

**REDUCING TOBACCO  
USE THROUGH  
TAXATION IN THE  
RUSSIAN FEDERATION:  
MODELLED ASSESSMENT  
OF TWO POLICY OPTIONS**

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World Bank Group



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# PREFACE

Tobacco tax is an important policy tool for reducing smoking prevalence and promoting public health in all countries – be they advanced, developing or emerging economies. Tobacco excise taxes achieve two key, attractive policy goals: (a) the public health objective of reducing demand for tobacco products (in particular, consumption among current smokers) and reducing the number of new smokers via higher prices induced by taxes; and (b) achieving higher overall tax revenues – revenue that in low- and middle-income countries can be used to fund welfare spending and universal health coverage. Of these two objectives, enhancing public health should be a higher priority than revenue generation.

The World Health Organization (WHO) recommends that increased taxation should be a key component of any approach to reducing the use of tobacco, estimating that if all countries increased the tax charged on cigarette packs by 50 percent, there would be 49 million fewer smokers, and at least 11 million deaths could be averted worldwide.

## The Tobacco Use Challenge

There is no doubt that tobacco use is bad for people, bad for economies, and bad for poverty reduction. Tobacco kills at least half of long-term smokers, accounting for more deaths each year than HIV/AIDS, tuberculosis, and malaria combined. And the burden of sickness and death from tobacco is becoming heavier. There were about 100 million deaths from tobacco in the 20th century. If current patterns persist, tobacco will kill some 1 billion people in this century, most in low- and middle-income countries (LMICs) (Jha 2009; Jha and Peto 2014; Peto and Lopez 2001).

Health systems suffer along with individuals. Treatment of the numerous chronic diseases caused or exacerbated by smoking swells countries' annual health care costs and diverts resources that could be used to solve other health challenges or address development priorities.

Tobacco-related deaths have an important economic cost. Worldwide, the total economic damage of smoking (including productivity losses from death and disability) has been estimated at more than \$1.4 trillion<sup>1</sup> per year, equivalent to 1.8 percent of the world's annual Gross Domestic Product (GDP) (Goodchild, Nargis, and Tursan d'Espaignet 2017).

This economic burden mainly falls on the people and countries that can least afford it. More than 80 percent of the world's smokers live in LMICs. Within countries, tobacco addiction is concentrated among people with lower incomes and education. Poor smokers spend a larger portion of their income on tobacco products than wealthier smokers, and the poor

also suffer most from smoking-related illnesses. The medical expenses and loss of earnings associated with these illnesses contribute to pushing millions of households into financial crisis and deeper poverty every year. Meanwhile, tobacco use reduces future earning potential, especially among young adults, and reduces adult workers' economic productivity.

A scaled-up and stronger tobacco control effort is required to achieve the WHO-recommended target of at least 30 percent reduction in smoking prevalence by 2030, which would avoid at least 200 million deaths among current and future smokers by the end of the 21st century (WHO 2013). A reduction in smoking prevalence of this magnitude is also critical to reach the health and social targets of the United Nations Sustainable Development Goals (SDGs) (United Nations 2015).

## Using Taxation to Reduce Tobacco Use

Raising taxes on tobacco products (and hence prices) sharply, and then adjusting for inflation and increased affordability due to growing incomes, is the single most cost-effective measure to reduce tobacco consumption.

It is especially powerful when linked to the other measures in the World Health Organization's MPOWER program of tobacco control – especially for LMICs, where smokers are more price-sensitive (IARC 2011; NCI and WHO 2016; Jha and Chaloupka 1999).

The only plausible way to reduce smoking on the scale required to meet the WHO and UN goals is to triple tobacco excise taxes in most LMICs. A tripling of the excise tax would roughly double the retail price of cigarettes, reduce tobacco consumption by about 40 percent (Jha, Marquez, and Dutta 2017), and lower the risk of tobacco-related diseases and premature death, as shown by recent assessments in China, Republic of Korea, Ukraine, and the United States (Verguet et al 2015; Choi, SE 2018; Webber et al 2017; Furman in Marquez, P.V. 2016).

In moving the tobacco taxation agenda forward, therefore, it is critical to keep in mind that the adoption of this fiscal policy measure is needed because:

- tobacco use plays a major role in mortality and in the inequality of mortality;
- tobacco price plays an important role in smoking;
- tobacco taxes play an important role in cigarette prices;
- tobacco taxes have large aggregate benefits for public health;
- tobacco taxes disproportionately benefit lower-income households.







# OVERVIEW

## Tobacco Use in the Russian Federation

In 2000, the Russian Federation had one of the highest rates of tobacco use in the world. Almost 40 percent of the adult population used tobacco, and the country was seeing a rise in the number of young adults and females smoking on a regular basis. To combat this situation the government ratified the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) in 2008 and began to implement a wide range of tobacco control interventions. According to WHO, between 2009 and 2016 this comprehensive approach to tobacco control lowered the number of smokers by 21.5 percent and reduced tobacco sales by almost 30 percent.<sup>2</sup>

### ***Taking a Comprehensive Approach***

In 2013, Russia passed Federal Law 15-FZ,<sup>3</sup> one of the world's most comprehensive anti-tobacco laws, and in 2014 the country registered its most significant drop in tobacco sales. The law includes:

- a complete ban on tobacco use in public places, including areas adjacent to medical, education, sports, and cultural institutions;
- a total ban on advertising, promotion and sponsorship of tobacco products;
- increase in the prices of tobacco products.

Federal Law 15-FZ follows the spirit of the WHO FCTC (a legally binding treaty ratified by 181 countries worldwide), and aims to protect the health of citizens from the effects of secondhand smoke and the consequences of tobacco consumption. It addresses the need to establish "price and tax measures directed at reducing the demand for tobacco products", with Article 13 of the law introducing measures to increase excise taxes on tobacco products.

### ***Tobacco Use Reduction as a Part of the Sustainable Development Goals***

Russia is not alone in basing its efforts to reduce tobacco consumption and the illnesses it creates on the WHO FCTC. United Nations' Sustainable Development Goal 3.4 aims to reduce premature deaths from noncommunicable diseases (such as those caused by smoking) by one third by 2030. Target 3a specifically commits countries to strengthen implementation of the WHO FCTC to combat noncommunicable diseases. The inclusion of tobacco control and implementation of the WHO FCTC as a key SDG target acknowledges

the magnitude of the smoking epidemic. It also indicates that all countries should prioritize tobacco control and commit to implementing strong tobacco control measures.

## Results of the Modelling Assessment 2018–2021

The modelling assessment conducted for this report considered the proposal of tobacco taxation harmonization within the Eurasian Economic Union (EAEU). The proposed upper limit excise tax provisionally set at €32 (+10 percent deviation, or €35.1)<sup>4</sup> per 1,000 cigarettes by 2020 is expected to be reached by Russia by the end of 2018, as shown in Table 1 (€35.45, World Bank estimates). The research team also considered Russia's commitment to recommendations enshrined in the WHO FCTC, to which Russia became an official party after the President of the Russian Federation signed the treaty on 24 April 2008.<sup>5</sup>

Under the Concept Report for the Implementation of State Policies to Counter the Consumption of Tobacco for 2010–2015 of the Russian Federation 2010–2015, Russia was to gradually increase its tax on tobacco products and establish ad valorem and specific taxes at similar or higher levels than the average level set by the countries in WHO's European Region. According to the European Union directive,<sup>6</sup> which will be used as a relevant sampling of the WHO's European Region countries, the excise tax amount must be at least €90 per 1,000 cigarettes, and at least 60 percent of the weighted average retail selling price (WAP) of cigarettes released for consumption.

The modelling tool used for this report<sup>7</sup> (and adapted to Russia's tax structure) assessed: (a) the potential impact of tobacco tax policy measures on price and tobacco use, and hence on the risk of ill health, premature mortality and disability associated with tobacco-related diseases; and (b) the potential of tax policy to mobilize domestic resources to expand the fiscal capacity of the government to fund priority investments and programs that benefit the entire population.

Table 1 presents results of the modelling exercise in terms of excise tax increases for the period 2018–2021, including average excise tax and revenue mobilization options; it also compares the tobacco excise tax already included in the country's current Tax Code with that necessary to achieve EU minimum rates by 2021 (Minimum EU excise tax rates scenario).

### ***Increasing Tobacco Tax: Two Scenarios***

Two scenarios were simulated.

**Current Tax Code scenario:** Tobacco excise tax simulations were carried out for the period 2018–2021, maintaining ad valorem tax at 14.5 percent, with an increase in the simple and

minimum specific excise tax by 10 percent from July to December 2018; by 10 percent for 2019; and by only 4 percent for 2020 and 2021.

