# ANALYSIS AND IMPROVEMENT OF EXCISE TAXES ON ALCOHOL IN RUSSIA

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**Abstract**

The article considers the role and value of excise taxes in the system of government revenue. The structure and dynamics of excise tax collection by type of alcohol in Russia is studied. Variations in the dynamics of alcohol consumption under the influence of changes in excise tax rates and prices of alcoholic drinks are examined. The author analyzes and assesses the effectiveness of Russian state regulations on alcohol consumption by means of excise taxation. A comparative analysis is performed on the types of excise tax rates on alcoholic beverages in Russia and the EU member states. The author finds that in Russia, low-alcohol beer (over 0.5%) and strong beer (under 8.6%) are taxed at the same rate (expressed a rubles per liter). The author substantiates her argument that beer tax rates in Russia should vary depending on alcohol content, as is the case with other alcohol-containing products. A conclusion is drawn that if the proposed measure is implemented, it will deliver a significant fiscal effect in terms of tax revenue; consumption of high alcohol content beer will decrease, which is good of public health.

**Key words:** excise tax, alcoholic beverages, tax rates, beer tax.

**JEL Code:** H21, H23, H30.

## Introduction

Excise taxes are one of foolproof sources of revenue for any government. Today, the need to have and levy excise taxes is driven not only by their fiscal role, but also by the goals of the state regulation of economic and social processes (Iadrennikova, 2017).

Excise taxes on certain goods, including alcoholic drinks, are charged with the purpose of restricting or controlling their consumption and in order to compensate for the external costs of consumption. Alcohol is not an ordinary product as its consumption generates negative externalities such as antisocial behavior, growing crime rates, public health risks, and consequently results in higher public spending on health care (Babor et al, 2010; Becker & Murphy, 1988). Alcoholic drinks are the focus of close attention of the state that seeks to

regulate liquor production and consumption by making alcohol less accessible (Seim & Waldfogel, 2013), as well as by implementing price-boosting policies. Taxation is one of the tools for such regulation. By levying excise taxes, the government, on the one hand, seeks to reduce alcohol production and to minimize damage caused by such consumption, to change the structure of such consumption by shifting demand from strong drinks to low-alcohol beverages with lower health risks. On the other hand, excise taxes on liquor are an effective way of earning additional revenues for the public purse that could be spent on rectifying the consequences of the consumption of harmful food products and on health care. The results of a large corpus of studies show that a growth in alcohol prices driven by higher excise taxes leads to a considerable drop in alcohol sales and a reduction in problems associated with alcohol consumption (Cook & Moore, 2002; Xu & Chaloupka, 2011; An & Sturm, 2011). Price regulation is, therefore, an effective tool of the government's alcohol policy for mitigating problems associated with alcohol consumption (Razvodovsky, 2013).

At present, excise taxes on alcohol vary by country and by type of drink. In the EU, Directive 92/83/EEC и Directive 92/84/EEC stipulate that Member States should apply a single rate per hectolitre of finished product to wine and other fermented beverages (e.g. cider) and to intermediate products, while beer and strong alcoholic drinks should be taxed on the basis of alcoholic volume (European Commission. Taxation and customs union, 2018). A similar approach to alcohol taxation is exercised by other OECD member states outside the EU. In Russia, wine, sparkling wine and beer are taxed on the per-liter basis, while ethyl alcohol, strong drinks and low-alcohol beverages are taxed at a rate set per liter of pure alcohol. Therefore, the same tax rate (21 RUB per liter of beer in 2018) is applied in Russia to low-alcohol beer and strong beer with an absolute alcohol by volume (ABV) amounting to 8.6%.

Improving the excise taxation of beer in Russia by tying it to alcoholic volume would make it possible to change the structure of beer consumption towards its low-alcohol varieties, to improve public health and earn surplus revenues for the government.

## 1 Methodology and Research methods

The subject of this study is the system of excise taxation of alcohol products of the Russian Federation. An analysis of excise taxation of alcoholic beverages in Russia is carried out for the period 2010-2016.

