



EXECUTIVE SUMMARY

EXCISE TAX POLICY IN THE BALTIC COUNTRIES:

alcoholic beverages, soft
drinks and tobacco products

AUTHORS:

Anna Pluta
Mihails Hazans
Irena Emilia Svilpe
Anna Zasova
Arnis Sauka

THE REPORT HAS BEEN REVIEWED BY:

Prof. Karsten Staehr
(Tallinn University of Technology,
Estonia)

Prof. Valdone Darskuvienė
(ISM University of Management
and Economics, Lithuania)

RIGA
AUGUST 2020

EXECUTIVE SUMMARY

The aim of this report is to analyse excise tax policies in the Baltic countries from the point of view of revenues to the state, consumer welfare (including public health) and other policy goals, e.g., creating incentives for product reformulation, and to develop recommendations on excise tax policy. The study covers the following excise goods: alcoholic beverages, tobacco products and soft drinks with added sugar, other sweeteners or flavouring.

- For the Baltic countries, excise taxes represent a more important source of tax revenues compared to richer EU member states and EU countries on average.
- In the Baltics, the shares of revenues from excise tax on alcoholic beverages and tobacco products are almost equal (about 20% of total excise tax revenues for each type of products). The largest contribution to total revenues from excise duties comes from taxation of energy products.
- Compared to the EU average, the share of revenues from excise tax on alcohol in the Baltics is about twice as high.
- Latvia is the only Baltic country taxing consumption of non-alcoholic beverages with added sugar, other sweeteners or flavouring. There are 7 other EU countries and Spain's region Catalonia that tax sugar-sweetened non-alcoholic beverages.
- Comparison of excise duties in the Baltic countries (as of March 2020) suggests that Estonia has the highest excise duty on beer and cigarettes. Lithuania taxes wine (with alcohol content exceeding 8.5%) and vodka more than the two other Baltic countries, while Latvia applies the lowest excise duty on these alcoholic beverages.
- PPP-adjusted prices of alcohol in Latvia and Estonia in 2018 were above the EU average (8.5% higher in Latvia and 26.3% higher in Estonia), while prices in Lithuania were on average 6% lower than in EU-28. PPP-adjusted prices of tobacco products in the Baltic countries are below the EU-28 average (by 35.2% in Latvia, by 37.4% in Lithuania and by 32.3% in Estonia).
- Purchasing power can be also compared among the Baltic countries when evaluating average working time that required to buy an excise good. Despite the average retail price for beer in Estonia is the highest, it takes on average approximately the same amount of time for an Estonian to earn money necessary to buy a 0.5-litre bottle of beer as for a Latvian or a Lithuanian. In Estonia, a person on average needs to work less to buy 1-litre bottle of vodka, a 2-litre bottle of Coca-Cola and a 20-cigarette pack than in the other Baltic countries. A Latvian on average needs to work more to buy a 1-litre bottle of vodka and a 2-litre bottle of Coca-Cola than in the other Baltic countries, while it takes approximately the same amount of time for a Latvian and Lithuanian to earn money to buy a 20-cigarette pack.

