

## **IMPACT OF INTRODUCING UNHEALTHY PRODUCTS EXCISE DUTY ON CROSS BORDER TRADE AND GAIN OF LOW-INCOME PERSONS**

**Maris Juruss**<sup>1</sup>, Dr.oec.; **Elza Seile**<sup>2</sup>, MSc.oec.

<sup>1, 2</sup> Riga Technical University

**Abstract:** The Ministry of Health has made a proposal to place excise duty on several grocery products that the Ministry of Health consider "unhealthy". The duty would allow to capitalize on the consumption of these products as well as limiting the consumption itself. However, this excise duty can cause several complications such as financial pressure on not-well-off households.

Placing the excise duty on products would consequently increase the price of the product, which would in turn increase the sales revenue of cross border trade. Recent studies have discovered that the consumer react to increased prices of the domestic product, by purchasing the goods in other countries to minimize his/her expenditures. Since the prices of grocery products are already higher than in the neighbouring countries - Lithuania and in specific cases Estonia, this increase in the price could cause the shopping abroad to become a really hot topic. Since the excise duty is a custom administrated tax, there has to be extra control on Russian and Belarus borders, as well as informing the general public about which products the excise duty has been imposed on. If the imported product exceeds the allowed quantity, these products should be taxed separately.

Since the excise duty is a consumption tax, it will directly affect lower income citizens, as they spend the majority of their income on grocery products. The process will expand the income inequality in Latvia even more, despite the fact that it is already one of the highest in the European Union.

**Key words:** excise duty, unhealthy food, cross-border trade, social inequality, the tax burden

**JEL code:** H25, H71

### **Introduction**

The Ministry of Health has developed a proposal (Ministry of Health,2015) to impose an excise duty on several "unhealthy" grocery products and increase the existing duty on several products already taxed. The Ministry of Health has states that this initiative will increase the national budget by 30 million euros.

The proposal contains placing an excise duty on sausages and other meat products, meat subproducts or blood products, other products based on these products, canned goods made of meat, meat subproducts or blood, salted, marinated, dried or smoked meat or meet subproducts, which contain salt level of more than 1.8g/100g of meat product. The proposal establishes an excise duty placed on these products of EUR 7.00/100Kg of the specific good.

The proposal also contains an excise duty placed on palm oil- EUR 21.00 for every 100l, lard -EUR 21.00 /100Kg, as well as pre-made soups and broth, which will be taxed if the salt level exceeds 1g/100g's for an amount of EUR 21.00 /100Kg.

The Ministry of Health, also considers patatoo chips, saltine nuts, popcorn and saltine corn snacks that contain more than 1.25g of salt for every 100g of the product as prime contenders for excise duty. These products would also be taxed EUR21.00 for every 100 kg of the product. Also, the Ministry of Health considers increasing the already existing excise duty placed on the artificially sweetened non-alcoholic drinks which is currently EUR 7.40 /100l to EUR 14.00/100l. Also they plan to place Excise duty on specific non-alcoholic drinks which contain an amount of caffeine larger than 15mg/100ml for an amount of EUR 21.00/100l

The goal of realizing this proposal is to increase the national budget as well as encouraging the consumption of healthier products. It has to be noted that there are few publically discussed arguments on the topic and relatively small amount of information that proves these products unhealthy. It is questionable whether this excise duty will change peoples' habits and will help them choose the

healthier alternative such as healthier meat products.

Based on the experience of other countries and several international researches, authors created a study to determine the influence of the proposed excise duty on the prices of these products and the impact it might have of cross border trade in Latvia. Authors also studied the possible reactions of socially sensitive groups of people based on the structure of their expenditures and consumption tax burden. These arguments have to be evaluated before deciding on the necessity of the excise duty placed on these "unhealthy" products.

The **hypothesis** is that excise duty placed on "unhealthy" grocery products could increase cross border trade and tax burden on citizens with low incomes.

The **goal of the research** is to evaluate how an excise duty may affect the cross border trade and the level of income for lower income citizens.

The **objective** of the research is cross border trade and social awareness. The **subject** of the research is imposing an excise duty on "unhealthy" products.

