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TOBACCO TAXATION IN THE EURASIAN ECONOMIC UNION

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EXECUTIVE SUMMARY

This report looks at the impact of Eurasian Economic Union (EAEU) integration on the tobacco excise policies of its member states. During the harmonization process undertaken to smooth differences in excise structures and rates within the union, an indicative excise rate was set, but at a relatively low level. As a result, recent tobacco control policy achievements in the Russian Federation – whose share in the regional tobacco market is around 80 percent and whose tobacco excises are the highest – have been threatened.

Against this backdrop of harmonization, the main issue addressed in this report is the impact of the moderate pace of excise tax rises across much of the EAEU on Russia's strong tobacco control achievements to date.

The report presents the results of macro-simulations of the consequences of different excise policy scenarios for 2018–2021 in two EAEU countries, Russia and Kazakhstan. Three scenarios are considered: (a) the low-taxation harmonization level and rate of growth proposed by the Eurasian Economic Commission; (b) the somewhat higher taxation harmonization option proposed by the Eurasian Economic Commission – here referred to as the "compromise" scenario; and (c) the high ("optimal") scenario of rapid excise growth, which is a scenario closest to the recommendations of the World Health Organization's Framework Convention on Tobacco Control (WHO FCTC) and the EU harmonization experience.

The results suggested by this report suggest that Russia – the country with the highest tobacco excises in the EAEU – could easily follow the optimal scenario, significantly reducing the negative effects of smoking on public health and achieving considerable growth in state excise revenue. Under the same scenario, Kazakhstan – a country with lower starting excise rates and prices for cigarettes – would be able to double its real tobacco excise duties and significantly reduce the prevalence of smoking and the number of smokers by 400,000. In the case of an optimal scenario, the real retail price of a pack of cigarettes in Kazakhstan would grow by an average of 18 percent per year, which corresponds to an annual nominal growth of about 25 percent. The effect of excise growth on illicit consumption is intentionally overstated in this report in order to achieve lower estimates of the expected excise revenue and health effects. According to the results obtained, even with an unexpectedly high growth in illegal consumption, stable growth of excise taxes would lead to a significant total increase in excise revenue and reduction in smoking prevalence.

Even if the higher harmonization rate proposed by the Eurasian Commission is set for the union's excise tax, smoking rates and income growth are likely to plateau, with the potential

for a rise in the number of smokers. The rate of smokers quitting will significantly slow, and if real incomes rise, an increase in the prevalence of smoking is possible, threatening the achievements of the region's – and especially Russia's – national anti-tobacco campaigns in recent years.

While a sensitivity analysis (conducted under the assumption of more elastic demand) somewhat reduces the expected volumes of state excise and increases the positive effect of excise growth on smoking prevalence, the fundamental nature of the estimates obtained remains unchanged.

INTRODUCTION

The integration plans of the independent states that emerged in the post-Soviet era became concrete when the Customs Union of Belarus, Kazakhstan and Russia started functioning in 2010 and the Declaration on Eurasian Economic Integration came into force in 2012. In 2015, according to the Treaty on the Eurasian Economic Union (EAEU), two new countries, Armenia and Kyrgyz Republic joined the Eurasian integration process.

At the time of unification, the national tobacco taxation systems and the prices for cigarettes differed significantly between countries, leading to a drive towards tobacco excise tax harmonization. The harmonization plans proposed by Eurasian Commission in 2015 suggest fixing the recommended or indicative excise rate in euros, and setting minimum and maximum amounts by which member states may deviate from it. The EAEU indicative rate currently stands at €27 per 1,000 cigarettes, and by 2022 it is planned to raise it to €35 per 1,000 cigarettes.

These plans were welcomed by industry representatives and criticized by pro-health experts. According to harmonization plans proposed by the Eurasian Commission, Russia, where excises and prices were higher than in other EAEU countries, had to significantly reduce its annual indexation of excises. In addition, at the moment due to insufficient intra-union discipline, as well as fluctuations in exchange rates of national currencies, the high level of differences in the structure and absolute amount of excise taxes on cigarettes of the EAEU countries remains.

The best-known example of tobacco excise harmonization is that of the European Union (EU). Of particular interest to our study is the experience of a sharp increase in excise taxes in the group of new EU member states (EU-12), which includes high-, middle- and low-income states that joined the EU in 2004 and 2007. Harmonization of EU excises was developed by taking into account existing taxation systems in member states, and represented a compromise between southern countries producing raw tobacco and preferring ad valorem taxation and northern countries that traditionally relied on specific excises (Van Driessche 2006).

Tobacco taxation in the EU has two important features: (a) a minimum excise tax burden defined as the share of excise in price (57 percent if excise has been less than €101 per 1,000 cigarettes since July 2006, and 60 percent if excise has been less than €115 per 1,000 cigarettes since January 2014); and (b) minimum excise duty or tax floor measured in euros per 1,000 pieces (€64 since July 2006 and €90 since January 2014). According to Blecher at al (2014), these two components created different, binding constraints for member states: while the high-income EU-15 states had to focus on the minimum burden condition, new

member states from the EU-12 group struggled to meet the excise tax floor. This indicates that in regions with pronounced economic differences, a single measure such as excise burden or excise floor cannot be relied on, but instead a number of interconnected measures are required. However, a higher tax burden does not necessarily lead to higher retail prices. For example, Bulgaria has a relatively high tax burden, but as the industry operates with lower profits than in other countries, this leads to Bulgaria having the lowest retail prices for cigarettes in the EU (World Bank, 2018).

Posen and van Walbeek (2014) estimate expected impact of tobacco excise harmonization of five member countries in the East African Community. Using a macro-simulation model they compare possible consequences of introducing a single excise rate in the case of a specific (US$0.60[1] per pack) and mixed (maximum of $0.60 or 40 percent of retail price per pack) excise. Both scenarios correspond to harmonization at a high excise level scenario, since the highest initial excise rate in the East African Community was $0.44. According to the results, harmonization and excise growth should contribute to both public health and excise revenue of regional governments.

This report attempts to assess the possible consequences of excise harmonization in the EAEU under a low, medium and high excise scenario in two countries, Russia and Kazakhstan. The calculations used a multi-period macro-simulation model that takes into account the specific features of both countries' national tobacco markets.

First, the current situation vis-a-vis cigarette consumption and taxation in the EAEU is described, detailing plans for excise convergence proposed by the Eurasian Commission and the positive experience of tobacco control policy in Russia. Second, the methodology for modelling different excise policy scenarios and the data used is described. Finally, the results of macro-simulations of the consequences of different scenarios of excise policy in 2018–2021 in two Eurasian countries, Russia and Kazakhstan, are presented. The key findings of the study conclude the report. A detailed description of the model used in the calculations, as well as the results of the sensitivity analysis, are provided in Appendix 1 and Appendix 2.

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[1] All dollar amounts are U.S. dollars unless otherwise indicated.

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Tobacco Taxation and Tobacco Consumption in the Eurasian Economic Union

EAEU countries have different tobacco excise systems. The most pronounced differences exist between Russia, which has a mixed excise tax structure and the highest excise rates, and other EAEU member countries.

Differences between EAEU member states' national tobacco taxation systems were the trigger for the harmonization process. However, all harmonization processes face the difficult task of selecting a convergence level – and unfortunately the Eurasian Economic Commission (the EAEU's permanent regulatory body) chose the lowest of the target excise rates available to it. As a result, harmonization has led to a significant slowing in the rise of Russia's excise rates (see Figure 1), and has not addressed the differences in structure and absolute excise rates among member states. The main reasons for this are lack of proper discipline (national governments do not always set excise rates in accordance with the recommendations of the EAEU) and fluctuations in member states' national currency rates (the target excise tax rate is denominated in euros).

In general, tobacco excises in EAEU member states are specific only, and depend solely on a specific number of cigarettes. The exception is Russia, which has a mixed excise tax that depends not just on quantity but also on price (premium cigarettes carry higher taxes). The most complex taxation structure is that of Belarus, which has three specific excise rates that accord to different price categories of cigarette (most of Belarus' consumption is concentrated in the economy class of cigarettes). The Government of Belarus is trying hard to keep low prices and excise taxes for economy cigarettes – one of the most important obstacles to the harmonization of excises within the EAEU, and to the reduction in Belarus' smoking prevalence. Information on the structure and amount of excise taxes on filter cigarettes in EAEU member states is presented in Table 1.

Specific excises improve public health and health administration as they are better than ad valorem taxes for predicting stability of revenues. High specific excises on all brands encourage cessation of smoking rather than switching on cheaper brands (Marquez and Moreno-Dodson, 2017). However, an ad valorem tax may be more preferable for the government if revenue is the primary objective (National Cancer Institute and WHO, 2016).