- In Northern Europe, the Baltic countries are known for cheaper excise goods than in the Nordic countries, thus tourists from the Nordic countries visit the Baltic countries to purchase alcoholic beverages and tobacco. The search for cheaper alcoholic beverages and cigarettes exists even within the Baltic countries. A substantial cross-border trade between Estonia and Latvia, driven by a price differential, has a sizeable effect on government budgets. In 2017, 13% of total revenues from excise duty on alcoholic beverages in Latvia were collected due to cross-border trade between Latvia and Estonia, according to estimates by the State Revenue Service. In 2019, the volume of alcoholic beverages sold by Latvian retailers located close to the Latvian-Estonian border decreased as both Estonia and Latvia decreased the excise duty on alcoholic beverages reducing the differential between the duty rates. In 2019 compared to 2018, the share of strong alcoholic beverages sold in the respective border region in total sales of strong alcoholic beverages in Latvia decreased from 16.5% to 13.6%, while the share of beer sold in the same region decreased from 15.1% to 12.9%.
- Cigarettes are also subject to cross-border trade. In the Baltics, legal non-domestic cigarettes accounted for 2 to 4 % of total domestic consumption (total domestic sales minus outflows to other countries), while outflows of cigarettes to other countries comprised 15% of total legal domestic sales in Estonia, 8% in Lithuania and 5% in Latvia. A high share of cigarette outflows to other countries in Estonia is driven by a substantial cross-border trade between Estonia and Finland¹.
 - There is no evidence so far that people in the Baltics are going to neighbouring countries to purchase soft drinks. However, experience from Norway and Denmark shows that consumers are prepared to cross borders in order to buy sugary food and soft drinks where a significant price difference exists. Given high volumes of cross-border trade, the true effect on consumption of the taxed goods is hard to estimate. The experience of these two countries also highlights the importance of excise tax policy coordination across neighbouring countries as a tool for reducing cross-border trade and improving efficiency of excise tax.
 - In 2016-2018, per capita amounts of pure alcohol (APC) consumed in Lithuania and Latvia were among the highest in the EU. By contrast, in Estonia the level of APC was relatively low. However, Estonia stood out with the largest amount of alcohol associated with tourist consumption, and, as the result, the highest level of recorded per capita total legal sales of alcohol in the EU. Almost half of all accommodated foreign tourists in Estonia are coming from Finland, and one of the most popular reasons for coming to Estonia are cheaper excise goods.
 - In 2010, per capita cigarette consumption was significantly higher in Estonia than in Latvia and Lithuania, but the gap narrowed over time so that as of 2018, cigarette consumption per capita is broadly similar in each of the Baltic countries.

¹ Legal domestic consumption (LDC) is defined as legal domestic sales net of outflows from the country. Illicit products (C&C) - Counterfeit and Contraband, including Illicit Whites. Non-Domestic (Legal) (ND(L) – product that is brought into the market legally by consumers, such as during a cross-border trip. For more details see KPMG (2020).

- The shares of C&C (Counterfeit and Contraband) cigarettes in total cigarette consumption in the Baltic countries are among the largest in the EU. In 2019, Lithuania ranked second among the EU countries in terms of C&C share in total cigarette consumption (18%). In Latvia this share was 14% (down from 19% the year before), while in Estonia the share of C&C was 7% of total cigarette consumption. It is worth noticing that the 5 percentage points decline (2019 vs 2018) in C&C share in Latvia was the largest among the EU countries.

- According to data on consumption of non-alcoholic drinks in 2017 published by UNESDA (2020), per capita sales of non-alcoholic drinks² in the Baltic countries accounts to about half (49.0-55.6%) of the EU average level, while per capita sales of soft drinks accounts to 61.2-67.3% of the average level across EU countries. In 2018, Latvia had the highest per capita sales of soft drinks among the Baltic countries (126.1 litres per capita), followed by Estonia (118.7 litres) and Lithuania (112.9 litres). Sales of water accounts for the largest share (approximately half) of total sales of soft drinks. The second largest category is carbonated soft drinks (hereafter – CSD), accounting for 24 to 31 % of total sales of soft drinks. Juices are the third largest category, being more important in Estonia (with 18% of total sales in 2018) than in other two Baltic countries (11-13 %). The total share of kvass, ice tea and energy drinks does not exceed 10% of total soft drinks sales in any of the Baltic countries.

- Experience of other countries suggests that a sugar tax is effective in reducing sugar and calorie intake when imposed on a wide range of products, as opposed to a tax on a few products, which induces consumers' switching to other foods with added sugar, salt and fats. Taking this into account we estimate the possible effect of an introduction of an excise tax on yoghurts, flavoured dairy drinks with added sugar or other sweeteners and ice-cream in Latvia, assuming that these products are taxed at the same rate as soft drinks, i.e., EUR 7.40 per 100 l of yoghurt and flavoured dairy products with added sugar or other sweeteners and EUR 7.40 per 100 kg of ice cream. Our estimations show that the application of such excise taxes on these products would generate additional excise tax revenue of about EUR 2.5 mln per year, including EUR 1.25 mln revenues from yoghurts and flavoured dairy drinks and EUR 1.27 mln from ice-cream. Starting from January 2022, when the excise duty on soft drinks will be differentiated according to sugar content, application of the excise tax on these products would generate excise tax revenue equal to EUR 4.8 mln (assuming that the sugar amount in these products exceeds 8 grams per 100 ml and therefore these products would be subject to the excise duty rate of EUR 14 per 100 litres of yoghurt and 100 kg of ice cream).