The 2018 average projected excise tax on cigarettes would reach €35.5 per 1,000 cigarettes, resulting in an early achievement of the EAEU proposed limit for 2020. By 2019 the average excise tax would be projected at €37.95 per 1,000 cigarettes, with small increases in 2020 and 2021 estimated at €38.57 and €39.05 respectively.

**Minimum EU excise tax rates scenario:** Under this scenario, 2018 maintains its current Tax Code rate; a 46 percent increase in the simple and minimum specific excise is considered for 2019, with a 45 percent increase for both 2020 and 2021 considered, allowing achievement of the EU minimum excise tax of €90 per 1,000 cigarettes by 2021.

The 2018 projected average excise tax on cigarettes remains the same under the current Tax Code; in 2019 it would increase to an estimated €47.01 per 1,000 cigarettes; €64.22 per 1,000 cigarettes by 2020; and €90 per 1,000 cigarettes by 2021.

### ***Reduction in Consumption***

**Current Tax Code scenario:** The expected reduction in total cigarettes taxed (proxy for consumption) is estimated to fall by just 2.3 percent in 2019, remaining static or falling slightly to 1.1 percent by 2020 and 0.4 percent by 2021. This is due to a small (4 percent) specific excise increase, which is below the combination of 7.2 percent and 4.1 percent projected for inflation during 2020–2021, and the 1.5 percent and 2.3 percent real wages growth per employee (projections according to the Ministry for Economic Development).<sup>8</sup>

**Minimum EU excise tax rates scenario:** The expected reduction in total cigarettes taxed (as a proxy for consumption) is estimated to fall by 6.7 percent in 2019; 8.3 percent in 2020; and 9.0 percent in 2021.

Table 1: Current Tobacco Tax Code and Proposed Policy Options, the Russian Federation, 2018–2021<sup>a</sup>

GOVERNMENT REVENUE TYPE	YEAR	GOVERNMENT POLICY: TAX CODE, 2017–2021	POLICY OPTION: MINIMUM EU EXCISE TAX RATES SCENARIO: €90/1,000 INCLUDING 14.5% MAXIMUM RETAIL PRICE (MRP) 2019–2021	INCREASE
Current Tax Code	2018	2018 (January–June Tax Code 1,562/1,000 +14.5% MRP but not less than 2,123/1,000); (July–December Tax Code 1,718/1,000 +14.5% but not less than 2,335/1,000)	Same as current Tax Code	
Average Euro excise tax per 1,000 pieces		€35.45		
Total tobacco excise tax revenue (billion rubles)		639.1		
Total tobacco excise tax revenue (billion \$)		10.5		
Total government tobacco revenue (import duty, excise & VAT – billion Rub)		882.5		
Total government tobacco revenue (import duty, excise & VAT – billion \$)		14.5		
Current Tax Code vs. proposed tax policy measure (projected)	2019	2019 current Tax Code 1,890/1,000 +14.5% MRP but not less than 2,568/1,000	2019 Minimum Euro excise tax rates scenario: 2,508/1,000 including 14.5% MRP but not less than 3,409/1,000	Increase
Average € excise tax per 1,000 pieces		€37.95	€47.02	€9.07
Total tobacco excise tax revenue (billion rubles)		696.8	825.0	128.2
Total tobacco excise tax revenue (billion \$)		11.0	13.1	2.1
Total government tobacco revenue (billion rubles)		984.0	1,136.2	152.2
Total government tobacco revenue (billion \$)		15.6	18.0	2.4
Current Tax Code vs. proposed tax policy measure (projected)	2020	2020 current Tax Code 1,966/1,000 +14.5% MRP but not less than 2,671/1,000	2020 Minimum EU excise tax rates scenario: 3,637/1,000 +14.5% but not less than 4,943/1,000	
Average € excise tax per 1,000 pieces		€38.57	€64.22	€25.65
Total tobacco excise tax revenue (billion rubles)		732.6	1,080.6	348.0
Total tobacco excise tax revenue (billion \$)		11.5	16.9	5.4
Total government tobacco revenue (billion rubles)		1,035.9	1,459.1	423.2
Total government tobacco revenue (billion \$)		16.2	22.9	6.7

**Table 1: Current Tobacco Tax Code and Proposed Policy Options, the Russian Federation, 2018–2021<sup>a</sup>**

GOVERNMENT REVENUE TYPE	YEAR	GOVERNMENT POLICY: TAX CODE, 2017–2021	POLICY OPTION: MINIMUM EU EXCISE TAX RATES SCENARIO: €90/1,000 INCLUDING 14.5% MAXIMUM RETAIL PRICE (MRP) 2019–2021	INCREASE
Current Tax Code vs. proposed tax policy measure (projected)	2021	2021 current Tax Code 2,045/1,000 +14.5% MRP but not less than 2,778/1,000	2021 Minimum EU excise tax rates scenario: 5,276/1,000 including +14.5% MRP but not less than 7,171/1,000	
Average excise tax € per 1,000 pieces		€39.05	€90.00	€50.95
Total tobacco excise tax revenue (billion rubles)		764.4	1,425.8	661.4
Total tobacco excise tax revenue (billion \$)		11.9	22.3	10.4
Total government tobacco revenue (billion rubles)		1,079.9	1,897.8	817.9
Total government tobacco revenue (billion \$)		16.9	29.7	12.8

Source: WBG experts estimates.

Note: <sup>a</sup> Based on assumptions using the lower bound price elasticity range (-.48 to -.22, Fuchs, forthcoming) and 0.20 income elasticity, the sensitivity analysis showed that this price elasticity of demand range in Russia will respond better to ranges observed in high-income countries (see Appendix 2).

### **Increased Tax Revenue**

**Current Tax Code scenario:** Total tobacco tax revenue collected (excise taxes, VAT, and import duty) would increase from 824.9 billion rubles (\$14.1 billion) projected for 2017 (0.9 percent of GDP) to:

- 882.5 billion rubles (\$14.5 billion) in 2018 (0.88 percent of GDP);
- 984.0 billion rubles (\$15.6 billion) in 2019 (0.93 percent of GDP);
- 1,036 billion rubles (\$16.2 billion) (0.93 percent of GDP) in 2020;
- 1,080 billion rubles (\$16.9 billion) (0.90 percent of GDP) in 2021.

**Minimum EU excise tax rates scenario:** Total tobacco tax revenue collected (import duty, excise taxes, and VAT) would increase from 882.5 billion rubles (\$14.5 billion) in 2018 (0.88 percent of GDP) under the current Tax Code to:

- 1,136 billion rubles (\$18 billion) in 2019 (1.1 percent of GDP);
- 1,459 billion rubles (\$23 billion) (1.31 percent of GDP) in 2020;
- 1,898 billion rubles (\$29.7 billion) (1.6 percent of GDP) in 2021.

The simulation exercise showed that under the range of elasticity options adopted (using the lower bound price elasticity range (-.48 to -.22) and 0.20 income elasticity (preliminary findings in Fuchs, forthcoming),<sup>9</sup> the public health benefits (measured in terms of consumption reduction) and domestic revenue mobilization are positively affected by the tobacco excise tax increase. Increased tobacco taxes have resulted in a reduction in total cigarette consumption and an increase in tobacco tax.

## Summary

**Tobacco taxation increase as proposed under the Minimum EU excise tax rates scenario is a potential major policy tool for the Government of Russia to reduce the severe public health burden of smoking-related disease and premature mortality.**

Tobacco taxation could also be a notable contributor to fiscal revenue collection, expanding the fiscal space to provide financing for various priority programs. Given current fiscal pressures, it is relevant and timely to focus on using tobacco taxation increases as a source of additional public revenues over the near and medium-terms.

