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EA/031/17
PM/PS
24 January 2017

THE SOUTH AFRICAN SUGAR ASSOCIATION SUBMISSION TO PARLIAMENT ON THE TAXATION OF SUGAR SWEETENED BEVERAGES (SSBs)

1. EXECUTIVE SUMMARY

“By 2030, South Africa’s rural communities should have greater opportunities to participate fully in the economic, social and political life of the country. Rural economies will be supported by agriculture, and where possible by mining, tourism, agro-processing and fisheries.” National Development Plan (NDP), 2011.

Government introduced the NDP as a long-term socio-economic development roadmap. The NDP identifies South Africa’s key economic and developmental priorities and sets out a framework for how they can be addressed along with high-level sectoral targets. The NDP highlights agriculture as the primary economic activity in rural areas and envisages that the sector could create one million jobs by 2030. The South African sugar industry is able to respond to the objectives of the NDP with regards to job creation, economic infrastructure, environmental sustainability, education and training, and health care with the help of government policy intervention.

During President Jacob Zuma’s State of the Nation Address in Parliament, 2015, he stated that “our economy needs a major push forward,” and in this context, the President announced a “Nine Point Plan to ignite growth and create jobs,” one point of which is “revitalising agriculture and the agro-processing value chain.” The President announced that government was working with the private sector to develop an Agricultural Policy Action Plan (APAP), which would bring one million hectares (ha) of underused land into full production over the next three years.

Sugarcane production has been located within APAP due to its high growth and labour expansion potential. The APAP document notes that sugarcane production in South Africa has dropped by just less than 20% over the last 10 years, due to various factors such as rising input costs, climatic factors like droughts, and competing land uses. Government has partnered with the industry to maintain and increase the areas under cane. Since 2011, government has invested more than R500 million to recapitalise land reform farms, and support small scale growers on communal land to increase their area under cane and create viable business enterprises.

The sugar industry creates approximately 85 000 direct jobs, which represents over 11% of the total agricultural workforce in South Africa. Indirect employment is estimated at 350 000 jobs. Approximately one million people or 1% of South Africa’s population depend on the sugar industry for a living. An important feature of the industry is that it creates employment in rural, job starved regions, where there is often little other economic opportunity. Direct employment occurs in both the sugarcane fields and the sugar mills and cuts across a diverse array of skills from farm labourer to agricultural

scientist. There is also direct and indirect employment through numerous support industries in the provinces where sugarcane is grown and processed.

Despite the positive footprint of the industry in KwaZulu-Natal (KZN) and Mpumalanga, its sustainability is threatened by a number of external factors. The sugar industry is currently fighting for its survival in the midst of the worst drought in recorded history which has led to a decrease in production of 53% in some areas and the unprecedented closure of a number of mills. Compounding the situation has been insufficient import tariff protection resulting in an influx of imports. Despite the industry being in the top 15 most efficient producers out of 120 countries, these challenges have eroded the financial viability of the industry and have pushed the sector to the edge of existence.

In the midst of the crises faced by the industry, National Treasury proposed a policy on the taxation of SSBs in order to reduce high levels of obesity in South Africa. Obesity is a risk factor for Non-Communicable Diseases (NCDs) such as high blood pressure, diabetes, heart disease and cancer. It is caused by excessive calorie intake coupled with insufficient physical activity.

SASA is concerned about the increase in obesity and NCDs in South Africa. The Association has a longstanding commitment to promoting healthy lifestyles and the prevention of NCDs. This has been demonstrated, for more than 30 years, by its investment in the health of society, especially in rural areas through the support of outdoor gyms, physical activity programmes, wellness events and nutrition education to health professionals and educators.

In South Africa there has never been a completed national dietary intake study. Consequently, there is a limited understanding of what the population is currently eating and which foods contribute to calorie intake and impact the most on obesity. Furthermore, in a number of developed economies such as the USA, UK and Australia, research has shown that per capita consumption of sugar has been declining whilst obesity prevalence has been rising. Clearly factors other than sugar consumption have a material and overriding impact on obesity trends. The singling out of an individual ingredient in a particular food product as the tax aims to do, is unlikely to resolve a complex health condition that requires a multi-disciplinary approach.

Based on the scientific evidence available and according to the Organisation for Economic Co-operation and Development (OECD), a tax on SSBs is an ineffective instrument to achieve the desired reduction in obesity and NCDs. International experience of taxes on food have found it to be unsuccessful in reducing levels of obesity. The comprehensive submission made by SASA to Treasury on the policy for the taxation on SSBs, which details the scientific reasoning and evidence of the ineffectiveness of the tax in reducing obesity, has been appended to this document.

It is proposed that a South African Total Dietary Intake study be conducted as a first critical step to determine the main contributors to obesity and NCD's. Following the outcome of this study government and the private sector could determine a set of interventions that could be introduced to curb obesity.

It is inevitable that the imposition of the tax will negatively impact both the sugar milling and sugarcane agricultural sectors of the local sugar industry. Loss in revenue and reduction in sugar consumption will result in a shrinkage of the industry with accompanying job losses. The potential of sugarcane agricultural land going out of production and the consequent jobs losses, will certainly not support Government's strategic plan of prioritising agriculture for economic growth, revitalisation and job creation.

Treasury and Department of Health held a workshop on 11 November 2016, in which the industry was given to understand, was a public consultation. In the first instance there was no invitation calling for interested parties to present. Second, the vast majority of those present were denied the opportunity to comment.

Insufficient consideration has been given to the full impact of the imposition of the tax, and the distressing unintended industrial, socio-economic and agricultural consequences. The imposition of the tax is an inappropriate financial instrument and will not achieve the desired reduction in obesity in South Africa.

2. INTRODUCTION

The South African Sugar Association (SASA) welcomes the opportunity to submit to the parliament Standing Committee on Finance and Portfolio Committee on Health concerns about the policy on the Taxation of Sugar Sweetened Beverages (SSBs).

This submission includes the following important aspects:

- Socio-economic contribution of the industry.
- Industry under Siege - current threats to the sustainability of the sugar industry.
- Impact of the tax on the sugar industry.
- International experience of food taxes on the economy.

All these items should be considered before progressing discussions on the tax.

3. THE SOCIO-ECONOMIC CONTRIBUTION OF THE SOUTH AFRICAN SUGAR INDUSTRY

The South African sugar industry is a significant contributor to the national fiscus, and operates in rural areas of the country. The economic impact of the industry has proven over decades to be so significant that entire towns, e.g. Tongaat in KwaZulu-Natal and Malelane in Mpumalanga amongst many other rural towns and regional centres, have been established based on the business of growing sugarcane and supplying sugar.

The industry is directly responsible for increasing the infrastructure of towns or service nodes, making a variety of social, economic and retail services, opportunities and amenities available to the rural population who otherwise would have been isolated from such facilities. It has played a major role in the economic empowerment of historically disadvantaged people, from small grower and micro-entrepreneur level to senior, executive and industrialist level.

The direct impact of the sugar industry accounts for approximately 0.6% of national GDP, and if the indirect and induced impacts were considered, this figure will rise even further. The economic multiplier for the sugar industry is estimated at 3.2, which compares very favourably with most other industries.

The industry embraces land reform and progresses at an impressive rate in transferring land and empowering historically disadvantaged growers and landowners. It has currently transferred 22% of freehold land under cane from white to black owners. This is substantially higher than the national average.

The growing and milling activities of the industry create a total of 85 000 direct jobs. Indirect employment created by the industry is projected at 350 000 jobs, which excludes induced employment. It is estimated that at least one million people are dependent on the activities required to supply the market with sugar. The industry continues to contribute significantly to community stimulation, through social investment programmes, including training, educational and health projects, development of community centres, women and youth development programmes, philanthropic deeds, infrastructure, entrepreneurship development and environmental protection.

4. INDUSTRY UNDER SIEGE - CURRENT THREATS TO THE SUSTAINABILITY OF THE SUGAR INDUSTRY

The South Africa sugar industry is grappling with the worst multi-year drought ever experienced. The drought continues to be devastating, and it will take years before the industry can recover. The industry has also been facing other significant challenges that have threatened its sustainability. These stem from inadequate import tariff protection, costs increasing higher than revenue and slow progress for participation in cogeneration and renewable energy. All these factors have affected the sustainability of the industry and its contribution to the welfare and livelihoods of particularly the rural communities that depend on it.