² UNESDA classifies non-alcoholic drinks into 4 categories: (1) soft drinks (include CSD, still juice drinks, iced tea drinks, iced coffee drinks, sport drinks, energy drinks, flavoured water and enhanced water); (2) packaged water; (3) dilutables; (4) juice & nectars.

- When estimating the overall effect of excise taxes on yoghurts, sweetened dairy drinks and ice-cream, it is important to account for possible negative impacts on profits, output and employment of domestic manufacturers in the short run. In Latvia, if manufacturers will not opt to reformulate their products by reducing sugar content in order to minimise the decline in sales volume, such broadening of the tax base would potentially affect at least 68 firms operating in manufacturing of dairy products with around 3000 employees and total annual turnover close to EUR 416 mln.

- The tax increases reduce the sales and can result in significant job losses for those who manufacture, distribute and sell these products. However, the net impact of excise tax policies on national employment depends on the magnitude of both job losses in the taxed sector and job gains elsewhere in the economy as some consumers reallocate their spending to other goods and services and governments spend the additional tax revenues raised from tax increases. Furthermore, excise taxes on alcohol, tobacco and sugar-rich soft drinks, by reducing consumption of taxed products, lead to a reduction of diseases related to smoking, excessive alcohol consumption and obesity and other noncommunicable diseases and therefore to a decline in health care expenditures attributable to treatment of the respective diseases. Resources not spent on health care would be ultimately allocated to the consumption of other goods and services and create alternative jobs in other sectors of the economy. Important to note that decreased consumption of heavily taxed products could be at least partially offset by increased consumption of less taxed (relatively cheaper) or untaxed products, which are often produced by the same companies or start to be produced if companies opt to reformulate their products in order to minimise the decline in sales volume (Chaloupka F.J. et.al., 2019).

- A large number of studies consistently find that reductions in consumption of tobacco products due to higher taxes or other tobacco control policies have either no effect or a net positive effect on overall employment (NCI, WHO, 2016). A similar conclusion was reached in the recent studies from the United States regarding alcoholic beverages and sugar-sweetened beverages (Wada R. et.al., 2017; Powell L.M., 2014).

Results of econometric analyses

According to our estimations, demand for regular CSD, flavoured water, kvass and ice tea is price elastic in all Baltic countries³. In contrast, the demand of light CSD and energy drinks is price inelastic.

We estimate the short-term or direct impact of excise tax increase planned to be applied in Latvia to soft drinks with a sugar content above 8 grams per 100 millilitres starting from January 2022. The excise duty on soft drinks (except light CSD and flavoured water) is increased from EUR 7.4 to EUR 14.0 per 100 litres, which is a 89.2% increase in excise duty, while light CSD and flavoured water remains to be subject to tax rate of EUR 7.40 per 100 litres. For Estonia and Lithuania, where there is no excise duty on any soft drinks as of 2020, we simulate introduction of the same excise duty, i.e. EUR 7.40 per 100 litres of light CSD and flavoured water and EUR 14.0 per 100 litres of soft drinks with a sugar content above 8 grams per 100 millilitres.

According to our simulation results⁴, the introduction of excise tax on soft drinks is expected to generate tax revenues of EUR 6.5–7.6 mln in Estonia and EUR 12.6–16.0 mln in Lithuania annually. In Latvia, the increase in the revenue from excise duty is estimated in the amount of EUR 4.7–5.7 mln. The largest fall in sales of soft drinks subject to the excise duty (14.8 to 32.3 %) would take place in Lithuania since the price increase would be the highest. In Estonia sales of soft drinks would fall by 9.3 to 21.0 %. In Latvia, where the excise duty has been applied for more than two decades, the fall in sales of soft drinks would be less pronounced: just 5.5 to 11.3 %.