An important tobacco tax increase policy option as proposed in Minimum EU excise tax rates scenario is a step forward for Russia towards full compliance with Article 13 of Federal Law 15 FZ which introduced measures to increase excise taxes on tobacco products.<sup>10</sup> As shown under the Minimum EU excise tax rates scenario for 2019–2021, **raising tobacco taxes can offer Russia a “win–win”: higher revenue and positive health outcomes.**







# 1

## MODELLING THE IMPACT OF TOBACCO TAX INCREASES ON GOVERNMENT REVENUE

### Current Cigarette Market in the Russian Federation

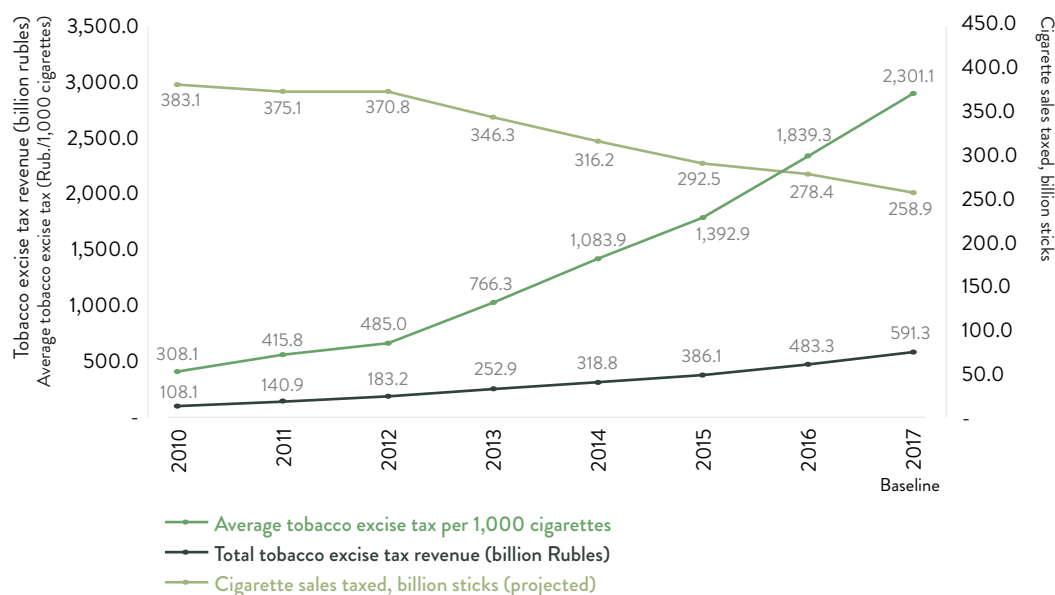
Between 2007 and 2013 the minimum excise tax rate on filter cigarettes increased more than six-fold; the specific excise tax rose more than five-fold; and the ad valorem tax rose by 3 percentage points. As shown in Table 2, the average retail price of cigarettes rose year-on-year in the period 2010–2017, within a range of 13.6 percent to 23.4 percent. According to Euromonitor, competition was tough for tobacco manufacturers and distributors during this period as a result of the country's newly introduced tobacco advertising ban, increased taxes, and falling smoking prevalence. While domestic production retains the largest market share, imports have risen slowly in the past 3 years, accounting for between 1 percent and 4 percent of market share.

While the market share of premium cigarettes remains at between 16 percent and 17 percent, a shift by smokers from low-price cigarettes to mid-price cigarettes (mainly in the period 2014–2017) can be seen in Table 2, coinciding with the fall in the cost of mid-price cigarettes as a result of currency fluctuations in the ruble and the U.S. dollar. In 2015, the average difference in the retail price between low-price and mid-price categories (\$ per 20 pack) was up to \$0.10. In general, industry players are being forced to increase prices to maintain profit margins (Cigarettes in Russia, Euromonitor International 2017).

Figure 1 shows the impact of year-on-year excise tax increases on the reduction of the number of cigarettes taxed, while increased tobacco excise revenues were being collected by the government.

In 2013 there was a 70 billion-ruble (38 percent) rise in tobacco excise revenue (compared to 2012), and in 2014 there was a 66-billion ruble (26 percent) increase in revenue compared to 2013. This sea-change in cigarette tax trends (a proxy for consumption reduction) is the result of average tobacco excise tax increases (per 1,000 cigarettes) of 58 percent and 41.4 percent respectively for 2013 and 2014.

While tax rates remain below the minimal average level of European Union (EU) countries, Russia's current fiscal policy generally supports substantial annual growth in tobacco prices. Figure 1 shows the annual average increase in excise tax per 1,000 cigarettes, which became more pronounced following the adoption of the national tobacco strategy.

**Figure 1: Cigarette Market Trends, the Russian Federation, 2010–2017**


Source: World Bank Group experts estimates based on cigarette sales taxed (Euromonitor 2017); tobacco excise tax revenue (Federal Tax Service, [https://www.nalog.ru/rn77/related\\_activities/statistics\\_and\\_analytics/forms](https://www.nalog.ru/rn77/related_activities/statistics_and_analytics/forms)); and tobacco excise tax (historical Tax Code rates).

Figure 1 also shows how, despite the 30.3 percent decline in cigarette sales taxed in Russia between 2010 and 2017 (according to the Russian Federation’s Federal State Statistics Service, Rosstat), tax and price increases in tobacco products have nonetheless contributed to an increase in reported revenue from excise tax on cigarettes, rising from 108 billion rubles in 2010 to 591 billion rubles in 2017 (Russian Federal Treasury data).

Average tax increases year-to-year in the period 2010–2017 ranged between 58 percent (in 2013) and 16.6 percent (in 2012). Such significant increases have slowed under the current Tax Code for the period 2018–2021, reducing estimated increases in the average excise tax per 1,000 cigarettes to between 8.8 percent for 2018, 11.7 percent for 2019, 6.3 percent for 2020 and 4.8 percent for 2021 (WBG experts estimates). With the exception of 2018 and 2019, such increases, compared to expected inflation and growth in real wages (per employee) combined for the period (13.5 percent, 5 percent, 4.5 percent, and 6.1 percent respectively) will barely match (2020) or fall below (2021) FCTC guidelines.<sup>11</sup>

## Current Structure of Tobacco Taxation in the Russian Federation

Russia has a mixed excise taxation system, including ad valorem tax and specific taxes based on maximum retail prices (MRP). MRPs are set by manufacturers and importers, and

**Table 2: Cigarette Retail Price Trends and Market Share, the Russian Federation, 2010–2017**

THE RUSSIAN FEDERATION TOBACCO EXCISE DATA MATRIX	2010	2011	2012	2013	2014	2015	2016	2017 BASELINE
Average exchange ruble to \$ (estimate) <sup>a</sup>	30.36	29.35	31.07	31.82	37.97	60.66	66.90	58.33
Macroeconomic data								
GDP per capita growth (annual %), current prices			12.9	7.1	8.0	5.1	3.1	6.7
Inflation rate (inflation, annual %) deflator <sup>a</sup>			9.1	5.4	7.5	8.0	3.5	5.2
Composition of retail price								
Weighted average retail price (rubles per 20-cigarette pack)	31.7	38.8	44.1	54.1	66.8	78.7	97.2	117.1
Cigarettes (average \$ price per 20-cigarette pack)	\$1.05	\$1.32	\$1.42	\$1.70	\$1.76	\$1.30	\$1.45	\$2.00
Economy cigarettes (Next, Alliance, Maxim, Yava)								
Average retail price of economy cigarettes (rubles per pack) <sup>b</sup>	22.0	29.0	35.0	39.0	54.0	70.0	75.0	100.0
Economy cigarettes average price (\$ per 20-cigarette pack)	\$0.72	\$0.99	\$1.13	\$1.23	\$1.42	\$1.15	\$1.12	\$1.71
Market share of economy cigarettes <sup>c</sup>	39.6%	36.0%	35.6%	34.8%	34.1%	33.0%	28.3%	27.8%
Mid-price cigarettes (Bond Street, Pall Mall, Lucky Strike, Chesterfield)								
Average retail price of mid-price cigarettes (per pack)	35.0	38.0	41.0	54.0	67.0	76.0	100.0	120.0
Mid-price cigarettes average (per 20-cigarette pack)	\$1.15	\$1.29	\$1.32	\$1.70	\$1.76	\$1.25	\$1.49	\$2.06
Market share of mid-price cigarettes <sup>c</sup>	44.7%	47.8%	47.5%	48.1%	49.0%	50.8%	54.7%	55.9%
Premium cigarettes (Parliament, Dunhill, Camel, Kent)								
Average retail price of premium cigarettes (per pack)	47	63	72	85	92	105	125	135
Premium cigarettes average price (\$ per 20-cigarette pack)	\$1.55	\$2.15	\$2.32	\$2.67	\$2.42	\$1.73	\$1.87	\$2.31
Market share of premium cigarettes <sup>c</sup>	15.7%	16.2%	16.9%	17.1%	16.9%	16.2%	17.00%	16.30%

Sources: <sup>a</sup> Central Bank of the Russian Federation, <https://www.cbr.ru/eng/>.

<sup>b</sup> The Russian Federation Federal State Statistics Service (Rosstat), average prices of domestic brand cigarette, <http://www.gks.ru/dbscripts/cbsd/DBlnet.cgi?pl=1921001>

<sup>c</sup> Euromonitor International reports 2010–2017, 2018.

must be indicated on the cigarette packaging. MRPs cannot be exceeded at the point of sale for the consumer. Producers are permitted to increase prices no more than once a month. They must also register new prices with the Federal tax service's system, which monitors all changes. In line with the EAEU common customs tariff, combined rates of import customs duties are differentiated by product code in the Foreign Economic Activity Commodity Nomenclature for cigarettes. By 2013, import duties for cigarettes evolved from "30 percent ad valorem (CIF base), but no less than €3 per 1,000", to the current €2 per 20 cigarette pack (see Table 3).

