

PROSPECTS OF THE INTRODUCTION OF PALM OIL EXCISE TAX IN THE RUSSIAN FEDERATION

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Abstract

The article examines the role and significance of excise taxes in the system of government revenue. It studies the structure and dynamics of revenues generated by the main excise taxes in Russia and analyzes trends in the consumption of unhealthy foods and other taxable products under the influence of changing tax rates. The efficiency of government regulatory efforts aimed at reducing the consumption of unhealthy products in Russia using excise taxes is analyzed and assessed. The author provides evidence for the argument that palm oil should be added to the list of excisable goods in Russia and suggests reasoning for the proposed type and size of the tax rate. The conclusion is drawn that the implementation of the proposed measures would have a considerable fiscal effect and encourage a reduction in the consumption of products containing palm oil, thus improving public health. The purpose of the study is to design ways of improving the Russian system of excise taxes by expanding the list of excisable goods in order to increase the taxation system's fiscal and regulatory effectiveness.

Key words: excise tax, palm oil, price elasticity of demand, specific and ad valorem tax rates; budget revenues.

JEL Code: H21, H30.

Introduction

Excise taxes are widely used by both developed and developing countries as part of their economic policies. If applied wisely, excise taxes not only bring tax revenue to the government but also have an impact on consumption. The most suitable goods for levying excise taxes on are those that generate negative external effects, for example, foodstuffs and drinks that are bad for health. Palm oil one of the most popularly used and cheapest cooking oils (Global production volume palm oil, 2012-2019). Palm oil is high in saturated fats; it is not fully digestible and has a clogging effect on the blood stream, thus promoting

cardiovascular disease, obesity and cancer (Chen, Seligman, Farquhar, & Goldhaber-Fiebert, 2011; Sun et al, 2015). Taxation is a regulatory instrument that governments use to limit the production and consumption of "harmful" products as well as an effective means to raise additional tax revenue and improve public health.

According to the World Health Organization, in recent years the focus has been on the health hazards of tobacco smoking and alcohol, while other potentially harmful products have not received sufficient attention (Kadandale, Marten, & Smith, 2018). The WHO stated that there is convincing evidence that saturated fats contribute to an increase in the risk of cardiovascular diseases. The introduction of an excise tax on foodstuffs that are bad for health appears to be an effective strategy for improving eating habits and preserving public health (Waterlander, Ni Mhurchu, & Steenhuis, 2014).

Russia's imports and consumption of palm oil have been growing on an annual basis. In 2018, per capita consumption of palm oil was 7.2 kg, which is a 60-percent increase since 2010 (Russian Federation, 2018). The country is thus one of the biggest consumers of palm oil, with only India matching it up with 7 kg per person per year. Consumption rates are somewhat lower in the European Union (5.7 kg per person) and are much lower in the USA (3.1 kg per person). The negative impact of growing palm oil consumption on public health in Russia is becoming increasingly obvious and calls for urgent measures to be taken.

The proposal to introduce an excise tax on palm oil is driven by the need to raise additional public revenue and is an attempt to use excise taxes as a regulatory instrument for limiting the production and consumption of unhealthy foods.

1 Methodology and Research Methods

The subject of the study is the system of excise taxes in the Russian Federation. The analysis of excise taxes in Russia was performed for the period 2010 through 2017. The research method included examination of the share of public revenue from excise taxes and comparison of the growth rates of excise tax revenues with public revenue in Russia. Additionally, the volume of imports and consumption of palm oil in Russia in 2010-18 was analyzed. Data on consolidated government revenue in Russia, excise tax revenue, the volume of imports and consumption of palm oil and palm oil prices were retrieved from the website of the Federal State Statistics Service (gks.ru), the Federal Tax Service (nalog.ru).

The author also looks at the consumption of palm oil in other countries and the global experience of levying taxes on palm oil. Russia's practice of charging excise taxes on goods

that are harmful to health, such as alcohol and tobacco, is studied. The price elasticity of demand for palm oil is examined and prospects of changing the level of palm oil consumption under the influence of a higher price incorporating excise tax is considered.

The main outcome is an argument in favor of introducing a fixed-rate tax on palm oil in Russia and an estimated fiscal effect in terms of government revenue that can be achieved if the proposal takes effect.

Works by Russian and foreign scholars served as the methodological and theoretical background for the study. The list of data sources for the study included statutes and regulations, data of the Federal State Statistics Service (gks.ru), the Federal Tax Service (nalog.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 the system of excise taxes in Russia

The role and significance of excise taxes in Russia are indicated by the share of revenues from excise taxes in the aggregate government revenues in Russia (summarized in Tab.1). The aggregate government revenues include the revenue of state extra-budgetary funds.