The research procedure includes studying the structure and dynamics of the Russian government's excise tax revenues by type of alcoholic beverages. Variations in the dynamics of alcohol consumption under the influence of changes in excise tax rates and prices of alcoholic drinks are then examined. A comparative analysis is performed of the types of excise tax rates on alcoholic beverages in Russia and the EU member states.

The author used a range of theoretical and empirical research methods, including analysis, synthesis, generalization and classification. Analysis of the system of alcohol taxation that exists in Russia today showed that fiscal and other instruments used by the state to regulate alcohol consumption are highly effective.

The empirical methods including observation and comparison were used to identify the key economic trends and to substantiate the type and size of the specific tax rate for beer based on alcohol by volume that could be set in the Russian Federation.

The list of data sources for the study includes statues and regulations, data of the Federal State Statistics Service (gks.ru) and the European Commission (ec.europa.eu), the press, online resources and the author's own research findings.

# 2 Results and Discussions

## 2.1 Analysis of excise taxation of alcoholic beverages in the Russian Federation

The role and significance of excise taxes in Russia is indicated by their contribution to total government revenues in Russia (summarized in Tab. 1). The aggregate revenues include the revenue of state extra-budgetary funds.

**Tab. 1: Federal excise tax revenues as a share of aggregate government revenues** (Statistics Russia, 2018)

| Years / Indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| 1. Excise taxes , % of total government revenue | 2.9 | 3.1 | 3.6 | 4.2 | 4.0 | 4.0 | 4.8 |
| 2. Excise duties on goods manufactured in Russia, % of total excise tax revenues | 93.6 | 92.8 | 93.6 | 93.8 | 93.3 | 94.9 | 95.4 |
| 3. Year-on-year growth, % | 135.8 | 138.0 | 128.7 | 121.4 | 105.5 | 99.6 | 126.9 |
| 4. Growth rate of consolidated budget revenues compared to previous year, % | 117.9 | 130.1 | 112.4 | 104.3 | 109.5 | 100.6 | 104.7 |

Source: Statistics Russia (2018). Reading allowed: Russian Statistics Annual Report. Retrieved from: http:// www.gks.ru/bgd/regl/b17_13/Main.htm., author’s calculations

The analysis shows that from 2010 to 2016 the share of excise taxes in the structure of public revenue in Russia ranged between 2.9% and 4.8%. That share and the absolute value of excise tax revenues grew annually, with the only exception being the years 2014-2015 when there was a slight decrease in revenue from the taxes in absolute terms and a decrease in their share by 0.2 percentage points. That was due to a drop in alcohol imports in 2015 amid an economic crisis and rouble devaluation.

Over the period of observation, revenue from excise taxes increased 190%, outpacing the growth in aggregate public revenues (175.8%). The prime reason is that tax rates for most taxable goods grew faster than inflation. The sum total of excise tax revenues is largely generated by taxes levied on goods produced in Russia. They account for 93-95% of excise tax revenues. That makes it appropriate to take a closer look at the structure of tax revenues from Russian-made products by type of alcohol (Tab. 2).

**Tab. 2: Structure of excise tax revenue from Russian-made alcohol (by type of drink), in billion roubles.**

| Years<br>Indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | % of growth 2016 on 2010. |
|---|---|---|---|---|---|---|---|---|
| 1. Tax revenue from goods produced in Russia | 441.4 | 603.9 | 783.6 | 952.5 | 1000.6 | 1014.4 | 1293.9 | 293.1 |
| including:<br>2. Liquor | 163.5 | 181.2 | 228.7 | 273.4 | 299.5 | 291.2 | 318.8 | 195.0 |
| 2.1. As a percentage of total excise tax revenue | 37.0 | 30.0 | 29.2 | 28.7 | 29.9 | 28.7 | 24.6 | -12.4 |
| including:<br>3.1. beer | 82.0 | 93.7 | 110.4 | 126.6 | 142.3 | 130.2 | 147.6 | 180.0 |
| 3.2. As a percentage of total excise tax revenue from alcohol | 50.2 | 51.7 | 48.3 | 46.3 | 47.5 | 44.7 | 46.3 | -3.9 |
| 4.1. Alcoholic drinks with ABV over 9% | 72.9 | 78.5 | 106.0 | 133.5 | 144.5 | 149.3 | 158.4 | 217.3 |
| 4.2. As a percentage of total excise tax revenue from alcohol | 44.6 | 43.4 | 46.4 | 48.8 | 48.3 | 51.3 | 49.7 | 5.1 |
| 5.1. Wine | 5.3 | 5.9 | 8.8 | 7.0 | 7.8 | 8.6 | 9.4 | 177.4 |
| 5.2. As a percentage of total excise tax revenue from alcohol | 3.3 | 3.3 | 3.8 | 2.6 | 2.6 | 3.0 | 2.9 | -0.4 |
| 6.1. Other alcoholic drinks with | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ABV below 9% | 3.3 | 3.1 | 3.5 | 6.3 | 4.9 | 3.1 | 3.4 | 103.0 |
| 6.2. As a percentage of total excise tax revenue from alcohol | 2.0 | 1.6 | 1.5 | 2.3 | 1.6 | 1.1 | 1.1 | -0.9 |