From 2010 to 2016 the government adopted a gradual increase in the ad valorem component of the combined excise tax levied on cigarettes (6.5 percent to 12 percent). This increased the excise burden on expensive tobacco products more than cheaper ones.

## Modelling the Impact of Tobacco Tax Increases on Consumption and Tax Revenue

Tobacco taxes are non-distortionary taxes that have a dual benefit: (a) reducing tobacco-related diseases that lead to ill health, premature mortality and disability, and cost health systems and individuals significant amounts of money for treating diseases that are often preventable; and (b) mobilizing additional domestic revenues to expand the fiscal space and hence the budgetary capacity of the government to fund priority investments and programs that benefit of the entire population.

To simulate the fiscal revenue impact of the current Tax Code 2018–2021, and proposed tobacco tax increases in Russia in 2019–2021, the parameters of the simulation model<sup>12</sup> used are as follows (further details are available in Appendix 1).

### **Price and income elasticity**

To carry out a simulation and to adapt the model to Russia's current Tax Code structure, this report uses the Russian and Eastern Europe region studies available. Price elasticities based on the preliminary findings of Fuchs's ongoing study, *Distributional Impact of Tobacco Taxation: the case of the Russian Federation* (for filtered cigarettes only). Box 1 shows the price elasticities selected among Fuchs's preliminary findings.

Despite Russia being classified by the World Bank as an upper-middle income country (UMIC),<sup>13</sup> the simulation model is calibrated using price elasticity ranges from the lower bound section of Box 1 (-.48 to -.28)<sup>14</sup> and income elasticity close to 0.2 (positive).<sup>15</sup> This baseline scenario analysis assumes that Russia's price elasticity of demand better match ranges observed in high-income countries (HICs)<sup>16</sup> (an assumption that indicates that cigarette demand in Russia is inelastic). The lower bond price elasticity for economy

Table 3: Cigarette Tax Structure, the Russian Federation 2010–2017

TAX DESCRIPTION	2010	2011	2012	2013	2014	2015	2016	BASELINE SITUATION 2017:	TAX BASE (FOR CALCULATION PURPOSES)
	205 + 6.5% BUT NOT LESS THAN 216	280 + 7% BUT NOT LESS THAN 360	280/360 + 7/7.5% BUT NOT LESS THAN 485	550 + 8% BUT NOT LESS THAN 730	800 + 8.5% BUT NOT LESS THAN 1,040	960 + 11% BUT NOT LESS THAN 1,330	ACTUAL, 1,250/1,000 + 12% BUT NOT LESS THAN 1,680/1,000	1,250/1,000 + 12% BUT NOT LESS THAN 1,680/1,000	1,562/1,000 + 14.5% BUT NOT LESS THAN 2,123/1,000
Cigarette taxes (%/rubles and \$)									
Import duty (ID) <sup>a</sup>	30%, but no less €3 per 1,000 pieces	30%, but no less than €3 per 1,000 pieces	30%, but no less than €3 per 1,000 pieces	30%, but no less than €3 per 1,000 pieces	16.7 %, but at least €2.33 for 1,000 pieces	€2 for 1,000 pieces	20%, but no less than €2 per 1,000 pieces	17% but at least €1.7 for 1,000 pieces	CIF (Cost, Insurance and Freight)
Value added tax (VAT)	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	MRP minus VAT
Simple specific excise tax (SE)	4.10	5.60	5.60/7.20	11.00	16.00	19.20	25.00	31.24	per 20-stick pack
	\$0.14	\$0.19	\$0.18/0.23	\$0.35	\$0.42	\$0.32	\$0.37	\$0.52	
Minimum specific excise tax (MSE)	205	280	280/360	550	800	960	1,250	1,562	or per 1,000 cigarettes
	\$6.75	\$9.53	\$9.08/11.67	\$17.28	\$20.85	\$15.75	\$18.64	\$25.91	
Ad valorem excise tax (AE)	4.32	7.20	9.70	14.60	20.80	26.60	33.60	42.46	per 20-stick pack
	\$0.14	\$0.25	\$9.08/11.67	\$0.46	\$0.54	\$0.44	\$0.50	\$0.70	
Ad valorem excise tax (AE)	216	360	485	730	1,040	1,330	1,680	2,123	or per 1,000 cigarettes
	\$7.11	\$12.25	\$15.73	\$22.93	\$27.10	\$21.83	\$25.05	\$35.22	
Ad valorem excise tax (AE)	6.5%	7.0%	7.0%-7.5%	8.0%	8.5%	11.0%	12.0%	14.5%	MRP set by producer

Sources: Excise Tax on Tobacco products – Article 193 of the national Tax Code, including the current, adopted future and earlier versions. See [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/22201a65e4f59a582714243c15b655989bd57066/](http://www.consultant.ru/document/cons_doc_LAW_28165/22201a65e4f59a582714243c15b655989bd57066/).

Note: <sup>a</sup> The Common Customs Tariff of the Eurasian Economic Union, approved by Decision No.54 of the EEC Council dated July 16, 2012.

### Box 1: Tobacco Price and Income Elasticity Ranges Selected for Sensitivity Analysis<sup>a</sup>

CIGARETTE CATEGORIES	TOBACCO PRICE ELASTICITY PER DECILE (LOWER AND MEDIUM BOUND) IN RUSSIA				
	Price elasticity for		Medium bound	Income deciles	Lower bound
Low-price cigarettes	Value (must be negative)		-0.679	Lowest income decile	-0.479
Medium-price cigarettes	Value (must be negative)		-0.513	Middle-income deciles 4 to 7	-0.313
Premium cigarettes	Value (must be negative)		-0.415	High-income decile 10	-0.215
<b>Income elasticity for</b>					
Low-price cigarettes	Value (typically positive)		0.20		0.20
Medium-price cigarettes	Value (typically positive)		0.20		0.20
Premium cigarettes	Value (typically positive)		0.20		0.20

Source: Fuchs, forthcoming.

Note: <sup>a</sup> For income elasticity, the selected range value (positive 0.2) has been adopted for Russia by van Walbeek's model.<sup>17</sup> Other comparative studies on the ECA, such as in Ukraine by H. Ross, M. Stoklosa, K. Krasovsky, Economic and public health impact 2007–2010 tobacco tax increases in Ukraine, found income elasticity close to 0.3.

cigarettes from Box 1 is assumed as: -0.479; -0.313 for mid-price cigarettes and -.215 for premium cigarettes; income elasticity remains positive at 0.2 for all three cigarette categories.

Based on actual 2016 and 2017 excise tax revenues reported by the Federal Treasury, and taxed cigarette sales reported by Euromonitor,<sup>18</sup> the simulation model was calibrated using the total number of cigarettes taxed and the average market price for all adopted categories in 2016 and 2017. Using these figures and the lower-bound adopted price and income elasticity set out in Box 1, the model projected 2017 excise tax revenue as 0.76 percent higher than the total revenue reported by the Federal Treasury – 595.8 billion rubles versus 591.3 billion rubles (see Table 4).

Including import duties, excise tax and VAT, total government tobacco tax revenue for 2017 was expected to reach 825 billion rubles (\$14.1 billion) or 0.9 percent of GDP. The simulation model assumes that VAT included in total taxes is applied along the cigarette distribution chain from customs to factory, and from warehouse to retail point of sale. The reduction in taxed cigarettes (as a proxy for consumption) was projected as close to -7 percent (see assumptions in Appendix 2), matching actual available data (Euromonitor 2018).

**Table 4: Baseline/Actual and Model Outputs for Excise Tax Scenarios for 2016–2017**

SUMMARIZED OUTPUT	2016 ACTUAL, 1,250/1,000 + 12% MRP BUT NOT LESS THAN 1,680/1,000	BASELINE SITUATION 2017: 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000
CIGARETTES		
Total cigarettes taxed (billion pieces) <sup>a</sup>	278.4	258.9
Average cigarette price (rubles per pack)	98.22	115.11
Average cigarette price (\$ per pack)	\$1.47	\$1.97
Average excise tax burden (excise tax as percentage of retail price)	37.5	40.0
Average excise tax (rubles per 1,000 pieces)	1,839.3	2,301.1
Average excise tax (€ per 1,000 pieces)	24.7	35.0
Average cigarette total tax burden (total tax: ID, excise, and VAT, as percentage of retail price)	52.9	55.4
Total tobacco excise tax revenue (billion rubles) <sup>b</sup>	512.1	595.8
Total tobacco tax government revenue (Import duty, excise, and VAT, billion rubles) <sup>b</sup>	722.6	824.9
Percentage change in (year to year) Total cigarette consumption (%)		-7.0

Source: World Bank Group Experts estimates.