Tab. 1: Excise tax revenues as a share of aggregate government revenues of the Russian Federation in 2010-18 (Russian Federation, 2018)

Years	2010	2011	2012	2013	2014	2015	2016	2017
Indicators								
1. Excise taxes , % of total government revenue	2.9	3.1	3.6	4.2	4.0	4.0	4.8	5.2
2. Year-on-year growth, %	135.8	138.0	128.7	121.4	105.5	99.6	126.9	118.0
3. Growth rate of consolidated budget revenues compared to previous year, %	117.9	130.1	112.4	104.3	109.5	100.6	104.7	110.2

Source: Russian Federation. (2018). Reading allowed: National Accounts Statistics. Retrieved from: http://www.gks.ru/bgd/regl/b18_13/Main.htm., author's calculations

The analysis shows that from 2010 till 2017 the share of excise taxes in the structure of public revenue in Russia ranged between 2.9% and 5.2%. The absolute value of excise tax revenues as well as their share in the state budget grew annually, with the exception of the

years 2014-2015 when there was a slight decrease in excise tax receipts and a decrease in their share by 0.2 percentage points due to a drop in alcohol imports in Russia in 2015 following an economic crisis and rouble devaluation.

In 2017, excise taxes on petrol and diesel fuel accounted for the biggest share (37.8%) of excise tax revenues, followed by tobacco (37.7%) and alcohol, including beer (23.7%). Over the observation period of 2010 till 2017, excise tax revenues increased 3.4-fold, which is much faster than the public revenue growth of 193.7%. This is largely due to a higher-than-inflation increase in excise tax rates on most taxable goods. Despite that, the excise tax rates on the main categories of excisable goods in Russia are much lower than in the EU member states and many other countries.

Excise taxes are the most harmonized taxes in terms of the list of taxed commodities as the majority of countries follow the recommendation of the International Monetary Fund and limit excises to a few principal groups of products: 1) alcoholic drinks; 2) tobacco products; 3) automobiles; 4) oil and petroleum products; 5) car spare parts. At present, the list of excise goods in Russia does not go beyond the IMF recommendations.

The form of excise tax collection changes with time. For example, it is typical of the EU member states to tax a number of other commodities in addition to the aligned list of excisable goods. Among the commodities subject to excise tax are sweetened and sugary drinks, coffee, tea, sugar, salt and matches, luxury items, mineral fertilizers. Some European countries (for example, Denmark, Hungary, Finland) also tax so-called harmful products with a high content of salt, sugar, artificial flavoring ingredients and fats (crisps, oil, convenience foods). Russia could follow suit and levy excise taxes on "harmful" products.

One can draw a conclusion that excise taxes have been rather effectively used to raise revenue for the state budget of the Russian Federation. However, the potential of excise tax has not been realized in full as there is still an opportunity to increase tax rates and expand the list of taxable goods.

2.2 Prospects for improvement of excise system in Russia through introduction of palm oil tax

We shall consider the expediency of introducing a palm oil tax in Russia and possible tax rates. Apart from generating additional tax revenue, it is also necessary to reduce the consumption of harmful foodstuffs by using economic tools as part of the fight against diabetes, obesity, cardiovascular diseases, cancer and other diseases.

Today, palm oil is one of the most commonly used vegetable oils in the world. It is found in over 50% of food products (biscuits, buns, chocolates, ice cream, cheaper dairy substitutes etc.) and consumer goods (including cosmetics and biofuel) (Global production volume palm oil, 2012-2019). Palm oil is derived from the mesocarp (reddish pulp) of the oil palm fruit. Palm kernel oil is derived from the kernel of the oil palm fruit and has a structure and properties that are similar to that of coconut oil. The oil palm is grown in Indonesia, Malaysia and Africa, the largest exporters of palm oil. Between 1995 and 2017, the world production of palm oil increased 340%: from 15m tonnes to 66m tonnes.

The growing demand for and supply of palm oil are due to the fact that

- the oil palm is easy to grow and has a high yield, providing two harvests a year;
- producing palm oil is cheap and simple. Dairy fat costs USD 2,900 per tonne, while palm oil, which is used as its plant-based alternative, costs a mere USD 570 per tonne, making it possible to considerably reduce the cost of the end product;
- palm oil is odorless and has no taste of its own, adding nothing to the taste of the products that contain it;
- a high melting point (33 to 40 °C) enables a longer storage time.

There are three types, or fractions, of palm oil, each of them having different properties and different uses. A higher-priced fraction, palm olein, is rich in vitamins, carotenes and other nutrients that are good for health. It is suitable for cooking and frying.