4.1 Inadequate tariff protection (price suppression)

The sugar industry operates in a highly subsidised and distorted world market. Therefore, adequate and effective protection of the South African industry is vital to its sustainability, and continued contribution to the South African economy, especially a thriving rural economy.

The current Dollar Based Reference Price (DBRP) is \$566, which is far below the local cost of production. Local sugar pricing is squeezed between a need to cover increasing costs of production, and the ever-present threat of world market imports. Over the period September – December 2016 alone, more than 96 000 tons of sugar imports entered the country which is more than what some South African mills produced in total during recent seasons.

In June 2016, International Trade Administration Commission (ITAC) initiated a review of the variable tariff formula and DBRP application to wheat, maize and sugar. The industry made various submissions to the Commission and again made a case for a higher reference price. It is interesting to note that, in 2015, the Mozambique government increased the duty for refined sugar to \$932 in order to improve sustainability of their local industry.

4.2 Viability of Alternative Markets

There may be the impression that, should there be a reduction in sugar sold into the local market, the South African industry has alternative markets for the sugar displaced. This is far from the case.

If the local market share is lost, the industry would be forced to sell more sugar on the low-priced world export market. The world market is a residual market, where sugar as a commodity trades at well below the cost of production. Only quota or duty-free access to particular markets has the potential to yield somewhat better pricing. Although South Africa has recently been granted 150 000 tons of quota access to the EU, deregulation of this market in October 2017 and the expected impacts of Brexit have rendered this previously-preferential access significantly less valuable. Replacing revenue from local sugar sales lost with revenue from sales on the export market is not sustainable, and must result in a reduction in growing and sugar production capacity.

With limited viable alternative markets for sugar, it may seem logical to consider diversification. The South African sugar industry has been engaging for several years with government for access to renewable energy markets, both cogenerated electricity and biofuels. Detailed policy submissions, cost benefit analyses and the potential socio-economic impacts of cogeneration and biofuels have been

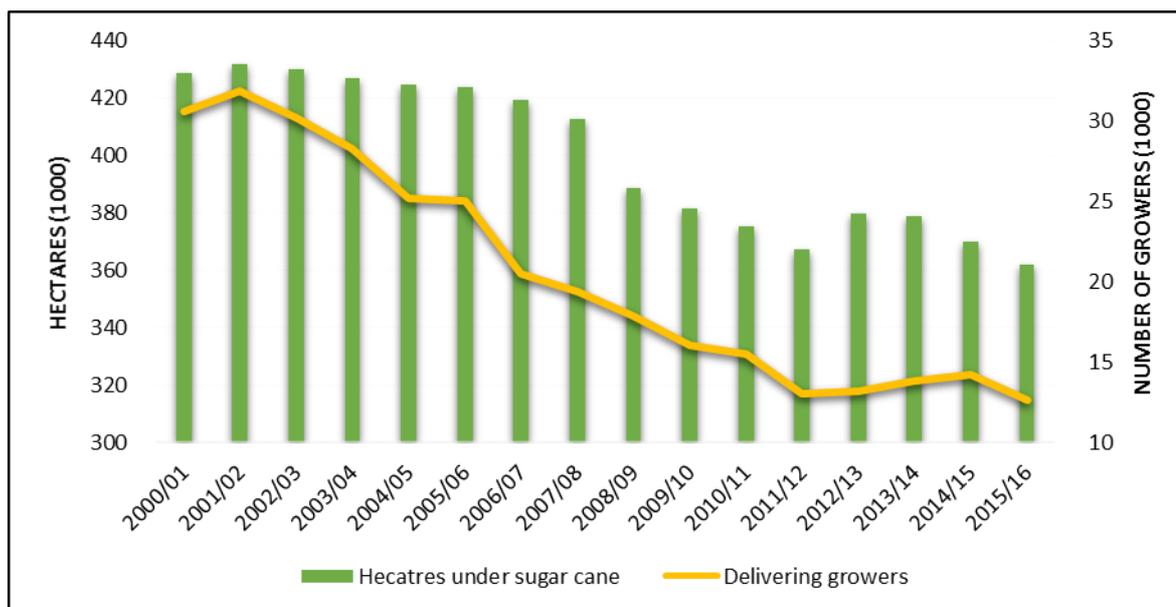
completed and reside with the Department of Energy and the Independent Power Producers (IPP) Office. In June 2015, the first Bid window for the Cogen IPP programme was released, which unfortunately only catered for small, low investment projects. The sugar industry has appealed to government to release the next phase of the cogeneration programme, conducive for large scale industry investment and socio economic development. Detailed submissions have also been made to the Department of Energy, on the draft Biofuels Regulatory Framework and Subsidy Model, for the inclusion of sugarcane. The industry has been informed that the Biofuels Policy now resides with Cabinet. Despite rigorous engagement with government and extensive policy submissions progress in accessing the renewable energy markets have been negligible.

5. IMPACT OF THE TAX ON THE SUGAR INDUSTRY

The industry supplies approximately 620 000 tons sugar to the beverage sectors that will be affected by the tax. Based on elasticity quoted by the policy paper (-1.2), a 20% tax will yield a reduction of domestic sugar sales of 170 000 tons. These tons will be displaced onto the world market at a loss. The loss of revenue will affect both the growing and milling sectors negatively. Small scale growers who lack economies of scale and are unable to diversify, will be hardest hit as they currently operate with the tightest of margins. The South African sugar industry is estimated by LMC to operate at one of the lowest margins of all sugar-producing countries. This is largely due to escalating costs of production, some of these beyond the influence of the industry, and an inability to recover costs by market pricing strained by competition from sugar imported from Swaziland, the SADC and other sources.

It follows that any government policy which impacts the sugar industry, such as the imposition of a tax, will have significant and far-reaching consequences on the livelihood of those dependent on it. In addition, upstream and downstream industries will be impacted, with adverse consequences right through the value chain in terms of ability to sustain business and employment. Suppliers of agricultural and manufacturing inputs, contractors, transport, warehousing, packaging, wholesale and retail, to name but some, would be impacted. This is particularly significant where historically disadvantaged business owners will be put at risk due to compounded losses.

Since 2000 the South African sugar industry has seen a steady decline in sugarcane harvested and crushed. Area under cane reduced by 66 675 ha from about 428 822 ha in 2000/2001 to 362 147 ha in 2015/2016 season. The number of small scale growers delivering cane has more than halved since 2000. The 66 675 ha of area under sugarcane lost equates to more than 3.7 million tons of cane lost and 15 751 rural jobs lost linked to sugarcane growing. Please note that the area under sugarcane was mostly lost during periods of sustained low world sugar prices which are part of the commodity cycle. Since 2011, government has invested more than R500 million to recapitalise land reform farms, and support small scale growers on communal land to increase their area under cane and create viable business enterprises. The impact of this is evident in the graph below.



5.1 Jobs impact

Any reduction in sugar consumption will have a negative impact on employment in the industry. To contextualise job losses both macro and micro-level employment should be considered.

5.1.1 Macro-level job losses

Based on the industry average of approximately 60 tons cane/ha, more than 25 000 hectares (170 000 tons sugar) is at risk. This is 10% of the harvested area under cane across the industry. With respect to jobs, on average 1000 ha of commercial cane production results in approximately 133 permanent jobs and 210 seasonal jobs. If Treasury's assumptions are correct, 3 990 permanent and 6 300 seasonal jobs could be affected. The full impact of the tax on the sugar industry has not yet been modelled.

5.1.2 Micro-level impact

The sugar industry includes more than 20 000 small scale growers that farm in rural areas, often on small units of land. In many instances, the small scale growers operate on marginal soils and at a considerable distance from the mills. Given the tight financial margins of these growers, support from the industry together with the guaranteed market significantly assists the viability of their businesses.

The negative consequences of land going out of sugarcane agricultural production can be illustrated using the North Pondoland Development case study.

The North Pondoland Sugar development was launched in 1986. It was a sugarcane and timber estate located in Mbizana local Municipality in the OR Tambo District Municipality northeast of Transkei, Eastern Cape. In 2000, approximately 3 300 ha was under cane production, managed by 330 growers. The project delivered 129 000 tons cane per annum and generated approximately R17 million of revenue in the year 2000.

However, following the contestation of the land claim in the area in the early 2000, the scheme gradually collapsed declining to only 500 ha in the 2008/09 season and producing only 6400 tons of cane. Sadly, this area is currently completely out of sugarcane agricultural production which has devastated the livelihoods of this community.