The difference between excise rates in EAEU member states is high, ranging from €0.67 per pack in Russia to €0.22-0.26 in Belarus and Armenia.

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Table 1: Structure and size of excise taxes on filter cigarettes in the EAEU countries, 2018

COUNTRY	TYPE OF EXCISE	TAX PER 1000 PIECES	AVERAGE EXCISE, EUROS PER PACK
Armenia	Specific	7,275 dram	0.26
Belarus	Specific with 3 price groups	I price group (up to 67,5 rubles per 1000): 15.8 rubles II price group (from 67,5 to 100 rubles): 39.2 rubles III price group (from 100 rubles): 44.7 rubles	0.22
Kazakhstan	Specific	7500 tenge	0.39
Kyrgyz Republic	Specific	1,250 soms	0.32
Russia (January–June)	Combined	1,562 rubles + 14.5 percent of maximum retail price but no less than 2,123 rubles or €0.67 per pack	0.67

Sources: National tax legislation and data from media.

The region's tobacco market is dominated by Russia, as it accounts for almost 80 percent of production and about 85 percent of all retail sales within the EAEU.

The EAEU's tobacco market is dominated by Russia, which accounts for almost 80 percent of the union's production (See Table 2) and about 85 percent of all its retail sales. Also worth mentioning is the almost fourfold increase in Armenia's cigarette production, mainly due to exports to Iraq, United Arab Emirates and Syria. According to UN Comtrade data, between 2012 and 2016 Armenian cigarette exports to these countries grew from $17 to $191 million, or from 41 percent to 90 percent of Armenia's total cigarette exports.

Also worth mentioning is the more than 25 percent drop in Russian cigarette production between 2015 and 2017. Analysis of monthly data reveals that this drastic decline in production particularly affected November and December 2017 – an unusual occurrence, as generally there is an end-of-year increase in tobacco industry output in advance of the expected excise increase in January. Reasons for this trend are not entirely clear, but it is possibly the result of the expected/continued slowdown in the growth rate of excise taxes and (only partly) the result of a decrease in consumption and exports. Data on retail sales, according to Euromonitor International, changed less noticeably, falling from 279 billion pieces in 2016 to 259 billion pieces in 2017. Industry representatives (who confirm the decrease of production) attribute it to a reduction in legal consumption, and growth in illegal consumption.

Smoking is widespread in all EAEU countries, with filter cigarettes being the main means of consumption.

Smoking is widespread in EAEU countries, particularly among men (from more than 40 percent in Kazakhstan to 50 percent of current smokers in Kyrgyz Republic and Armenia

Table 2: Cigarette production, billion pieces, EAEU member states (% of regional market in brackets)

	2012	2013	2014	2015	2016	2017
Armenia	6.2 (1%)	7.7 (2%)	12.8 (3%)	18.3 (4%)	23.8 (6%)	28.5 (9%)
Belarus	33.2 (7%)	34.2 (7%)	34.1 (8%)	29.0 (7%)	30.8 (8%)	29.0 (9%)
Kazakhstan	27.1 (6%)	25.7 (6%)	25.1 (6%)	19.6 (5%)	20.2 (5%)	17.9 (6%)
Kyrgyz Republic	1.7 (0%)	0.9 (0%)	0.5 (0%)	-	-	-
Russian Federation	408.5 (86%)	389.6 (85%)	355.0 (84%)	343.7 (84%)	335.8 (82%)	245.8 (77%)

Sources: Statistical Committee of the Republic of Armenia, see *http://www.armstat.am/file/doc/99504393.pdf* and *http://www.armstat.am/file/article/bnexen_12_2017-exel.7z for 2017*; National Statistical Committee of the Kyrgyz Republic, see *http://www.stat.kg/ru/statistics/download/dynamic/342/*; Euromonitor International for Belarus, Kazakhstan and Russia.

according to national surveys).[2] Smoking is not so popular among women, although in Russia and Belarus, absolute smoking prevalence among them is high, standing respectively at 19 percent and 9.3 percent of the adult population.

The main tobacco products are filter cigarettes, except in Kyrgyz Republic, where certain types of smokeless tobacco (nasvay etc.) are popular. According to the national Demographic and Health Survey presented in the Global Health Observatory by WHO, the prevalence of smokeless tobacco use (including chewing tobacco and e-cigarettes) among men aged 15–49 is about 10 percent.

As a result of widespread smoking of adults, the exposure to secondhand smoke among children and adolescents (as well as adults) is high. For example, according to the GYTS survey in Armenia (CDC and WHO, 2009), more than 70 percent of children aged 13–15 are regularly subjected to inhaling secondhand tobacco smoke at home.

Achievements of Russia's Anti-Tobacco Campaign

Anti-tobacco policy measures undertaken in Russia between approximately 2009 and 2015 included, in particular, a significant increase in excise taxes (see Figure 1), which led to a significant decrease in both retail sales and the affordability of cigarettes. As shown in Figure 1, since 2009 affordability of cigarettes measured by the relative income price (RIP) index steadily decreased, and by 2016 had returned to the levels observed in the early 2000s.

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[2] Data sources: for Armenia *https://med.news.am/rus/news/7925/v-armenii-kurit-kazhdiyiy-vtoroiy-muzhchina.html*; for Belarus *http://www.belta.by/society/view/v-belarusi-kurit-244-naselenija-3700-2015*; for Kazakhstan *http://www.who.int/tobacco/surveillance/survey/gats/gats_kazakhstan_country_report_russian_2014.pdf*; for Kyrgyz Republic *http://apps.who.int/gho/data/node.main.1250?lang=en*; for Russia *http://www.euro.who.int/__data/assets/pdf_file/0005/343319/-2016.pdf?ua=1*.

Figure 1: Retail sales and affordability of cigarettes

Source: Zheng et al. (forthcoming) .

Smoking prevalence has significantly decreased in recent years (mainly among males)

In the past decade there has been a significant decrease in the prevalence of smoking in Russia, mainly among male smokers. Figure 2 presents data on the share of current smokers according to two surveys: the Global Adult Tobacco Survey (GATS) and the annual Russian Monitoring Longitudinal Survey (RLMS). Between the two GATS surveys held in 2009 and 2016, smoking prevalence decreased from 61 percent to 51 percent among males (both extremely high figures), and from 22 percent to 14 percent among females. The RLMS data record a smaller decline, but also indicate a significant drop in the prevalence of smoking among males: from 59 percent in 2007 to 45 percent in 2016. Smoking prevalence among women was stable during these years, remaining at around 14-15 percent. The discrepancy between estimates can be explained by differences in the surveys themselves: while the RLMS includes questions on the work status, incomes, expenditures and health of the respondents, it is not a specialized survey of tobacco consumption and respondents may not disclose fully the nature of their tobacco use. GATS, on the other hand, is specifically devised to elicit this information.

The main factor contributing to the decrease in smoking prevalence was the rise in excise rates and the subsequent growth in the retail price of cigarettes. In addition, a number of measures to restrict tobacco consumption came into effect during this period, the most significant among them being the ban on smoking in public places, adopted in 2013.

Figure 2: Dynamics of Tobacco Smoking Prevalence 1994–2016, adults aged 15 and older, Russian Federation
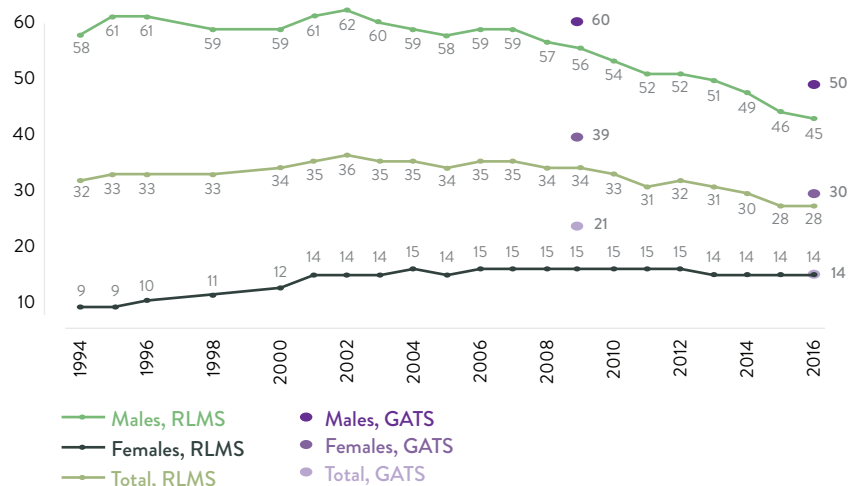
The strongest decline in cigarette consumption is among younger age groups

Another positive trend is the significant fall in smoking prevalence among younger age groups (see Figure 3). This trend is particularly noticeable for young males: according to RLMS data, smoking prevalence among those aged 15–24 years decreased from 44 percent in 2007 to 22 percent in 2016. For females the situation is also quite optimistic, especially for younger ages: the share of smokers among females aged under 25 years fell from 18 percent in 2007 to 9 percent in 2016.

