the significance of the research, the research methodology and design.

**Chapter 2.** Sugar Tax: The South African case, defines and demarcates the background to the sugar tax in South Africa and the rationale for its introduction and analyses its framework.

**Chapter 3.** The Social and Economic Impacts of Sugar Tax: This Chapter discusses the social and economic impacts that the introduction of a sugar tax will have on the economy as well as on the consumers.

**Chapter 4.** Case Study: Mexico, Norway, Denmark, the United Arab Emirates, Chile and the United Kingdom. This chapter will discuss and analyse the implementation of the sugar tax using these countries as case studies. Specifically, it will look at the rationale for the introduction of the sugar tax and whether its intended objectives have been achieved.

**Chapter 5.** Conclusion and recommendations. The findings from the case studies will be analysed and extrapolated to determine whether the introduction of a sugar tax in South Africa will indeed meet its intended objectives or whether it will simply increase revenue for the fiscus. Conclusions and recommendations will conclude the research by summarising the most important issues and findings emerging from the research.

## CHAPTER 2: HEALTH PROMOTION LEVY (HPL)- THE SOUTH AFRICAN CASE

### 2.1 Introduction

This chapter discusses the rationale and intended purpose of the introduction of a Health Promotion Levy ('sugar tax') in South Africa. This chapter will further present an argument to establish if there is a direct correlation between excessive consumption of sugar related products, health complications and non-communicable diseases ('NCDs').

As previously discussed, the primary objective of the study is to determine whether or not the implementation of a tax on sugar-sweetened beverages ('SSBs') in South Africa will be able to obtain its intended health objectives. In order to achieve this, the literature reviewed in this chapter explores the link between SSBs and NCDs. The understanding of this link is important to this research in order to determine if the taxing of SSBs will achieve its stated health objectives.

### 2.2 Non-Communicable Diseases defined

According to Alessandro Demaio (2012:1), NCDs, are defined as "*diseases one cannot catch from another person i.e. that is not contagious*".

The World Health Organisation ('WHO') defines NCDs as diseases of long duration and generally slow progression. The four main types of non-communicable diseases are:

- cardiovascular diseases (e.g. heart attacks and stroke);
- cancer;
- chronic respiratory diseases (e.g. as chronic obstructed pulmonary disease and asthma); and
- diabetes (WHO, 2013a)

The WHO (n.d.) states that NCDs were responsible for an estimated 41 million (73%) of the 56 million deaths globally in 2017. Many of those deaths were premature (i.e. under the age of 70 years) and occurred in low-and middle-income countries. Modifiable risk factors such as unhealthy diet and physical inactivity are some of the most common causes of NCDs, including obesity. A staggering 80% of all NCD deaths occur in low-and middle-income countries (developing countries).

NCDs are related to the interaction of various genetic, environmental and especially behavioural risk factors, including tobacco use; harmful alcohol use; physical inactivity and eating unhealthy diets (World Medical Association, 2016).

### **2.3    *The link between excessive sugar intake and non-communicable diseases ('NCDs')***

It is argued that one of the most significant contributing risk factors for developing NCDs is obesity (WHO, 2013a).

Sugar and in particular sugar-sweetened beverages ('SSBs') are "leading drivers of the obesity epidemic", said Chief Executive Officer of the global advocacy group the NCD Alliance, Katie Dain. Dain went on to say that along with taxing tobacco and alcohol, together with sugar, is "an indispensable policy tool to improve public health, save millions of lives, and generate resources to invest in health" (Green, 2018).

Diabetes and NCDs pose a significant economic burden. The costs are partly direct, such as hospital costs, medication costs and disability grants incurred by individuals, families or governments. The costs are also partly indirect, via work absenteeism, time spent caring for sick relatives, and reduced productivity. Research suggests that SSB consumption is a risk factor for overweight and obesity as well as several cardio-metabolic conditions. Based on manufacturer's food labels, a 330ml can of carbonated sweetened soft drink contains approximately 40g of sugar. The same size container of sweetened fruit juice close to 45g of sugar. Due to this high content of added sugars, and inadequate compensation for total energy intake at subsequent meals, SSBs are

believed to increase the risk of NCDs. The WHO has expressed concern that the increasing intake of free sugars, particularly in the form of SSBs, increases overall energy intake and may lead to reduced intake of foods containing more nutritionally adequate calories. SSBs contain a high sugar content, contains no real nutritional value and are processed differently by the body when consumed compared to solid food. Fluid calories are also not accounted for in the same way as calories from solid foods. Evidence suggests that SSBs are generally consumed quickly and therefore do not provide the same feeling of fullness that solid food provides. Consumers tend not to reduce their intake of other foods sufficiently to compensate for the extra calories provided by SSBs (Manyema, et al., 2015).

In its Policy Paper, the National Treasury also noted that research suggests excess calories contribute to being overweight and to obesity as they can be readily converted to body fat and stored within various tissues (National Treasury, 2016a: 6).

Ultimately, this in turn leads to an unhealthy diet, weight gain and increased risk of NCDs. The WHO's Global Action Plan encourages Member States to, as appropriate within the national context, consider the implementation of taxes and subsidies, that:

- Create incentives to encourage behaviours associated with improved health outcomes;
- Improve the affordability and encourage consumption of healthier food products; and
- Discourage the consumption of less healthy options (WHO: 2013b).

## **2.4 Sugar tax defined**

In this report, a lot of mention has been made around a health promotion levy ('sugar tax'). The question we should be asking is what does this exactly entail? Sugar tax, or excise taxation on SSBs, entails a tax that is calculated per gram of sugar added to a beverage. This tax, which is gaining traction worldwide, is based on skyrocketing sugar intake.

A United States study notes that sugary beverage consumption has increased by 500% in 50 years and that for adults, sugary drinks make up an average of 7% of their calorie intake; often proportionally more for children. (Van der Merwe, n.d.).

## **2.5    *The South African Case***

The National Department of Health ('DoH') is of the view that NCDs and obesity has become a growing concern for South Africa. According to the World Health Organisation, NCDs accounted for 29% of all deaths in South Africa in 2008 – 18% alone due to cardiovascular disease and cancers (DoH, 2013).

As discussed by Seedat and Singh (2016), various studies have been performed in respect of obesity rates in South Africa. In a study published by Lancet, South Africa was identified as the country with the highest overweight rate in sub-Saharan Africa. It was found that 7 out of 10 women and 4 out of 10 men were overweight (Chinyanaga, 2016). Similar statistics were demonstrated in a study by the University of Washington's Institute for Health Metrics and Evaluation. A study performed by the pharmaceutical company GlaxoSmithKline, indicated that South Africa was the third most obese nation worldwide. It was found that 61% of South Africans were overweight or obese; the global rate was just under 30%. The shift towards fast food consumption has caused South Africans to not only be obese but malnourished as well (Chinyanaga, 2016).

There is therefore no doubt that excessive consumption of food and drink may have long-term negative health impacts which include obesity, cardiovascular disease and diabetes. Obesity is particularly prevalent in upper- to middle-income economies including South Africa. This is due to the consumption of nutrient-poor foods which has created a significant public health burden on economies (Seedat & Singh, 2016).

This is underpinned by research by Karen Hofman (Mapumolo, 2016:1) , Professor in Public Health at the University of the Witwatersrand which revealed that the South African economy lost R29 billion between 2009 and 2015 due to diseases caused by



obesity. Obese workers cost their employers 49% more than non-obese workers in the form of paid leave. Obesity caused an increase in health care costs in South Africa, of between 11% and 23%, depending on the severity of the obesity or co-morbid disease (Seedat & Singh, 2016).

The DoH (2013) has identified a number of measures including regulations and taxes on foods high in sugar to address the growing pandemic of NCDs, particularly unhealthy diets contributing to NCDs. In its Action Plan, the DoH had found unhealthy diets to be one of four major risk factors. The research done by the department identified the consumption of excess sugar from SSBs and high-caloric energy-dense foods as major contributing factors to weight gain and obesity.

Seedat and Singh, (2016: 23) stated that:

*The tax on SSBs was identified as one of the most cost effective methods to achieve the goal of fighting obesity. This is supported by the notion that similar excise taxes have been introduced in a number of other countries. Furthermore, the use of fiscal policy to influence or change consumer behavior is not a new measure as illustrated by the use of taxing of tobacco and alcohol products-*

In its Policy Paper, National Treasury (2016a) noted that research suggested in order to have a significant impact on consumer behaviour and achieve its intended health objectives a price increase of 20% on SSBs would be required. The sugar tax of 20 cents was found to be the cheapest option compared to other strategies explored which included:

- food advertising regulation (R0.90 per person);
- food labelling (R2.50 per person);
- worksite interventions (R4.50 per person);
- mass media campaigns (R7.50 per person);
- school-based interventions (R11.10 per person); and
- physician counselling (R11.80 per person) (National Treasury, 2016a).