But, should 4000 ha be resuscitated to sugarcane production, based on an average production of 50 tons cane per ha, a total 200 000 tons could be produced. Approximately R110 million in revenue would be generated for the local area supporting the community livelihoods. This would translate to more than R275 000 in gross annual income per household for 400 households. In addition 700 permanent jobs will be created.

6. INTERNATIONAL EXPERIENCE OF THE EFFECT OF FOOD TAX ON AN ECONOMY

In 2011, Denmark instituted a tax on foods containing more than 2.3% saturated fat. The regressive nature of the tax led to it being abolished the following year. Many Danes switched to cheaper brands or went over the border to Sweden and Germany to do their shopping. Approximately 10% of the tax revenues were used for the administrative costs and it was estimated to have impacted 1 300 Danish jobs. The tax had an insignificant effect on consumption of the target ingredient and caused job losses.

7. CONCLUSION

The South African sugar industry does not support the proposed tax on sugar sweetened beverages. The imposition of the tax will negatively impact both the sugar milling and sugarcane agricultural sectors in KZN and Mpumalanga. Loss in revenue and reduction in sugar consumption will result in a shrinkage of the industry. The potential of sugarcane agricultural land going out of production and the consequent jobs losses, will certainly not support the NDP and Nine-Point plan of Government.

Before any tax on food is implemented, government should consider the following recommendations:

- Multiple, evidence-based interventions to prevent and manage obesity in South Africa are used.
- A Total Dietary Intake Study to establish what South Africans are eating is completed to inform policy development.
- A Socio-Economic Impact Assessment of the proposed intervention on the sugar industry and its value chain is considered ahead of implementation.

- A strong campaign is needed to accurately inform and enable the public in managing their weight.

Insufficient consideration has been given to the full impact of the imposition of the tax, and the distressing unintended industrial, socio-economic and agricultural consequences. The imposition of the tax is an inappropriate financial instrument and will not achieve the desired reduction in obesity in South Africa.

Included as an appendix to this submission is the comprehensive submission made by SASA to Treasury on the policy for the taxation on SSBs. This details the scientific reasoning and evidence of the ineffectiveness of the tax in reducing obesity.

SASA thanks the parliamentary committee for this opportunity to provide written input on the policy.



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EA/148/16
RL/PM/SM
22 August 2016

Mr Mpho Legote
The National Treasury
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VIA E-MAIL DELIVERY: Mpho.Legote@treasury.gov.za

Dear Mr Legote

COMMENTS ON THE POLICY PAPER ON TAXATION OF SUGAR SWEETENED BEVERAGES BY NATIONAL TREASURY

1. INTRODUCTION

The South African Sugar Association (SASA) welcomes the opportunity to comment on the Policy Paper on Taxation of Sugar Sweetened Beverages published by National Treasury on 8 July 2016.

SASA is a statutory association and operates within the ambit of the Sugar Act, 1978 and Sugar Industry Agreement, 2000. Statutory powers of self-governance are granted to the South African sugar Industry. SASA provides a range of services to enhance the profitability, global competitiveness and sustainability of the South African sugar industry. The South African sugar industry is one of the world's leading producers of high quality sugar.

2. CONTEXT TO AND SUMMARY OF OUR POSITION

It is agreed that the increase in obesity and non-communicable diseases (NCDs) in South Africa is a significant cause for concern.

Long-committed to understanding the role of sugar in human nutrition and health, the South African sugar industry has, since the 1970s, supported both local academic research and followed global research on the subject.

The evidence-based insights so derived have served to ensure the integrity of the industry's nutrition education programmes, with the content of its educational material being subject to independent academic review and ongoing revision as the science of dietetics has advanced. The importance of a healthy lifestyle, characterised by a balanced diet and the promotion of physical activity, have been consistent hallmarks of the industry's communication programmes.

Furthermore, it is worth noting that in a number of developed economies such as the USA, UK and Australia their per capita sugar consumption has been declining whilst obesity prevalence has been rising. Clearly factors other than sugar consumption have a material and overriding impact on obesity trends.

It is within this context and long-standing commitment to the industry's education programmes that the South African sugar industry responds to the Policy Paper on Taxation of Sugar Sweetened Beverages (SSBs) published by National Treasury on 8 July 2016.

In summary, the South African sugar industry's response is informed by the following observations:

- While an association between the imposition of such a tax and sugar consumption may have been established, the association between such a tax and reducing obesity is at best described as tenuous, with no significant statistical evidence to date. Such a link has only been based on mathematical modelling.
- The association between the imposition of such a tax on SSBs and a reduction in NCD's is unproven, not even claimed by the World Health Organisation (WHO), or any other authority or scientist.
- The singling out of an individual ingredient in a particular food product is unlikely to be a solution to a complex phenomenon that requires a multi-disciplinary approach to the promotion of healthy lifestyles including healthy eating plans and patterns.

It is the South African sugar industry's recommendation that before any tax on food is implemented that the Department of National Treasury:

- a. Recognises the need for multiple, evidence-based interventions to prevent and manage obesity in South Africa.
- b. Undertake a Total Dietary Intake Study to establish what South Africans are eating, based upon which an informed approach can be devised.
- c. The policy to tax sugar to achieve a health outcome needs to be reviewed in the context of balanced and comprehensive scientific evidence. The Organisation for Economic Co-operation and Development (OECD) policy research clearly states that the link to health outcomes and taxes on food has not been established.¹
- d. Conduct a Socio-Economic Impact Assessment of the proposed intervention in order that the impact on the multiple industries throughout the value chain is considered ahead of implementation.

It is to be appreciated that South African sugar industry is concerned that an unproven link between such a tax and a reduction in obesity and NCDs would have the undesirable consequence of a further erosion in the number of farming enterprises and jobs in the rural economy of South Africa.

¹ OECD (2016) Health-Related Taxes on Food and Non-Alcoholic Beverages in OECD Countries, Key Design Issues, Working Party No 2 on Tax Policy Analysis and Tax Statistics

The implementation of a tax on SSBs without addressing the impact on the sugar industry and the whole value chain including, e.g. informal spaza stores for which SSBs are a significant contributor to turnover, would see the undesirable outcome of further rural job losses, closure of mills and sugar industry consolidation. Should Government still want to proceed the impact of the tax on SSBs on multiple industries throughout the value chain needs to be addressed before implementation of the tax on SSBs.

The positions and proposals set out above are the subject of further substantiation in the following sections.

3. THE SOCIO-ECONOMIC CONTRIBUTION OF THE SOUTH AFRICAN SUGAR INDUSTRY AND THE EFFECT OF THE TAX ON THE ECONOMIC VIABILITY OF THE SUGAR INDUSTRY

The South African sugar industry is a significant contributor to the national fiscus, and operates in deep rural areas of the country.

The economic impact of the industry has proven over decades to be so significant that entire towns, e.g. Tongaat in KZN and Malelane in Mpumalanga amongst many other rural towns and regional centres, have been established based on the business of growing and supplying sugar. The farming of sugarcane and the manufacturing of sugar have been the main stimulus behind major infrastructure developments where the industry is present, especially roads, railways and even seaport infrastructure.

The industry is directly responsible for increasing the infrastructure of towns or service nodes, making a variety of social, economic and retail services, opportunities and amenities available to the rural population which otherwise would have been isolated from such facilities. It has played a major role in the economic empowerment of historically disadvantaged people, from small grower and micro-entrepreneur level to senior, executive and industrialist level.

The direct impacts of the sugar industry accounts for approximately 0.6% of national GDP, and if the indirect and induced impacts were considered, this figure will rise even further. The economic multiplier for the sugar industry is estimated at 3.2, which compares very favourably with most other industries.

The industry embraces land reform and progresses at an impressive rate in transferring land and empowering historically disadvantaged farmers and landowners.

The growing and milling activities of the industry create a total of 85 000 direct jobs. Indirect employment created by the industry is projected at 350 000 jobs, which excludes induced employment. It is estimated that at least one million people are dependent on the activities required to supply the market with sugar. The industry continues to contribute significantly to community stimulation, through social investment programs, including training, educational and health projects, development of community centres, women and youth development programmes, philanthropic deeds, infrastructure, entrepreneurship development and environmental protection.²

² McCarthy J, Owusu-Ampomah K. (2007) Study to Assess the Impact of Sugar Mills on the Surrounding Communities as well as the Impact of the South African Sugar Association's Social Spend.