However, at times, smoking prevalence among older age groups has risen. For example, between 2009 and 2012, the share of female smokers aged 45–64 years rose from 11 percent to 14 percent. A possible explanation for this is that those who took up smoking during the rapid growth in women's smoking during the 1990s are now entering this older age group.

If plans for EAEU harmonization are implemented, the growth rate of excise taxes in Russia will significantly decrease

Since 2018, rises in Russia's tobacco excise rate have slowed as a result of the EAEU's excise tax harmonization policy. As the data in Figure 4 show, the growth of excise rates in 2017–2019 will not exceed 10 percent a year, and in 2020 will most likely not exceed the level of inflation.

Figure 4 also presents data on tobacco price rises that are set by the tobacco industry, and which are usually close to the inflation rate. In the model calculations made for this report it is assumed that the tobacco industry (as a rule) index links its part of the tobacco price

Figure 3: Smoking prevalence among different age groups, 2002–2016, Russian Federation

Smoking prevalence among males (RLMS)

Smoking prevalence among females (RLMS)
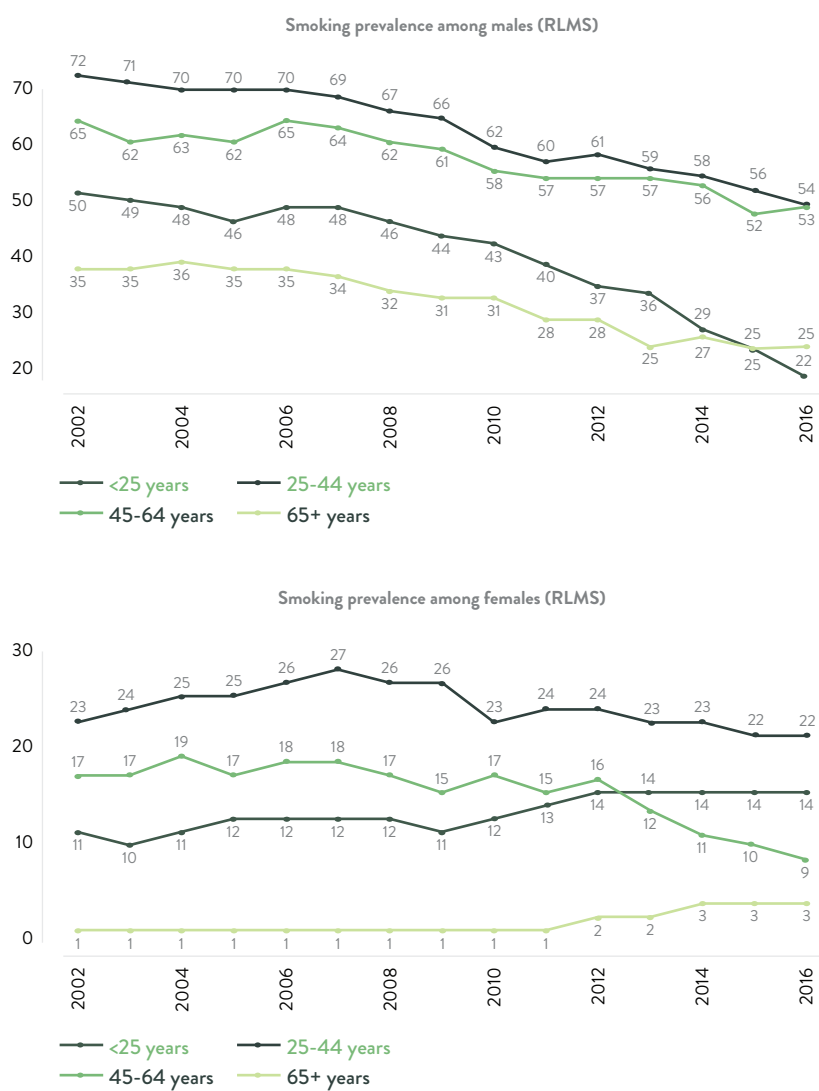
Source: Author's estimates on RLMS data, *https://www.hse.ru/en/rlms/*.

Figure 4: Excise and industry price rises (percentage) compared to inflation rises, Russian Federation
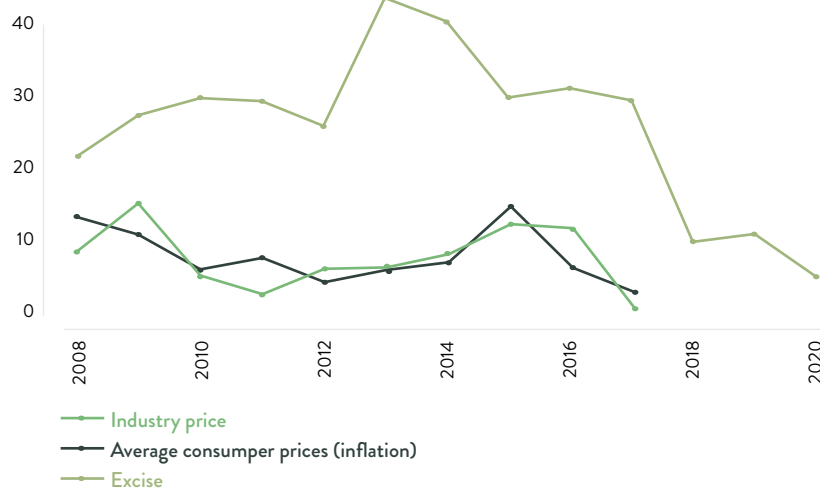
Source: IMF World Economic Outlook database at *http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx*; Tax Code at *http://www.consultant.ru/; author's estimates.*

with inflation, except when there are sharp increase in excises, in which case it is assumed that the industry tries to smooth a retail price hikes by increasing its part of the price by only 50 percent of the level of inflation.

Draft Harmonization Agreement

As already mentioned, different excise tax rates and prices among EAEU countries – and their perceived negative consequences for a single market – became the rationale for excise tax harmonization on tobacco products. The scope of EAEU excise tax harmonization is set by the draft Agreement on the Tax Policy Principles in Respect of Excise Duties on Tobacco Products in the Eurasian Economic Union from 10.11.2015.[3] As Table 3 shows, the draft agreement allows participant countries to deviate significantly from indicative excise rates.

In 2015, the draft agreement was submitted for interstate coordination by the Eurasian Economic Commission, but at the time of writing this report (2018) it has still not come into force. Nevertheless, in 2016–2017, member states (all of which had relatively low excises rates except Russia) changed their excise rates in response to the minimum levels set out in the draft agreement. In 2018 the gap between excise rates in Russia and the other EAEU member states began to grow again, and the excise rates took the following values:

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[3] See https://docs.eaeunion.org/docs/ru-ru/0118912/clco_16112015_126_doc.pdf.

Table 3: Quantitative framework for EAEU tax excise harmonization according to the draft Agreement on Tax Policy Principles in Respect of Excise Duties on Tobacco Products

	2016	2017	2018	2019	2020
Indicative rate, euro per 1,000 pieces	22	25	27	30	32
Minimum deviation:					
Kazakhstan, Russia, Belarus (except for cigarettes of the I price group)	-30%	-30%	-25%	-20%	-15%
Armenia, Kyrgyz Republic, Belarus (for cigarettes of the I price group)	-55%	-45%	-35%	-30%	-20%
Maximum deviation:					
All EAEU countries	+10%	+10%	+10%	+10%	+10%

Sources: Draft Agreement on the Tax Policy Principles in Respect Of Excise Duties on Tobacco Products in the Eurasian Economic Union from 10.11.2015.

- Armenia – €10.1 per 1,000 pieces, or 58 percent lower than the indicative rate;

- Belarus – €10.9 per 1,000 pieces, or 60 percent lower than the indicative rate;

- Kazakhstan – € 18.4 per 1,000 pieces, or 32 percent lower than the indicative rate;

- Kyrgyz Republic – €15.8 per 1,000 pieces, or 42 percent lower than the indicative rate;

- Russia – €34.6 per 1,000 pieces, or 28 percent higher than the indicative rate.