## **2.6     *Scope of the tax and the tax rate***

As discussed earlier, SSB's is a significant contributing factor to the increased risk of NCDs. It is therefore in this context that a tax on SSBs was introduced by the South African Government. In The Rates and Monetary Amounts and Amendments of Revenue Laws Act 14 of 2017 passed on 5 December 2017, sugar tax was set the at 2.1 cents per gram content that exceeds four grams per 100ml. Interestingly, in its Policy Paper, government initially proposed that a levy of 2.29 cents per gram content that exceeds four grams per 100ml of sugar be implemented, based on the product-labelling as illustrated in Annexure 1. The rate was however reduced to 2.1 before the levy became effective. (National Treasury, 2016a).

In the research by Seedat and Singh (2016), the authors indicated that a specific rate (cents per gram) had been preferred for the sugar tax over an ad valorem rate (percentage of volume.) The rate would therefore need to be regularly adjusted in order to account for inflation.

On 21 February 2019, current Finance Minister Tito Mboweni, announced in his Budget Speech that the levy would be increased to 2.21 cent per gram content that exceeds four grams per 100ml. The increase was necessitated in order to avoid an erosion on the value of the tax due to inflation. The increased rate will become effective on 1 April 2019 and represents a 5.2% increase in just one year (National Treasury, 2019).

Annexure 1 presents an infographic study by National Treasury, illustrating the sugar of various popular SSBs consumed by South African consumers. It is interesting to note the sugar content contained in beverages which consumers consider to be a healthier option to carbonated beverages which include but are not limited to:

- flavoured milk;
- ice tea;
- flavoured water; and
- energy drinks.

National Treasury (2016a), in its Policy Paper, proposed that the scope of the sugar tax should be levied specifically on SSBs which it defined as beverages that contain added caloric sweeteners such as sucrose, high-fructose corn syrup ('HFCS'), or fruit-juice concentrates, which include but are not limited to:

- soft drinks;
- fruit drinks;
- sports and energy drinks;
- vitamin water drinks;
- sweetened iced tea; and
- lemonade.

Beverages that only contain sugar naturally built (i.e. intrinsic sugars) into the structure of the ingredients are excluded from the scope of sugar tax (example, unsweetened milk and milk products and 100 per cent fruit juice). It is therefore evident that the most accurate proxy for harm caused by SSBs is the (added) sugar content, and the advantage of this approach is that it is better targeted and the tax is in direct proportion to the level of sugar added in SSBs (Baloyi, 2016).

Since the early 1990's there has been significant growth in the non-alcoholic beverage sector. South Africa has seen the market for carbonated soft drinks more than double since 1998, from 2 294 million litres to 4 746 million litres in 2012. A study conducted in 2007 on the diets of young children (aged 12 to 24 months) in metropolitan South African communities identified that carbonated drinks were one of the most consumed beverages or foods among young children. The study showed that the consumption of carbonated soft drinks was lower than that of maize meal and brewed tea, but more than that of milk. The consumption of SSBs at an early age sets a pattern for unhealthy dietary habits. This in turn leads to early-onset type 2 diabetes and weight gain, which requires chronic care over the child's lifetime. As a result, this is expected to place a burden on the economy and increase public healthcare costs in the long term (National Treasury, 2016a).

According to the National Treasury (2016a), the soft drink market has been able to expand by increasing the affordability, the availability, and the acceptability of these products. Market research has also shown a higher proportion of consumption of SSBs by lower income groups.

## **2.7 Administration**

Sugar tax has been successfully implemented through the Customs and Excise Act (Act 91 of 1964), as for the other excise duties and product-specific levies such as alcohol and tobacco taxes. An additional category for SSBs has been created under the Schedules to the Act as a levy on selected SSBs. The general excise administration principle (duty-at-source ('DAS')) will be applied for ease of administration regarding the sugar tax (National Treasury, 2016a).

Producers or importers of the sugar-sweetened beverages will be required to pay the tax to SARS but they can, and in many instances do, pass the tax on to consumers. For the tax to have the desired behavioral impact on consumption, there has to be a passing on of the sin tax, otherwise it reduces profit margins if it is wholly absorbed by businesses. This could also encourage producers to reformulate their products in order to reduce the excise tax liability (National Treasury, 2016a).

## **2.8 Arguments in favour of a sugar tax in South Africa**

Proponents of the sugar tax argue that the taxes on alcohol and tobacco have had a positive effect on consumer behavior. This therefore provided a strong argument in favour of the Treasury's proposed tax on sugar sweetened beverages. They further argue that taxing the sugar content of sugar sweetened beverages would not only reduce demand for these products but would also encourage producers to reduce the sugar content.

Professor van Walbeek of UCT, in an article in the Business Day, noted that public health concerns were the main motivation for raising the excise tax on tobacco products in the 1990s and subsequently he argues that:

*As a result of these tax changes, more than any other tobacco control intervention, there has been a dramatic fall in smoking prevalence. In the early 1990s about a third of adults in SA smoked cigarettes; in recent years smoking prevalence was down to 20% or even lower. (Ensor, 2017: 1).*

Taxing the sugar content of sugar sweetened beverages would not only reduce demand for these products but would also encourage producers to reduce the sugar content. The taxation of the alcohol content on beer and spirits showed how a well-considered excise tax resulted in substantial changes on the supply side. Since 1998 the excise tax on beer has been levied as an amount per litre of pure alcohol. Prior to this when the excise tax was levied on the volume of beer, irrespective of the alcohol content, there was no incentive for beer producers to reduce the alcohol content. "Since 1998 beer manufacturers have actively promoted lower alcohol beer," van Walbeek said (Ensor, 2017).

It can be argued that the same effects will be seen on SSB's, thereby reducing consumption. The National Treasury argues that the amount by which demand is affected depends on the price elasticity of demand. The price elasticity of sugar-sweetened beverages in South Africa is estimated to be – 1.299 (National Treasury, 2016:10). This means that a tax rate of between 10% and 20% may result in a change in demand from sugar-sweetened beverages to healthier alternatives and thereby curbing obesity (National Treasury, 2016a).

As a result of the significant amount of evidence available supporting that high consumption of free and added sugars increase overall energy intake and therefore increase the risk of becoming overweight and obese, the Association for Dietetics in South Africa ('ADSA') supported the proposed levy. ADSA further suggested that the tax rate for concentrates also be increased to align with the rate for ready-to-drink SSBs. ADSA argued that in order to achieve its stated objective of improving health, the levy must encourage people to consume beverages that are lower in sugar rather than switching to cheap sugary concentrate alternatives. ADSA emphasised that the revenue generated from the levy should be used to fund further interventions to support the

implementation of the National Department of Health's Strategy for Prevention and Control of Obesity in South Africa (Finance Standing Committee, 2017).

South African NCD Alliance ('SANCDA') fully supported the use of indirect taxation of sugary drinks with the aim of reducing their consumption, as an important evidence-based public health measure. The levy stood to benefit public health and society as there was evidence in research noting the direct correlation between the consumption of sugary drinks and the risk of developing obesity, some types of cancers, diabetes, cardiovascular disease and other NCDs (Finance Standing Committee, 2017).

The Society for Endocrinology, Metabolism and Diabetes of South Africa ('SEMDSA') rejected the notion that health must be traded-off against the threat of job losses. It believed the levy should be kept at 20% as an expression of commitment to putting people's health first before stakeholder-specific interests (Finance Standing Committee, 2017).

Consumer Goods Council of South Africa ('CGCSA') affirmed that they fully supported the Department of Health's National Strategy for Prevention and Control of Obesity as well as the Strategic Plan for the Prevention and Control of NCDs. CGCSA however said they were aware that the levy would lead to increased financial burden on South African consumers due to additional fees and taxes levied by different government departments. CGSA recommended a clearly stated goal to reduce obesity that would entail understanding its origins and progress as a disease in communities— not just the treating of its effects. A combined plan of action, coordinating the multiple actions currently in progress in government, industry and the health sector was proposed. CGSA urged stakeholders to 'stop trying to find short-cuts to short-term, ineffective solutions'. Obesity is a health issue and has to be addressed as such (Finance Standing Committee, 2017).

## **2.9 Criticism of the sugar tax in South Africa**

There has been a great deal of public discourse about the possible impact of the tax on SSBs in South Africa, with estimates of potential job losses to be considerable. In the context of high unemployment, poverty and inequality, any news about potential job losses attracts considerable attention. At the same time, the increased pressure on the healthcare system due to obesity and related lifestyle diseases also requires serious consideration (KPMG, 2016).

KMPG estimates that the number of jobs that could be lost with the introduction of the sugar tax at 34 475. This is more than the population of a town such as Mossel Bay. Whilst excise revenue is expected to increase, other tax revenue sources may exhibit a revenue decline. The potential tax revenue loss from other revenue sources like VAT, CIT and PIT is estimated to be R2.78bn. This amount is approximately equivalent to the cost of building 192 schools or the annual salaries of 15 400 nurses (KPMG, 2016).