It follows that any government intervention which impacts the sugar industry, such as the imposition of a tax, will have significant and far-reaching consequences on the livelihood of those dependent on it. In addition, upstream and downstream industries will be impacted, with adverse consequences right through the value chain in terms of ability to sustain business and employment. Suppliers of agricultural and manufacturing inputs, contractors, transport, warehousing, packaging, wholesale and retail, to name but some, would be impacted. This is particularly significant where historically disadvantaged business owners will be put at risk.

The volume of sugar supplied by the industry to the SSBs sector is approximately 620 000 tons per annum, and is the largest single sector for the industry in terms of sales. With regard to production, more than 100 000 hectares of cane are necessary to meet supply to the SSBs manufacturers.

Scientific reviews as quoted by the policy paper use a price elasticity of -1.2, implying that a 23% increase in SSBs price (including VAT) will lead to a drop of 27.6% of sugar in SSB's.³ This equates to a loss of local market sales of 170 000 tons of sugar, approximately 10% of total current sales. The impact of this loss of sales has serious consequences for the future sustainability of an industry already burdened by significant external pressures. In particular, such an impact would be disproportionately felt by small scale farmers, in turn seriously affecting the government's objective of building a thriving rural economy.

The severity of the impact of a 10% reduction of the local market is not so obvious and would be the subject of a regulatory impact assessment. To illustrate the impact on the margin it can be illustrated in two ways. Historically sugar cane growers go mostly out of business during periods of sustained low world sugar prices for export sugar when margins are eroded or negative.

Firstly the Net Farm Income (or profit before reward to farm owner) compared to average prices typically reduces by 50% to 100% during low world sugar price cycles based on historical data. The sugar tax impact is most severe at low world sugar prices and will be a further 50% reduction of the Net Farm Income. The combined impact of low world sugar prices is now 100% to 150% reduction of the expected margin at normal prices. Clearly the impact of a permanent shift of reduced margins due to sugar tax and reduced local market is disastrous.

This impact is corroborated by historical data. Secondly since 2000 the South African sugar industry has seen a steady decline in sugarcane harvested and crushed. Area under cane reduced by 38 797 ha from about 421 637 ha in 1999/2000 to 382 840 ha in 2013/2014 season. The number small scale growers delivering has halved since 2000. The 38 797 ha of area under sugarcane lost equates to 2.1 million cane lost and 9 000 rural jobs lost linked to sugarcane growing. Please note that the area under sugarcane was mostly lost during periods of sustained low world sugar prices which are part of the commodity cycle.

It is the view of the South African sugar industry that insufficient consideration has been given to the full impact of the imposition of a tax.

The imposition of such a significant fiscal measure, in the absence of a comprehensive study on the components of the South African lifestyle and diet that contribute to obesity

³ Powell LM1, Chriqui JF, Khan T, Wada R, Chaloupka FJ. Assessing the potential effectiveness of food and beverage taxes and subsidies for improving public health: a systematic review of prices, demand and body weight outcomes. *Obes Rev.* 2013 Feb;14(2):110-28 .

and NCD's, is misguided. It is proposed that the South African Total Dietary Intake study be conducted as a first critical step to determine the main contributors to Obesity and NCD's. Any measures taken by government, following the outcome of this study, such as a tax on a particular foodstuff or industry, must also be properly considered through a Socio-Economic Impact Assessments before implementation.

4. USING TAX TO ADDRESS OBESITY

Based on the scientific evidence available, the industry is not convinced that a tax on SSBs is an effective option to achieve the desired reduction in obesity and NCDs. It bases this view on its ongoing and comprehensive review of independent literature, reports and research outcomes including the following:

4.1 Food Supply and Diet Energy Requirements

According to WHO and Food and Agriculture Organisation (FAO) world food supply rose from 1961 to 2011 from 2 194 to 2 868 kcal/day per person. At the same time the share of sugars and sweeteners reduced from 9% to 8%. The WHO recommends that a healthy, balanced daily diet for males and females averages 2 250 kcal/day.

Linking the FAO information on food supply and the WHO guidelines illustrates that the total energy intake from all sources exceeds requirements by 50% on average in the developed world and by 23% in the developing world (Table 1). The consumption of excess energy and the lack of physical exercise according to WHO and literature is the reason given for the rise in obesity.

At the proposed level of tax on SSBs the impact on the total energy intake is about 12 kcal/capita/day or 0.4% of energy intake. This explains why no evidence can be found that a single approach on one component of the diet has an impact on obesity or NCDs of which the cause is multifactorial. The OECD policy research clearly states that the link to health outcomes and taxes on food has not been established⁴.

No caloric and lifestyle study for SA is available. The South African sugar industry is part of a team working through the Consumer Goods Council of South Africa in putting together initiatives in response to a call by the National Department of Health to address obesity and NCDs. One of the initiatives to which the industry has committed funding, is the South African Total Dietary Intake Study. This study will provide for informed, evidence based and effective strategies for the fight against obesity and NCDs. Introducing a tax on sugar could undermine this initiative along with others with the National Department of Health that focus on consumer awareness and an education campaign aimed at promoting responsibility for citizens to adopt a healthy lifestyle.

⁴ OECD (2016) Health-Related Taxes on Food and Non-Alcoholic Beverages in OECD Countries, Key Design Issues, Working Party No 2 on Tax Policy Analysis and Tax Statistics

Table 1: Food supply in kcal/capita/day - averages Source: FAO, Faostat								
	Developed Countries				Developing Countries			
	1961-1973		2009-2011		1961-1973		2009-2011	
Cereals	1059.3	34%	950.7	28%	1195	59%	1378.5	50%
Vegetable Oils	241.2	8%	489.1	15%	89.5	4%	235.5	9%
Sugars and Sweeteners	393	13%	415.4	12%	137.8	7%	191.1	7%
Meat	272	9%	355.5	11%	67.3	3%	201.2	7%
Dairy	276.5	9%	302.2	9%	50.9	3%	101.9	4%
Fish	39.7	1%	52.9	2%	16	1%	31.2	1%
Eggs	46.5	2%	52.4	2%	8.8	0%	31.8	1%
Other	750.7	24%	747.4	22%	456.4	23%	596.1	22%
Total	3078.9		3365.6		2021.7		2767.3	

Clearly diet changes are required to reduce the overall energy intake and lifestyle changes are required to improve physical activity. The narrow and simplistic focus on one component of the diet cannot achieve the desired health outcome. The South African Total Dietary Intake Study will provide the country with independent research findings on what South Africans eat, including what percentage of energy sugar and SSBs contribute to the diet and what the underlying contributing factors for obesity and NCDs are. This will allow for informed, evidence based and effective strategies to combat obesity and NCDs.

4.2 Link of Tax to Obesity and Health Outcomes

No study has claimed or been able to demonstrate a link between imposing taxes on SSBs and the desired outcome of reducing obesity and NCDs.

Linking the imposition of taxes on positive health impacts can currently only be done via mathematical modelling as done by Lin et al in the US(2011)⁵. Studies based on existing SSBs type taxes (range of 1% to 8%) to date have not been able to find statistically significant impact on obesity (Kim et al, 2006⁶; Powell et al 2009⁷).

Evidence from Mexico suggests that a 10% tax on sugary drinks led to an average daily decline in consumption of 36ml per person (Colchero et al. 2016)⁸, the equivalent of 16 kilocalories which is insufficient to effect weight loss. Studies suggest that there needs to be a reduction of 500 kilocalories per day for long term weight loss.

4.3 Sugar and Obesity

Multiple studies and communications have investigated the role of sugar in obesity in recent years. It has been argued that added sugar may be associated with an increased risk of obesity, but despite this there is still no conclusive evidence of a direct link between sugar consumption and obesity development (Lisbona Catalán

⁵ Lin BH, Smith TA, Lee JY, Hall KD. Measuring weight outcomes for obesity intervention strategies: The case of a sugar-sweetened beverage tax. *Economics and Human Biology*. 2011;9 (4):329–41.

⁶ Kim, D., & Kawachi, I. (2006). Food Taxation and Pricing Strategies to? Thin Out? the Obesity Epidemic. *American journal of preventive medicine*, 30(5), 430-437.

⁷ Powell, L., J. Chiqui, F. Chaloupka (2009) Associations between state-level soda taxes and adolescent body mass index. *Journal of Adolescent Health* 45(3): S57-63

⁸ Colchero, M. A., et al. (2016) Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. *British Medical Journal* 352: h6704

et al., 2013; Tappy, 2016)^{9,10}. This has been independently concluded to be a result of the majority of studies investigating “Sugar and Obesity” focusing on just sugar, and failing to acknowledge other dietary components and nutrients that contribute towards our total energy intake. In conditions, as complex and multi-factorial as obesity, it is highly unlikely that one dietary component, such as sugar, is the sole cause of weight gain and obesity development.