Note: <sup>a</sup> Euromonitor 2016 (278.4 billion pieces) and 2017 (258.9 billion pieces) are the same statistics as those inputted into the simulation model.

<sup>b</sup> Total government revenue for cigarette taxes including import duty, excise, and VAT generated by the simulation model assumes that VAT is applied along the cigarette distribution chain from customs/ex-factory, warehouse, and retail point of sale.

The simulation model result of 595.8 billion rubles for 2017 provided the metrics to calibrate the model, comparing this figure with actual revenue from available government reports (591.3 rubles for 2017) with a difference within less than 0.8 percent, with a -0.48 and -0.21 price elasticity range.

As shown in Table 4, the current average excise tax burden as percentage of the retail price of a pack of 20 cigarettes – 37.5 percent (2016) and 40 percent (2017) – is lower than the WHO FCTC-recommended share of 70 percent, suggesting that there is significant potential for generating higher tax revenue.

## Impact Assessment of Tobacco Tax Increases in the Russian Federation

To assess the fiscal revenue, price, and consumption impact of proposed tobacco tax increases in Russia, the simulations cover projections for 2018 from the 2017 baseline (based on WBG estimates), and two scenarios (see detailed excise tax structure in Table 5):

- **Current Tax Code scenario:** The simulations are carried out using the government's tobacco excise tax for the period 2018 to 2021<sup>9</sup> which maintain the ad valorem tax at 14.5 percent and increase the simple and minimum specific excise tax by 10 percent from July to December 2018, 10 percent for 2019, and only 4 percent for 2020 and 2021. VAT currently at 18 percent will be increased to 20 percent by 2019.<sup>20</sup>
- **Minimum EU excise tax rates scenario:** 2018 remains under the current Tax Code; then a 46 percent increase in the simple and minimum specific excise is considered for 2019, and a 45 percent increase is considered for both 2020 and 2021, allowing the proposed EU minimum excise tax of €90 per 1,000 cigarettes to be achieved by 2021.

Table 6 and Table 7 present the revenue outputs generated by the two scenarios and the impact that such excise tax and total tobacco government revenue contribute to Russia's GDP compared to 2018 projections. As indicated before (and see Appendix 2), and assuming that inelastic demand for cigarettes in Russia, price elasticity adopted is the lower bound (HIC) option from Box 1:

- -.479 for economy cigarettes;
- -.313 for mid-price cigarettes and
- -.215 for premium cigarettes.

The income elasticity range is 0.2 for all categories (economy cigarettes, mid-price, and premium cigarettes).

Under the Russian current Tax Code scenario (see Table 6), tobacco excise tax revenue projected for 2018 is about 639 billion rubles (\$10.5 billion, and 0.64 percent of GDP). This assumes maintenance of the 14.5 percent ad valorem tax on the MRP, and a 10 percent increase (by July 1) in the uniform excise tax rate to 34.36 rubles (\$0.57) per 20-cigarette pack. The total tobacco tax revenue collected (import duty, excise taxes, and VAT) would increase from the 825 billion rubles (\$14.1 billion) estimated for 2017 (0.9 percent of GDP) to 882.5 billion rubles (\$14.5 billion) by the end of 2018 (0.88 percent of GDP) (Ministry of Economic Development (MED) projections), representing an additional tax revenue collection of 58 billion rubles (\$1.0 billion). Meanwhile, the estimated volume of cigarettes taxed (as a proxy for consumption) is estimated to experience a minor decrease of about 1.4 percent.

Projected tobacco excise tax revenue for 2019 under the current Tax Code (ad valorem tax remaining at 14.5 percent of MRP, and an estimated 10 percent increase in uniform excise tax to 37.80 rubles (\$0.60) per 20-cigarette pack), is 697 billion rubles (\$11 billion) or about 0.66 percent of GDP. This represents an increase of close to 58 billion rubles (\$0.9 billion at 2019 exchange rate forecast) over the projected 2018 tobacco excise tax revenue.



Table 5: Cigarette Tax Structure in the Russian Federation 2017–2021<sup>a</sup> and under Minimum EU Excise Tax Rates Scenario 2019–2021

TAX DESCRIPTION	BASELINE SITUATION 2017: 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000	JANUARY–JUNE 2018 TAX CODE 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000	JULY–DECEMBER 2018 TAX CODE 1,718/1,000 + 14.5% MRP BUT NOT LESS THAN 2,335/1,000	2019 CURRENT TAX CODE 1,890/1,000 + 14.5% MRP BUT NOT LESS THAN 2,568/1,000	2020 CURRENT TAX CODE 1,966/1,000 + 14.5% MRP BUT NOT LESS THAN 2,671/1,000	2021 CURRENT TAX CODE 2,045/1,000 + 14.5% MRP BUT NOT LESS THAN 2,778/1,000	2019 MINIMUM EU EXCISE TAX RATES SCENARIO: 2,508/1,000 + 14.5% MRP BUT NOT LESS THAN 3,409/1,000	2020 MINIMUM EU EXCISE TAX RATES SCENARIO: 3,637/1,000 + 14.5% MRP BUT NOT LESS THAN 4,943/1,000	2021 MINIMUM EU EXCISE TAX RATES SCENARIO: 5,276/1,000 + 14.5% MRP BUT NOT LESS THAN 7,171/1,000	TAX BASE (FOR CALCULATION PURPOSES)
Import duty (ID) <sup>b</sup>	17% but at least €1.7 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	€2 for 1,000 pieces	CIF (Cost, Insurance and Freight)
Value added tax (VAT) <sup>c</sup>	18.0%	18.0%	18.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	MRP minus VAT
Simple specific excise tax (SE)	31.24	31.24	34.36	37.80	39.32	40.90	50.17	72.74	105.52	per 20 sticks pack
	\$0.54	\$0.51	\$0.57	\$0.60	\$0.62	\$0.64	\$0.79	\$1.14	\$1.65	
	1,562	1,562	1,718	1,890	1,966	2,045	2,508	3,637	5,276	or per 1,000 cigarettes
Minimum specific excise tax (MSE)	\$26.78	\$25.69	\$28.26	\$29.91	\$30.82	\$31.95	\$39.69	\$57.01	\$82.44	
	42.46	42.46	46.70	51.36	53.42	55.56	68.18	98.86	143.41	per 20 sticks pack
	\$0.73	\$0.75	\$0.82	\$0.87	\$0.88	\$0.89	\$1.16	\$1.63	\$2.30	
Ad valorem excise tax (AE)	2,123	2,123	2,335	2,568	2,671	2,778	3,409	4,943	7,171	or per 1,000 cigarettes
	\$36.40	\$34.92	\$38.40	\$40.63	\$41.87	\$43.41	\$53.94	\$77.48	\$112.04	
	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	MRP set by producer

Source: Excise Tax on Tobacco products – Article 193 of the national Tax Code, including the current, future and earlier versions, see [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/22201a65e4f59a582714243c15b655989bd57066/](http://www.consultant.ru/document/cons_doc_LAW_28165/22201a65e4f59a582714243c15b655989bd57066/).

Notes: <sup>a</sup>The new tax rates for 2021 set out in bill 493989-7 have been approved and incorporated in the Tax Code.

<sup>b</sup>The Common Customs Tariff of the Eurasian Economic Union, approved by Decision No.54 of the EEC Council dated July 16, 2012.

<sup>c</sup>VAT change to 20% in 2019 according to bill adopted by State Duma, pending Federation Council approval and President signature (see <http://sozd.parliament.gov.ru/bill/489169-7>).

Table 6: Summary of Cigarette Excise Tax and Impact on GDP Under Current Tax Code Scenario, the Russian Federation, 2018–2021

GOVERNMENT REVENUE TYPE	BASELINE SITUATION 2017: 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000	EXPECTED CONTRIBUTION TO GDP	2018 CURRENT TAX CODE (JANUARY–JUNE) 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000; (JULY–DEC.) 1,718/1,000 + 14.5% BUT NOT LESS THAN 2,335/1,000	EXPECTED CONTRIBUTION TO GDP	2019 CURRENT TAX CODE 1,890/1,000 + 14.5% MRP BUT NOT LESS THAN 2,568/1,000	EXPECTED CONTRIBUTION TO GDP	2020 CURRENT TAX CODE 1,966/1,000 + 14.5% MRP BUT NOT LESS THAN 2,671/1,000	EXPECTED CONTRIBUTION TO GDP	2021 CURRENT TAX CODE 2045/1,000 + 14.5% MRP BUT NOT LESS THAN 2,778/1,000	EXPECTED CONTRIBUTION TO GDP
Total cigarettes taxed (billion pieces)	258.9		255.4		249.4		246.8		245.7	
Average cigarette price (rubles per pack)	115.07		124.45		137.77		147.05		153.6	
Average cigarette price (\$ per pack)	\$1.97		\$2.05		\$2.18		\$2.30		\$2.40	
Average excise tax (rubles per 1,000 pieces)	2,301.1		2,502.4		2,793.9		2,968.7		3,111.0	
Average excise tax € per 1,000 pieces	€35.0		€35.45		€37.95		€38.57		€39.04	
Total tobacco excise tax revenue (billion rubles)	595.8	0.65%	639.1	0.64%	696.8	0.66%	732.6	0.66%	764.4	0.64%
Total tobacco excise tax revenue (\$ billion)	\$10.21		\$10.5		\$11.0		\$11.5		\$11.9	
Total tobacco tax government revenue (import duty, excise, and VAT, billion rubles)	824.9	0.90%	882.5	0.88%	984.0	0.93%	1035.9	0.93%	1,079.9	0.90%
Total tobacco tax government revenue (import duty, excise, and VAT, \$ billion)	\$14.1		\$14.5		\$15.6		\$16.2		\$16.9	
Percentage change in total cigarette consumption (%)	-7.0		-1.4		-2.3		-1.1		-0.4	

Source: World Bank Group Experts estimates.