In order to achieve the goal of the research, several **steps** will be taken:

- 1) Known experience of the cross border trade in other countries;
- 2) Comparing the prices of goods in the Baltic states to determine the potential risk for cross border trade;
- 3) Determining the main problems, that might be faced when increasing the cross border trade with Belarus or Russia;
- 4) Acknowledging existing the social awareness in Latvia;
- 5) Analysing the burden of existing tax on different social groups ;
- 6) Estimating the increase in the burden faced by people, if the excise duty on "unhealthy" products was to be put in place.

The main **research methods** used in this study are **quantitative**: analysis of **statistical** and **empirical** data.

## **1. Impact of introducing of excise duty on unhealthy products to cross-border trade**

### **1.1. Case studies of other countries**

There has been some research done on the topic of cross border trade. The difference in the price of the product after the excise duty has been imposed compared to the price for the same good neighbouring countries, where the excise duty is lower, motivates the consumer to purchase the good abroad. The traveling expenses are often more than paid for with the savings created from avoiding to pay the local excise duty (Leal A., Lopez-Laborda, Rodrigo F., 2010). The difference in the excise duty is one of the main motivators for the cross border trade.

Poland did the most of its cross border trade with Ukraine from 2010 to 2012, however a significant portion of the population living in the near border regions did their foreign shopping in other neighboring countries (Russia, Belarus). The research stated that out of all of food imports in Ukraine during 2012, 23% of it was unregistered import. Poland spent approximately 14 Million euros on importing grocery products from Ukraine alone, 2 million euros in Belarus, 4 million in Russia (Poweska H., 2014).

The research conducted on cross border trade between Germany and Denmark, concluded that 80% of the Danish citizens residing within 50 km from the German border, did their shopping in Germany at least once a year due to transborder tax policy. The most frequently purchased products are beer, wine and sweets which are priced cheaper than the same goods in Denmark (Bode E; Krieger-Boden C; Lammers K, 1994).

Similar tendencies can be observed in the cross border trade between the Netherlands and Germany in the (Reinas-Vales), (regions Spiering B., Van der Velde M., 2013). The people living near the border buy specific products in the other

country. The consumers state that the main reasons for this shopping abroads are better prices and variety of options.

A while ago a large part of the products and services provided in Mexico were imposed with 16% value added tax (VAT). However within 20 km from the border with United States of America, the duty rate was 11%. That was the preferred duty rate to decrease the cross border trade with United States of America. However the difference in duty rates crippled the economy overall, because the difference in duty rate was so significant that Mexican residents traveled to do their shopping in the zone with lower duty Rate (Lucas W.,2011).

Recent studies show that Chicago region located in United States of America, lost up to 40% of its revenue due to higher gasoline prices (Manuszak, M. D., Moul, C. C. ,2008).

Previously mentioned researches and the experience of other countries proves that consumer will react to the changes of prices, to minimize expenditures.

### 1.2. Impact on cross-border trade between the Baltic States

The excise duty proposed by the Ministry of Health for unhealthy food will increase the prices of the specific goods locally which will lead to increase in cross border trade. By imposing excise duty on specific products, the prices will increase so the cross border trade question begins more important, especially between Latvia, Lithuania or Estonia, because there is no currency barrier and there is no cost to crossing the border. That could adversely affect the Latvian economy. On the Table 1 are displayed the prices of specific products that are going to be taxed with Excise duty in the Baltic Countries.

Table 1

**Product Prices in Baltic Countries (EUR)\***

Product Group	Latvia	Lithuania	Estonia
Fruit Oil	2.31	1.56	2.39
Patato Chips	1.61	1.46	-
Sweetened, carbonized drinks	0.72	0.65	-
Juices	1.31	1.43	1.17
Pork	4.78	4.00	-

\* Eurostat and the National Statistical Institutes, 2014

As it is shown in Table 1 several products are already more expensive in Latvia. Although the prices are measured overall and onlu few of the products are planned to be taxed with excise duty, one has to assume that the prices may go up in the whole product group, as it may be difficult for the retailers to differentiate the prices as few of the products have to be placed with excise duty. Similar effect can be seen already in non-alcoholic beverage group. Even though the excise duty has been placed on sweetened drinks, it is common that prices are similar between those drinks and other drinks also.