Weight gain should be considered a function of excessive total energy intake, accounting for all dietary components and nutrients consumed, rather than a function of energy contributed from one dietary component (Rippe & Angelopoulos, 2016)¹¹. Several other recent articles have come to a similar conclusion that there is no high quality evidence relating sugars directly to obesity (Kaiser et al., 2013; Khan & Sievenpiper, 2014; Tappy & Le, 2015)^{12, 13, 14}. Additionally, within a longitudinal population-based study focusing on children and adolescents, Ambrosini and co-authors (2016)¹⁵ showed that a dietary pattern, which is high in both fat and high sugar intake, was associated with obesity, however a dietary pattern that was just high in sugar intake was not associated with obesity. The authors stated that sugar does not have a unique role in the aetiology of obesity and needs to be considered as a part of an overall dietary pattern.

In 2011, an analysis of the changes in sugar consumption and obesity over the past 30 years in Australia was reported. The evidence showed that while Australians reduced their sugar consumption by 23% since 1980 obesity increased 300% over the same period.^{16,17}

The analysis also confirmed that the consumption of sugar has decreased in both the United States by 20 percent and the United Kingdom by 10 percent since 1980 (Figures 1, 2, 3, 4). The term “Australian Paradox” was adopted to describe this contradiction that the rise in obesity rates was a result of sugar consumption.

⁹ Lisbona Catalán A., Palma Milla, S., Parra Ramirez, P. & Gomez Candela, C. (2013) Obesity and Sugar: Allies or Enemies. *Nutr Hosp*, 28, 81-87.

¹⁰ Tappy, L. (2016). What Nutritional Physiology tells us about Diet, Sugar and Obesity. *Int J Obes*, 40, S28-S29

¹¹ Rippe, J. M., & Angelopoulos, T. J. (2016). Added Sugars and Risk Factors for Obesity, Diabetes and Heart Disease. *Int J Obes*, 40, S22-S27

¹² Kaiser, K. A., Shikany, J. M., Keating, K. D. & Allison, D. B. (2013). Will Reducing Sugar Sweetened Beverage Consumption Reduce Obesity? Evidence supporting Conjecture is Strong, but Evidence when Testing effect is Weak. *Obes Rev*, 14(8), 620-633

¹³ Kahn, R. & Sievenpiper, J. L. (2014). Dietary Sugar and Body Weight: Have we Reached a Crisis in the Epidemic of Obesity and Diabetes? *Diabetes Care*, 37(4), 957-962

¹⁴ Tappy, L. & Kim-Anne, L. (2015). Health Effects of Fructose and Fructose-Containing Caloric Sweeteners: Where Do We Stand 10 Years After the Initial Whistle Blowing's? *Curr Diab Rep*, 15(8), 54

¹⁵ Ambrosini, G. L., Johns, D. J., Northstone, K., Emmett, P. M. & Jebb, S. A. (2016). Free Sugars and Total Fat are Important Characteristics of a Dietary Pattern Associated with Adiposity across Childhood and Adolescence. *J Nutr*, 146(4), 778-784

¹⁶ Barclay AW, Brand-Miller J (April 2011). "The Australian paradox: a substantial decline in sugars intake over the same timeframe that overweight and obesity have increased". *Nutrients*. 3 (4): 491–504. doi:10.3390/nu3040491. PMC 3257688 free to read. PMID 22254107.

¹⁷ Barclay AW, Brand-Miller JC (2013). "Trends in added sugar supply and consumption in Australia: there is an Australian Paradox"

Figure 1: UK Sugar Consumption grams/year/capita (2001-2013) Source: UK Government Adjusted National Food Survey

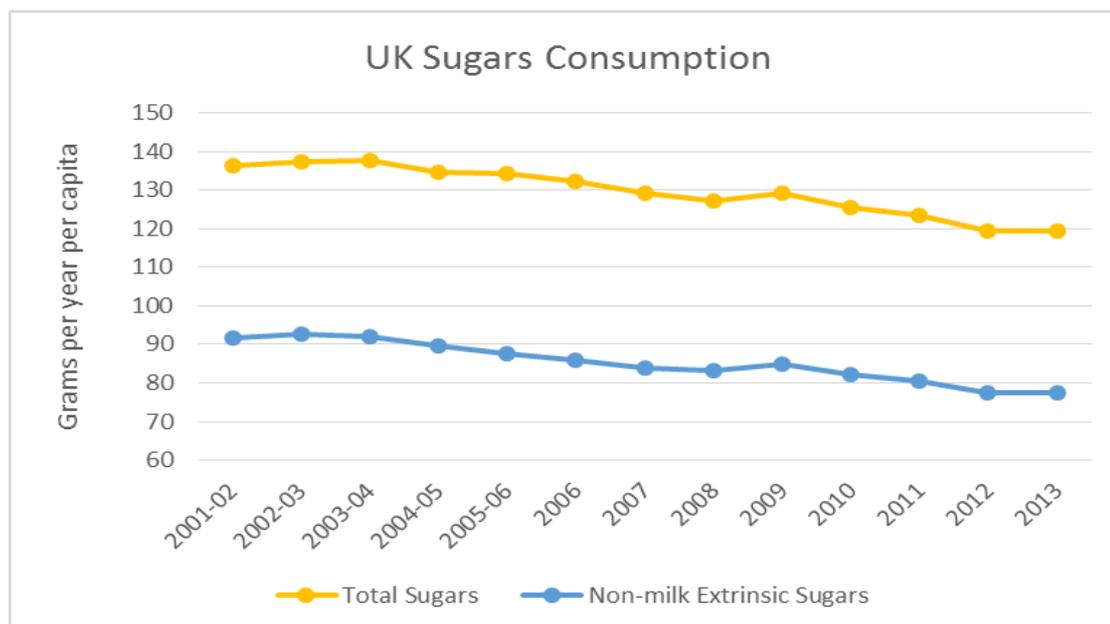


Figure 2: Trend in obesity prevalence among adults Health Survey for England 1993-2012: source: Public Health England

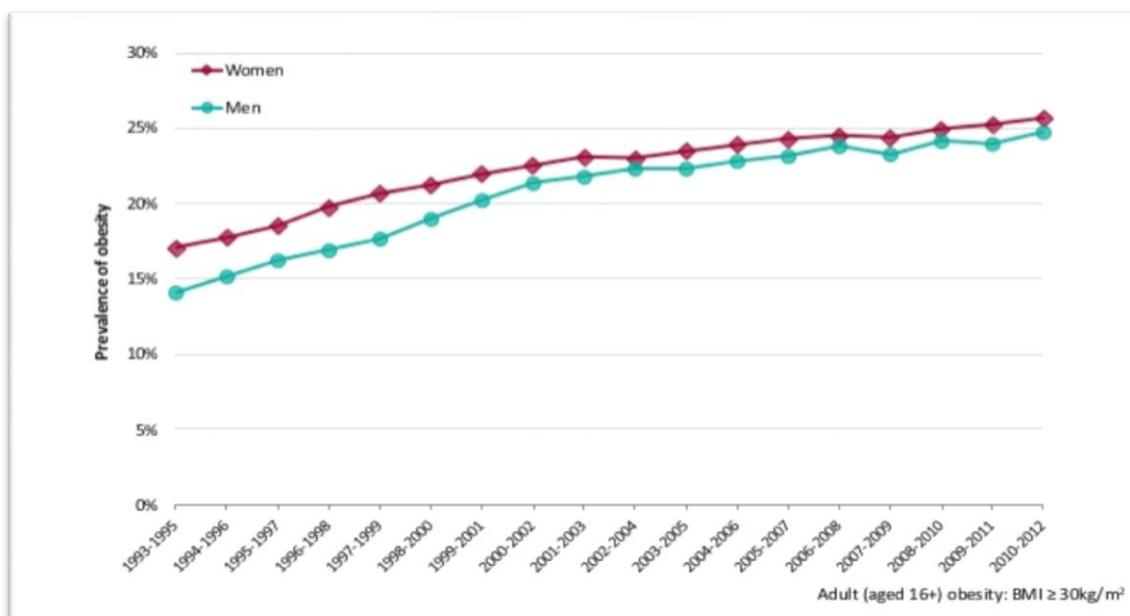


Figure 3: US Sugar and High Fructose Corn Syrup Consumption (2001-2014)