The econometric evidence suggests that long-term price elasticity of demand for cigarettes in the Baltic countries is low with estimated price elasticities ranging from -0.18 to -0.32. This is consistent with the studies conducted using data from low- and middle-income countries, with the majority of estimates ranging from -0.2 to -0.8, where the price elasticity estimates tend to be lower in countries with low-priced and thus relatively affordable cigarettes.

We estimate the short-term or direct impact of an increase in specific tax rate by 5%, 10%, 15%, 20% and 30% in the three Baltic countries. According to the results of our simulations, an increase in specific component of the excise duty in each Baltic country will result in a relatively small decrease in sales of around 1% if the specific tax rate is increased by 5%; and of around 2 to 4 % if the specific tax rate is increased by 20%. As a result of a 5% increase in the specific tax rate, excise tax revenues from cigarettes are expected to go up by 3% in Latvia (EUR 6 mln per year), 3 to 4 % in Lithuania (EUR 9–10 mln) and 3 to 4 % in Estonia (EUR 7–8 mln). A 20% increase in the specific tax rate is expected to generate additional EUR 26–29 mln in Latvia, EUR 37–40 mln in Lithuania and EUR 29–31 mln in Estonia. A 30% increase in the specific tax rate is expected to generate additional EUR 39–43 mln in Latvia, EUR 54–59 mln in Lithuania and EUR 42–46 mln in Estonia.

The above forecasts of fiscal effects of increasing excise duties on cigarettes should be treated with care as the underlying data refer to the period 2010–2019, when the volume of Counterfeit & Contraband (C&C) consumed in the Baltic countries as well as the share of C&C in total cigarette consumption was steadily and significantly decreasing⁵. Hence, these forecasts would be too optimistic in situation where a large proportion of consumers switch from legal cigarettes to C&C, as it was the case in the Baltic countries during the financial crisis of 2009. Taking into account the share of C&C in total cigarette consumption as of 2019 and increased efficiency of smuggling prevention measures over the time period 2010–2020, and at the same time positive consumer income trend in 2010–2020, we believe it is highly unlikely that consumption of C&C could return to 2010 levels. We believe that the maximal expected increase in the C&C share caused by a large increase in the excise tax rate in the near future equals 10 percentage points. Assuming the scenario when the specific tax rate will be increased by 20% and at the same time the share of C&C in total cigarette consumption will increase by 10 percentage points (to 24% in Latvia, 28% in Lithuania, and 17% in Estonia), the fiscal effect of the excise tax from cigarettes reform is still positive: up to EUR 3 mln in Lithuania, EUR 0.4 mln in Latvia and up to EUR 7 mln in Estonia. It would take a 15 percentage points increase in the share of C&C (which we consider unrealistic) to make the fiscal effects significantly negative in any of the three countries; in this case, excise tax revenues from cigarettes would fall by EUR 16–19 mln in Lithuania, EUR 14–17 mln in Latvia and EUR 6–8 mln in Estonia.

Findings from studies in the literature and our own analysis for Latvia suggest that demand for alcohol in general is inelastic, but spirits feature larger demand elasticity than beer or wine. This implies that raising excise duties on ethyl alcohol would result in a larger decrease of ethyl alcohol consumption, whereas raising taxes for beer or wine would have a smaller effect on consumer behaviour.

We estimate the short-term or direct impact of an increase in excise tax per one litre of each type of alcoholic beverages by 10%, 15%, and 20% in the three Baltic countries. Our results suggest that a 20% increase in the excise tax per one litre of each type of alcoholic beverages leads to increase in excise tax revenues as follows: (i) from wine by 18 to 20 % in Latvia (EUR 3–4 mln), 16 to 20 % in Estonia (EUR 4–5 mln) and 16 to 20 % in Lithuania (EUR 6–8 mln) (ii) from vodka⁶ by 10 to 17 % in Latvia, 11 to 17 % in Estonia, 6 to 16 % in Lithuania; (iii) from beer by 18 to 19 % in Latvia (EUR 9–10 mln), 18 to 19 % in Estonia (EUR 11–12 mln) and Lithuania (EUR 15–16 mln). The fall in sales would be the largest for vodka (2 to 10 % in Latvia, 2 to 8 % in Estonia, 3 to 11 % in Lithuania), while the fall in beer and wine sales are expected to not exceed 2% and 4%, respectively.