By imposing excise duty the price will grow by 4% for pork and up to 16% for juices. For example, the difference between non-alcoholic beverages between Latvia and Lithuania is approximetly 10%. By implying the excise duty the difference in prices will grow up to 18%.

It has to be noted that meat products are a large part of overall consumption. After a research (Baltic Institutes for Private Finances, Swedbank, 2014), for an average trip to a grocery store approximetly 35% are meat and fish products, 16% are bread and poultry products and milk products. Vegetables combine for 13% and fruits combine for only 10%. That

leads to a conclusion that meat products consist for a large part for overall consumption, and simultaneously also the meat subproducts and smoked meat.

The conclusions can be drawn that the cross border trade in Latvia will increase. By imposing the excise duty the country will not only gain from the excise duty revenue but, quite conversely will suffer losses and therefore the total tax revenue will decrease.

### **1.3. Cross-border trade with Russia and Belarus**

Since Latvia is also bordering Russia and Belarus, there will also be problems with cross border trade with these countries. Regardless of the fact that Latvian citizens are under VISA regulations traveling to Russia, as well as the currency barrier, there are many non-citizens in Latvia, especially in 'Latgale' region-border area which leads to easier access to Russia, who do not need visa to enter Russia. According to Central Statistics Office currently in Latvia are 253640 non-citizens, 38777 Russian citizens and 1686 Belarus citizens (Central Statistical Bureau, 2014), therefore the cross border trade will increase with Russia and Belarus, which will not only affect alcohol, tobacco and gasoline import to Latvia but also food products planned to be taxed with excise duty.

Several grocery products that are planned to be taxed with excise duty can be imported from Russia and Belarus legally. Some of these products are: palm oil, readily made soups and broths, potatoe chips, salted nuts, popcorn, saltine corn snacks, sweetened non alcoholic drinks and energy drinks. Since excise duty is border administrated tax, there has to be more control imposed on the actual border as well as informing the society that certain grocery products are taxed with the excise duty and that there is a fee to be paid if the imported good exceeds the allowed amount.

A controversial issue arises not only in the general cross border trade, but also when a person wants to legally declare importable goods and pay the excise duty. The question is if the person will be able to calculate and declare the duty, and how many resources will it take from the border control to control if the correct amount is being paid. The person will have to pay the banking transactions before declaring imported goods. Practically it is not possible, for example travelling by train from Russia or Belarus.

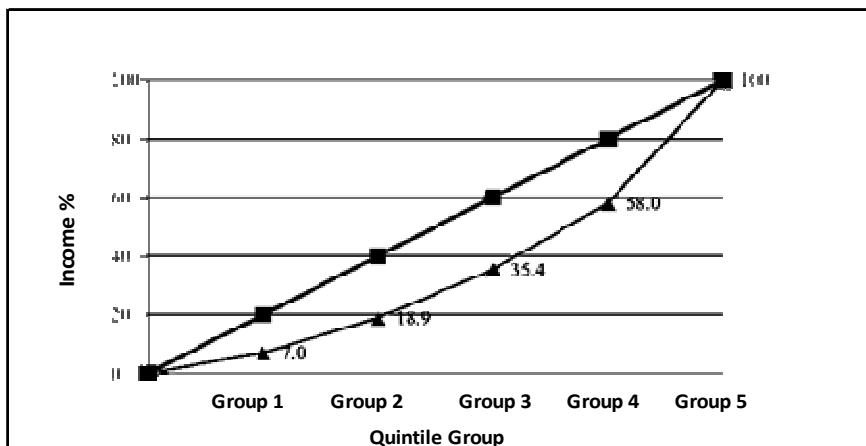
## **2. Impact of introduction excise tax on unhealthy products to income of low-income persons**

### **2.1. Income inequality in Latvia**

The income inequality has been described with GINI coefficient. Low GINI coefficient means that the income inequality is relatively small; conversely high GINI coefficient means that income inequality is relatively high.