Another possible explanation for such a significant excise gap in most countries other than Russia is a strengthening of the ruble after its fall in 2014–2015.

According to official representatives of national governments,[4] the indicative rate in 2022 should reach to €35, with maximum and minimum deviation standing at 20 percent and 15 percent, respectively. These quantitative parameters were used while developing scenarios for modelling in this study.

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[4] See https://iz.ru/news/674037.

DATA AND METHODS

To forecast key cigarette market indicators, a macro-simulation model was used – a modification of the generic Tobacco Excise Tax Simulation Model (TetSim) developed by van Walbeek (van Walbeek, 2010). The model uses country-specific data to predict changes in cigarette consumption and excise revenues from tax changes and explicitly takes into account possible responses to tax changes by the tobacco industry as well as potential changes in illicit trade. This model was previously tested using data from Russia and other Commonwealth of Independent States (CIS) countries.[5]

The model used in this study is a multi-period version that takes into account changes in population, inflation, real incomes and other factors. While legal sales determine revenues, it is the total consumption (legal plus illegal sales) that determines smoking prevalence and health outcomes.

It is not assumed that retail price growth always leads to a reduction in total consumption – reduction only occurs if the affordability of cigarettes decreases, that is, when prices increase more than inflation plus the growth of real incomes.

Three scenarios of national excise policy were considered: (a) a low-tax scenario, in which excise grows according to the minimum values set out in the Agreement, i.e. 85% of the indicative rate in 2021 (see Table 3); (b) a compromise scenario, in which excises reach highest possible level as set out in the Agreement, i.e. 120% of the indicative rate in 2021; and (c) an optimal scenario in which countries reach a level of €64 per 1,000 pieces (the minimum level of excises in the EU until 2014).

Scenarios were calculated based on the elasticity of demand for cigarettes within the range -0.3 (low) to -0.6 (medium) level.[6] The results of a sensitivity analysis for elasticity range -0.5 to -0.8 can be also found in Appendix 2. The assumption of a constant price elasticity of demand was declined in this research because of the low initial values, which can be explained by the high affordability of cigarettes in the countries of the region (see evidence of low elasticity in Russia and Ukraine in Arzhenovsky (2006), Ross et al. (2012), Zasimova and Lukinykh (2009), Quirmbach (2015), Fuchs and Matytsin (forthcoming). Where a sharp price increase occurs, growth in elasticity up to average values in high-income countries can be expected (-0.4), and in low-income countries from -0.2 to 0.8 and -0.6 at average (see IARC, 2011). Within our model we expect that price elasticity increases

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[5] See *http://fpb.dev.kebbeit.lv/wp-content/uploads/2015/05/freepolicybrief_may18.pdf*.

[6] Elasticity is a measure of the reaction of consumer demand for a change in the price of goods. The value of elasticity -0.3 means that with a 10 percent increase in the price of cigarettes, the demand for them reduces by 3 percent. Low values of the elasticity of demand for cigarettes reflect the addictive character of smoking.

Table 4: Characteristics of the national cigarette market used in forecast estimates, 2017, Kazakhstan and Russian Federation

COUNTRY	AVERAGE RETAIL PRICE, UNITS OF NATIONAL CURRENCY PER PACK	AVERAGE EXCISE, UNITS OF NATIONAL CURRENCY PER 1,000 PIECES	LEGAL CONSUMPTION, BILLION PIECES	LEGAL SALES, BILLION PIECES	REAL INCOMES GROWTH IN 2018–2021, % PER YEAR	INFLATION (CHANGE OF AVERAGE CONSUMER PRICES) IN 2018–2021, % PER YEAR	SMOKING PREVALENCE, % OF ADULTS
Kazakhstan	358	6,200	24.3	21.2	1.5	5.1	19.1[7]
Russia	110	2,360	240	265	1.6	3.6	26.1

Sources: Kazstat, Rosstat, Euromonitor, World Bank, IMF, demographic forecast by the national Ministry of economics. [8]

from low to average international values together with the share of excise in the average retail price, which can been interpreted as an approximation of affordability of cigarettes in the country. It is also assumed that income elasticity of demand is low, about 0.2, reflecting earlier studies in Russia and neighboring countries (Ross et al. (2012), Ogloblin and Brock (2011)). The results of the calculations are given in real terms (base year prices 2017).

Impact of Higher Excise Taxes on Illicit Trade

The impact of higher excise tax rates on the illicit consumption of tobacco was taken into account during the simulations. To estimate illicit consumption, existing data on illicit trade produced by Euromonitor and Nielsen (for Russia only) was examined. The study by Nielsen involves the analysis of 15,000 empty cigarette packs in more than 80 cities. Both estimates come from the tobacco industry that is often blamed for overstating the volumes and dynamics of the illegal market (see van Walbeek and Shai, 2014). According to these estimates, in recent years domestic illegal sales grew steadily in Kazakhstan and Russia, nevertheless remaining at a moderate level (see Table 5).

Euromonitor's estimates were used for this study, assuming that in 2017 the share of the illicit consumption was 4.6% in both countries, which corresponds to the absolute values of the illegal consumption of 1 and 12 billion cigarettes in Kazakhstan and Russia respectively.

Research for this report assumes that a significant increase in excise rates leads to an increase in of illegal domestic consumption (these assumptions are presented in Table 6).

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[7] See *http://www.inform.kz/rus/article/2781368*.

[8] See *http://www.akorda.kz/upload/nac_komissiya_po_delam_zhenshin/%D0%94%D0%B5%D0%B-C%D0%BE%D0%B3%D1%80%D0%B0%D1%84%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B0%D1%8F%20%D0%B-F%D0%BE%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0/4.2%20%D1%80%D1%83%D1%81.pdf*

Table 5: Estimates of the illegal domestic consumption

COUNTRY	SOURCE OF DATA	INDICATOR	2013	2013	2014	2015	2016	2017
Russia	Nielsen	% of actual consumption				1.1	2.5	4.5
	Euromonitor	% of actual consumption	2.2	2.4	2.8	3.1	4	4.6
		billion pieces	8.2	8.3	8.9	9.1	11.2	11.9
Kazakhstan	Euromonitor	% of actual consumption	1.1	1.3	1.5	1.7	1.9	2.3
		billion pieces	0.3	0.4	0.4	0.4	0.4	0.5

Sources: Euromonitor International, 2018; review of Nielsen's research in media, for example, *https://news.tut.by/economics/567792.html* and *https://www.kommersant.ru/doc/3459823?query=%D0%B1%D0%B5%D0%BB%D0%BE%D1%80%D1%83%D1%81%D1%81%D0%B8%D1%8F*.

Table 6: Model assumptions of expected changes in illegal tobacco consumption 2017–2021, Kazakhstan and Russian Federation

FACTORS	SCENARIO 1 (LOW TAX)	SCENARIO 2 (COMPROMISE)	SCENARIO 3 (OPTIMAL)
Kazakhstan	2.3% —> 3%	2.3% —> 5%	2,3% —> 7%
Russia	4.6% —> 3%	4.6% —> 5%	4.6% —> 7%

Sources: Euromonitor International, author's estimates.

The effect of excise growth on illegal consumption is intentionally overstated in order to achieve lower estimates of the expected excise revenue. In other words, our main goal is to show that even with unexpectedly high growth of the illegal consumption, there will be a significant total increase in excise revenue and reduction of smoking prevalence.

It is assumed that industry reaction depends on inflation (see Figure 4 on the dynamics of industry price and inflation in Russia). The industry price growth is assumed to be equal to the annual inflation measured as the consumer price index percent change, if excise growth is not too high (less than 30 percent a year in real terms), and half of the annual inflation otherwise.

Several macroeconomic factors such as inflation, real income growth (estimated as expected growth of GPD per capita in constant prices) and forecasts of exchange rates (based on data from the IMF World Economic Outlook database) are accommodated in the model.

Simulation models similar to the model used in this report have a number of drawbacks. The accuracy of final estimates directly depend on the quality of statistical data used as initial parameters, including elasticity, illegal market volumes and the reaction of the

tobacco industry. Also worth mentioning is the considerable macroeconomic uncertainty that exist in Kazakhstan and Russia (i.e. inflation and exchange rates). The lack of high-quality tobacco market data is one of the reasons why other EAEU countries, particularly Kyrgyz Republic and Armenia, are not included in this research.