Source: Statistics Russia (2018). Reading allowed: Russian Statistics Annual Report. Retrieved from: http:// www.gks.ru/bgd/regl/b17_13/Main.htm., author's calculations

Over the reference period, excise taxes on alcohol accounted for 24.6% to 37% of total excise tax revenues. At the same time, their contribution decreased by 12.4% despite the annual growth in absolute terms. Total excise tax revenues increased 190%, whereas revenue from alcohol taxes was up only 95%. This can be attributed to the fact that tax rates on other taxable goods (petroleum products and tobacco) grew faster and that the consumption of alcohol decreases under the influence of the government regulation of the alcohol market (Table 4). Excise taxes on beer and strong alcohol with ABV over 9% (including vodka and cognac) made up the biggest share – 95 to 96% - of alcohol tax revenues. The share of other alcoholic drinks in excise tax revenues is insignificant (4-5%).

We shall analyze the dynamics of excise tax revenues by type of alcoholic drink with regard to changes in tax rates (Tab. 3) and fluctuations in consumption (Tab. 4).

**Tab. 3: Tax rates on alcohol in Russia**

| Years / Indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | % of growth 2016 on 2010. | For reference 2017 | For reference 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Tax rate, RUB per litre of ethanol | | | | | | | | | | |
| 1.1. Ethanol | 30 | 33 | 37 | 59 | 74 | 93 | 102 | 334.4 | 107 | 107 |
| 1.2. Alcohol with ABV over 9% | 210 | 231 | 300 | 400 | 500 | 500 | 500 | 238.1 | 523 | 523 |
| 1.3. Alcohol with ABV under 9% | 158 | 190 | 270 | 320 | 400 | 400 | 400 | 253.2 | 418 | 418 |
| 2. Tax rate, RUB/L | | | | | | | | | | |
| 2.1. Wine | 3,5 | 5 | 6 | 7 | 8 | 8 | 9 | 257.1 | 18 | 18 |
| 2.2. Champagne and sparkling wine | 4 | 8 | 22 | 24 | 25 | 25 | 26 | 650.0 | 36 | 36 |
| 2.3. Beer with ABV from 0.5 to 8.6% | 9 | 10 | 12 | 15 | 18 | 18 | 20 | 222.2 | 21 | 21 |
| 2.4. Beer with ABV over 8.6% | 14 | 17 | 21 | 26 | 31 | 31 | 37 | 264.3 | 39 | 39 |

Source: Federal Tax Service of the Russian Federation. Official site (2018). Retrieved from: https://www.nalog.ru/rn66/related_activities/statistics_and_analytics/forms/., author's calculations

Between 2010 and 2016, alcohol tax rates grew by 120 to 160% for beer and strong alcohol and by up to 550% for champagne and sparkling wine. Yet revenues from the excise tax on alcohol were only up 95%. This leads one to a conclusion the consumption of liquor in Russia decreased significantly - by 25.8%. Growth in tax rates for most types of liquor was put on hold in 2014-16 in order to stabilize the situation in the alcohol market, increase the share of legally distilled liquor and tackle bootlegging. One of the causes of the large share of bootleg alcohol on sale in Russia is the existence of grey import schemes for bringing alcohol from the Eurasian Economic Union member states (primarily from Belarus and Kazakhstan) where excise taxes and, consequently, selling prices are much lower. As of 2016, producers, wholesale traders and retailers are required to use the Unified Federal Automated Information System (UFAIS) which tracks production and turnover of ethyl spirit, alcohol, and spirit containing products. That reduced the amount of unregistered bootleg alcohol in the market, and in 2017-18 excise tax rates on liquor continued to grow.