The second fraction - refined palm oil - is liquid. It is obtained through chemical refining of palm oil. The cost of refined palm oil is comparable to that of other vegetable oils, for example, sunflower oil. Refined palm oil is used in baking and mass produced confectionary.

The third fraction - palm stearin or hydrogenated palm oil - has a solid structure and costs the lowest. For easier transportation, palm oil is hydrogenated, that is, hydrogen is added to it. Hydrogenation hardens the oil and slows down oxidation of fatty acids, the cause of early food spoilage. This is the cheapest kind of vegetable oil intended for the fat-and-oil industry (cosmetics, medicines, soap, candles and washing powder) and food industry applications. It can also be used as an industrial oil.

Today, palm oil is widely used for the production of foodstuffs with a long shelf life: sweets, cottage cheese desserts, processed cheese, condensed milk, waffles, cakes and creams. Palm oil has the property of improving the taste and look of food while decreasing the cost of production. All too often, palm oil is used as a substitute for dairy fat. Palm oil can be an

ingredient in bread and pastry, sweet bread spreads, chocolate, prefabricated meats, crisps.

One has to keep in mind that palm oil causes adverse health effects. It contains a high amount of saturated fats compared with other vegetable oils. Palm oil has been observed to significantly increase LDL cholesterol in the blood (Sun et al, 2015). Saturated fats get lodged in blood vessel walls and increase cholesterol levels, which is bad for the heart and the entire cardiovascular system. A meta-analysis of the growing consumption of palm oil in 23 countries showed a strong link with a significantly higher mortality rate from ischemic heart disease (Chen, Seligman, Farquhar, & Goldhaber-Fiebert, 2011). There are studies that find a link between the consumption of palm oil and a higher mortality rate from ischemic heart disease, higher LDL cholesterol levels in the blood, higher risk of cardiovascular diseases and other adverse effects (Basu et al, 2013; Pei Yee, 2019; Falade, Oboh, & Okoh, 2017).

The negative effects of palm oil are not limited to cardiovascular conditions. It is difficult to digest and absorb. As a result, it has a clogging effect on the blood stream and its indigestible constituents induce organ toxicity. Additionally, it has a high calorific value (around 900Kcal/100 g), which promotes obesity and cancer. These negative aspects are primarily typical of palm stearin, the cheapest fraction of palm oil.

The largest importers of palm oil are India, China, the European Union (some of its member states re-export it elsewhere) and Pakistan.

We shall analyze the volume of palm oil import and consumption in Russia between 2010 and 2018 (Tab. 2).

Tab. 2: Analysis of the volume of palm oil import and consumption of palm oil in Russia in 2010-18 (Russian Federation, 2018)

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indicators									
1. Amount of imported palm oil, thousand of tonnes	656.0	631.0	659.0	747.0	706.0	889.0	885.0	892.0	1059.7
1.1. Increase in percentage points on previous year	100.0	96.2	104.4	113.4	94.5	125.9	99.6	100.8	118.8
2. Value of imported palm oil, million dollars.	666.0	806.4	756.0	694.0	642.0	642.0	647.0	702.0	748.4
2.1. Increase in percentage points on previous year	100.0	121.1	93.8	91.8	92.5	100.0	100.8	108.5	106.6
3. Average price of imported									

palm oil, dollar per tonne	1015.2	1278.0	1147.2	929.0	909.3	722.2	731.1	787.0	706.2
3.1. Price increase in percentage points on previous year	100.0	125.9	89.8	81.0	97.9	79.4	101.2	107.6	89.7

Source: Russian Federation. (2018). Reading allowed: National Accounts Statistics. Retrieved from: http://www.gks.ru/bgd/regl/b18_13/Main.htm., author's calculations

The data presented in Table 2 indicate that the import and consumption of palm oil in Russia considerably increased over the period of observation. A slight year-on-year decrease of 3.8% in the import of palm oil was registered only in 2011, which might be attributed to a price hike - by 25.9% - in the world market and in 2014 (by 5.5%). Our calculations show that between 2010 and 2018 the volume of palm oil consumed in Russia increased by 61.5%. In 2018 alone, palm oil import rose 18.8%, while the total value of imported palm oil increased only 12.4%. Consequently, the average price of imported palm oil decreased from 1,015.2 dollars per tonne to 706.2 dollars per tonne, or by 30.4%. One could draw a conclusion that in addition to the growing import volumes, the structure of palm oil import changed toward a bigger share of the cheapest palm oil fraction - palm stearin, which is a technical oil. Its use in food production will undoubtedly cause negative external effects.