A 10% increase in the excise tax per one litre of each type of alcoholic beverages leads to increase in excise tax revenues which are roughly by half smaller than the above mentioned.

³ Estimated price elasticities range from -1.4 to -1.9 for regular CSD and kvass, from -1.1 to -1.4 for flavoured water and from -0.9 to -1.6 for ice tea.

⁴ Note that our results represent a short-term or direct fiscal effect, so that we do not account for any second-round effects that can arise from changes in local production, employment and therefore other tax revenues.

⁵ In 2019 compared to 2010, the C&C share in total cigarette consumption decreased by 23 percentage points in Latvia and Lithuania and by 14 percentage points in Estonia. In Lithuania, the share was stable in 2016–2019.

⁶ We are not able to estimate potential additional revenues from taxation of vodka, since disaggregated data on excise duty revenues by type of ethyl alcohol is not available.

Policy recommendations

General recommendations:

Excise tax rates could be coordinated and harmonised between the three Baltic countries in order to reduce incentives for cross-border shopping. Excise tax policy coordination can lead to potential Pareto improvement that is mutually beneficial for all participating parties. Due to similar market and geographical situation the Baltic countries could also coordinate their positions regarding excise tax policy proposals at the EU level, especially in the area of setting minimum rates.

Government could implement more determined smuggling prevention measures by commitment to allocate the fixed portion of additional excise tax revenues to financing smuggling prevention measures such as purchasing of new modern equipment, investing in modern IT solutions, increasing the number of service dogs involved in contraband detection.

When setting rates, a balance could be struck between economic aspects and human health. When the price increases are relatively small, consumers are gradually adjusting to price changes, therefore such excise tax policy does not generate incentives for consumers to switch to untaxed substitutes. At the same time, small tax rate increases are less effective in changing consumers' behaviour and reducing overall consumption, while more effective in raising tax revenue, large price increases will lead to a larger reduction in consumption and therefore better health outcomes.

Recommendations regarding excise duties on alcohol:

We find that demand for alcohol is inelastic, which ceteris paribus makes alcohol a suitable base for raising additional tax revenues. At the same time, the scope for increasing the tax burden on alcohol is limited by cross-border trade, smuggling and home brewing. Therefore, any increase in excise duties on alcohol could be coordinated between the three Baltic countries and accompanied by determined measures against smuggling and illegal home production.

In all three Baltic countries, spirits and beer constitute almost equal shares of total recorded alcohol consumption (measured in litres of pure alcohol), while wine and other alcoholic beverages constitute a much smaller share. Over the period 2010-2018, per capita consumption of spirits was growing much faster than that of beer in Latvia. In Lithuania per capita consumption of spirits has not changed, and consumption of beer has declined by about 18%. In Estonia, per capita consumption of beer has declined more than that of spirits. This suggests that from the perspective of public health, increases in excise tax duties on ethyl alcohol (spirits) could be the first priority of coordinated excise tax policy in the Baltics in the near term. This conclusion is further reinforced by the finding that the price elasticity of demand for

spirits is higher than for beer and wine, which means that raising excise taxes on ethyl alcohol will have a stronger impact on consumption of legally sold alcohol than raising excise tax on beer and wine.

While the market share of wine is still relatively small in the Baltic countries; per capita sales of wine have been increasing in Latvia over last 10 years, which may be indicative of changing consumer tastes. Among the Baltic countries, Latvia has the lowest excise duty on wine (with alcohol content exceeding 8.5%), and at the same time we found that demand for wine is price inelastic. Thus, in order to raise additional budget revenues, policymakers can consider substantially increasing excise duty on wine⁷, by setting it closer to the excise duty rates on wine in two other Baltic countries.

Policymakers might consider introducing greater differentiation of excise duty on alcohol with respect to the alcohol content (alcoholic beverages with higher alcohol content could be taxed more than beverages with less alcohol). This would incentivise producers to diversify the alcoholic beverages in terms of alcohol content and likely lead to lower alcohol consumption measured in litres of pure alcohol.