According to KPMG, National Treasury should carefully consider the combination of the uncertain impact on obesity and the potential economic losses associated with the tax. It is imperative to understand how South Africans will react to the potential price changes to offset the broader costs of introducing a new tax in the economy against the possibility of reducing obesity. While it is vital that the problem of obesity is addressed, introducing this sugar tax requires a better understanding of the links between the consumption of SSBs and obesity. Furthermore, the costs and benefits of various potential interventions should also be carefully considered (KPMG, 2016).

Industry players opposing sugar tax included the Beverage Association of South Africa ('BevSA'), the South African Fruit Growers Association and the South African Sugar Association. They questioned the academic institutions about their apparent lack of in-depth research using regulatory instruments to determine maximum sugar content and proposed that a total dietary intake study be undertaken.

While conceding that South Africa had an obesity problem, all three bodies expressed concern that the industry would face huge job losses. Mapule Ncanywa, BevSA's executive director, said 75 000 jobs in the sector were at risk. The Sugar Association calculated that a drop-in sugar sales would result in a loss of 3 990 permanent jobs and 6 300 seasonal jobs, with small-scale growers being the hardest hit (Kretzmann, 2017).

According to Katharine Child (2017), in short, the arguments by those opposing sugar tax include:

- A sugar tax could lead to 60 000 job losses and particularly affect the indigent running spaza (informal) shops. The sugar industry employs 14 000 people directly.
- The industry denies that there is a scientific consensus that sugar is worse for consumers than any other source of calories; it disputes the link between sugar and heart disease.
- The Beverage Association quotes an industry-sponsored cardiologist whose research shows sugar is not the main cause of obesity. Beverage Association director, Mapule Ncanywa said:

*James Rippe, an American cardiologist, cites evidence that sugars are not the main contributor to obesity-related illnesses. This evidence from recent randomised controlled trials, [at] the highest level of scientific standard... does not support a unique link between added sugars and various adverse health effects when consumed at normal levels in a daily diet.*

- The industry has called for a full impact assessment of the negative impacts the proposed tax will have on the economy. It has been supported in the call by the South African Institute of Race Relations.



- The Beverage Association says a normal balanced diet and exercise are what is needed to keep people healthy.
- The industry says sugary drinks can be part of a normal diet.
- The industry says taxing just sugary drinks is not enough to stop obesity and many interventions are needed. On this, health experts agree.

## ***2.10 Industry perspective on the impact of introducing sugar tax in South Africa***

In South Africa, at the Parliamentary Finance Standing Committee meeting held on 06 June 2017, the South African Cane Growers Association ('SACGA') put forward a statement that the decision to implement a sugar levy would significantly affect small-scale cane growers. In its submission, it argued that 90 000 tons of sugar were at risk and that 1 795 permanent and 2 835 seasonal jobs could be impacted.

SACGA stressed that not enough thought had been given to what the full impact of the imposition of the levy will be. It argued that the basis for the tax rate of 2.1c/gram of sugar above 4g/100ml had not been specified. It also suggested that the scientific reasoning for legislation of this nature should be made accessible for public scrutiny, as the levy was intended to effect health objectives. Whilst SACGA was committed to promoting diversification of income streams, diversification was not always viable on small units and could not replace the income earned from sugarcane (Finance Standing Committee, 2017).

BevSA did not believe a sustainable solution could be yielded through the Health Promotion Levy. BevSA in the Finance Steering Committee argued that the levy could lead to unintended detrimental effects on the economy and job creation. Although the levy is aimed at reducing the rate of obesity and NCDs, in its current form the levy was

misplaced in the Rates and Monetary Amounts and Amendments of Revenue Bill. BevSA said that the levy should be considered as a new tax and that appropriate administrative procedures should be followed allowing all social partners sufficient time to consult and engage on the matter. BevSA went on to say that the levy takes a narrow view of the socio-economic impact it would have on the broader value-chain. As with other taxes in South Africa which are not earmarked or reinvested for specific purposes, it is reasonable to assume that the revenue will be used for deficit reduction and not reinvestment (Finance Standing Committee, 2017).

BevSA said that the proposed levy would reduce GDP by R1.85 billion, resulting in unavoidable job losses. The informal sector is expected to experience the largest loss where it is estimated that 4000-6000 informal outlet closures are foreseen. BevSA argued that the total job losses across the industry and value-chain is closer to 24 000 jobs rather than the 5 000 suggested by proponents of the levy. It said that it was committed to creating an enabling environment for healthier choices and identified interventions which included:

- partnering with government on promotion of healthy lifestyle through initiatives such as the Big Walk and park gyms;
- sugar reduction (reformulation);
- smaller packs
- marketing of diet; and
- no-sugar options and no marketing to children and lastly working with the Department of Health on new labelling regulations (Finance Standing Committee, 2017).

Coca-Cola Beverages South Africa ('CCBSA') questioned the effectiveness of a levy aimed at singling out one food item used as a means to address a complex and challenging issue, which would impact other critical socio-economic factors. Coca-Cola opposed the idea of the punitive and regressive tax and requested government to put in place an enabling regulatory framework instead. Coca-Cola suggested alternative measures to address health concerns from excess sugar consumption which included:

- regulating sugar amount in sugar-sweetened beverages per 100ml;
- instituting external and independent monitoring,
- having a timeframe for execution and compliance, and
- introduction of a fiscal penalty for failure to comply (Ratshefola, 2017).

Clover, a company that manufactures branded value-added products delayed most of its new projects to focus on mitigating the multimillion-rand impact of sugar tax. In an interview in 2017, Marcelo Palmeiro, Clover's Executive for Corporate and Brand Development, stated that he put many new projects on hold which were allocated a lot of resources. The resources were allocated to work on sugar tax-reduction projects. In response to the proposed sugar tax, which was first announced in the Budget Speech in February 2016, as well as consumer trends, Clover in 2017 launched its first sugar-free beverage, Tropika Slenda. At the time, Palmeiro said that the proposed sugar tax would affect a number of the company's beverage brands, including Tropika, Manhattan Ice Tea and Frankie's. Palmeiro further said that Clover was looking to bring out many different products to reduce the impact of sugar tax on the company. Clover's then chief financial officer, Elton Bosch, said that the company was looking to reduce the effect of sugar tax by introducing zero-sugar beverages, reducing the sucrose content in its drinks, reformulating its beverage products or launching product variations. The reformulation of a beverage involves adjusting the drink by the removal or reduction of its sugar content. The change to sugar content of a beverage will change the beverage's flavour and body, which is the feel of the drink in a consumer's mouth (Brown, 2017).

While sugar tax was introduced with the aim of reducing sugar consumption, it ate its way into Clover's profits, the Group reported in its unaudited results for the six months ended December 31, 2018. The health promotion levy contributed approximately R42.3m (1.6%) to the increase in cost of sales. The Group Chairman, Werner Buchner, noted that higher taxes along with record fuel prices also took their toll on consumer buying power (Anon, 2019).

Fruitree, a popular juice brand, manufactured by Pioneer Foods has drastically reformulated its juices from "fruit nectar" blends which contained a substantial amount of added cane sugar to "fruit drink" blends which contains no extra sugar (de Wet, 2019).

It is therefore plausible to argue that the revenue from sugar tax will not be used in addressing health problems related to excessive consumption of sugary drinks. As the plastic shopping bags levy has proven, although introduced with noble intentions, revenue of around R1.1 billion went to government and not the environment, recycling and job creation as intended by the then Environment Minister, Valli Moosa. It is therefore fair to argue that revenue collected from sugar tax will go to National Treasury and amongst other things help plug the increasing budget deficit hole (Johnson, 2018).

## **2.11 Conclusion**

In this chapter, it is clearly evident that the rationale for introducing sugar tax is its intended health benefits. There were however strong arguments presented by critics alluding to the fact that this may not be the case and that rather it may simply be another attempt by Government to increase revenue for the fiscus and plug the increasing budget deficit. The chapter further explored the impact that the introduction of sugar has had on industry.

In order to evaluate this argument further, the following Chapter will look at a number of social and economic effects that the introduction of a sugar tax may have on the South African economy.

### **3.1    *Introduction:***

The previous chapter outlined the South African business case for introducing sugar tax on SSBs and both arguments in favour and opposing the introduction of such tax. This chapter looks at the general impact sugar tax may have on an economy.

### **3.2    *Effect of increasing the price of sugar-sweetened beverages***

According to Quirmbach, et al., there are number of studies undertaken, which has modelled what the potential of food-related taxes may have on health outcomes or meeting its intended health objectives (Quirmbach, et al., 2018).

Economic theories predicts an inverse relationship between the price of sugar-sweetened beverages ('SSBs') and the quantity purchased and consumed. Consumers allocate their budget between different types of foods and beverages based on their relative prices, thus making it imperative to consider the inter-relationships between the subject of the SSB tax and other drinks and foods (Quirmbach, et al., 2018).