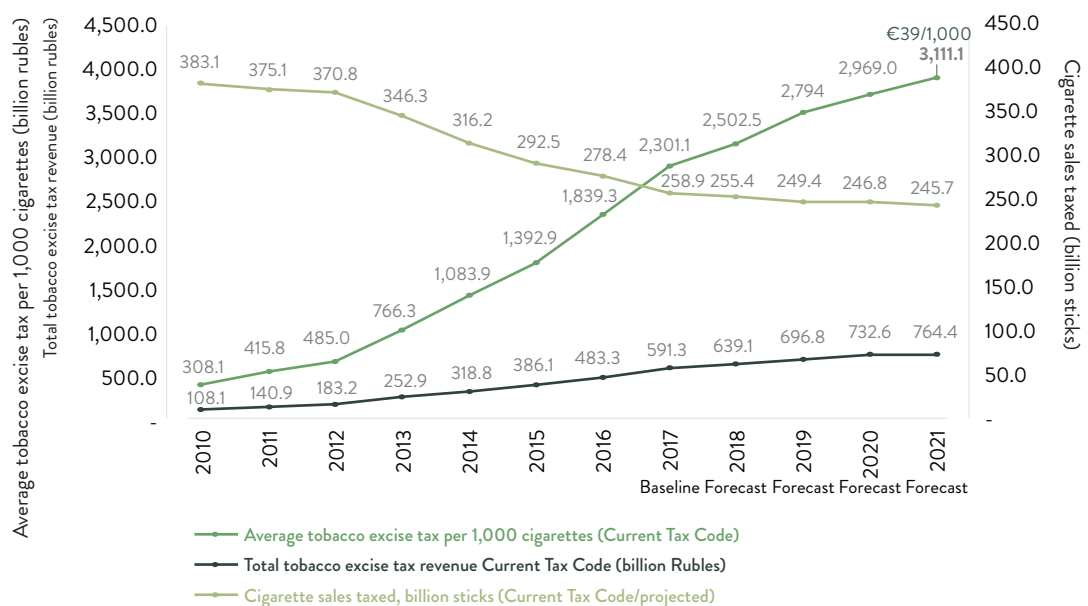
The total tobacco tax revenue would increase from the 882.5 billion rubles (\$14.5 billion) projected for 2018 to 984 billion rubles (\$15.6 billion) in 2019 (0.93 percent of GDP – WBG projections). Meanwhile, the expected number of taxed cigarettes is estimated to fall by 2.3 percent.

Projected tobacco excise tax revenue for 2020 under the current Tax Code (ad valorem tax remaining at 14.5 percent of MRP, the tobacco excise tax revenue projected with the 4 percent uniform specific excise tax increase to 39.32 rubles (\$0.62) per 20 cigarette pack) is about 732.6 billion rubles (\$11.5 billion). The total tobacco tax revenue for 2020 is estimated at 1,036 billion rubles (\$16.2 billion, or about 0.93 percent of GDP) and consumption would remain equal or with a minor decrease of about 1 percent.

Projected tobacco excise tax revenue for 2021 under the current Tax Code (ad valorem remaining at 14.5 percent of MRP, the tobacco excise tax revenue projected with the 4 percent uniform specific excise tax increase to 40.90 rubles (\$0.64) per 20-cigarette pack, would be about 764.4 billion rubles (\$12 billion). The total tobacco tax revenue for 2021 is estimated at 1,080 billion rubles (\$17 billion) or about 0.90 percent of GDP, and consumption would remain equal or with a minor decrease of about 0.4 percent.

Following the progressions for 2010–2017 (showed in figure 1), figure 2 assesses the additional impact generated by the current tobacco Tax Code for the period 2018–2021.

**Figure 2: Cigarette Market Trends 2010–2017 and Current Tax Code Scenario Projections, the Russian Federation**



Source: World Bank Group experts estimates.

It shows actual data for 2010–2017, and projected figures (2018–2021) for the excise tax revenue increase and the reduction of number of cigarettes taxed while increased tobacco excise revenues collected by the government. However, the expected impact of the current Tax Code for the period 2018–2021 shows how the high tobacco excise tax average increase experienced year to year 2010–2017 has been slowed by the Tax Code for the period 2018–2021. This reduces the rise in the average excise tax per 1,000 cigarettes to close to single figures (estimated at 8.7 percent for 2018, 11.6 percent for 2019, 6.3 percent in 2020, and 4.8 percent for 2021).

Such increases (compared to expected inflation and real wages growth per employee, combined for the period – 13.5 percent, 5 percent, 4.5 percent, and 6.1 percent respectively – MED projections) are close to or below the FCTC guidelines (except for 2018–2019). As could be expected, both the projected excise tax revenue graphs in this report show the reaching of a plateau, with close to 765 billion rubles and consumption trend leveling at +/-0.5 percent per year by 2021. Box 2 shows how the limited excise increases for the period 2018–2021 affect the average retail price of a pack of cigarettes, barely moving from about \$1.91 per 20 cigarette pack in 2017 to \$2.46 or only \$0.65 per pack increase by 2021. The 2017 average cigarette excise tax of 2,301 rubles per 1,000 cigarettes, equivalent to only €34, reaches (according to model projections) 3,111 rubles by 2021 or €39 per 1,000, remaining well below the €90 per 1,000 EU requirement.

**Box 2: Average Tobacco Excise Tax Impact on Average Retail Price of a 20-Cigarette Pack 2017–2021, Under Current Tax Code Scenario (Projected)**

SUMMARIZED OUTPUT	BASELINE SITUATION 2017	CURRENT TAX CODE 2018	CURRENT TAX CODE 2019	CURRENT TAX CODE 2020	CURRENT TAX CODE 2021
Total cigarettes taxed (billion pieces)	258.9	255.4	249.4	246.8	245.7
Average cigarette price (rubles per pack)	115.07	124.45	137.77	147.05	153.63
Average cigarette price (\$ per pack)	\$1.97	\$ 2.05	\$2.18	\$ 2.30	\$2.40
Average excise tax burden (excise tax as percentage of retail price)	40.0	40.2	40.6	40.4	40.5
Average excise tax (rubles per 1,000 pieces)	2,301.1	2,502.4	2,793.9	2,968.7	3,111.1
Average excise tax (€ per 1,000 pieces)	35.0	35.5	37.9	38.6	39.0
Average cigarette total tax burden (total tax: ID, excise, and VAT, as percentage of retail price)	55.4	55.5	57.3	57.1	57.2

Source: World Bank Group Experts estimates.

While the excise tax burden reaches just under 41 percent by 2021 (under 70 percent/WHO), the total tax burden is projected to reach 57.2 percent, which, compared to the WHO-recommended 75 percent, shows there is still room to grow.

- **Minimum EU excise tax rates scenario:** 2018 remains under the current Tax Code; with the ad valorem remaining at 14.5 percent of the MRP, a 46 percent increase in the simple and minimum specific excise is considered for 2019, with a projected average excise tax of 3,461 rubles per 1,000 cigarettes (€47 per 1,000), and a 45 percent increase for both 2020 and 2021, allowing the proposed EU minimum excise tax of €90 per 1,000 cigarettes to be achieved by 2021.