Posen and van Walbeek (2014) also point out that the model does not take cross price elasticity into account, ignoring the growth of the relative price of cigarettes in comparison with other tobacco and non-tobacco products. For example, Russia is now experiencing fast growth of the sales of vapor products, from 6 billion rubles in 2013 to 25 billion in 2017. According to GATS data, in 2016 about 3.5 percent of adults were current users of electronic cigarettes, while prevalence rates among adults aged 15–24 were significantly higher, at 9.7 percent. At the same time in rural areas of Kazakhstan there is a risk of growing consumption of nasvay and other non-smoking tobacco products.

RESULTS

Consequences of the following three scenarios of national excise policy in Russia and Kazakhstan in 2018-2021 were simulated during the modelling:

- Scenario 1 (low tax according to the minimum excise level suggested by EAEU harmonization plans): about €26–29 for 1,000 cigarettes by 2021 or about 14 percent and -2 percent of annual growth of excise duty rate in 2018–2021 in Kazakhstan and Russia respectively.

- Scenario 2 (compromise, the highest harmonization level proposed in the EAEU): about 120 percent of indicative excise rate proposed by the Eurasian Commission by 2021 which corresponds to 32 percent and 11 percent annual growth of excise duty rate in Kazakhstan and Russia respectively.

- Scenario 3 (optimal according to WHO recommendations): about €64 per 1,000 cigarettes by 2021 which corresponds to 53 percent and 28 percent annual growth of excise duty rate in Kazakhstan and Russia respectively.

Scenario 1 is unlikely to be implemented in Russia, since it corresponds to the minimum level proposed by the harmonization agreement, which is currently below the average Russian level. However, it is included in our calculations in order to show the negative health consequences that may arise as a result of stagnation or a decrease in nominal tobacco excises.

Note also that scenario 3 – €64 euros per 1,000 pieces – is below the level recommended by WHO (so it should be referred to as "close to WHO recommendations") as well as the minimum excises in the EU and other developed countries. This increase in excises is viewed by this report as an intermediate step in the tax harmonization process in EAEU countries with different levels of tobacco taxes (Russia and vs other member states), based on the experience of convergence of excises in the EU between old and new members.

As noted in the Introduction, in the EU, initially the minimum excise tax was raised to €64 in 2006, and in 2014 to the level of €90. Simultaneously, for countries with low excise taxes, a restriction was imposed on the minimum permissible share of excise in the retail price: 57 percent from 2006 and 60 percent from 2014. Detailed information on excise rates according to the scenarios is presented in Table 7.

The simulation results are presented in Table 8 and Figures 5–8. All monetary indicators are adjusted for inflation, i.e. calculated in 2017 prices. The model estimates of state excise revenue differ slightly from the actual figures for 2017 (138 billion tenge in Kazakhstan and 573 billion rubles in Russia). This discrepancy can be explained by tobacco industry

Table 7: Average excise rates according to scenarios 1–3, 2018–2021, Kazakhstan and Russian Federation

COUNTRY/ YEAR	SCENARIO	2018	2019	2020	2021	ANNUAL EXCISE GROWTH
Kazakhstan, tenge (euros) per 1,000	Scenario1 (low tax)	7,500 (18.4)	8,700 (20.9)	9,900 (23.6)	11,100 (26.2)	14%
	Scenario 2 (compromise)	7,500 (18.4)	9,900 (23.8)	13,100 (31.2)	17,300 (40.9)	32%
	Scenario 3 (optimal)	7,500 (18.4)	11,500 (27.7)	17,600 (41.9)	27,000 (63.8)	53%
Russia, rubles (euros) per 1,000	Scenario1 (low tax)	2,440 (34.6)	2,390 (32.5)	2,340 (30.4)	2,300 (28.9)	-2%
	Scenario 2 (compromise)	2,440 (34.6)	2,850 (38.7)	3,030 (39.4)	3,250 (40.8)	11%
	Scenario 3 (optimal)	2,440 (34.6)	3,120 (42.4)	3,990 (51.8)	5,100 (64.0)	28%

Table 8: Expected consequences of three excise policy scenarios, 2017–2021, Kazakhstan and Russian Federation

SCENARIO	AVERAGE RETAIL PRICE, UNITS OF NATIONAL CURRENCY	SHARE OF EXCISE, % OF AVERAGE RETAIL PRICE	EXCISE REVENUE BILLION UNITS OF NATIONAL CURRENCY*	DAILY SMOKING PREVALENCE, % OF ADULT POPULATION	TOTAL NUMBER OF QUITTING SMOKING, THOUSANDS
Kazakhstan					
Baseline, 2017	358	35	149	19.1	0
Scenario 1 (harmonization at low-tax level) 2021	422	43	207	18.6	61
Scenario 2 (compromise,					
high harmonization level) 2021	536	53	273	17.6	196
Scenario 3 (optimal, WHO recommendations) 2021	698	63	335	15.9	416
Russia					
Baseline, 2017	110	43	621	26.1	0
Scenario 1 (harmonization at low-tax level) 2021	102	39	550	26.7	-723
Scenario 2 (compromise) 2021	121	47	719	25.7	471
Scenario 3 (optimal, WHO recommendations) 2021	159	56	963	24.0	2552

strategies to undermine the anticipated increase of excise rate, namely forestalling (increases in production or stock levels in anticipation of a tax increase).

According to results obtained, the average retail price of a pack of cigarettes in Kazakhstan is expected to grow during four years by 18 percent for the low tax scenario, by 50 percent for the compromise scenario, and by 95 percent for the optimal scenario. This corresponds to the average annual growth of real price by 4.2 percent, 10.6 percent and 18.2 percent respectively – all of which is acheivable given the low initial price on cigarettes.

In Russia, where prices and excise taxes are higher than in the other EAEU countries, the annual average real retail price growth is expected to be lower, -1.9 percent, 2.4 percent and 9.6 percent for the low-tax, compromise and optimal scenarios respectively.

Figure 5: Expected average retail price of a pack of cigarettes 2017–2021, Kazakhstan and Russian Federation

Average retail price (2017 prices)
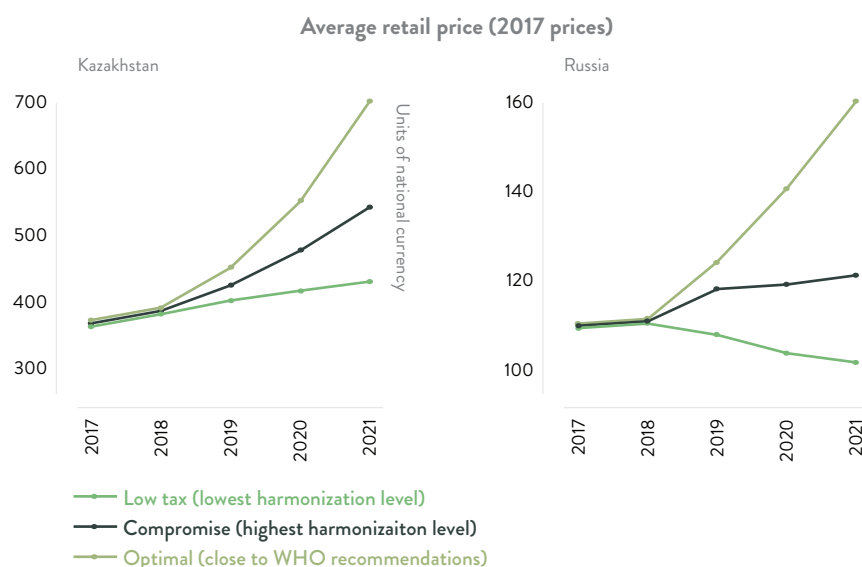
Figure 5 presents expected changes in the average retail price of cigarettes for the three different excise rate growth scenarios. Based on historical data, it is assumed that the tobacco industry will not try to absorb the excise duty rise, but instead pass it fully to the consumer. Under such an assumption, in the case of the highest excise duty growth (optimal scenario) in 2018–2021, the 260 percent increase in excise will lead to an 85 percent increase in the average retail price in Kazakhstan. Similar values in Russia are expected to be 110 percent and 43 percent respectively.

Understanding the effectiveness of excise policy can helped by indicators such as the share of excise tax in the retail price.

