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**PROSPECTS OF INTRODUCTION OF EXCISE TAX ON SUGAR  
SWEETENED BEVERAGES IN RUSSIA**

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**Abstract**

Excise taxes are among the most reliable sources of government revenue in any country, especially in times of crises and economic reforms. The refining of excise taxation is an important condition for improving the economic and social situation in the country and boosting public revenue. The introduction of excise tax on unhealthy foods and beverages is an effective way of generating additional budget revenues and improving people's health by reducing the consumption of the abovementioned products. The article looks at the role the excise taxes play in the system of state revenues and substantiates the need to expand the list of excisable goods in Russia by including sweetened alcohol-free beverages in it. The article also proposes a type and a size of the tax rate for the said beverages. The article suggests that excise tax be imposed on sugar sweetened beverages which will result in a significant fiscal effect for the state budget, reduce spending on the beverages in question and help maintain the nation's health.

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**Keywords:** Excise tax; excisable goods; sugar sweetened beverages; price elasticity of demand; specific and ad valorem tax rates.

## 1. Introduction

Nowadays the development of Russia's economy is affected by a number of factors which hamper its economic growth and lead to a drop in government revenues. The current situation calls for urgent measures in order to reduce the dependence of Russia's government revenues on developments outside Russia, the creation of additional sources of tax revenues within the framework of the Russian tax system being one of them, and excise tax may serve the purpose.

In addition to fiscal purposes, excise tax is essential for state regulation of economic and social processes.



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The introduction of excise tax on unhealthy foodstuffs is an effective strategy of improving eating habits and maintaining the nation's health (Waterlander et al, 2014). In the past few decades, the consumption of sugar sweetened beverages (SSBs) has grown significantly, especially among younger people. For instance, in the Netherlands, SSB consumption grew from 71 liters per capita a year in 1990 to 103 liters in 2009 (Statistics Netherlands, 2010). In Russia, SSB consumption grew from 24.2 liters per capita a year in 2011 to 28.2 liters in 2014 (Statistics Russia, 2016).

There is strong evidence that SSB consumption is associated with an increased risk of obesity, diabetes and other negative consequences for people's health (de Ruyter et al, 2012; Malik et al, 2006), which brings about additional economic and social costs (National Center for Health Statistics, 2008).

Many countries have already introduced indirect taxes on SSBs. Price is one of the most important factors that determine the choice of foods by customers. Changing prices for foodstuffs via taxes is an effective and inexpensive tool of public health care that ensures better nutrition of population (Andreyeva et al, 2011). Consequently, the introduction of excise tax on sweetened beverages may result in a significant growth of public revenue and improvement of people's health due to reduced consumption of unhealthy foods.

## **2. Research methods**

The author used a variety of theoretical and empirical research methods. For example, the study was carried out with the help of such theoretical methods as analytical and deductive methods. An analysis of excise tax revenues has shown that the current excise taxation system in Russia makes it possible to effectively implement the fiscal and regulatory functions of taxation. Still, there is a possibility and a need to expand the list of excisable goods by including sugar sweetened beverages in it.

The empirical methods included the methods of observation and comparison which were used to identify the major economic trends, the rationale and choice of the type and size of the excise tax rate on SSBs.

## **3. Results and Discussions**

The centuries-long history of tax relations development shows that excise taxes are one of the most reliable sources of public revenues. The list of excisable goods may vary significantly in different countries and at different periods but as excise taxes are relatively easy to administer and levy they are an important element of the tax system in any country.

The share of this tax in the sum total of consolidated government revenues shows the role and significance of excise taxes in the system of the Russian state budget (summarized in Table 1). The total amount of consolidated budget revenues includes revenues of state non-budgetary funds.

As one can see from Table 1, excise taxes accounted for 2.2 percent to 4.2 percent of consolidated government revenues in 2008-14. Moreover, the absolute figures of excise tax revenues as well as their share in consolidated government revenues grew from year to year. Between 2008 and 2014 excise taxes revenues grew by 3.1 times which significantly exceeded the growth of consolidated budget revenues (167.3%). That was primarily due to increases in excise tax rates for most excisable goods that outpaced the inflation rate.