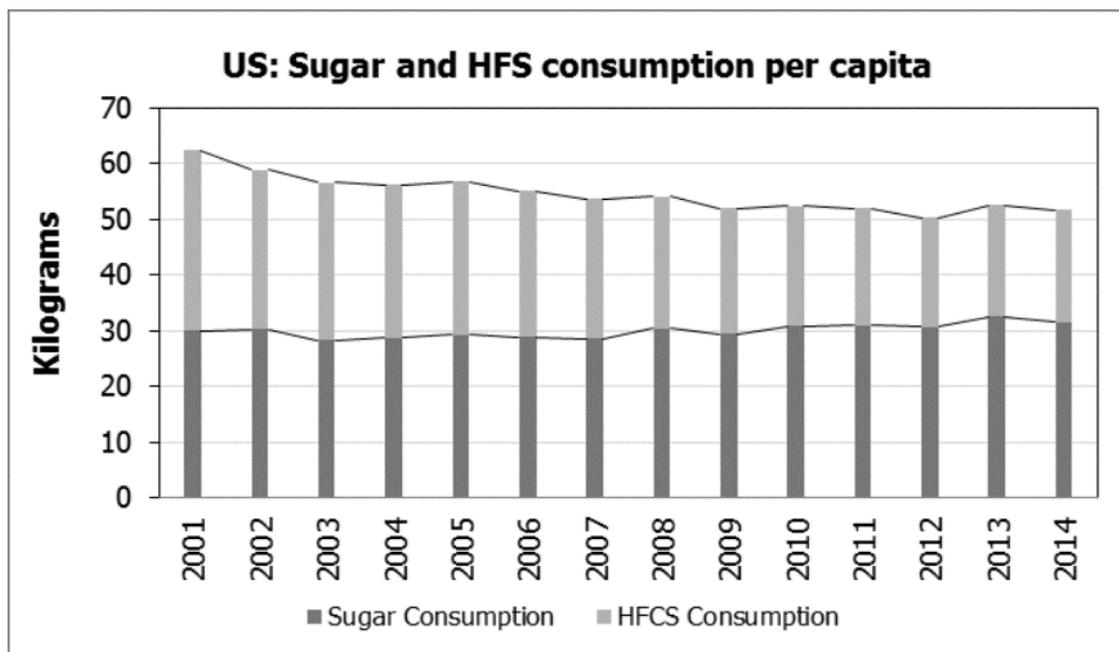
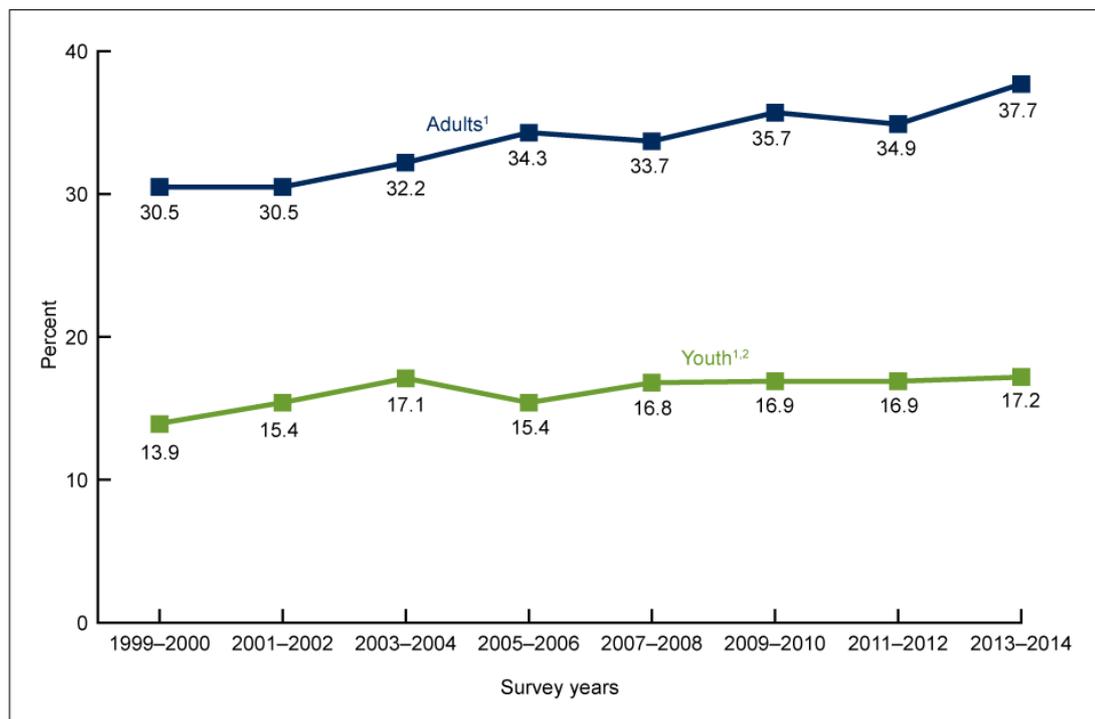


Figure 4: Trends in obesity prevalence among adults aged 20 and over (age-adjusted) and youth aged 2–19 years: United States, 1999–2000 through 2013–2014



¹Significant increasing linear trend from 1999–2000 through 2013–2014.
²Test for linear trend for 2003–2004 through 2013–2014 not significant ($p > 0.05$).
 NOTE: All adult estimates are age-adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over.
 SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey.

Over-consumption of any food energy (calories) will lead to body weight gain. However, there is no convincing evidence to support the view that sugar, including sugar in drinks, is directly or uniquely responsible for obesity let alone NCDs. The current available evidence continues to have methodological flaws, such as not adjusting for energy intake or physical activity, and as such this does not allow firm and valid conclusions to be drawn. Until more reliable methods of measuring energy intake in individuals are developed and implemented, the precise causes of excessive weight gain within populations will remain vague.

Against this background, the view that a SSBs tax will effectively address the problem of obesity can be described as a contentious one.

In the next section, the South African sugar industry's comments on the scientific detail contained in the policy paper are presented.

5. COMMENTS ON THE SCIENTIFIC SPECIFICS OF THE POLICY PAPER

In this section the scientific detail upon which the South African sugar industry wishes to comment is presented in bold font followed by the observations that it wishes to make. Again these observations are in all instances based upon the findings of independent, credible research.

5.1 Page 5, Note 1.6 : *The WHO's guideline on sugar intake recommends that adults and children restrict sugar intake to less than 10 per cent of total energy intake per day (i.e. 50 grams of sugar equivalent to around 12.5 teaspoons), and suggests a further reduction to below 5 per cent of total energy intake per day for additional health benefits (i.e. 25 grams of sugar equivalent to around 6 teaspoons).*⁹ In this context, Member States need to develop guidelines, recommendations or policy measures to reduce the content of free and added sugars in food and non-alcoholic beverages.

WHO stated in their report that there would need to be significantly more robust evidence and deliberation before the 5% value could be considered to be supported as a strong recommendation and taken forward into policy.

The WHO strongly recommends that intake of free sugars should not exceed 10% of total energy intake, with further suggestions to reduce intake to below 5% of total energy intake (the latter recommendation is conditional). These recommendations were based on evidence from commissioned systematic reviews evaluating the effects of free sugars on excess weight gain (Te Morenga et al, 2013)¹⁸ and dental caries (Moynihan & Kelly, 2014)¹⁹. However, data in relation to "Sugar and weight gain" was inconclusive, attributing the change in body fatness that occurs with modifying intake of sugars to an alteration in energy balance rather than a physiological or metabolic consequence of monosaccharide or disaccharide intake. Therefore, the recommendations themselves are based on evidence in relation to dental caries risk, not obesity prevention.

WHO also states that the scientific evidence from isocaloric studies shows that sugars do not have any specific role in obesity, simply acting as a source of

¹⁸ Te Morenga, L., Mallard, S., & Mann, J. (2013). Dietary Sugars and Body Weight: Systematic Review and Meta-analyses of Randomised Controlled Trials and Cohort Studies. *BMJ*, 346, e7492.