The net effect of a price increase of SSB on energy consumption is therefore ambiguous. When the price of a SSB increases for instance, consumers may shift their consumption towards other energy-containing beverages, for example, juices, milk-based beverages or alcoholic beverages. If this is indeed the case then daily energy intake might not be affected, or even increased. An alternative perspective may be that consumers may shift consumption towards low-caloric beverages or water, thus leading to a net reduction in energy intake (Quirmbach, et al., 2018).

The effect of price increases is likely to be dissimilar among various income groups and consumption, with high intensive consumers of SSBs potentially being less sensitive to price fluctuations or increases (Quirmbach, et al., 2018).

Quirmbach, et al., further argues that their research suggests the impact of increasing the price of SSBs may generate a small, but significant reduction in the purchases of SSBs. Quirmbach, et al., state that approximately a 10% price increase may reduce purchases by 6%–8%, having a more prominent impact in the lower income households, and that substitution towards other beverage categories only marginally offset energy reductions achieved through decreases in SSBs (Quirmbach, et al., 2018).

In many communities, sugary beverages are comprehensively advertised, affordable, and accessible, leading to an increase in consumption and delivering significant profits for industry. Well-designed taxes on SSBs may lead to a reduction in consumption from various angles, whilst simultaneously addressing the economic, and social factors which drive consumption. Activism and public awareness on taxes increase awareness of the health risks of SSBs and may lead to a decrease in consumption. Price increases discourage purchases in favour of alternative non-taxed choices. Taxes, both directly, when absorbed by the manufacturer, or indirectly, when they lead to a decrease in consumption and therefore in turn to a reduction in company profits, incentivises manufacturers to reformulate products. Furthermore, taxes generate revenue for this fiscus, enabling governments to adopt additional, complementary policies and programs to promote nutritious diets and physically active lifestyles. Subsidies for healthier food and beverage alternatives complement taxes on unhealthy products by incentivising healthier consumption patterns (Quirmbach, et al., 2018).

### **3.3 Conclusion**

This Chapter found that there are both socio and economic effects of an introduction of SSB's. The major effects are related to the consumption of sugary drinks as well as unemployment.

The effects will also more greatly affect lower income groups. This will be further explored in the next Chapter by discussing various case studies of a number of countries which have introduced a tax on SSB's.

## **CHAPTER 4: CASE STUDY: MEXICO, NORWAY, DENMARK, THE UNITED ARAB EMIRATES, CHILE AND THE UNITED KINGDOM**

### **4.1 *Introduction***

In the previous chapter, the rationale for introducing a sugar tax in South Africa was discussed.

The use of sin taxes as a means to tackle non-communicable disease ('NCDs') is not a new concept. A taxation on tobacco was introduced in a number of countries that has proven to be successful at reducing smoking. Baker (2018), states that over 20 new health related taxes, including a sugar tax have been introduced in a number of countries since 2015 and more are planned. In 2015, The World Health Organisation ('WHO') published its Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013–2020 ('GAP'). In its GAP, the WHO set an ambitious agenda to try and improve global nutrition and halt the global rise in obesity, and with it, diabetes. In order for this to be achieved, the report proposes that "countries consider the use of economic tools that are justified by evidence, and may include taxes and subsidies" (Baker, 2018).

According to Baker (2018), as of May, 2018, 39 countries, states and cities have implemented some form of nutritional taxation, and more are working toward voluntary agreements with manufacturers that encourage optimised nutrition. In most instances the primary focused products of these actions have been sugar sweetened beverages ('SSBs').

While sugar taxes have now become a developed world phenomenon, some of the earliest and most enthusiastic adopters were emerging markets. Mexico, with one of the highest rates of diabetes globally, has had a sugar tax targeting SSBs since 2014. Chile also introduced a sugar tax in 2014, coupled with warning labels on foods high in fat or sodium. In the Caribbean, Dominica and Barbados introduced a sugar related tax in 2015. Hungary introduced a broad "health" tax in 2011 aimed at a range of products containing high fat and sodium. Recently, the United Arab Emirates ('UAE') introduced



a tax on SSBs, due in part to the rapid speed with which diabetes is spreading throughout the country (Baker, 2018).

In North America, city and state authorities such as those in Berkeley, California, Boulder and Colorado have led the way in introducing sugar taxes. In Europe, it has been national governments that have led the way, with six countries introducing sugar taxes since 2015. As of June, 2018, 11 European countries have some form of sugar or health tax, including the UK, Ireland, France and Portugal. Among the Middle Eastern and North African nations, there are four countries with sugar taxes in play with the recent introductions by Saudi Arabia and the UAE (Baker, 2018).

This Chapter will look at a number of countries that have also introduced a sugar tax. In this research report, an analysis will be carried out on sugar tax in Mexico, Norway, Denmark, the UAE, Chile and the United Kingdom ('UK').

The aim of this report is to assess the rationale for the introduction of sugar taxes as well as discussing its impact and whether it has met its intended objectives by analysing the advantages and disadvantages of the introduction of these taxes.

## **4.2 Case Study: sugar tax in other countries**

A discussion on each of the countries, Mexico, Denmark, Norway, Chile, the UAE and the UK will follow.

### **4.2.1 Mexico**

Arguably one of the better countries to analyse, is the case study of Mexico, given the similarities in the objectives of both Mexico and South Africa's intentions behind the introduction of sugar tax. Both countries are considered developing countries and are classified as emerging markets.

In Mexico, 73% of adults and 36% of children and adolescents are overweight. Approximately 15% of adults are estimated to have type 2 diabetes. Research found that regular consumption of SSBs has been linked to an increased risk of a number of adverse health outcomes. It was in this context that on 1 January 2014, Mexico implemented a tax on SSBs purchases, set at a rate of 1 peso per litre. The sugar tax was imposed on all SSBs; whether in the form of powder, syrup, flavour extract, or actual sugar. Included categories amongst others are carbonated soda drinks, fruit juices, energy drinks and milk products. Sugar tax in Mexico was introduced as part of the tax reform proposed by then President Peña which included taxes on certain high-calorie foods and sugary drinks. The intended purpose for its introduction was a means to combat obesity rather than collecting tax revenue (Alvarez-Sanchez, et al, 2018).

#### 4.2.1.1      Arguments in favour of sugar tax in Mexico

In Mexico, public health professionals strongly advocated for the implementation of an excise SSB tax and then generated on a number of public awareness campaigns, the focal point being the health consequences of a high SSB consumption, and the rationale of a SSB tax. It was also proposed that the SSB tax revenue be used to pay for purified water fountains in schools. The debate around the Mexican sugar tax attracted a considerable amount of media attention and raised the profile of these issues amongst the public. Research demonstrated that consumers consumed fewer soda drinks following an educational campaign that linked diabetes mellitus to SSBs (Seedat & Singh, 2016).

The average price of a liter of soft drink in Mexico was 7.8 pesos before the introduction of sugar tax. Therefore, the tax represented 12.82% of the price. As expected, the tax was passed on to consumers. In addition to this, soft drinks are also subject to a 16% value-added tax ('VAT') (Alvarez-Sanchez, et al, 2018).

In an article published in 2017, it was reported that Mexico's sugar tax appeared to be having a significant impact in changing the habits of a nation (Boseley, 2017).

An analysis of sugary-drink purchases, carried out by academics in Mexico and the United States, found that the 5.5% drop in the first year after the tax was introduced was followed by a 9.7% decline in the second year, averaging 7.6% over the two-year period (Boseley, 2017).

The decrease in purchases suggests a corresponding reduction in SSB consumption and therefore of caloric intake. The study which was conducted by the University of North Carolina at Chapel Hill's Gillings School of Global Public Health and the Mexican Instituto Nacional de Salud Pública (National Institute of Public Health) found that the sugar tax had its biggest impact on the poorest households (Popkin, 2017).

Since 2014, health advocates have called for the Mexican government to increase the sugary drinks tax to 20%. The evidence produced by the study supports this idea. According to the team's projections, a 20% increase could at least double the health benefits of the current tax, leading to a 6.8% reduction in obesity and to fewer by 171 to 267 thousand new diabetes cases (Popkin, 2017).

According to studies undertaken by the Autonomous Technological Institute of Mexico ('ITAM'), the Autonomous University of Nuevo Leon ('UANL') and the Colegio de México ('COLMEX'), the special tax on product and services ('STPS') levied on unhealthy foods, alcoholic beverages and soda has been regressive. The STPS has had a bigger impact on the lowest income households. This is due to the allocation of a higher percentage of income to the consumption of soft drinks. The STPS on soft drinks accounted for 66% of the loss in lower income households' ability to buy food and beverages in 2014 (Foodbev, 2018).

According to the National Council for the Evaluation of Social Development Policy (CONEVAL), INEGI and the National Household Income and Expenditure Survey (ENIGH), 62% of the amount collected by STPS comes from the lowest income households in the country (Foodbev, 2018).

In Mexico, on average there has been little change in the household income between 2013 and 2014, this is according to Nielsen and Kantar as cited in Foodbev (2018). In this context, consumers were therefore required to allocate their spending differently in order to survive. In 2014, according to official data, inflation in the country was close to 4%. In real terms however, Mexican households were presented with a price increase of 13.5%. This impact of this required households to readjust their expenses. In order to finance other taxed categories such as soft drinks, Mexican households substituted taxed and non-taxed categories by, for example, spending less on categories of personal and household care (Foodbev, 2018).