Figure 6: Expected excise share of average retail price of a pack of cigarettes, 2017–2021, Kazakhstan and Russian Federation

Share of excise in the retail price

Kazakhstan   Russia

Percentage of the average retail price

— Low tax (lowest harmonization level)
— Compromise (highest harmonizaiton level)
— Optimal (close to WHO recommendations)
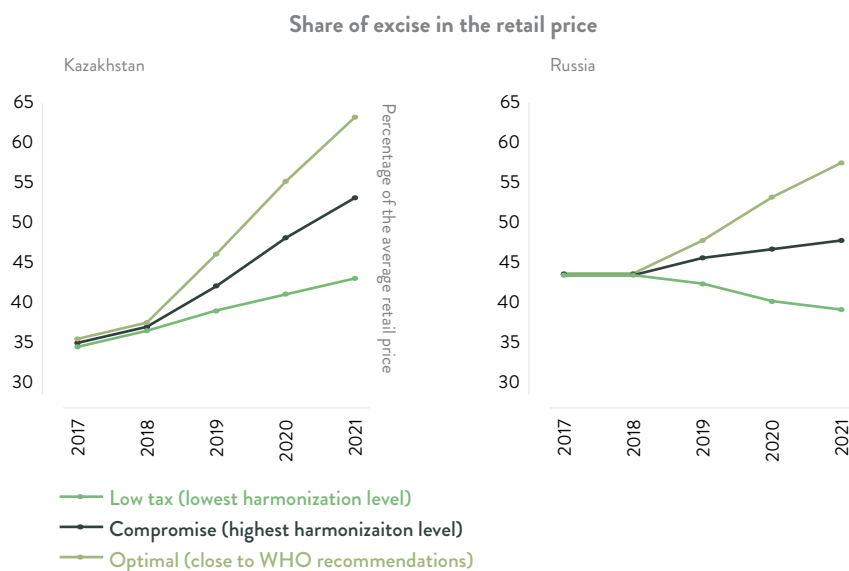
At baseline (2017), tax excise in both countries did not exceed 40 percent, which is significantly lower than the WHO recommended 70 percent and the minimum level applied in most EU countries (60 percent). If the low-tax scenario is implemented, the share of excise in the retail price in Kazakhstan will increase insignificantly, reaching 43 percent in 2021, while in Russia it will decrease from 43 percent in 2017 to 39 percent in 2021. In the case of the compromise scenario, the value of the indicator in 2021 is expected to be 53 percent and 47 percent in Kazakhstan and Russia respectively. Only implementation of the optimal scenario would allow both countries to get closer to the WHO recommended 63 percent and 56 percent for Kazakhstan and Russia respectively).

The declining growth in Russia's excise tax rate, planned to begin in 2019, is clearly visible in Figure 6, as Russia – the EAEU country with the highest excises – has to slow its rate of indexation while "waiting" for EAEU members such as Kazakhstan to catch up. This is a serious consequence of excise tax harmonization – and one that is convenient for the governments of other EAEU countries. This is the opposite of the situation in the EU, where excise duties on tobacco products are harmonized and member states with a lower excise duty level were granted transitional period to catch up with fellow members with higher excise duty levels. The tobacco tax harmonization in the EU is characterized by a minimum but no maximum rate, leaving member states free to pursue health and/or revenue objectives by setting excise duty rates above the harmonized minimum.

Figure 7: Expected prevalence of current daily smoking, 2017–2021, Kazakhstan and Russian Federation

Smoking prevalence
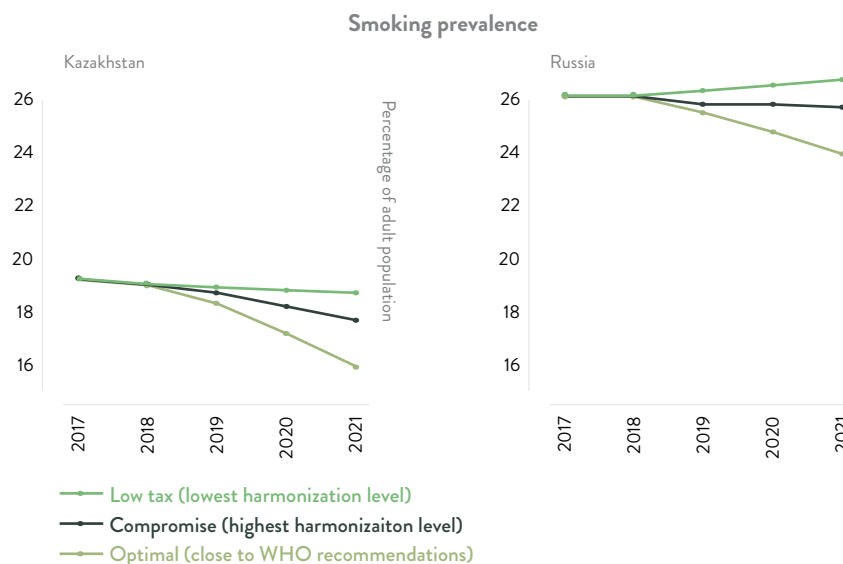
Comparative data on smoking prevalence in the two countries presented in Figure 7 help assess the scale of the tobacco consumption problem facing Russia. Smoking is more popular in Russia than in Kazakhstan, mostly due to the higher prevalence among women, and the slowdown in the growth of excise taxes results in significant health losses.

The health effect of excise policy scenarios can also be estimated in terms of the number of people quitting smoking. According to the results of research for this report, only a sharp increase in excise taxes allows for a significant reduction in the negative impact of smoking on public health. If the optimal scenario is implemented, the overall decrease in the number of smokers will exceed 400,000 in Kazakhstan and 2.5 million in Russia during the period 2019–2021.

Effect of Expected Reduction in Russia's Excise Rate Growth, Starting 2019 (Compromise and Low-Tax Scenario)

The low-tax scenario (corresponding to the lowest EAEU harmonization level) will lead to an increase in the number of smokers by more than 700,000. The process of quitting will significantly slow down, and in the case of higher real incomes and inflation, an increase in the prevalence of smoking is possible, threatening the achievements of the country's national anti-tobacco campaign in recent years. Moving as fast and close as possible to the WHO-recommended levels is one of the few, if only, steps available to governments

Figure 8: Expected dynamics of the number quitting smoking, 2017–2021, Kazakhstan and Russian Federation

Total number quitting smoking

Kazakhstan

Russia

Low tax (lowest harmonization level)

Compromise (highest harmonizaiton level)

Optimal (close to WHO recommendations)
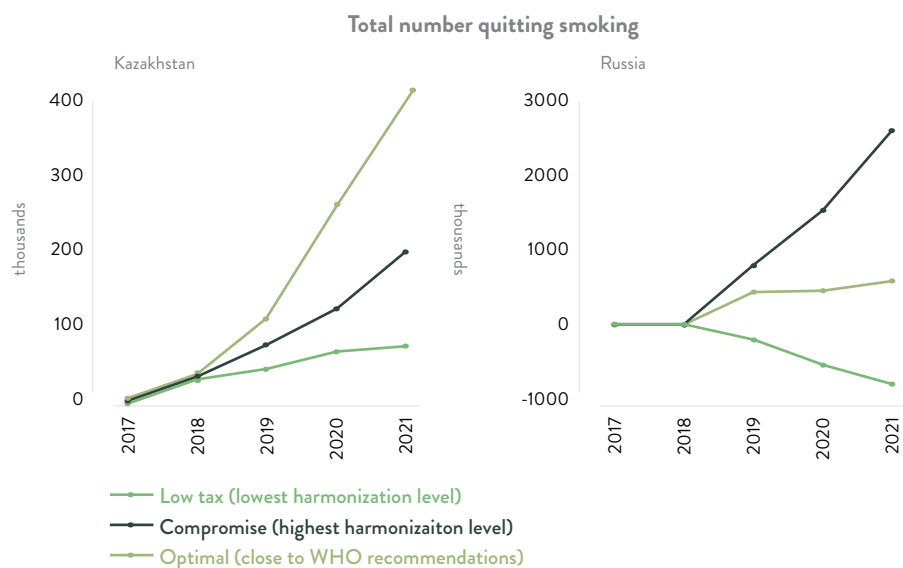
Figure 9: Average retail price of a pack of cigarettes, 2017–2021, Kazakhstan and Russian Federation

Real excise revenue (2017 prices)

Kazakhstan

Russia

Low tax (lowest harmonization level)

Compromise (highest harmonizaiton level)

Optimal (close to WHO recommendations)
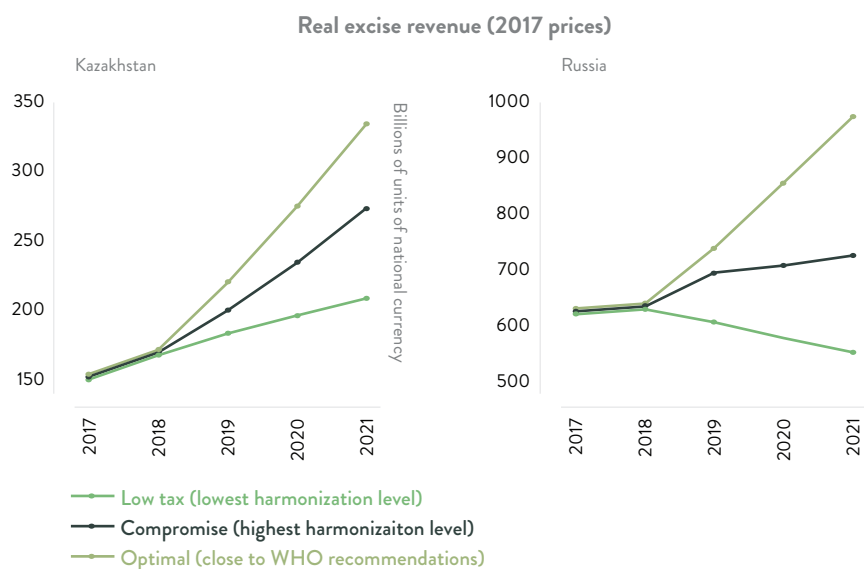
for preventing premature deaths and increasing national life expectancy. Raising tobacco taxes would also increase the productivity of smokers, not least by reducing the likelihood of disease and death.