The income inequality in Latvia is huge. GINI coefficient in Latvia is second highest in the European Union (2013: -35.2), (Eurostat, 2014). In the last several years there has been no notable improvements but quite the opposite - due to large amount of people migrating to live elsewhere it is creating a false sense of improvement, hence since the people who were in the lower income category before are migrating to search for better opportunities to earn living in different countries the GINI coefficient is artificially getting better (Quintile Group 1), (Juruss, M., Valuka Z., 2014).

Graphically the income inequality is usually displayed using Lorenz curve (Lorenz, M. O., 1905). If there were no income inequality the line would be perfectly straight, but since there is inequality the line is curved for the different groups.



Source: authors' construction based on data from Central Statistical Bureau, 2013

Fig. 1. Lorenz curve of income inequality in Latvia

As it is displayed in the Figure 2, first group only receives 7% of the income (instead of 20%), however the group 5 receives 42% which proves that there is a lot of income inequality in Latvia (Juruss M., Valuka Z., 2014).

One of the instruments made to minimize the inequality between the incomes of the citizen is fiscal political maintenance, hence using differentiated tax bids etc. the imposing of consumption tax, such as exise duty has a completely adverse effect- it increases the income inequality between citizens.

**2.2. Citizen Consumption**

Many researches show that there is a direct correlation between consumption and income. A big chunk of this research has been conducted by

John Maynard Keynes (Keynes M. J., 1936). Keynes main conclusion was that as the income increases for a person, the consumption does not increase as rapidly, hence the consumption increase has regressive nature. Proportionally to the expenditures, there are expenditure taxes that are to be paid, which in contrast against people with lower income contain larger percentage of their total amount of money than those with larger income. It means that consumers with different income have completely different tax burden. That is proven by following empirical data.

Table 2

**Persons total grocery expenditures, % from income\***

Quintile group	Group 1	Group 2	Group 3	Group 4	Group 5
<b>Income per one household member (EUR)</b>	124.93	227.58	295.01	412.66	779.67
<b>Grocery expenditures per one household member (EUR)</b>	56.93	77.05	88.28	97.32	116.17
<b>The Share of Grocery Expenditures (%)</b>	46%	34%	30%	24%	15%

\* Central Statistical Bureau, 2013

The situation of grocery consumption is similar to situation of the total consumption-as income rises, the proportion of income spent on groceries decreases. Most of the money for the purchase of

groceries in relation to their income is spent by 1<sup>st</sup> quintile group, but the least of income- by fifth quintile group. Here it should be noted that

low-income persons spend on groceries nearly half of their income - 46%.

The share of grocery groups, which are expected to be placed with excise duty are displayed on Table 3. From the group of "Grains" it is popcorn, saltine corn sticks, from "Other Grain Oils" it is palm oil, from "Animal Fats" it is pork fat, "From Nuts and Seeds" – saltine nuts which contain more than 1.25 grams per 100 grams. "Processed Patatoes" – Patatoe chips, "Food Concentrates"- Readily Made Soups and

Broths, "Non-alcoholic drinks and fruit juices"- sweetened non-alcoholic drinks and energy drinks.

Table 3 shows the same tendency, hence perecentage wise from their income the most expenditures for the mentioned products, the highest percentages are from people with lower income level. Therefore, it can be concluded that the Exise Duty will affect the household with lesser income the most; hence the income inequality will grow even more.

Table 3

**Person consumption of certain products, which are intended to impose with excise duty, % of income**

Quintile Group	Group 1	Group 2	Group 3	Group 4	Group 5
Average income per one household member (EUR)	124.93	227.58	295.01	412.66	779.67
Grain Products	0.30%	0.24%	0.21%	0.14%	0.12%
Dried, Saltine, Smoked meat and meat subproducts	4.63%	3.11%	2.77%	2.10%	1.12%
Canned meats and meat subproducts	0.91%	0.64%	0.63%	0.51%	0.33%
Other fruit oils	0.85%	0.52%	0.39%	0.26%	0.12%
Animal Fat	0.06%	0.01%	0.04%	0.01%	0.00%
Nuts, seeds	0.17%	0.15%	0.14%	0.16%	0.14%
Processed Patatoes	0.16%	0.13%	0.12%	0.10%	0.08%
Food concentrates	0.36%	0.23%	0.22%	0.20%	0.09%
Non alcoholic beverages	0.34%	0.28%	0.23%	0.24%	0.18%
Fruit Juices	0.37%	0.23%	0.24%	0.26%	0.23%