#### 4.2.1.2      *Criticism against the sugar tax in Mexico*

The soft drink industry strongly opposed the tax, headed by the National Association of Producers of Soft Drinks and Carbonated Beverages and ConMexico, an association representing the entire food and beverage industry (Unna, 2018).

As part of its strategy against the tax, the soft drink industry paid for three studies conducted by academic institutions in Mexico (Universidad Autónoma de Nuevo León, Instituto Tecnológico Autónomo de México, and El Colegio de México), all seeking to show that the three arguments it had used against the tax were being fulfilled. The study by Autónoma de Nuevo León focused on reporting that more than 10 thousand jobs had been lost due to the tax. The study by Instituto Tecnológico Autónomo de México reported that the tax had reduced consumption of sugary drinks by an insignificant percentage which did not affect daily calorie intake, and therefore produced no health benefit. On the other hand, the study by El Colegio de México reported that the tax had significantly affected the finances of Mexico's poorest families. It should be noted that, four years after the implementation of the sugar tax, the increase in soft drink prices is twice the annual inflation of the country (Unna, 2018).

None of the three studies funded by the soft drink industry was published in a scientific journal or subject to peer review.

The soft drink industry disseminated them worldwide as part of its efforts to oppose sugary drink tax bills being put before legislatures of several countries, touting them as scientific evidence that such taxes do not work (Unna, 2018).

#### *4.2.2 Norway*

Norway has had a tax on added sugar since 1922. It however has decided to hike this tax by a staggering 83% at the start of 2018, with products like sweets and chocolates now taxed at \$4.69 per kilo. The sugar tax in Norway was never intended to influence the health of the nation. Introduced in 1922, it was a fiscal measure, designed to raise revenue from little luxuries (Harris, 2018).

In 1981, Norway introduced an excise duty on domestically produced and imported SSBs and other “luxury” products. A review of adolescent diets done in the early 2000’s found that adolescents and young children consumed relatively high amounts of carbonated drinks and not an adequate intake consumption of fruits and vegetables. The government subsequently decided to have a more focused approach in improving the health of the citizens of Norway, especially the youth. This led to an increase in SSB taxes, as well as the use of complimentary measures such as banning the advertisement of unhealthy food and drink products to children. A study done in 2013 showed that Norway saw a drop in frequency of consumption of lemonade (i.e. 4.8 to 2.5 times per week) and regular soft drinks (2.3 times a week to 1.6 times per week) in the period 2001 to 2008. This was contrary to other European countries, where consumption went up in the same period (Harris, 2018).

Norway’s sugar consumption is already considerably lower than some countries, averaging 27 kgs a year, compared to 34 kgs a year for the average American. Only one in six children is overweight in Norway, according to the Norwegian Institute of Public Health, compared to one in three children in the UK and the US (Harris, 2018).

Parts of the food industry are worried that the tax will make Norway less competitive, and some residents have chosen to avoid the tax altogether by going shopping for treats in neighbouring Sweden (Harris, 2018).

Norway has set itself a clear goal: It wants to reduce the sugar intake of each of its citizens by 12.5% by 2021 (Harris, 2018).

#### 4.2.2.1      Arguments for sugar tax in Norway

Even though it was not introduced for health benefits, the tax in Norway is having an effect on the public's choices, as just one in six Norwegian children is overweight, a figure that has remained stable in recent years. For the Minister of Public Health in Norway, Ase Michaelsen, sugar reduction is a priority. She states that Norway has managed now to stabilise the obesity of children and young people (Bloch-Budzier, 2018).

#### 4.2.2.2      Arguments against sugar tax in Norway

Some politicians worry that the higher taxes will simply encourage more Norwegians to do their shopping in neighbouring Sweden. "We can already see that this tax is hurting Norwegian industry and threatening Norwegian jobs, while there's been huge growth on the Swedish side," Center Party leader Trygve Slagsvold Vedum told newspaper Nationen. His party is already upset about the large numbers of Norwegians who continue to drive over the border to shop in Sweden, where almost all food and other products are much cheaper than in Norway. Higher prices for candy and cola at their local markets, he fears, will only make shopping trips to Sweden even more attractive (Anon., 2018b).

Jørgen Næsje, a state secretary in the finance ministry for the Progress Party, admitted that the higher sugar taxes can lead to increased cross border trade (Anonymous, 2018b).

#### 4.2.3 Denmark

Denmark instituted a soft drink tax in the 1930s (it amounted to 1.64 Danish krone per liter), but announced in 2013 that they were going to abolish it along with an equally unpopular fat tax, with the goal of creating jobs and helping the local economy.[39] Critics claimed that the taxes were notably ineffective; to avoid the fat and sugar taxes, local retailers had complained that Danes simply went to Sweden and Germany, where prices were lower to buy butter, ice cream and soda.[40] Denmark repealed the fat tax in January 2013 and repealed the tax on soft drinks in 2014 (Strom, 2012).

In October 2011, Denmark introduced a tax of 16 Danish Kroner (around US\$ 2.70) per kg of saturated fat for products exceeding 2.3g saturated fat per 100g fat. Taxed products included meat, animal fat, dairy products, margarine and spreads, edible vegetable oils and fats as well as items containing these products (Seedat & Singh, 2016).

However, the Danish government also estimated that it was losing €38.9m in VAT from illegal soft drink sales and abolished its sugar tax on 1 January 2014 - a tax that had been effective since the 1930s. Removal of the tax took place in two stages: first by a 50% reduction in July 2013 and then by complete abolishment from January 2014. This was in a bid to stimulate favourable conditions for growth and employment in Denmark. In 2013, the tax was levied at a rate of €0.22 per litre. In spite of grossing €60 million in tax revenue each year, €38.9 million in VAT was lost through the purchase of illegal soft drinks (Seedat & Singh, 2016).

##### 4.2.3.1      *Arguments in favour of the sugar tax in Denmark*

The sugar tax raised tax revenue of €60 million per year; the tax was implemented to reduce sugar intake (Seedat & Singh, 2016). The fat tax was abandoned after 15 months, when surveys suggested that only 7% of Danes had reduced their fat intake (The Spectator, 2016).

#### 4.2.3.2      Criticism against the sugar tax in Denmark

There were several reasons for the abolishment of the tax. It was purported that the negative consequences outweighed the benefits. One reason was the regressive nature of the tax. Another was the impact of cross-border shopping on employment in the regions near borders. It was estimated that 5 000 jobs were lost through it. Cross-border shopping also affected the environment adversely (UNESDA, 2013).

Denmark also abolished a fat tax that had been in place for a year (Seedat, 2016:21). The tax was initially introduced in a bid to improve the health of Danish citizens. The tax was levied at 16 Danish Kroner (£1.78) on food items with more than 2.3% saturated fat (The Spectator, 2016).

Dahms (2017) argues that the Danish Government abolished sugar tax due to the impact the tax had on job losses, SSB cross border trade and because of the lower income groups paying a bigger percentage tax of their income than the more affluent. According to Haines (2017), the government's major concerns were the increasing expenses for administrating sugar tax by the industry and forfeiting approximately €39 million in VAT due to unlawful SSBs sales. High administration expenses are an inconvenience for the taxpayer.

The criticism against the tax was the same as for sugar-sweetened beverage tax, i.e. cross-border shopping adversely affecting employment. It inflated food prices, raising the cost of living. Some citizens merely continued to purchase fatty food by opting for cheaper brands, thus defeating the purpose of improving health. A minimal decrease in obesity was noted. Only 7% of Danes reduced their intake of fatty foods (Seedat & Singh, 2016).



#### *4.2.4 United Arab Emirates ('UAE')*

In the UAE, the rising incidence of obesity and diabetes has been a cause for concern for the public as well as the government, with public advocacy calling for taxes on sugar carbonated drinks principally to improve public health and reduce obesity and diabetes (Fadhil & Abdul Razzak, 2018).

The UAE is amongst the top consumers of sugar. In the UAE the average person consumes 213kg of sugar per year which is equivalent to 53,591 teaspoons annually or 147 teaspoons per person per day on an average, according to new data. On 1 October 2017, the UAE implemented a 'sin' tax on sugary drinks and cigarettes to aid the combat and discouragement of unhealthy consumption. The tax of sugary carbonated drinks is 50 percent, whereas the tax of energy drinks is 100 per cent. According to statistics, the UAE has the fifth highest rate of fizzy drinks consumption in the world which is higher than any other country outside the American continent. Estimates show that a UAE resident consumes an average of 103 litres of soft drinks a year (Fadhil & Abdul Razzak, 2018).