Along with restricting dangerous tobacco consumption, a key goal of state excise policy is the effective collection of excises. The addictiveness of tobacco products allows combining a sharp increase in excise and price with a significant growth in state excise revenue.

Under the optimal scenario, actual excises in Kazakhstan would grow 2.2 times, reaching 335 billion tenge by 2021 (2017 prices). Similar growth in Russia would be 1.6 times (963 billion rubles by 2021).

The effect of more conservative scenarios on the amount of excise revenue is much more modest – the implementation of the low-tax scenario would be expected to increase collected volumes by only 39 percent for Kazakhstan, and even to reduce them in Russia. In Figure 9 a significant reduction in the rate of growth of excises in 2019-2021 can be seen, resulting from the EAEU harmonization process.

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CONCLUSION

Smoking is a key factor in premature mortality in EAEU countries. Smoking prevalence among males in the EAEU is close to, or exceeds, 50 percent. In Russia, the dangerous nature of smoking among men is accompanied by a high prevalence of female smoking, which almost doubled in the 1990s. However, national tobacco excise rates in the EAEU remain low by international standards, despite their growth in recent years in a number of member states, particularly in Russia.

Since 2009, the region has undergone an economic integration process, which includes, among other things, tobacco excise convergence. The main challenge facing this harmonization process is the level at which national excise taxes converge. The minimum excise rate in an economic union can be set high, as happened in the EU in the second half of the 2000s (€64 per 1,000 cigarettes). Unfortunately, the Eurasian Economic Commission has chosen to harmonize at a low excise level, of about €30–35 by 2020, and has not established a strict minimum level (tax floor) for all EAEU member states.

This report presents the results of a modelling exercise for several variants of excise harmonization in the EAEU, using data for two countries with different initial levels of tobacco excises: relatively high (Russia) and low (Kazakhstan). Three scenarios of expected excise rate growth were considered, including low-tax harmonization (less than €35 per 1,000 cigarettes by 2021); and optimal level harmonization, using a variant close to WHO recommendations, where the indicative excise rate was set at the level of the EU's minimum excise tax until 2014 – €64 per 1,000 cigarettes by 2021. In this last scenario the research team for this report followed a recommendation suggested by the European experience: "Excise taxes should be implemented incrementally, with a clearly defined timeline and well-communicated tax targets for the period" (World Bank, 2018). That is why, as the excise floor, the current excise minimum in the EU was not chosen for this research, but rather its value for the period 2006-2013, which gave time for new member states to adopt the harmonized legislation.

As the results of calculations show, harmonization of excises at a low level is especially disadvantageous for Russia, the country paying the largest health costs caused by smoking, and which has the highest initial level of cigarette price. If the low-tax harmonization variant (scenario 1) is implemented, the number of smokers in Kazakhstan would stagnate, while in Russia it would grow by more than 700 000. Real excise revenue also would stagnate or even fall.

An excise tax rise that replicates the first stage of harmonization that the EU implemented (scenario 3) would allow EAEU countries to achieve, by 2021, a significant increase in real

excise revenue: by more than 2 times for Kazakhstan and by more than 1.5 times for Russia compared to 2017. The health impact of this scenario is also expected to be impressive: the number of people quitting smoking is expected to exceed 2.5 million in Russia and 400,000 in Kazakhstan.

In order to assess the sustainability of our results, we made calculations based on the assumption of a more elastic demand – at the level of middle-income countries, ranging from -.5 to -.8 (see Appendix 2). In the basic calculations, the assumption of an inelastic demand, typical for the countries of the region, was used.

In the case of a more elastic demand for cigarettes, the expected state excise revenue will slightly fall. For example, if excise floor increases to €64 by 2021, revenue is expected to decrease to 295 (instead of 335) billion tenge in Kazakhstan and to 899 (instead of 963) billion rubles in Russia. The impact on health, on the contrary, will increase substantially: if the excise rate is raised to €64 by 2021 (scenario 3), the total number of people quitting smoking will exceed 550,000 in Kazakhstan (instead of 416,000), and 3.5 million in Russia (instead of approximately 2.5 million).

The study of the impact of excise harmonization on national tobacco markets and public health can be continued. In particular, it will be useful to understand how global tobacco companies react to changes in excise rates (note that besides manipulating prices, they can also move production to other countries of the region with lower excise rates). So, for example, in 2017 there was a significant decrease in the production of cigarettes in Russia – by 23 percent in comparison to the value of the previous year.

Another important direction for future research could be the inclusion in the model of other countries of the Eurasian Union, primarily Belarus, which in particular is the country of origin of illegal exports both to Russia and to EU countries.

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APPENDIX 1: BRIEF DESCRIPTION OF THE MODEL

The average retail price of cigarettes can be expressed as the sum of the excise tax, value added tax (VAT) and industry price, including costs and profit margins of producers, wholesale and retail traders:

$$\text{average retail price} = \text{excise} + \text{VAT} + \text{industry price}$$

Given the fact that VAT is calculated as the proportion τ of the pre-VAT tax value (equal to the sum of excise and the industry price) the formula can be rewritten as:

$$\text{average retail price} = (\text{excise} + \text{industry price}) * (1 + \tau)$$

Suppose that at time 2 there was a ψ percent increase in the excise, compared to time 1:

$$\text{excise}_2 = \text{excise}_1 * (1 + \psi)$$

The tobacco industry and retail trade are assumed to respond by increasing the industry price by λ% (we assume it is equal to the inflation if excises grow not too fast, and 50% of inflation otherwise):

$$\text{industry price}_2 = \text{industry price}_1 * (1 + \lambda)$$

Then, knowing the values of the parameters λ, ψ and τ, we can compute the new value of the average retail price:

$$\text{average retail price}_2 = [\text{ excise}_1 * (1 + \psi) + \text{industry price}_1 * (1 + \lambda)] * (1 + \tau)$$

Total consumption of cigarettes consists of legal and illegal consumption. Therefore, the initial average retail price is a weighted sum of average legal and average illegal market prices. We use the shares of legal and illegal consumption in total consumption as weights. We assume that the average illegal price is equal to 80 percent of the minimum price on the legal market. Thus,

$$\text{average retail price} = 0.8 * \alpha * \text{minimum legal price} + (1 - \alpha) * \text{average legal price,}$$

where α is defined as the share of the illegal consumption in the total consumption.

Further, knowing the initial and new values of the average retail price, the initial value of the total consumption, q total1, and the price elasticity of consumption[9], εp, we can calculate the new value of the total consumption with the help of the mid-point method:

$$q_2 = q\ total_1 * (1 + \varepsilon_p * (\text{average retail price}_2 - \text{average retail price}_1) / (\text{average retail price}_2 + \text{average retail price}_1))$$

$$/ (1 - \varepsilon_p * (\text{average retail price}_2 - \text{average retail price}_1) / (\text{average retail price}_2 + \text{average retail price}_1))$$

We also estimate the effect of growing consumption due to higher real incomes through the mechanism of income elasticity of demand:

$$q\ total_2 = q_2 * (2 + elast\_inc * inc\_growth/100) / (2 - elast\_inc * inc\_growth/100)$$

Then we can estimate the new level of legal consumption, q legal2, taking into account assumptions about possible changes in illicit consumption for different scenarios of excise growth. We calculate excise revenue based on the number of tax-paid cigarettes. However, the prevalence, and therefore the health effect, is determined by the total consumption.