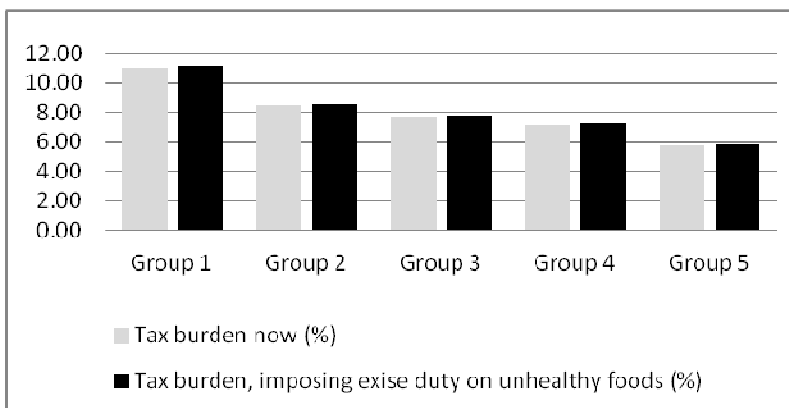
Economical development usually causes improvements in grocery choices, thereby improving the structure of overall dietary choices (WHO, 2003). Economic development creates qualitative and quantitative changes in diet. These changes, improve the structure of dietary choices by replacing fat with increase in energy and consumption of products with added sugar as well as fat consumption (mainly animal fat), with complex carbohydrates and fruits and vegetables. However the inequality between citizens and cross border trade will not improve the economical development (Elsner K., Hartma M., 1998; Popluga D., Melece L., 2009).

**2.3. Burden of Expense tax on people with different income**

Taking note of the fact that people with lower income spend relatively more of their income, it is already creating a situation in which people with lower income (elderly people etc.) have higher tax burden (value added tax). Imposing excise duty on unhealthy food, expenditure tax burden will increase more for the people with lower income than people with higher income. Calculations show that people with low income (Quintile Group 1.) would have two times bigger tax burden than that of people with high income (Quintile Group 5.).

Imposing excise duty on unhealthy foods, the prices will increase and therefore, so will the Value-Added Tax payments. That will lead to tax burden increasing for people with lower income even more. Research shows that already, the total expenditure tax burden (value added tax) for people with low income (Quintile Group 1.) is

11.01% from their existing income, creating a huge gap from people with high income (Quintile Group 5.) After the excise duty will be imposed the gap will further increase, tax burden will rise for people with low income to 11.29% or by 0.28% ( Figure 3).



Source: authors' calculations based on data from Central Statistical Bureau

Fig. 3. Tax burden on household with different income.

Taking in account that there is already huge inequality in Latvia, GINI coefficient in Latvia during 2013 was -35.2%, by imposing the excise duty on unhealthy foods, inequality will only increase. Therefore this type of action is not suitable and is opposite of the government declared programme for the decreasing of income inequality, so it is not acceptable.

**Conclusions**

- 1) The experience of other countries (Poland, Sweden, Denmark, and Netherlands) shows that consumer will react to change in prices to minimize expenditures. Importing unregistered grocery product is a significant problem for countries bordering with countries where prices are lower due to different tax policities.
- 2) Imposing excise duty on specific grocery products will increase cross border trade in Lithuania and Estonia, because few grocery product groups are already cheaper there. Excise duty will increase the difference in price. As a result instead of gaining from excise duty, the state will lose value added

tax revenue as well as the local retailers will suffer which will lead to loss in overall tax revenue.