¹⁹ Moynihan P.J. & Kelly S.A (2014). Effect on Caries of Restricting Sugars Intake: Systematic Review to inform WHO Guidelines. *Jour Dental Res*, 93(1), 8-18

energy like many other foods. The report makes clear that in studies where increases in body weight were observed, this was as a result of excess energy intake.²⁰

5.2 Page 6, Note 1.7: SSBs have high sugar content, no nutritional value and are processed differently by in the body when consumed compared to food. It should also be noted that fluid calories are not accounted for in the same way as calories from solid foods.13 Evidence suggests that SSBs are generally consumed quickly and do not provide the same feeling of fullness that solid food provides such that consumers tend not to reduce intake of other foods sufficiently to compensate for the extra calories provided by sugar-sweetened beverages.

The hypothesis that solids are more satiating than liquids remains unproven and cannot be used as a basis for the implementation of this policy that should be informed by scientifically robust information.

Researchers have investigated whether sugar is less satiating in liquid than in solid form. Some investigators hypothesize that liquids may not trigger physiological satiety mechanisms, so the body does not compensate completely for liquid calorie intake.

A basic question is whether there is a plausible physiological mechanism to explain the suggested hypothetical difference between calories from liquid sources and calories from solid foods. Almiron-Roig et al (2003) and colleagues²¹ noted that some studies found liquids to be less satiating than solids, whereas other studies found the converse.

Drewnowski and Bellisle (2007)²² reviewed a variety of studies and concluded that “the notion that liquid calories are not perceived by the body rests on inconclusive evidence.” They cited a number of studies showing that SSBs used as meal replacements in calorie controlled diets were effective weight loss tools, and, therefore, the claims that liquids have particular obesity inducing properties are unfounded. Anderson (2006)²³ agreed, noting that “the associations between sugars-sweetened beverages and obesity must be viewed as circumstantial because biological plausibility, based on known physiologic mechanisms regulating food intake and energy balance, and short-term experimental studies, does not support cause and effect conclusions.”

The 2010 Dietary Guidelines Committee of the United States Department of Food and Agriculture (USDA) concluded that “A limited body of evidence shows conflicting results about whether liquid and solid foods differ in their effects on energy intake and body weight except that liquids in the form of soup may lead to decreased energy intake and body weight.”²⁴

²⁰ WHO (2015): Guideline: Sugars intake for adults and children. Geneva: World Health Organisation; 2015

²¹ Almiron-Roig E, Chen Y, Drewnowski A. Liquid calories and the failure of satiety: how good is the evidence? *Obes Rev.* 2003;4:201Y212.

²² Drewnowski A, Bellisle F. Liquid calories, sugar, and body weight. *Am J Clin Nutr.* 2007;85:651Y661.

²³ Anderson GH. Sugars containing beverages and post-prandial satiety and food intake. *Int J Obes.* 2006;30:S52YS59.

²⁴ http://www.nel.gov/conclusion.cfm?conclusion_statement_id=250270&full_review=true accessed 04 August 2016

- 5.3 Page 9 point 3.1: *The literature establishes the link between consumption of SSBs with obesity and increased prevalence of type 2 diabetes, coronary heart disease (CHD), other cardiovascular diseases (CVD), several cancers and other NCDs. SSBs are beverages which contain added naturally-derived caloric sweeteners such as sucrose (table sugar), high-fructose corn syrup, or fruit juice concentrates, all of which have similar metabolic effects.***

A link or correlation does not mean causation. Because two things correlate does not necessarily mean that one causes the other.

The role of SSBs consumption as a cause of excess weight gain within the population remains controversial (Stanhope, 2015)²⁵. Reviews of intervention studies investigating SSBs consumption and obesity risk, taking into account energy balance, have shown scientific conclusions cannot be drawn. In addition, results of observational studies that examined the relationship between SSBs intake and obesity risk, that were adjusted for energy intake and physical activity, proved to produce inconsistent results for children, adolescents, and adults (Trumbo & Rivers, 2014)²⁶.

The relationship between SSB's and obesity is not convincing.

- 5.4 Page 9 Note 3.3: *Government could use fiscal policy intervention, amongst other instruments, as a mechanism to influence consumer behaviour at the point of purchase, by changing the relative price of healthy compared to less healthy products.***

This could only be possible if the tax was levied at the point of purchase which is not according to the policy recommendation where the levy will be applied at factory gates and ports of entry. It does not take into account that the distributor would absorb a certain percentage of the tax thus having a minimal impact on the price that the consumer will pay for the taxed SSBs.

- 5.5 Page 9 Note 3.3: *The main fiscal policy interventions that have been proposed for NCD control and prevention are: taxes on SSBs, unhealthy nutrients (i.e. saturated/ trans fats, salt and sugar).***

The reference for the statement that sugar is an "unhealthy nutrient" is not included. There is no scientific basis on which to claim that sugar is an unhealthy food. Sugar has a long history of safe use in foods including in foods such as yogurts and cereals which contain a variety of nutrients essential for human health and would probably be unacceptable for human consumption if it were not for the addition of sugar.

²⁵ Stanhope, K. L. (2016). Sugar Consumption, Metabolic Disease and Obesity: The State of the Controversy. *Criti rev clin lab sci*, 53(1), 52-67.

²⁶ Trumbo, P. R. & Rivers, C. R. (2014). Systematic Review of the Evidence for an Association between Sugar-Sweetened Beverage consumption and Risk of Obesity. *Nutrition reviews*, 72 (9), 566-574.

- 5.6 Page 10 Note 3.4: *One study estimated the price elasticity for all soft drinks in the range of -0.8 to -1.0. A South African study estimate an own-price elasticity of -1.299 for SSBs, from pooled results derived from a systematic review and meta-analysis²⁶ to estimate the expected shift in daily energy consumption resulting from increased prices of SSBs due to SSB taxes. This study and others suggest that a 10 to 20 per cent price increase of SSBs may be required to translate into a meaningful impact on health outcomes.***

The assumption that the tax will have a meaningful impact on health outcomes based on one referenced study is not adequate to implement policy. There is no conclusive evidence that the tax will discourage consumer demands. Using just one study does not imply that the tax will be effective especially as this study is merely a mathematical model that predicts impact, not a research study that has tested impacts and drawn conclusions from real subjects, groups or populations.

- 5.7 Page 10 Notes 3.5: *When the goal of the tax is to reduce the consumption of unhealthy “foods”, regressivity is minimized when the low-income group purchases less of the unhealthy item, thereby potentially improving health outcomes* and note 3.6: *The tax on SSBs therefore has the potential to be beneficial to low-income people who may currently consume more SSBs and may be more sensitive to higher prices and therefore may benefit most from reducing consumption of SSBs.***

The amount of SSB's consumed by “low-income people” in South Africa has not been determined and therefore the conclusion that they “consume more SSBs” and therefore “benefit most from reducing consumption of SSBs” has no scientific basis.

It cannot be assumed that decreasing or avoiding SSBs equates to improved health outcomes unless it can be shown that SSBs make a significant contribution to calorie intake. For example, sugary drinks provide only 3% of Britain's energy intake and they are disproportionately consumed by people aged 11 - 18 years who are least likely to be obese. Since SSBs taxes have only a modest effect on the consumption of this relatively minor source of calories, it should not be surprising that there is virtually no evidence that SSBs taxes have reduced obesity or improved health anywhere in the world.

Fitts and Vader (2013)²⁷ studied SSB's in the United States and concluded that their research ‘does not support the theory that soda taxes have a negative effect on body-mass index’. Fletcher et al. (2010)²⁸ and others, Powell et al. (2009)²⁹ found no statistically significant associations between SSBs and adolescent weight. Another study from the USA found that changes in food prices had no effect on rates of obesity (Han and Powell 2011)³⁰.

It has been suggested that many of the SSBs taxes in the USA are not big enough to have an effect on obesity. However, when Fletcher et al. (2014)³¹

²⁷ Fitts, D. and A. Vader (2013) The effect of state level soda tax on adult obesity. *Evans School Review* 3 (1): 74-91

²⁸ Fletcher, J., D. Frisvold and N. Tefft (2010) The effects of soft drink taxes on child and adolescent consumption. *Journal of Public Economics* 94 (11-12): 967-974

²⁹ Powell, L., J. Chiqui, F. Chaloupka (2009) Associations between state-level soda taxes and adolescent body mass index. *Journal of Adolescent Health* 45(3): S57-63

³⁰ Han, E. and L. Powell (2011) Effect of food prices on the prevalence of obesity among young adults. *Public Health* 125(3): 129-35

³¹ Fletcher, J., D. Frisvold and N. Tefft (2014) Non-linear effects of soda taxes on consumption and weight outcomes. *Health Economics*, 10 March

studied US jurisdictions where soda taxes are unusually high they still failed to find any effect. They reported that the results cast serious doubt that substantial soda taxes make meaningful impacts on population weight.