A reduction in total cigarette consumption can occur as a result of reduced smoking by some smokers or a reduction in the prevalence of people quitting. Assuming that a decline in total consumption, q, by 1 percent leads to a decrease in the prevalence of smoking by ρ percent (equal to 0.5 percent in these simulations). According to the literature, about half the decrease in consumption comes from quitting: the share of quitting is estimated as 40 percent in Barber et al (2008), 50 percent and more in Jha et al (2006) and 75 percent in Reed (2010). Thus, we conclude that the share of smokers among the population aged over 15 years falls as follows:

$$\text{smoking prevalence}_2 = \text{smoking prevalence}_1 * [1 + \rho * (q\ total_2 - q\ total_1) / ((q\ total_2 + q\ total_1) / 2)].$$

Knowing the new average retail price and excise as well as legal sales, it is easy to calculate the values of the main indicators of the model:

$$\text{excise revenues}_2 = q\ legal_2 * excise_2$$

$$\text{tobacco industry revenues}_2 = q\ legal_2 * \text{industry price}_2$$

$$\text{VAT revenues}_2 = q\ legal_2 * VAT_2 = q\ legal_2 * \tau / (1 + \tau) * \text{average retail price}_2$$

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[9] The price elasticity of consumption measures how responsive consumption is to changes in prices.

APPENDIX 2: SENSITIVITY ANALYSIS

To check the robustness of the modelling results, we used two different price elasticity assumptions. According to the basic assumption, the initial level of elasticity is -0.3 (low level) and in the case of reducing affordability of cigarettes it can move gradually up to -0.6 (medium level). Alternative assumptions suggest that the demand for cigarettes is more elastic, with an initial level at -0.5 and the possibility to change gradually with reducing affordability up to -0.8.

The results of calculations for two variants of price elasticity are presented in Table 9. Changes in elasticity have no impact on price variables, such as average retail price and share of excise in the average retail price, so they are not included in the table.

In the case of a more elastic demand for cigarettes, the expected state excise revenue will slightly fall. For example, if the excise floor increases to €64 by 2021, revenue is expected to decrease to 295 (instead of 335) billion tenge in Kazakhstan and to 899 (instead of 963) billion rubles in Russia. The impact on health, by contrast, will increase substantially: if the excise rate is raised to €64 by 2021 (scenario 3), the total number of people who quit smoking will exceed 550,000 in Kazakhstan (instead of 416,000), and 3.5 million in Russia (instead of approximately 2.5 million).

Table 9: Expected consequences of considered excise policy scenarios, 2017-2021
(ranges for different elasticity assumptions; basic variant values are in bold)

SCENARIO	CONSUMPTION (LEGAL AND ILLEGAL), BILLION	NUMBER OF TAX-PAID CIGARETTES, BILLION	EXCISE REVENUE, BILLION UNITS OF NATIONAL CURRENCY	DAILY SMOKING PREVALENCE, % OF ADULT POPULATION	TOTAL NUMBER OF QUITTING SMOKING, THS
Kazakhstan					
Initial situation, 2017	21.5	24.0	149	19.1	0
Scenario 1 (harmonization at low-tax level), 2021	19.8-20.4	19.8-22.8	201-207	18.3-18.6	61-99
Scenario 2 (compromise,	16.9-18.3	18.1-19.4	256-273	16.9-17.6	196-283
high harmonization level), 2021	13.2-15.0	13.4-15.2	295-335	14.8-15.9	416-556
Scenario 3 (optimal, WHO recommendations), 2021	13.2-15.0	13.4-15.2	295-335	14.8-15.9	416-556
Russia					
Initial situation, 2017	277	265	621	26.1	0
Scenario 1 (harmonization at low-tax level), 2021	290-295	276-280	550-559	26.7-26.9	-987 - -723
Scenario 2 (compromise), 2021	264-269	251-255	707-719	25.5-25.7	471-740
Scenario 3 (optimal), 2021	219-234	204-218	899-963	23.1-24	2552 - 3539

APPENDIX 3: BRIEF MODELLING RESULTS

Kazakhstan

Starting in 2013, the Government of Kazakhstan significantly increased the amount of the excise tax on cigarettes. If in 2010-2012 excises grew by at most 25 percent annually, then in 2013-2014 their growth increased up to almost 60 percent. However, the long-term plans fixed in the documents of the Eurasian Commission were aiming to keep the excise rate at €30 for 1,000 cigarettes in 2016–2018, which in practice led to a decrease in the growth of the excise rate in 2015–2018 to 20–30 percent per year. Stabilization of cigarette excises at such a low level contradicts both the WHO recommendations (excise burden no less than 70 percent of average retail price) and the EU experience (minimum excise rate at the level of €64 per 1,000 cigarettes before 2014, and €90 thereafter). Thus, smoking becomes more economically affordable, which leads to significant negative health consequences.

Scenario 1 (harmonization at low-tax level)

The low-tax scenario, suggesting a slowdown in the growth rate of excise tax by 2021, will not allow positive health effects.

- The share of the excise tax in the retail price will be 43 percent, which is significantly lower than the level recommended by WHO.
- Expected real excise revenue will increase from 146 billion tenge in 2017 to 207 billion tenge in 2021.
- The prevalence of smoking will not change significantly and as a consequence only about 60,000 people are expected to quit smoking.

Scenario 2 (compromise; high level of harmonization proposed by the Eurasian Economic Commission)

- The share of excise in the retail price will exceed 50 percent.
- The real excise revenue is expected to increase up to 260 billion tenge by 2021.
- The share of daily smokers among the adult population will decrease from 19.1 percent to 17.6 percent, while almost 200,000 people are expected to quit smoking.

Scenario 3 (optimal; close to WHO recommendations)

Addictiveness is a specific feature of cigarettes; therefore the only way to achieve a significant decrease of negative effects of their consumption is by a drastic increase of excises. From the public health point of view, a scenario that would allow excise duties to be closer to the minimum EU excise levels within 4 years could be optimal for Kazakhstan.

- The share of excise will exceed 60 percent of the retail price.
- Excise revenue, even if assuming significant – up to 7 percent – growth in illegal consumption, will increase in real terms by more than 2 times, to 335 billion tenge in 2017.
- Smoking prevalence is expected to reduce significantly, up to 15.9 percent, while more than 400,000 adults are expected to quit smoking.

Russia

The effectiveness of excise measures as a tobacco consumption restraint instrument is evidenced by the recent Russian experience: in 2010–2017 excise taxes and prices rose significantly, while smoking prevalence decreased. The tightening of excise policy also led to a significant increase in state tax revenues. In particular, in 2013–2017 the share of cigarettes in total excise revenue in Russia increased from 3.8 percent to 5.8 percent

However after 2018, as a result of the harmonization process within the EAEU, excise growth rates are expected to fall to 10 percent per year. It was decided that Russia as the country with the highest excises will reduce the growth of excise taxes in order to "wait" for the rest of the EAEU member states.

The lower harmonization scenario is unlikely to be implemented in Russia since it assumes even a slight decrease in nominal excises in 2018–2021. However it provides an excellent illustration of possible consequences of a slowdown or stagnation in tobacco tax rises.

Scenario 1 (harmonization at low-tax level)

- The share of excise tax in the retail price is expected to decrease up to 39 percent, which is significantly lower than the level recommended by WHO.
- Expected real excise revenue will decrease from 620 billion rubles in 2017 to 550 billion rubles in 2021.
- The prevalence of smoking will increase and as a consequence the number of smokers is expected to grow by more than 700,000 people.

Scenario 2 (compromise; high level of harmonization proposed by the Eurasian Commission)

- The share of excise in the retail price by 2021 is expected to be 47 percent.
- The real excise revenue is expected to rise from 620 billion in 2017 to 720 billion rubles in 2021.
- The share of daily smokers among the adult population will decrease from 26.1 percent to 25.7 percent, while about 470,000 people will quit smoking.

Scenario 3 (optimal; close to WHO recommendations)

- The share of excise will be 56 percent of the retail price.
- Excise revenue is expected to grow considerably, to 963 billion rubles (2017 prices).
- Smoking prevalence is expected to reduce up to 24 percent, which allows 2.5 million adults to quit smoking.

According to the results of the modelling exercise in this report, Russia, as the country with the highest tobacco excises in the EAEU, could easily follow the optimal scenario, significantly reducing the negative effects of smoking on public health and achieving considerable growth in state excise revenue. Fixing the excise rates even at the high level of harmonization proposed by the Eurasian Commission will lead to stagnation in the prevalence of smoking, and in the case of income growth, even to the new increase in the number of smokers.