3) Adjusting excise duty to many new product groups will significantly increase border administrative burden, because in addition to the EU policy, the country will have to adjust excise duty on a national level. It will affect importing goods from Russia and Belarus the most. National Customs Board has to count on increasing the border control. The state would have to provide more information to its residents about products applied with excise duty and the consequences of exceeding allowed amount of imported goods.

4) Excise duty on unhealthy foods will increase the tax burden for people with low income (Quintile Group 1), it will be almost two times bigger for people with high income (Quintile Group 5). By increasing the expense burden on people with lower income the income inequality will increase. This type of action is unacceptable, because it does not comply with the governments plan about decrease of the income inequality.

## Bibliography

1. Baltic Institutes for Private Finances, Swedbank (2014). Main Household Expenses Study in the Baltic. Retrieved: <http://www.manasfinanses.lv/wp-content/uploads/2014/04>. Access: 15.07.2015
2. Bode, E., Krieger-Boden, Ch., Lammers, K.(1994). Cross-border Activities, Taxation and the European Single Market. *Leibniz Information Centre for Economics*. Retrieved <http://www.econstor.eu/handle/10419/799>. Access: 17.07.2015
3. Central Statistical Bureau (2013). Household budget. Retrieved: [http://www.csb.gov.lv/sites/default/files/nr\\_15](http://www.csb.gov.lv/sites/default/files/nr_15). Access: 15.08.2015.
4. Central Statistical Bureau (2014). Nationality of permanent residents. Retrieved: [www.csb.gov.lv](http://www.csb.gov.lv). Access: 29.06.2015
5. Elsner, K., Hartma, M. (1998). Convergence of Food Consumption Patterns between Eastern and Western Europe. *Discussion Paper No.13*. Retrieved: <http://hdl.handle.net/10419/28587>. Access: 08.07.2015
6. Eurostat (2014). Gini Coefficient of Equivalised Disposable Income. Retrieved: <http://ec.europa.eu/eurostat/tgm/table.do>. Access: 01.06.2015.
7. Eurostat and the National Statistical Institutes (2014). Detailed average prices report.Eurostat metadata. Retrieved: <http://ec.europa.eu/eurostat/documents/272892/272992>. Access: 12.07.2015
8. Juruss, M., Valuka, Z.,(2014). Tax Impact on Inequality in Latvia, RTU, p.39.
9. Keynes M. J.(1936). *General Theory of Employment, Interest and Money, United Kingdom*, p.145.
10. Leal, A., Lopez-Laborda J., Rodrigo, F. (2010). Cross-Border Shopping. *Springer Science & Business Media B.V.* Volume 15, p.4.
11. Lorenz, M. O. (1905). Methods of Measuring the Concentration of Wealth. *Publications of the American Statistical Association* , Volume 9, Nr. 70, pp. 209-219
12. Lucas, W. D. (2011). The effects of preferential VAT rates near international borders evidence from Mexico, *National Tax Journal*, 64 (1), pp.85-104.
13. Manuszak, M. D., Moul, C. C. (2008). How Far for a Buck? Tax Differences and the Location of Retail Gasoline Activity in Southeast Chicagoland. *Review of Economics and Statistics*, Vol. 91, No. 4 , pp. 744-765
14. Ministry of Health, (2015). LETA. Retrieved: [www.leta.lv](http://www.leta.lv). Access: 06.07.2015.
15. Popluga, D., Melece, L. (2009) .Trends in Food Expenditure, Consumption and Nutrition in Latvia, *LLU Raksti* (317), p.51.
16. Poweska, H. (2014).The Share of Cross-border Shopping in Poland's Trade turnover of Food Products with Neighbouring Countries on the EU's External Border. *Oeconomia* 13 (4), pp. 147-155.
17. Spiering, B., Van der Velde, M. (2013).Cross-Border Differences and Unfamiliarity: Shopping Mobility in the Dutch-German Rhine-Waal Euroregion. *European planning studies*, Volume 21, Issue 1, pp. 5 - 23.
18. WHO (2003). Diet, Nutrition and the Prevention of Chronic Diseases, *WHO Technical Report Series*, 916, p. 160.