The rising incidence of obesity and diabetes has been a cause for concern for the public as well as the government. In December 2017, the Ministry of Health and Prevention ('MoHAP') launched a campaign to highlight the health risks associated with drinking sugar-sweetened beverages that are consumed in large quantities because of their availability and marketing. The campaign titled 'Your Health Comes First' under the slogan 'Beat the habit...Fight Extra Sugar' also aimed to raise awareness about the chronic diseases associated with consuming large amounts of sugar (MoHAP, 2019).

Nouf Khamis, deputy manager, Health Education and Promotion department, explained that the topic of sweetened drinks was chosen as many drinks contain large amounts of sugar that exceeds the daily requirement of added sugar in the diet. This, in turn, affects daily caloric intake, and may result in weight gain and other related diseases such as diabetes and heart disease (Anonymous, 2018c).

It is argued that once a person cuts down excessive sugar from their diet, the body starts to feel healthier. And eventually they start feeling younger, happier and more energetic. Replacing sugar with proteins and nourishing foods helps in weight loss, boosts the immune system and lowers the risk of developing various health problems. (Anonymous, 2018c).

#### 4.2.4.1      *Arguments in favour of sugar tax in the UAE*

The tax, which was introduced on 1 October 2017 has several goals. Introduced just three months before a 5 per cent VAT rate came into effect in January 2018, the Excise Tax was aimed at boosting state revenues as the oil industry remained low. The second goal was to modify consumer behaviour in light of the soaring diabetes rate and improve overall health in the UAE (Clowes, 2019).

In 2019, 19.3% of the UAE population (nearly one in five people) between the ages of 20 and 79 have type 2 diabetes. The UAE's diabetes figures have worsened in recent years, according to the International Diabetes Federation. In 2013, 10% of the population had diabetes. By 2040, the IDF suggests that the prevalence of diabetes in the UAE could double again to around 40% (Clowes, 2019).

Energy drinks like Red Bull and Monster, have seen sales plummet in the UAE since the introduction of a 100 per cent Excise Tax, which doubled their retail price overnight. Research from London-based Euromonitor International suggests that energy drink companies in the UAE have seen sales drop by as much as 65 per cent in the 15 months since the tax was introduced. Euromonitor estimates that the market's value will decline by a further 39 per cent in absolute terms between 2018 and 2023 (Clowes, 2019).

#### 4.2.4.2      Criticism of sugar tax in the UAE

The European Union, Switzerland and the United States have complained at the World Trade Organisation about an excise tax imposed by several Gulf Arab states on carbonated and energy drinks (Cornwell, 2017). The EU does not oppose the idea of a tax but believes the levy is discriminatory because it is based only on the retail price and is not imposed on non-carbonated drinks that contain sugar, said an EU source and two diplomats in the Gulf (Cornwell, 2017).

#### 4.2.5    *Chile*

Chile has a big obesity problem and the condition is more widespread in poorer groups. To address this problem, Chile imposed a novel differential tax on sugar sweetened drinks in 2014. These drinks were taxed before but all at the same level. Now beverages containing more than 6.25 mg sugar per 100 ml are taxed at 18% and drinks containing lower concentrations of sugar are only taxed at 10%. Drinks with no sugar are not taxed (Carco et al, 2018).

##### 4.2.5.1      Arguments in favour of sugar tax in Chile

Four years after the introduction of Chile's sugar tax, research claims that the levy has driven down the consumption of sugary drinks. Researchers believe that other countries could "take heart" from the findings because they show that the sugar tax incentive does not need to be high in order to have an impact. But there are doubts about its impact on socio-economic inequalities in diet-related health like obesity, leading to claims that it may be a "bittersweet success."

A study carried out by researchers at the University of York published in PLOS Medicine on 3 July 2018 looked at the impact of the sugar tax introduced in Chile in 2014.

The authors of the report conclude that despite the tax incentive being comparatively small, there are signs that the purchasing of beverages with higher sugar content declined, particularly among high socio-economic groups.

The study revealed an overall 21.6 percent decrease in the monthly purchased volume of the higher taxed, sugary soft drinks. Among middle and high socio-economic groups, the monthly purchased volume fell by 16 percent and 31 percent, respectively.

“The results suggest that the Chilean tax policy may have been effective in reducing consumption of sugary drinks, though not necessarily to reduce socio-economic inequalities in diet-related health,” says Marc Suhrcke, Professor of Global Health Economics at the University of York (Nakamura et al, 2018).

#### 4.2.5.2      Arguments against sugar tax in Chile

The modifications of Chile’s SSB tax were small, and observed changes in prices and purchases of beverages after the tax were also small. Results are consistent with previous evidence indicating that small increases in SSB taxes are unlikely to promote large enough changes in SSB purchases to reduce obesity and other NCDs) (Nakamura et al, 2018).

The results suggest that the Chilean tax policy may have been partially effective, though not necessarily in ways that are likely to reduce socio-economic inequalities in diet related health. (Nakamura et al, 2018).

#### 4.2.6 *United Kingdom*

In March 2016, the United Kingdom government announced the introduction of a tax on sugary soft drinks which eventually came into effect in 2018. Former Chancellor George Osborne stated government's commitment to tackling rising rates of obesity and type 2 diabetes (Anon 2018d).

The road to the introduction of sugar tax has not been an easy one. Advocators including doctors, campaigners and scientists remained frustrated that their calls for a sugar tax were ignored by the government (Anon., 2018d).

The tax amount levied will depend on the sugar content in the sugar-sweetened beverage (Triggle, 2016). The tax came into effect during 2018, thus providing soft drink manufacturers with an opportunity to reformulate their product recipes and sugar content (Fisher, 2016).

Beverages with a sugar content exceeding five grams per 100 millilitres will be taxed at a rate of £0.18 per litre (Triggle, 2016). Beverages with a sugar content exceeding eight grams per 100 millilitres will carry a tax of £0.24 per litre. Examples of beverages with high sugar content include Coke® and Pepsi® whilst those with lower sugar content include Fanta® and Sprite®. Pure fruit juices and milk-based beverages will be exempt from sugar tax (Triggle, 2016).

According to then Chancellor George Osborne, sugar tax in the United Kingdom is estimated to generate an income of approximately £520 million per year. The taxes will be utilised to fund sport in primary schools in England. Tax revenue raised in the rest of the UK will be spent according to the discretion of the 'devolved administrations' of Scotland, Wales and Northern Ireland (Triggle, 2016).

#### 4.2.6.1      Arguments in favour of sugar tax in the United Kingdom

Those in support of the sugar tax have lauded the tiered system of levying the tax. Drinks with a sugar content of less than 5g per 100 millilitres will be exempt from sugar tax (Triggle, 2016). Those with a medium sugar content of between 5-8 grams per 100 millilitres will be charged £0.18 per litre and drinks with a sugar content exceeding 8 grams per 100 millilitres will be charged £0.24 (Triggle, 2016). This is believed to encourage consumers to select drinks with lower sugar content (Marron, 2016).

Manufacturers may opt to lower the sugar content of beverages and increase marketing of beverages with low sugar content (Marron, 2016).

Another favourable aspect of the sugar tax is that small producers will be exempt from this tax (Triggle, 2016).

In the UK, more than 300 companies that manufacture soft drinks were impacted by the introduction of sugar tax. As many of the manufacturers have reformulated their products in order to reduce the sugar content, the UK government has revised down its expected income from the levy to £240m. AG B for example, recently reformulated its product, Irn-Bru, to reduce the sugar content from 10.3g/100ml to just 4.7g/100ml. AG Barr said that 99 per cent of its products are now not subject to the 'Sugar Tax' (Smith, 2018).

#### 4.2.6.2      Criticism against sugar tax in the United Kingdom

There has been much opposition to this tax with the following reasons being cited:

- Firstly, despite the tax being imposed on soft drink manufacturers, consumers will ultimately bear the burden as increased costs will be transferred directly onto them. The sugar tax will affect poor citizens most as a larger percentage of their earnings are spent on paying taxes (Quince, 2016);

- Secondly, the sugar tax will increase inflation. The British Government will have to pay £1 billion upfront in 2018 and 2019 due to the increased costs of borrowing as a result of inflation increases (Quince, 2016);
- Thirdly, milk-based drinks that will be exempt from sugar tax may contain more sugar than soft drinks. Other foods including inter alia sweets, chocolate and cereal that may have a high sugar content will not be taxed (Quince, 2016); and
- Finally, some people believe even more tiers are required for the tax to be effective in curbing sugar intake (Marron, 2016).

In the UK, Oxford Economics predicted more than 4000 jobs could be lost as a result of sugar tax, with approximately 2000 off-trade jobs, nearly 1800 on-trade jobs and over 250 roles in the manufacturing supply chain are at risk. Sales in the hospitality sector and for smaller retailers are estimated to drop by about £132 million annually (Oxford Economics, 2016).

In late 2014, consultancy giant McKinsey & Co released a UK-focused report on how best to tackle the growing concern of obesity. The report ranked 16 measures that can be taken to reduce obesity levels. Introducing sugar tax as a measure was considered the twelfth most effective or alternatively the fourth least effective action that could be taken. Surgery was even deemed to be a better option. Portion control was seen as the best way to tackle obesity, and in second was reformulation (Warner, 2018).