- 5.8 Page 11, Note 4.1.1: After its implementation, purchases of taxed beverages decreased by an average of 6 per cent (-12 mL/capita/day), and decreased at an increasing rate up to a 12 per cent decline by December 2014.**

In Mexico, a 1 peso per litre (approximately 10%) tax on sugar-sweetened beverages was projected by Mexico's health authority to decrease consumption by 10-12% and have a substantial impact on reducing the prevalence of overweight and obesity in the country. That projection has been challenged by the Wall Street Journal which recently reported that, "Sales of soda are climbing two years after Mexico imposed a roughly 10% tax on sugary drinks."³²

- 5.9 Page 14, Note 4.4: taxes are likely to have a role to play in mitigating the effects that are related to non-communicable diseases.**

There is no source or evidence to back the statement.

- 5.10 Page 14, Note 5.2: or to nutrients contained in products (e.g. quantity of sugar).**

The statement is incorrect as it infers that sugar is uniquely obesogenic. It should be noted that the WHO states that the scientific evidence from isocaloric studies shows that sugars do not have any specific role in obesity, simply acting as a source of energy like all other caloric foods. The report makes clear that in studies where increases in body weight were observed, this was as a result of excess energy intake.³³

- 5.11 Page 15, Table 4.2: Levy based on absolute sugar content.**

The word sugar should be changed to sugars in order to align with the R146 definition of an added sugar i.e. "*added sugar*" means any sugar added to foodstuffs during processing and includes but is not limited to sugar as defined by the Regulations Relating to the use of Sweeteners in Foodstuffs under the Act, honey, molasses, sucrose with added molasses, coloured sugar, fruit juice concentrate, de flavoured and/or deionised fruit juice and concentrates thereof, high fructose corn syrup and malt or any other syrup of various origins.³⁴

- 5.12 Page 16, Note 5.9. One of the major contributing factors to weight gain and related health problems is excess sugar consumption from SSBs. The actual or absolute levels of free sugar should be the base or proxy for taxing SSBs. It is the excessive consumption of sugar within SSBs, rather than the volumes/quantities of SSBs that leads to significant negative long term-health effects.**

The reference for this highly contentious statement is not publically available for independent analysis. The role of SSB consumption as a cause of excess weight gain within the population remains controversial (Stanhope, 2015)³⁵. Reviews of intervention studies investigating SSB consumption and obesity risk, taking into

³² Wall Street Journal May 3, 2016, Soda Sales in Mexico Rise Despite Soda Tax.

³³ WHO (2015: Guideline: Sugars intake for adults and children. Geneva: World Health Organisation; 2015

³⁴ South African Department of Health. Regulation R146: Regulations relating to the labelling and advertising of foodstuffs. Government Gazette. 1 March 2010

³⁵ Stanhope, K. L. (2016). Sugar Consumption, Metabolic Disease and Obesity: The State of the Controversy. Criti rev clin lab sci, 53(1), 52-67.

account energy balance, have shown scientific conclusions cannot be drawn. In addition, results of observational studies that examined the relationship between SSB intake and obesity risk, that were adjusted for energy intake and physical activity, proved to produce inconsistent results for children, adolescents, and adults (Trumbo & Rivers, 2014)³⁶.

5.13 Page 17, Note: Some studies suggests that a 10 to 20 per cent price increase of SSBs may be required to have a significant impact on production and consumption patterns and levels and ultimately on obesity and population health. A South African study estimated the effects of a 20 per cent tax on SSB on the prevalence of obesity and found a reduction in obesity of 3.8 per cent in adult males and 2.4 per cent in females.

When Fletcher et al. (2014)³⁷ studied US jurisdictions where soda taxes are unusually high (40%) they failed to find any effect. They reported that the results cast serious doubt that large soda taxes make meaningful impacts on population weight.

The South African study referred to is merely a mathematical model that predicts impact, not a research study that has tested impacts and drawn conclusions from real subjects, groups or populations Shemilt et al. published in 2015 a systematic review of 880 studies that provides a critique of the nature of the evidence derived from model studies and the challenges of cumulating that evidence to form public health policy. According to Shemilt, simulation studies are critical for the initial phases of an incremental research process, but they are unlikely to be sufficient, and policy makers should not place excessive reliance on evidence solely from such studies.³⁸

To be able to establish a direct link between taxation and health outcome there is a need for more controlled intervention studies. This would provide more robust evidence linking food taxes to health benefits.³⁹

6. CONCLUSION

The South African sugar industry strongly recommends that a Socio-Economic Impact Assessment of this policy be conducted and the negative impact on the sugar industry and through the value chain be considered before implementation. In addition, the South African Total Dietary Intake Study should be undertaken and the decision on SSBs taxes should be delayed until the research has been completed and analysed.

The sugar industry is a significant contributor to the deep rural and regional economies of three provinces and has a significant national impact contributing 0.6% of the national GDP. The industry has played, and can continue to play an important role in contributing to the achievement of the National Development Plan given its contribution to employment, skills development and economic development in general.

³⁶ Trumbo, P. R. & Rivers, C. R. (2014). Systematic Review of the Evidence for an Association between Sugar-Sweetened Beverage consumption and Risk of Obesity. *Nutrition reviews*, 72 (9), 566-574.

³⁷ Fletcher, J., D. Frisvold and N. Tefft (2014) Non-linear effects of soda taxes on consumption and weight outcomes. *Health Economics*, 10 March

³⁸ Shemilt I, Marteau TM, Smith RD, Ogilvie D. Use and cumulation of evidence from modelling studies to inform policy on food taxes and subsidies: biting off more than we can chew? *BMC Public Health* (2015) 15:297.

SASA requests that the Department of National Treasury recognises the need for multiple evidence-based interventions to prevent and manage obesity in South Africa. A strong education campaign is needed to accurately inform the public about behaviors that will assist them to manage their weight. Environmental initiatives are needed to be able to help people be active, and to make recommended food choices readily available.

SASA believes that implementation of interventions at many levels will succeed in the reduction of obesity, which is unlikely to occur through the singling out of a single food product (SSBs).

In anticipation of the reduced volume of sugar that will be sold in the local market, government support for the industry to participate in co-generation and biofuels is crucial for the sugar industry to remain viable. The fiscus will raise, dependant on the impact of the proposed tax, in excess of R10 billion per annum. It is suggested that this additional revenue be utilised towards ameliorating the damaging impact of the tax on the industry including, amongst other impacts, on the 20 000 resource poor farmers who farm sugarcane under traditional land tenure arrangements.

The sugar industry is currently facing a combination of factors which threaten its future survival and sustainability. These factors include the worst drought since the early 1990's and increased competition in the SACU market from deep water imports and regional sugar producers, as changes in the European sugar regime manifest themselves locally.

The South African sugar industry is estimated by LMC to operate at one of the lowest tightest margins of all sugar-producing countries. This is largely due to escalating costs of production, some of these beyond the influence of the industry, and an inability to recover costs by market pricing strained by competition from sugar imported from Swaziland, the SADC and other sources. The taxation of SSB's, estimated to result in the displacement or loss of 170 000 tons of sugar in the local market to a loss making export market, would effectively deal a fatal blow to any profitability by further decreasing industry margins to further unsustainable level. The impact on the ability of farmers, particularly those in deep rural areas, their communities, and mills to continue production would be severe.

The South African Sugar industry strongly recommends that Treasury defer the implementation of any measures in terms of taxation on producers of food and drink, and associated commodities, until a full assessment of the causes of obesity and NCD's in the South African context has been undertaken. Following this assessment, any measures required should be fully considered through a Socio-Economic Impact Assessment to determine the negative on the affected industries. As has been proposed in other countries, accompanying measures to assist impact industries should be considered to ensure that the objective of reducing obesity and NCD's do not result in increased unemployment. In the case of the sugar industry, accompanying measures could include government support for co-generation and biofuels.

In the United Kingdom, two years notice has been given for the implementation of their SSBs tax regime whereas only a very short period of one year has been provided in South Africa. The industry therefore requests a longer period to adjust to the proposed tax.

SASA thanks the Department of National Treasury for this opportunity to provide written input on the policy. SASA requests a meeting with the Ministers of Department of Finance and the Department of Health to further discuss this submission.

Ends