**Table 1.** Share of excise taxes in Russia's consolidated public revenues (Statistics Russia, 2016)

Indicators	Years	2008	2009	2010	2011	2012	2013	2014
1. Relative share of excise taxes revenues in Russia's consolidated budget revenues, %		2.2	2.6	2.9	3.1	3.6	4.2	4.0
2. Growth rate of excise tax revenues compared to previous year, %		111.3	99.2	135.8	138.0	128.7	121.4	105.5
3. Growth rate of consolidated budget revenues compared to previous year, %		119.7	85.0	117.9	130.1	112.4	104.3	109.5

*Source: The Federal State Statistics Service/ Russian Statistics Annual Report [online]. Available at: <http://www.gks.ru/wps/wcm/connect/rosstat>, author calculations*

Excise taxes are an important source of tax revenues in times of economic reforms and crises. Given the low price elasticity of demand for most excisable goods, if excise tax rates grow and prices for the said goods increase, production and consumption do not drop significantly or even remain at the same level, which makes it possible to gain steady revenue from this tax. For instance, in the post-crisis year of 2009 consolidated budget revenues dropped by 15% compared to 2008 while excise taxes revenues fell only by 0.8%.

The conducted analysis showed that excise taxation for fiscal purposes is used quite effectively in Russia. Moreover, alcohol and tobacco consumption has declined whereas the structure of consumption of excisable petroleum products has changed in favor of products with improve emission properties, so the regulatory function of taxation was fulfilled as well (Iadrennikova, 2016). At the same time, it should be noted that the potential of excise tax for the purposes of boosting public revenue is not fully exploited. Rates can be increased further (especially those on tobacco products, cars and motorbikes), and the list of excisable goods can be expanded.

Excise taxation is the most harmonized one as regards taxable goods, that is the list of excisable goods, as most countries follow recommendations of the International Monetary Fund (IMF) on this issue and limit themselves to five groups of goods: 1) alcohol drinks; 2) tobacco products; 3) cars; 4) oil and petroleum products; 5) car spare parts. At present, the list of excisable goods in Russia fits the IMF's recommendations.

The levy of excise taxes has been changing under the influence of economic crises at the beginning of the 21st century. For instance, some countries in the EU and in other parts of the world have an additional list of excisable goods besides the harmonized list of them. For example, in some countries excisable goods may include soft drinks; tea and coffee; sugar, salt and matches; luxury goods; mineral fertilizers; foodstuffs containing a lot of salt, sugar, flavoring agents and fats (crisps, butter, fast food) (Mayburov, & Sokolovskaya, 2011). Excise taxes on sweetened soft drinks are levied in Mexico, Hungary, Finland, France, Berkeley (California, USA), Australia (Scarborough et al, 2016). In Hungary, the excise tax on soft drinks is 0.016 euros per liter, and in France it is 0.036 euros per liter (Villanueva, 2011). The introduction of an excise tax on sugar sweetened beverages is associated both with boosting public revenue and attempts to use excise taxes as a regulatory tool aimed at limiting demand for goods, the overconsumption of which is harmful for health.

This experience may be used in Russia as well. In addition to increased tax revenue, the measure will reduce consumption of unhealthy foodstuffs by population and help fight diabetes, obesity and other

diseases. Doctors think that whereas the dangers of alcohol and tobacco have been in the spotlight in recent years, more attention should be drawn to other products which can be dangerous for health. According to experts of the Nutrition Research Institute, approximately 60% of women and 50% of men over 30 in Russia are overweight and 26% of citizens suffer from obesity (Iadrennikova, 2016).