### **4.3 Conclusion**

This chapter clearly illustrates from the case studies presented, that a number of countries have made use of fiscal policy as means to influence human behaviour and steer consumers away from behaviours that may be socially harmful.

The chapter highlighted using the cases of Mexico, UAE and Chile that intended objectives behind the introduction of sugar tax was aligned to the intended health objectives of reducing the obesity and the incidences of other NCDs. This aligns with the South African government's intentions for introducing the tax.

Interestingly in the case of Norway, we learnt that when initially implemented, the intention behind the introduction of sugar tax was to create an alternate revenue stream for the government. As time progressed though, Norway realised the importance and effectiveness of using sugar tax as a means to tackle the growing concern of obesity.

The case study Denmark provided insight to the impact of sugar tax on the economy. Denmark found that fiscal policy was not effective in changing consumer behavior and their economy suffered, more through job losses and high administration costs of managing its sugar tax as well as loss of VAT. It is in this context that Denmark decided to abolish its sugar tax.

In conclusion, it is apparent that more robust and thorough research is required to draw a distinct conclusion as to whether the use of fiscal policy will have a significant impact in addressing its health objectives.



## CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

### 5.1 *Introduction*

The previous chapters aimed to explore the link between the consumption of excess sugar and non-communicable diseases ('NCDs') which formed the basis for South Africa's rationale and the countries studied here for introducing sugar tax as a means to combat the growing concern around obesity and NCDs. The research further highlighted that the use of fiscal policy to influence consumer behavior in order to reduce the consumption of unhealthy products including sugar-sweetened beverages ('SSBs'), alcohol and tobacco is not a new concept.

Chapter 1 discussed the background and context which developed the idea for the research as well as provided the motivation therefore. The chapter outlined the research problem as well as the objectives and the significance of the research, the research methodology and design.

Chapter 2 discussed the basis of the South African case for sugar tax. The chapter defined and demarcated the background to the sugar tax in South Africa and the rationale for its introduction and examines its framework. The chapter further discussed the link between excess sugar consumption and the non-communicable diseases. Lastly, the chapter presented both the arguments in favour of and against the implementation of sugar tax.

Chapter 3 discussed the social and economic impacts of Sugar Tax.

Chapter 4 presented case studies of countries which implemented a form of sugar tax. The countries discussed were Mexico, Norway, Denmark, the United Arab Emirates, Chile and the United Kingdom ('UK'). The reason for the selection of these countries is due to the experience of implementing sugar tax. The chapter specifically discussed the rationale for the introduction of the sugar tax and whether its intended objectives have been achieved.

This chapter summarises the conclusions reached in this research by highlighting the most important issues and findings emerging from the research.

## **5.2 Findings**

To date, the studies, conclusions and findings on the cost-effectiveness of using fiscal policy to address the growing concern of obesity prevention is very limited. More well-designed economic evaluation studies are required.

Research conducted by Econex in 2016, highlights that sugar tax will lead to a decline in the GDP, job losses, higher production cost of SSBs with less produced and a decrease in SSB consumption. It further states that the impact on the economy will be broader than only the SSB industry. A follow-up research study by Econex in 2017 emphasised that sugar tax will not have the same impact on all SSB brands and that the price variance will impact every consumer of SSBs. The lower income will be more significantly affected by sugar tax indicating that the tax is regressive in nature (Econex, 2016). The impact on sugar tax on the economy was discussed in Chapters 3.

Stacey, Tugendhaft and Hofman (2017) in their study concluded that the SSB consumption forms part of the most popular drinks in South Africa. On this basis a sugar tax may have the desired outcome to address health issues in South Africa.

In South Africa, the current sugar tax levy of 2.21 cents per gram of sugar content in excess of 4 grams per 100 millilitre did not comply with the criteria of the four maxims of taxation. As sugar tax is regressive in nature, if consumption of SSBs is not reduced, the lower income groups will pay more tax in relation to the affluent, which is inequitable. It is uncertain, unclear and difficult to calculate the tax base. Losses in employment and a decrease in the GDP will hinder the progress of the economy and will be contrary to the bigger economic picture. High administration costs and difficult tax base calculations make it inconvenient and inefficient for the taxpayer (Dahms 2017).

Dahms (2017), states that 18.47 percent of sugar tax payable on SSBs in South Africa can either result in a decrease of SSB consumption or it can lead to the consumer purchasing cheaper SSBs with the same or a higher sugar content. As discussed earlier, previous studies concluded that a 20 percent sugar tax rate will have a significant impact on the reduced consumption of SSBs and a positive impact on the health of the population. The proposed sugar tax rate in South Africa is currently lower than 20 percent and could result in a shortfall of revenue for National Treasury.

### **5.3    *Recommendations***

A sugar tax alone will not solve the issue of increasing obesity rates in South Africa. It needs to be accompanied by additional measures to complement the introduction of the sugar tax. Some of the measures that could be considered include:

- Increase awareness initiatives through additional campaigns at schools and universities.
- Stricter advertising regulations could be introduced on certain products to indicate their detrimental nutritional value and possible negative impact of health.
- The basket of zero-rated items should be expanded to include healthier food options and help lessen the burden of access to such foods.
- Easier to read food labelling should be introduced to make consumers more aware of the ingredients in the products they consume as well as their nutritional value.
- Social media could be used as a quick and effective means of alerting the public to the negative effects of the consumption of sugar.

#### **5.4 Conclusion:**

In conclusion, whilst the intention surrounding the implementation of sugar tax is commendable, sugar tax in South Africa will not be effective. Insufficient evidence from the case studies suggest that the implementation of fiscal policy to aid the combat of NCDs by altering or influencing consumer behaviour is effective. Consumers will merely seek more affordable alternatives to SSBs. In order for the initiative to reduce obesity and reduce the incidence of NCDs, the tax will need to be accompanied by other additional policy and advocacy measures.

# ANNEXURE I: BEVERAGE LANDSCAPE IN SOUTH AFRICA

Company	Brands/Products	Distributors/Partners
<b>Coca cola</b>	Sparkling Beverages: Coca-Cola range, Fanta, Tab, Sprite, Sprite Zero, Stoney Ginger Beer, Sparletta, Twist, Schweppes	Amalgamated Beverage  Coca Cola Fortune  Peninsula Beverage  Coca Cola Shanduka Beverages
	Still Beverages: BonAqua, Powerade, Valpre, Just Juice, Minute Maid, Minute Maid Nada, PowerPlay, Glaceau vitamin water	
	Appletiser Beverages:  Appletiser, Grapetiser, Peartiser	
<b>Tiger Brand</b>	Energade, Hall's Fruit Juice Rose's	Bromo Foods
<b>Pepsi</b>	Pepsi range, Lipton, Mountain dew, Mirinda, Up	SoftBev
<b>Pioneer Foods</b>	Ceres, Liqui Fruit, Fruitree, Lipton Ice Tea, Wild Island, Daly's	

<b>Quality Beverages</b>	Jive range, Dixi, Planet, Abua Blue, Vimto	SoftBev
<b>Shoreline Beverages</b>	Coo-ee range, Creras, Coo-ee Premium Soda Water, Coo-ee Premium Tonic Water	SoftBev
<b>Mofaya</b>	Mofaya Energy Drink	Inhle Beverages Nampak Bevcan
<b>Lantes Beverages</b>	Volt Energy Drink	
<b>Scheckter's Organic Energy</b>	Scheckter's Organic Energy Drinks range	
<b>Chill Beverages</b>	Score energy Drink  Big Easy Iced tea and Lemonade	

(National Treasury, 2016a: 22 – 23)

## ANNEXURE II: INTERNATIONAL EXPERIENCE

Country	Tax base	Tax rate
<b>United Kingdom</b>  Soft drinks industry levy:  Implementation from April 2018	<ul style="list-style-type: none"> <li>• soft drinks that contain added sugar</li> <li>• will be charged on volumes according to total sugar content</li> <li>• exclude pure fruit juices and milk-based drinks with no added sugar</li> <li>• exclusion for small operators</li> </ul>	Not yet finalised but estimated at: <ul style="list-style-type: none"> <li>• Main rate charge: 18p/litre for drinks with 5–8g of sugar per 100ml</li> <li>• Higher rate charge: 24p/litre for drinks with more than 8g per 100ml</li> </ul>
<b>Mauritius</b>  Excise Tax on Soft Drinks:  Introduced in 2013	<ul style="list-style-type: none"> <li>• soft drinks based on sugar content</li> <li>• excludes bottled water, pure fruit or vegetable juice and dairy products.</li> </ul>	3 cents per gram of sugar content
<b>Hungary</b>  Energy and Soda Drinks:  Introduced: 2011	<u>Soft Drinks</u>  Tax applicable for sodas with more than 8g/100ml	Soft Drinks <sup>54</sup>  \$0.02 per litre
	<u>Energy Drinks</u>  a) Drinks with both Methylanthines more than	Energy Drinks  250 HUF per Litre