**Tab. 4: Consumption of taxable liquor in Russia**

| Years<br>Indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Percentage change 2016 on 2010. |
|---|---|---|---|---|---|---|---|---|
| 1. Alcohol consumption, litre per capita pure alcohol | 8.9 | 8.9 | 9.2 | 8.5 | 7.6 | 6.8 | 6.6 | 74.2 |
| 1.1. Alcohol consumption percentage change year-on-year | 100.0 | 100.0 | 103.4 | 92.4 | 89.4 | 84.5 | 97.1 | 74.2 |
| 2. Consumption dynamics by beverage, year-on-year percentage change | | | | | | | | |
| 2.1. Liquor with ABV over 9% (including vodka, cognac) | 100.0 | 99.5 | 98.4 | 88.1 | 85.0 | 87.0 | 99.2 | 63.3 |
| 2.1. Beer | 100.0 | 100.7 | 100.6 | 100.4 | 93.3 | 91.7 | 96.2 | 83.7 |
| 2.2. Wine | 100,0 | 93,9 | 96,4 | 89,3 | 108,1 | 96,1 | 97,7 | 82,1 |
| 2.3. Other alcohol containing beverages with under 9% | 100.0 | 98.5 | 94.5 | 92.4 | 86.7 | 76.0 | 91.7 | 52.0 |

Source: Statistics Russia (2018). Reading allowed: Russian Statistics Annual Report. Retrieved from: http://www.gks.ru/bgd/regl/b17_13/Main.htm., author's calculations

Russia's alcohol consumption shrank from 8.9 liters per capita in 2010 to 6.6 liters per capita in 2016. The structure of consumption changed, too. Among the beverages that account for the biggest tax revenues, the biggest drop in consumption was observed for strong alcohol, including vodka and cognac (minus 27.6%). The consumption of beer was down 16.3%.

The analysis showed that the use of excise taxes on alcohol for fiscal purposes has been effective. It has also been possible to reduce the consumption of alcoholic beverages that are bad for health and to change the structure of drinking habits towards low-alcohol beverages. In other words, the regulatory function of taxation has been fulfilled as well. Consequently, alcohol consumption regulatory measures implemented by the Russian government using excise taxes and other tools (ads restrictions, introduction of the UFAIS) have proved highly effective.

## 2.2 Comparative analysis of excise tax rates for alcoholic beverages in Russia and the EU

As of 1993, excise taxes on alcohol in the EU member states are regulated by the European Council Directive 92/83/EEC "On the harmonization of the structures of excise duties on alcohol and alcoholic beverages" and Directive 92/84/EEC "On approximation of the rates of excise duty on alcohol and alcoholic beverages" (European Commission. Taxation and customs union, 2018). Directive 92/83/EEC sets out the structures of excise duties on alcohol and alcoholic beverages, the categories of alcohol and alcoholic beverages subject to excise duty, and the basis on which the excise duty is calculated, and includes special provisions and reduced rates. Directive 92/84/EEC sets the minimum rates of excise duty to be applied to alcohol and alcoholic beverages. Any EU member state is allowed to set its own rates of excise duties on alcohol, but they must be above the established minimum level (Tab. 5).