Let us now consider the advisability of imposing an excise tax on sugar or sweetened alcohol free beverages in Russia and possible rates that can be applied to them. Although sugar was a taxed commodity back in the days of the Russian Empire and generated more revenue for the state than excise duties on tobacco and kerosene did, today it is sugar sweetened beverages rather than sugar that should be added to the list of excisable goods due to the following reasons.

First, the introduction of an excise duty on sugar will automatically drive up prices for all sugar containing products most of which are not rated as "harmful" and do not cause negative external effects. There are plenty of sugary products that are considered a necessary component of a regular diet, so the price hike will further diminish the buying power of predominately low-income consumers. Additionally, the confectionary and baking industries that are already financially stressed because of high cocoa prices will suffer too.

Second, the majority of producers of sweetened alcohol free beverages add sucrose, fructose, or artificial sweeteners (e.g., Aspartame) rather than sugar to their products, so the introduction of an excise tax on sugar will not decrease the consumption of SSBs, that is, of the products that are bad for health.

Third, if we compare the amounts of sugar and sweetened beverages consumed over the period of 2011-14 in order to determine the expected fiscal impact of extending the list of excisable goods, we can conclude that the consumption of sweetened alcohol-free beverages grew faster than the consumption of sugar. For example, the consumption of sugar in Russia was up 22.4 percent, while the SSB market in Russia grew by 30 per cent in 2011-14 to reach 4.5bn liters. In 2015, the consumption of SSBs fell by 10 percent to 4.05bn liters.

Consequently, it makes sense to suggest that excise tax be imposed on all sweetened beverages that contain over 10 grams of sugar or other sweeteners or flavorings per 100 ml, including alcohol-free carbonated drinks, fruit juices, energy drinks, etc.

The use of excise taxes to curb the consumption of products and goods harmful for people's health has proved to be effective and resulted in reduced consumption of alcohol and tobacco (Chopra, & Darnton-Hill, 2004; Jha et al., 2006). Similar trends have been observed in Russia as well. For instance, cigarette and mouthpiece cigarette consumption dropped from 371.8bn in 2010 to 359.1bn in 2013, which is a 3.4% decrease. In per capita terms cigarette and mouthpiece cigarette consumption fell by 100 units a year. At the same time, revenues from excise duties on tobacco and cigarettes in Russia grew by 140 percent in 2010-13. The per capita consumption of alcoholic beverages also dropped from 8.9 liters in 2010 down to 8.5 liters, or by 4.3%, in 2013.

In order to assess the influence of SSB excise tax on their consumption, estimates of the price elasticity of demand from published studies were used. A review of price elasticity estimates for sweetened alcohol-free beverages showed that their values range between 0.8 and 1.21. According to a number of studies, an increase in prices for alcohol-free beverages by 10% may result in 8-10% reduction in consumption (Andreyeva et al, 2011; Finkelstein et al, 2010). Other studies revealed that SSBs might be more sensitive to price changes: price elasticity for this category of goods reached 1.21 (that is, with a

10%-increase in prices demand decreases by 12%) (Powell et al, 2013). The values of price elasticity are different as in the second case the authors of the study divided beverages into sweetened and diet alcohol-free beverages, with price elasticity of diet drinks amounting to 0.86. Price elasticity for SSBs is higher, therefore this category is the most suitable one for the introduction of an excise tax as a means of reducing consumption of this kind of goods.

It is also important to consider whether the introduction of an excise tax on SSBs will result in the substitution effect. There are concerns that an increase in prices for SSBs may provoke an increase in the intake of alcoholic beverages or sugar-containing products like chocolate or candies. However, a study showed that an increase in the tax on SSBs by 10% to 13% effectively reduced purchases of SSBs and did not affect purchases of other categories of beverages, including alcohol, sweets or snacks (Waterlander et al, 2014; Finkelstein et al, 2013).

In light of the abovementioned, we consider it reasonable to suggest that an excise tax be imposed on sweetened beverages that contain over 10 grams of sugar or other sweeteners or flavorings per 100 ml of product.