	1mg/100ml and Taurine more than 100mg/100ml	
Products with high salt content	Salt Content  Foods with salt more than 15mg/100ml	Salt content  \$0.85 per gram
<b>Mexico</b>  Soft Drink and Junk Food tax:  Introduced: January 2014	Non-Alcoholic Drinks with Added Sugar	Non-Alcoholic Drinks:  1 peso per litre; 9% of price
	Junk Food  Calorie Rich Food with more than 275 calories/100g	Junk Food  8% of price
<b>Finland</b>  Sugar tax: Introduced: January 2011 (historically also taxed)  Abolish: 2017  Soft drinks will continue to be taxed after 2017.	Sugar tax:  Tax on sweets, chocolate ice cream, soft drinks and other sugary products.	Sugar tax:  € 0.95 / kg by weight for confectionery.  € 0.11 / L of the product (e.g. ice cream).  € 0.220 /L beverages with more than 0.5% sugar.  € 0.11 / L for other non-alcoholic beverages.
<b>Norway</b>  Introduced: 1981	Soda Tax  Soda Drinks and concentrates	Soda Tax  NOK 3.27/L for sodas  NOK 19.92/L for concentrate (syrops)  NOK 1.64/L for squash and syrops based on fruits,



		berries, vegetables (without added sugar)  NOK 9.96/L for concentrate -syrup based on fruits, berries, vegetables. (without added sugar)
	Chocolates and Sugar Products	NOK 19.79/L per kg for chocolates and sugar products
	Tax on Sugar	NOK 7.66/kg for sugar
<b>France</b>  Introduced:  January 2012	Soft drink tax:  Drinks containing added sugar or sweetener as well as fruit drinks and flavoured waters.	Soft drink tax:  2014: £0.059 per / L  Energy drinks: £0.79 per / L  Tax burden of about 6% of the average price of sodas
<b>Ireland</b>  Excise tax on soft drinks:  Implemented 1916 – 1992	<ul style="list-style-type: none"> <li>• Sugar and artificially sweetened beverages</li> <li>• Aerated waters and any beverages (including syrups)</li> </ul>	IRP 0.29 / gallon (in 1992)
<b>Denmark</b>  Saturated fat tax:  Introduced: October 2011  Abolished: January 2013	Saturated fat:  Tax on foods that are high in saturated fat (2.3 % threshold).	Saturated fat:  DDK 16 (£1.78) / per kilogram of saturated fat on products which contain > 2.3g/100 g
	Sugar tax:	Sugar tax:

Soft drink tax:  Introduced: 1930s  Abolished: 1 January 2014	Confectionary (chocolate and candy), ice cream and soft drinks)	Differential (DDK 14.20 & 17.75) rates for goods which content of added sugar are more or less than 0.5g pr. 100g.
		Soft drink tax:  DDK 1.64 (€0.15 to €0.22) per litre of sugar sweetened soft drink.

National Treasury, 2016a: 24 -26

### ANNEXURE III: IMPACT OF SSB TAXES

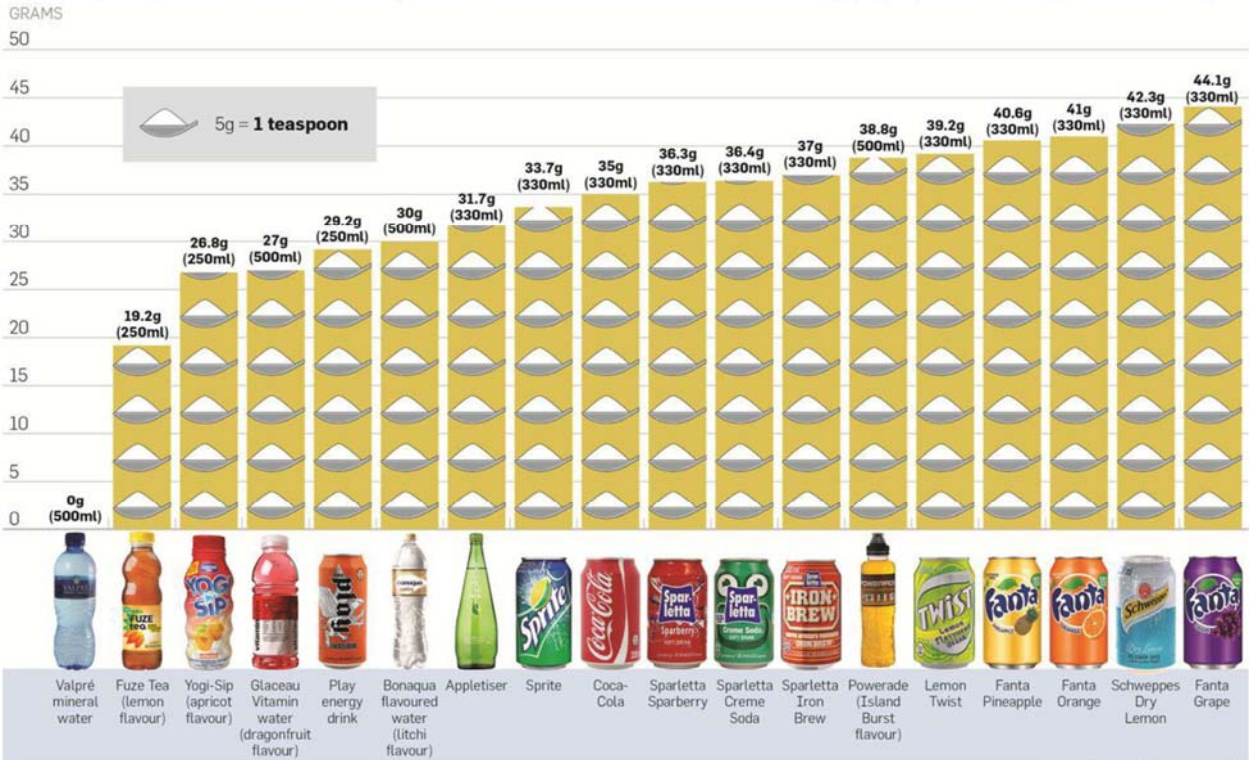
<b>Finland (soft drinks)</b>	<ul style="list-style-type: none"> <li>• Price increased by 7.3% in 2011, by 7.3% in 2012, and by 2.7% in 2013, while the tax was expected to increase the price by 1.5% and 0.9% in 2011 and 2012, respectively.</li> <li>• Price increases led to a reduction in demand by 0.7% in 2011, by 3.1% in 2012 and by 0.9% in 2013.</li> <li>• Almost no change in the trends in competitiveness indicators. Some effects on labour productivity and employment in the industry linked to reduction in demand. Difficult to separate the impact of taxes on alcoholic and non-alcoholic drinks.</li> </ul>
<b>France (regular Cola)</b>	<ul style="list-style-type: none"> <li>• Price increased by 5% in 2012 and by 3.1% in 2013 while the tax itself was expected to increase price by 4.5% in 2012. Increase in the price in 2013 was very large given tax rate was only adjusted to inflation.</li> <li>• Demand reduced by 3.3% in 2012 and 3.4% in 2013.</li> <li>• Retail margins increase for diet cola, no change for regular cola.</li> </ul>

	<ul style="list-style-type: none"> <li>Based on available data no changes in the indicators for competitiveness were noted.</li> </ul>
<b>Hungary (Cola)</b>	<ul style="list-style-type: none"> <li>Price increased by 3.4% in 2011, 1.2% in 2012 and 0.7% in 2013 while tax alone was expected to raise price by 3.1% in 2011.</li> <li>Demand reduced by 2.7% in 2011, by 7.5% in 2012 and by 6% in 2013.</li> <li>Some evidence of substitution towards non-branded products.</li> <li>Increases in competitiveness indicators but unclear how much, if any, can be contributed to the tax.</li> <li>Retailer margins increased.</li> </ul>
<b>Mexico</b>	<ul style="list-style-type: none"> <li>Tax on sugary drinks reduced consumption by 10% and increased the consumption of untaxed alternatives (milk and bottled water) by 7%. Consumer survey of 1,500 Mexicans reported that more than half of the sample reduced the consumption of sugary drinks since the tax was introduced.</li> <li>In the first half of 2014, the biggest soft-drink bottler reported 6.4% reduction in sales while in the second half of 2014 the reduction slowed down to 0.3%.</li> <li>Soft drink bottlers have registered a general fall in the volume of sales in North America, ranging from 0.1% to 3% across different companies (76).</li> <li>The value of the soda market in Mexico is estimated to increase by 9.6% by 2019 from its current value of \$15,935m.</li> </ul>

Source: National Treasury, 2016a: 27 -28

ANNEXURE IV: SSBS SUGAR CONTENT

We gathered a few popular drinks from our canteen's refrigerator to check how much sugar each one contains. The results were surprising. Even 'healthier' drinks, such as flavoured mineral water and drinking yogurt, contain a large amount of sugar



THEUNS KRUGER, Graphics24

National Treasury, 2016: 29

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