In 2018, per capita consumption of palm oil was 7.2 kg, which is a 60-percent increase since 2010. The country is thus one of the biggest consumers of palm oil, followed closely by India with 7 kg per person per year. Consumption rates are somewhat lower in the European Union (5.7kg per person). Such a trend in the consumption of palm oil calls for the introduction of indirect taxes that would prevent further distribution of the product in order to preserve public health in Russia.

Having analyzed other countries' experience in the indirect taxation of palm oil, we can see that the only country that taxes palm oil imports is India (the tax rate ranges from 40 to 50% depending on the fraction). In 2016, France considered introducing a tax on palm oil imports at 30 euros per tonne with a further increase to 90 euros per tonne. The appropriate bill was, however, dropped.

Price is one of the most important factors determining the choice of food by a consumer. Effecting a price change by means of taxes is an effective and inexpensive tool for preserving public health and improving eating habits of the population (Andreyeva, Chaloupka, & Brownell, 2011). Using excise tax to fight the consumption of harmful products has proved effective in the case of alcohol and tobacco (Chopra & Darnton-Hill, 2004).

Similar effects have been observed in Russia, too. For example, the consumption of cigarettes decreased by 39.2% from 371.8 billion sticks in 2010 to 226.1 sticks in 2017. Per-capita consumption thus decreased by 500 sticks a year. At the same time, excise tax revenues in Russia increased by 240% in 2010-17. The sale of alcoholic drinks in Russia also decreased from 8.9 litres per capita in 2010 to 5.9 litres per capita in 2017, which is a drop of 33.7% (Russian Federation, 2018). The introduction of an excise tax on palm oil can, therefore, result in a significant growth in public revenue and improve public health thanks to lower consumption of harmful products.

In order to estimate the potential impact of an excise tax on palm oil consumption, assessments of the price elasticity of demand from published studies were used. The price elasticity of demand for palm oil is 0.71, which means that if prices grow by 10%, demand will decrease quite substantially by 7.1% (Basu et al, 2013). The introduction of an excise tax on palm oil can, therefore, be used to reduce demand for the product.

There are concerns that if Russia sole-handedly introduces an excise tax on palm oil, cheap oil (at a price free of tax) will be imported from other member states of the Eurasian Economic Union (Belarus, Kazakhstan, Armenia, Kyrgyzstan). This could diminish the expected effects of the tax. A possible solution to the problem could be the introduction of an excise tax on palm oil across the EEU after relevant talks.

We shall now consider the issue of choosing a tax rate to apply to palm oil. Experts propose two options: a specific unit tax of 200 dollars per tonne and an ad valorem tax of 30% of the product value. In practice, the majority of countries use both types of the taxes, thus maintaining a balance of the pros and cons of the two excise taxation methods. Specific taxes (or a combination of taxes) are usually levied on goods that cause negative external effects, while ad valorem taxes are applied to goods when the goal of excise taxation is primarily to redistribute wealth.

Considering the above, it is advisable to introduce a per unit tax on palm oil so as to avoid a change in the structure of consumption towards its cheaper grades and encourage a reduction in consumption. The introduction of a palm oil tax would result in higher prices of foodstuffs that contain it, bringing them on par with prices of less harmful products that contain animal fats. That would encourage consumers to opt for food of better quality that is less harmful to health.

In order to assess the outcomes of levying a tax on palm oil in terms of public revenue, we shall calculate a potential change in excise tax revenue. We proceed from a hypothesis that

the consumption of palm oil remains unchanged in the planning period. This enables us to calculate the fiscal effect of the new tax: if consumption remains at the level of 2018 and the excise tax is set at 13,000 roubles per tonne (200 dollars at the current exchange rate), excise tax revenues will increase by 13,776 billion roubles annually (211.94 million dollars at the current exchange rate), or by 0.9%.

Conclusion

The analysis shows that the system of excise taxes that exists in Russia today fulfills both the fiscal and regulatory functions of taxation rather effectively as excise tax revenue growth has been considerably outpacing that of consolidated public revenue and the consumption of alcohol and tobacco has decreased significantly under the influence of higher tax rates. At the same time, the potential of excise taxes has not been utilized in full as there is still room for expanding the list of taxable goods. The introduction of an excise tax on palm oil (with a fixed rate of 13,000 roubles per tonne, or 200 dollars) could yield an additional revenue of 13,776 billion roubles (an equivalent of 211.94 million dollars). This could subsequently result in the reduction of consumption of foodstuffs containing palm oil that are bad for health. The introduction of a palm oil tax could, therefore, help address the problem of a budget deficit by generating additional revenue and, possibly, by reducing health care expenditures thanks to lower consumption of unhealthy food in Russia.

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