**Table 7: Summary of Cigarette Excise Tax and Impact on GDP Under Minimum EU Excise Tax Rates Scenario, the Russian Federation, 2018–2021**

GOVERNMENT REVENUE TYPE	2018 CURRENT TAX CODE (JANUARY–JUNE) 1,562/1,000 + 14.5% MRP BUT NOT LESS THAN 2,123/1,000; (JULY–DECEMBER) 1,718/1,000 + 14.5% BUT NOT LESS THAN 2,335/1,000	EXPECTED CONTRIBUTION TO GDP	2019 MINIMUM EU EXCISE TAX RATES SCENARIO: 2,508/1,000 + 14.5% MRP BUT NOT LESS THAN 3,409/1,000	EXPECTED CONTRIBUTION TO GDP	2020 MINIMUM EU EXCISE TAX RATES SCENARIO: 3,637/1,000 + 14.5% BUT NOT LESS THAN 4,943/1,000	EXPECTED CONTRIBUTION TO GDP	2021 MINIMUM EU EXCISE TAX RATES SCENARIO: 5,276/1,000 + 14.5% MRP BUT NOT LESS THAN 7,171/1,000	EXPECTED CONTRIBUTION TO GDP
Total cigarettes taxed (billion pieces)	255.4		238.3		218.6		198.9	
Average cigarette price (rubles per pack)	124.45		156.27		207.35		284.40	
Average cigarette price (\$ per pack)	\$2.05		\$2.47		\$3.25		\$4.44	
Average excise tax (rubles per 1,000 pieces)	2502.5		3,461.8		4,943.2		7,170.6	
Average excise tax € per 1,000 pieces	€35.45		€47.01		€64.22		€90.00	
Total tobacco excise tax revenue (billion rubles)	639.1	0.64%	825.0	0.78%	1,080.6	0.97%	1,425.8	1.19%
Total tobacco excise tax revenue (\$ billion)	\$10.5		\$13.1		\$16.9		\$22.3	
Total tobacco tax government revenue (Import duty, excise, and VAT, billion rubles)	882.5	0.88%	1,136.2	1.07%	1,459.1	1.31%	1,897.8	1.59%
Total tobacco tax government revenue (import duty, excise, and VAT, \$ billion)	\$14.5		\$18.0		\$22.9		\$29.7	
Percentage change in total cigarette consumption (%)	-1.4		-6.7		-8.3		-9.0	

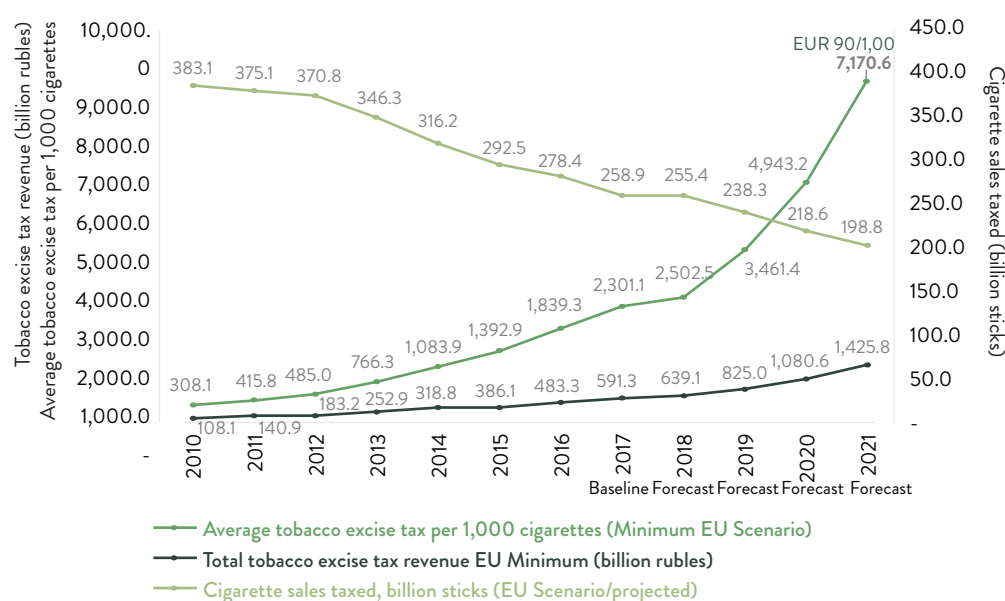
Source: World Bank Group Experts estimates.

Table 7 presents the revenue outputs generated under the minimum EU excise tax rates scenario and the contribution that such an excise tax and total tobacco government revenue make to Russia's GDP compared to 2018 output projections described under the current Tax Code scenario. As indicated before (see Appendix 2), the price elasticity adopted is the lower bound option from Box 1 for HIC, and the income elasticity range is 0.2 for economy, mid-price, and premium cigarettes.

Under the minimum EU excise tax rates scenario, the tobacco excise tax revenue projected for 2019 with the ad valorem remaining in 14.5 percent of the MRP, and about 46 percent increased uniform excise tax to 50.17 rubles (\$0.79) per 20-cigarette pack, is 825 billion rubles (\$13.1 billion) or about 0.8 percent of GDP, representing an increase of close to 186 billion rubles (\$2.94 billion at 2019 exchange rate forecast) over a projected 2018 tobacco excise tax revenue of 639 billion rubles (\$10.5 billion) (0.64 percent of GDP). The total tobacco tax revenue would increase from the 882.5 billion rubles (\$14.5 billion) projected for 2018 to 1,136.2 billion rubles (\$18 billion) in 2019 (1.07 percent of GDP – MED projections), while the expected number of taxed cigarettes (as a proxy for consumption) is estimated to fall by 6.7 percent.

For 2020, projected tobacco excise tax revenue would be about 1,081 billion rubles (\$17 billion), with the ad valorem tax remaining at 14.5 percent, and the 45 percent uniform specific excise tax rising to 72.74 rubles (\$1.14) per 20 cigarette pack. The total tobacco

**Figure 3: The Russian Federation Cigarette Market Trends 2010–2017 and Minimum EU Excise Tax Rates Scenario Projections**



Source: World Bank Group experts estimates.

tax revenue for 2020 is estimated at 1,459 billion rubles (\$23 billion or about 1.31 percent of GDP), with consumption falling by about 8.3 percent. For 2021, the projected tobacco excise tax revenue is estimated to be 1,425.8 billion rubles (\$22.3 billion) or about 1.2 percent of GDP, with the ad valorem tax remaining at 14.5 percent, and the 45 percent uniform specific excise tax rising to 105.52 rubles (\$1.65) per 20-cigarette pack. The total tobacco tax revenue for 2021 is projected to 1,898 billion rubles (\$29.7 billion) (1.6 percent of GDP – MED projections), while the expected number of taxed cigarettes is estimated to fall by 9 percent.

As opposed to the projection observed in figure 2, the expected impact of the minimum EU excise tax rates scenario for the period 2019–2021 (illustrated by figure 3) shows a steep rise in average tobacco excise tax. With the exception of 2018 (for which the slow curve is due to the current 4 percent Tax Code), the high average tax increase year-to-year in the period 2010–2017 is regained in the period 2019–2021. This has the effect of increasing the average excise tax per 1,000 cigarettes to 7,170 rubles, equivalent to the current €90 per 1,000 EU minimum requirement. The same effect can be observed in the total tobacco excise tax revenue increase (which more than doubles between 2018 and 2021), while the total cigarettes taxed decrease significantly from 260 billion cigarettes in 2017 to 199 billion cigarettes projected in 2021 – or close to a 23 percent reduction projected in the period.

**Box 3: Average Tobacco Excise Tax Impact on Average Retail Price of a 20-Cigarette Pack Under the Minimum EU Excise Tax Rates Scenario, the Russian Federation, 2017–2021**

SUMMARIZED OUTPUT	BASELINE SITUATION 2017	CURRENT TAX CODE 2018	MINIMUM EU SCENARIO 2019	MINIMUM EU SCENARIO 2020	MINIMUM EU SCENARIO 2021
Total cigarettes taxed (billion pieces)	258.9	255.4	238.3	218.6	198.8
Average cigarette price (rubles per pack)	115.07	124.45	156.27	207.35	284.40
Average cigarette price (\$ per pack)	\$1.97	\$2.05	\$2.47	\$3.25	\$4.44
Average excise tax burden (excise tax as percentage of retail price)	40.0	40.2	44.3	47.7	50.4
Average excise tax (rubles per 1,000 pieces)	2,301.1	2,502.4	3,461.4	4,943.2	7,170.6
Average excise tax (€ per 1,000 pieces)	35.0	35.5	47.0	64.2	90.0
Average cigarette total tax burden (total tax: ID, excise, and VAT, as percentage of retail price)	55.4	55.5	61.0	64.4	67.1

Source: World Bank Group Experts estimates.

Box 3 shows how proposed excise tax increases for the period 2019–2021 affect the average retail price of a pack of cigarettes, which moves from about \$1.97 per 20 cigarette pack in 2017 to \$4.44 – or an increase of about \$2.50 per pack by 2021. The 2017 average cigarette excise tax of 2,301 rubles per 1,000 cigarettes, equivalent to only €35, reaches up to 7,171 rubles by 2021, or €90 per 1,000, matching the EU level. While the excise tax burden reaches 50.4 percent by 2021, the total tax burden is projected to be 66.8 percent, or closer to the 75 percent recommended by WHO, and higher than the 57 percent obtained under current Tax Code scenario projections.