**Tab. 5: Minimum rates of excise duties in the EU**

| Product | Rate expressed per: | Minimum Rate |
|---|---|---|
| Beer | Hectolitre per degree alcohol (hL/ºalc)<br>OR<br>Hectolitre per degree Plato (hL/ºPlato) | 1.87€<br><br>0.748€ |
| Spirits | Hectolitre of pure alcohol | 550€ |
| Wine (still and sparkling) | Hectolitre of volume | 0€ |
| Intermediate Products (e.g. port, sherry) | Hectolitre of volume | 45€ |

Source: European Commission. Taxation and customs union. (2016). *Tax information Communication database*. Retrieved from https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-alcohol/excise-duties-alcoholic-beverages_en., author's calculations

Both in the EU and in Russia, strong alcoholic drinks are taxed on the per-liter of pure alcohol basis, while wine and intermediate products are taxed on the per-litre (or hectoliter) of volume basis.

What differs is the rates of taxes. In the EU, the duty levied per unit on beer is based on hectolitre/alcohol by volume of finished product. In some European countries, the density of beer is measured in degrees Plato: the higher the density, the higher alcoholic volume. In 15 EU member states, the duty on beer is set in EUR/hL/ºalc, and the other 12 in EUR/hL/ºPlato. In Portugal, both types of duties are applicable depending on the ABV of beer. In the Russian Federation, a different type of duty is applied. It is set in roubles per litre and varies for beer exceeding 0.5% ABV and below 8.6%, and for beer exceeding 8.6%. In other words, the tax rate is calculated on the basis of the volume of beer sold rather than its alcoholic volume.

### 2.3 Prospects for improvement of beer taxation in Russia

We believe that the mechanism of levying excise duties on beer which envisages the same tax rate on low-alcohol beer (over 0.5% ABV) and beer with high alcoholic volume (not exceeding 8.6% ABV) is unfair. For example, today the duty on beer exceeding 0.6% but not exceeding 8.6% ABV is RUB21 per liter, i.e., the tax payments are identical provided that all else is equal. We share the view of the scholars (Troyanskaya & Nizamieva, 2013; Yurtayev, 2005) arguing that a specific tax rate should be introduced for beer that should be based on its alcoholic volume. That would amend the situation when the duty on one litre of pure alcohol in stronger beer is lower than the duty on one litre of pure alcohol in beer with lower alcoholic volume.

The excise duty on beer is proposed to be calculated as RUB418 per litre of ethanol, which is the current tax rate for other beverages not exceeding 9% ABV. If the proposal is implemented, beer producers will pay RUB2.5 per litre of 0.6% ABV beer (0.006×418) instead of RUB21 per litre that they pay today. Producers will pay RUB35.95 per litre of 8.6% ABV beer (0.086×418) instead of RUB21. Our calculations show that the proposed mechanism of calculating beer tax rates is more fair and rational.

In 2017, the sales of beer within the standard ABV range of 0.5% to 8.6% amounted to 6.825bn litres; revenue from the excise tax on beer was RUB141.37bn, the tax rate sitting at RUB21 per litre. If the tax rate was set at RUB418 per litre of pure alcohol in beer, revenue could reach RUB155.51bn (a surplus of RUB14.14bn). In 2017, some 460,000 litres of beer exceeding 8.6% ABV were sold in Russia, generating a public revenue of RUB17.67m. If the

proposed tax rate is used, revenue for the public purse could amount to RUB19.35m (a surplus of RUB1.48m). Consequently, the proposed mechanism could generate a surplus revenue of RUB14.142bn annually (an equivalent of 235.7m USA dollars) provided that production and consumption stay at present levels. Additionally, the implementation of the measure would help reduce the consumption of beer with high alcoholic volume and preserve public health.

## Conclusion

The system of alcohol taxes that exists in Russia today fulfills both the fiscal and regulatory functions of taxation rather effectively. From 2012 till 2016, alcohol consumption in Russia decreased significantly from 8.9 litres per capita to 6.6 litres per capita (by 25.8%), which indicates the high effectiveness of the state regulation of alcohol consumption in Russia. There is, however, a possibility of increasing excise tax revenues by changing the way the tax is levied on beer and by introducing a specific tax rate on beer that is pinned to its alcoholic volume. The implementation of the proposed measures could generate a surplus revenue of RUB14.142bn annually (an equivalent of 235.7m USA dollars) and would make the system of beer taxation more effective as the tax rate would depend on the amount of pure alcohol in the beverage. Eventually, that would change the structure of beer consumption towards its low-alcohol varieties that cause less harm to health.

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