Recommendations regarding excise duties on tobacco products:

The low responsiveness of demand to price change in the Baltic countries makes the excise tax on cigarettes less effective in reducing cigarette consumption, but at the same time ceteris paribus it makes cigarettes a suitable base for raising additional tax revenues. Taking into account inelastic demand, and relatively low (PPP-adjusted) price levels of cigarettes in the Baltics, there is a scope for increasing excise duties on cigarettes. Policymakers could consider further increases in the specific rate since it is especially appropriate to protect public health, while ad valorem could be decreased. An increase in the specific tax rate would lead to smaller price differences across brands, reducing incentives to switch to cheaper products and would result in reduced tobacco use.

Policymakers could decide on the optimal size of the excise tax increase taking into account the current phase of economic cycle. The experience of the Baltic countries shows that during the economic downturn, the share of C&C in total cigarette consumption could significantly increase.

⁷ A substantial increase in excise duty on wine occurred in Lithuania in March 2017 when Lithuania more than doubled the excise duties on wine. As the result, in 2017 compared to 2016, sales volume of wine decreased by 22%, but revenues from the excise duty on wine still increased by 57%. Source: data on budget revenues published by State Tax Inspectorate under the Ministry of Finance of the Republic of Lithuania and data on sale of alcoholic beverages in trade and catering enterprises published by Official Statistics Portal of Lithuania.

According to KPMG (2014), in 2010 compared to 2008, the share of C&C in total consumption increased by 32 percentage points in Latvia, 25 percentage points in Lithuania and 15 percentage points in Estonia. During rapid economic downturns, policymakers could consider to implement small gradual increases in excise duties on cigarettes (annual increase of 5-10%) thus not significantly increasing incentives for consumers to switch to illicit cigarettes. During economic booms, the tax can be increased more without the risk of a sharp increase in C&C cigarette consumption, while large price increases are expected to lead to a larger reduction in the amount of product consumed.

There is a mixed existing evidence on health harms of heated tobacco products compared to conventional cigarettes and on the effectiveness of e-cigarettes as a smoking cessation aid. Although there is growing amount of evidence that smokeless products are less harmful comparing to the cigarette smoking, there are concerns about potential of smokeless products to attract new tobacco users, especially youth, and to discourage smoking cessation. On the one hand, there is a rationale for differential taxation of tobacco products and the alternative products according to the health risks that they present, to encourage less harmful consumption. On the other hand, government could closely monitor (by amending regular existing surveys and studies such as those carried out regularly by the Center for Disease Prevention and Control in Latvia) how these products are used by consumers to ensure that these products do not cause increased use among people, especially youth. Similar approach (with regard to marketing of heated tobacco) was recently announced by the US Food and Drug Administration (U.S. FDA, 2020).

○ Recommendations regarding excise duties on soft drinks:

The evidence on the effectiveness of taxes on soft drinks in reducing sugar intake is inconclusive. At the same time, the experience of other countries suggests that a sugar tax is effective in reducing sugar and calorie intake when imposed on a wide range of products, as opposed to a tax on a few products, which induces consumers' switching to other foods with added sugar, salt and fats. In order to address the problem of growing obesity and other noncommunicable diseases via application of excise duties on soft drinks, it is important to carry out a public health study assessing the changes in sugar intake caused by the soft drinks tax taking into account possible substitution with other sugar-rich products. The results of the study may justify the need to broaden the tax base to sugar-rich products.

Policymakers could consider a comprehensive policy approach to reducing overweight and obesity of population. Excise taxation should not be the only tool used to reduce the consumption of the excise products. According to The McKinsey Global Institute (MGI, 2014), the most effective tools to reduce obesity include reformulation of the products in manufacturing and switching to smaller packages in retail.