Now we suggest looking at the problem of determining the excise tax rate.

Advantages and disadvantages of specific (fixed) and ad valorem (percentage) rates are summarized in Table 2.

**Table 2.** Comparative analysis of peculiarities of specific and ad valorem excise tax rates (Iadrennikova, 2016)

1. Specific (fixed) rate
1.1. Advantages
<ul style="list-style-type: none"> <li>• Use of specific rates does not create incentives for reducing the quality or variety of goods as well as for setting too low prices;</li> <li>• It is reasonable to use it if excise taxation aims to restrict the consumption of some goods, for instance alcohol or tobacco, as specific rates are based on the quantity of the consumed product but not on its cost;</li> <li>• Ensures steady and even increasing tax revenues to the state budget on condition rates are revised regularly</li> </ul>
2. Ad valorem (percentage) rate
2.1. Advantages
<ul style="list-style-type: none"> <li>• Ad valorem rate is neutral to changes in price level which leads to an automatic increase in nominal revenues for the state budget in case of inflation;</li> <li>• Ad valorem rate makes it easier to achieve excise taxes progressivity for the purposes of ensuring bigger re-distribution of wealth from better-off population to the less prosperous;</li> <li>• No need to determine the unit of product subject to taxation which, in some cases, may reduce opportunities for tax evasion</li> </ul>
2.2. Disadvantages
<ul style="list-style-type: none"> <li>• Given a large variety of brands or kinds of the same product with a big price difference, tax revenues levied on cheap low-quality kinds and brands are significantly lower than those on more expensive kinds. As a result, the consumption pattern changes in favor of low-quality goods;</li> <li>• Ad valorem rate is applied to the product's retail price which, in case of transfer pricing, may result in understatement of tax obligations by way of transferring part of the product's cost to subsequent stages, after excise tax is levied</li> </ul>

In most countries both rates are applied, so there is a balance between advantages and disadvantages of both methods of excise taxation. Specific (or combined) rates are typically applied to goods that create negative effects, whereas ad valorem rates are applied to goods the taxes on which have the redistribute purpose.

Given the abovementioned, we suggest that a specific (fixed) excise tax rate should be set for SSBs in order to prevent consumption patterns from changing towards low-quality kinds of sweetened beverages and to encourage the reduction of their intake in the future. The fiscal effect from the new tax should be

considerable: if volumes of SSBs consumption drop by 12% in comparison with 2015 and an excise rate of 7 roubles per liter (about 0.11 dollars) is imposed, annual excise tax revenues to the budget will grow by 24.95bn roubles (about 231.7 million dollars). Excise tax revenues will thus grow by 2.3% a year due to tax base expansion and will have a positive impact on health care in Russia.

There are concerns that if an excise tax on SSBs is imposed in Russia only, cheaper (untaxed) drinks will be imported from other countries of the Customs Union (Belarus, Kazakhstan, Armenia, and Kyrgyzstan). That will put Russian manufacturers at a disadvantage and may reduce the intended effects from imposing the excise tax on SSBs. The introduction of an excise tax on SSBs in all countries of the Customs Union after relevant talks might be a solution to the problem.

#### 4. Conclusions

Excise tax is one of the few "rapid response" tools that the state has for addressing negative economic processes. The system of excise taxation existing in Russia enables it to implement both fiscal and regulatory functions of taxation quite effectively. At the same time the potential of excise tax for the purposes of generating budget revenue is not used in full, and there exist opportunities for expanding the list of taxable goods. The introduction of an excise tax on sugar sweetened beverages at a fixed rate of 7 roubles (about 0.11 dollars) per liter may bring additional excise tax revenues worth 24.95bn roubles (about 231.7 million dollars) to the state budget. In the future, the measure is also supposed to result in the reduction of consumption of these unhealthy beverages. The introduction of an excise tax on SSBs may help solve the budget deficit problem both by generating additional revenues and by potentially reducing expenditures on health care due to a drop in SSB consumption.

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