Policymakers could consider different ways to draw consumers' attention to the sugar content in food products and beverages. For example, products and beverages can be divided into 3 groups according to sugar content –

rich, medium and low sugar content – and each group can be labelled in a uniform way. Research evidence indicates that interpretative labelling can encourage reformulation (WHO, 2017; Vyth E.L. et.al., 2010; Mhurchu C.N., 2017). At the same time, it is necessary to check that the packaging of all products and beverages contains information on the sugar content and that the information provided by producers is correct and written in clear and easily readable text formats. Easy-to-access information about the sugar content would increase the incentives of companies for reformulation.

Policymakers in Latvia could learn from Lithuania's and Estonia's experience that agreed with manufacturers of soft drinks and sugary products on reformulation of their products.

Importers and some domestic manufacturers of food and soft drinks may not be covered by the agreements reached between the government and manufacturers, and they also may not voluntarily commit to reducing sugar in their food products and soft drinks and/or reducing portion sizes. Because of this, and taking into account, that a sugar tax is shown to be effective in reducing sugar and calorie intake when imposed on a wide range of products, policymakers could consider introducing the an excise duty on a broad range of sugar-rich food products and soft drinks, while differentiating the duty rate according to sugar content in a product. Policymakers could consider to apply more than two rates and to provide a 100% relief for innovative products such as light soft drinks, water with natural flavouring, sugar-free or low-sugar snacks. Differentiated tax rate would stimulate the industry to take actions and to drive down sugar content. Application of such excise taxes may bring additional resources to the state budget.

REFERENCES

Chaloupka F.J, Powell L.M, Warner K.E. (2019) The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. Annual Review of Public Health. 40:187–201. <https://doi.org/10.1146/annurev-publhealth-040218-043816>

KPMG (2014). Project Sun: A study of the illicit cigarette market in the European Union. 2013 Results. Available: <https://www.pmi.com/resources/docs/default-source/pmi-sustainability/sun-report-2013.pdf?sfvrsn=0>

KPMG (2020). Illicit cigarette consumption in the EU, UK, Norway and Switzerland. 2019 Results. Available: <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---2019-results/kpmg-report-illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland-2019-results.pdf>

Mhurchu C.N., Eyles H, Choi Y.H. (2017). Effects of a voluntary front-of-pack nutrition labelling system on packaged food reformulation: the Health Star Rating system in New Zealand. Nutrients 2017; 9(8). pii: E918. doi: 10.3390/nu9080918.

NCI, WHO (2016). The economics of tobacco and tobacco control. NCI Tob. Control Monogr. Ser. 21, NCI/WHO, Bethesda, MD/Geneva. https://cancercontrol.cancer.gov/brp/tcrb/monographs/21/docs/m21_complete.pdf

Powell L.M., Wada R, Persky J.J., Chaloupka F.J. (2014). Employment impact of sugar-sweetened beverage taxes. Am. J. Public Health 104(4):672–77

UNESDA (2020). Consumption and sales. GlobalData Soft Market Insights - 2018 Cycle <https://www.unesda.eu/consumption/>

U.S. FDA (2020). FDA Authorizes Marketing of IQOS Tobacco Heating System with ‘Reduced Exposure’ Information. FDA News Release. Available: <https://www.fda.gov/news-events/press-announcements/fda-authorizes-marketing-iqos-tobacco-heating-system-reduced-exposure-information>

Vyth E.L., Steenhuis I.Hm., Roodenburg A.Jc., Brug J, Seidell J.C. (2010). Front-of-pack nutrition label stimulates healthier product development: a quantitative analysis. Int J Behav Nutr Phys Act.; doi: 10.1186/1479-5868-7-65.

Wada R, Chaloupka F.J., Powell L.M., Jernigan DH. (2017). Employment impacts of alcohol taxes. Prev Med. 2017;105S:S50-S55. doi:10.1016/j.ypmed.2017.08.013

WHO (2017). Incentives and disincentives for reducing sugar in manufactured foods. An explanatory supply chain analysis. A set of insights for Member States in the context of the WHO European Food and Nutrition Action Plan 2015-2020. Available: https://www.euro.who.int/_data/assets/pdf_file/0004/355972/Sugar-report_WHO_107773_updated-and-revised-Dec-2017.pdf?ua=1



The Latvian Chamber
of Commerce and
Industry

**The study was commissioned by the
Latvian Chamber of Commerce and Industry**