### Impact of Price and Income Elasticity on Consumption, Retail Price, and Revenue, 2018–2021

Continuing with the elasticities outlined in previous sections, and to determine how different aspects of price and income elasticity impact tobacco consumption, retail price and tax revenue, this section analyses price and income sensitivity. The analysis compares the two scenario outputs presented in Table 6 and Table 7 using a HIC elasticity assumption which holds that the elasticity price of demand in Russia would respond to ranges observed in the medium-bound elasticity (Fuchs 2018) (Box 1) closer to upper medium-income countries (UMIC)<sup>21</sup> (see Appendix 2 for detailed assumptions). The elasticities adopted are derived from the medium-bound price elasticity between -0.68 and -0.42. Relative to income elasticities, the evidence found in the region (for example, Ukraine) is close to positive 0.2 for all adopted cigarette categories (economy, mid-price and premium brands, domestic and imported).

Table 8 shows the impact of different price elasticity assumptions for lower-bound elasticities (HIC) and medium-bound elasticities (UMIC) ranges from Box 1 in the two scenarios for the period 2019–2021:

- Current Tax Code of the Russian Federation 2017–2021.
- Minimum EU excise tax rates scenario: €90 per 1,000 + 14.5 percent MRP 2019–2021.

Table 8 also compares the changes to simulation outputs for prior years, beginning with 2018 projected outputs (with lower-bound (HIC) elasticities) compared to the 2017 baseline. For the lower-bound price and income elasticity (-0.68/-0.22 and positive 0.2 respectively), compared to the medium bound (UMIC) (-0.68/-0.42 and positive income elasticity of 0.20).

The lower-bound elasticity is considered less price and income elastic than the medium-bound option. An average excise tax per 1,000 cigarettes – 2,503 rubles for 2018 under the projected current Tax Code – would result in excise tax revenue of \$10.51 billion for the lower-bound elasticity, compared with \$10.35 billion for the medium-bound elasticity.



However, the total number of cigarettes taxed (as a proxy for consumption) would decrease by a smaller amount (-1.4 percent – see Table 6) than if the price and income elasticity had been at the medium range (-2.9 percent for 2018). Furthermore, a lower price

**Box 4: Cigarette Demand (Proxy) Elasticity Sensitivity Analysis to Price and Income Elasticity Selection**

POLICY OPTION SCENARIO	GOVERNMENT POLICY: CURRENT TAX CODE 2017–2021		POLICY OPTION: MINIMUM EU EXCISE TAX RATES SCENARIO: – €90/1,000 + 14.5% MRP 2019–2021	
	Lower bound	Medium bound	Lower bound	Medium bound
Parameters based in low (HIC) and medium-bound elasticities (UMIC)				
Price elasticity range	-0.48/-0.22	-0.68/-0.42	-0.48/-0.22	-0.68/-0.42
Income elasticity range	0.20	0.20	0.20	0.20
Percentage change in (year to year):	Changes relative to prior year simulation outputs			
2019	-2.3	-4.3	-6.7	-10.8
2020	-1.1	-2.3	-8.3	-13.3
2021	-0.4	-1.3	-9.0	-14.6

Source: World Bank Group experts estimates.

elasticity results in a larger total tobacco tax revenue (\$14.52 billion) compared to \$14.29 billion for the same year, 2018. Under the same elasticity assumptions, the total tobacco tax increase in GDP contribution would be larger for the HIC elasticity assumption (0.88 percent compared to 0.86 percent for 2018).

To complement the variations in revenue from Table 8, Box 4 presents the projected variation in consumption for the two scenarios and low and medium elasticity ranges for the each year in the period 2019–2021.

What this sensitivity analysis of cigarette demand elasticity shows is that an increased cigarette excise tax has positive public health and fiscal consequences: there is a reduction in total cigarette consumption and an increase in tobacco excise and total tobacco tax revenues, including their contribution to GDP. The following conclusions can also be drawn:

- If demand for cigarettes is more price elastic, the public health benefit will be somewhat larger (medium-bound (UMIC) option).
- If demand is less price elastic (lower-bound (HIC) option), the fiscal benefit will be somewhat larger.

**Table 8: Sensitivity of Tobacco Consumption, Retail Price and Revenue to Price and Income Elasticity Selection, the Russian Federation**

POLICY OPTION SCENARIO	GOVERNMENT POLICY: CURRENT TAX CODE 2017–2021		POLICY OPTION: MINIMUM EU EXCISE TAX RATES SCENARIO: – €90/1,000 INCLUDING 14.5% MRP 2019–2021	
YEAR	BASELINE 2017			
PARAMETERS: LOWER-BOUND (HIC) AND MEDIUM-BOUND (UMIC)	LOWER BOUND	MEDIUM BOUND	LOWER BOUND	MEDIUM BOUND
Price elasticity range	-0.48/-0.22	-0.68/-0.42	-0.48/-0.22	-0.68/-0.42
Income elasticity range	0.20	0.20	0.20	0.20
Average excise tax 2017 per 1,000 cigarettes	€35.01	2,301.06 rubles		
Simulation outputs (2018)				
Total excise tax revenue (\$ billion)	\$10.51	\$10.35	Same as current Tax Code scenario for 2018	
Total government revenue (import duty, excise, and VAT, \$ billion)	\$14.52	\$14.29		
Changes relative to prior year simulation outputs				
Projected average excise tax 2018 (2017 Tax Code (January–June) and 2018 Tax Code (July–December) (per 1,000 cigarettes)	€35.45	2,502.50 rubles	Same as current Tax Code scenario for 2018	
Total additional government revenue (import duty, excise, and VAT, \$ billion) over 2017 projections	\$1.82	\$0.14		
Simulation outputs (2019)				
Total excise tax revenue (\$ billion)	\$11.03	\$10.64	\$13.05	\$12.28
Total government revenue (\$ billion)	\$15.57	\$15.03	\$17.98	\$16.91
Changes relative to prior year simulation outputs				
	Current Tax Code scenario		Minimum EU scenario	
Projected average excise tax 2019 (per 1,000 cigarettes)	€37.95	2,794.26 rubles	€47.01	€3,461.84
Total additional government revenue (\$ billion) over 2018 projections	\$1.05	\$0.73	\$3.46	\$ 2.62
Simulation outputs (2020)				
Total excise tax revenue (\$ billion)	\$11.48	\$11.51	\$16.94	\$15.84
Total government revenue (\$ billion)	\$16.24	\$16.27	\$22.87	\$21.38
Changes relative to prior year simulation outputs				
Average excise tax 2020/projected (per 1,000 cigarettes)	€38.57	2,968.72 rubles	€64.22	4,943.20 rubles
Total additional government revenue (\$ billion) over 2018 projections	\$0.67	\$0.45	\$4.89	\$3.43

Table 8 Cont: Sensitivity of Tobacco Consumption, Retail Price and Revenue to Price and Income Elasticity Selection, the Russian Federation

POLICY OPTION SCENARIO	GOVERNMENT POLICY: CURRENT TAX CODE 2017–2021		POLICY OPTION: MINIMUM EU EXCISE TAX RATES SCENARIO: – €90/1,000 INCLUDING 14.5% MRP 2019–2021	
YEAR	BASELINE 2017			
PARAMETERS: LOWER-BOUND (HIC) AND MEDIUM-BOUND (UMIC)	LOWER BOUND	MEDIUM BOUND	LOWER BOUND	MEDIUM BOUND
Simulation outputs (2021)				
	Current Tax Code Scenario		Minimum EU Scenario	
Total excise tax revenue (\$ billion)	\$11.94	\$11.29	\$22.28	\$18.61
Total government revenue (\$ billion)	\$16.87	\$15.94	\$29.65	\$24.77
Changes relative to prior year simulation outputs				
Projected average excise tax 2021 (per 1,000 cigarettes)	€39.05	3,110.95 rubles	€90.00	7,170.60 rubles
Total additional government revenue (\$ billion) over 2019 projections	\$0.64	\$0.46	\$6.78	\$4.43

Source: World Bank Group Experts estimates.



## 2

# PRELIMINARY CONCLUSIONS AND POLICY RECOMMENDATIONS

The increase in tobacco taxation as proposed under the minimum EU excise tax rates scenario explored in this report is potentially a major policy tool for the Government of Russia to **reduce the country's severe public health burden of smoking-related disease and premature mortality**. Tobacco taxation could also make a significant contribution to fiscal revenue collection and to expanding the fiscal space to provide financing for various priority programs. Given current fiscal pressures, it is relevant and timely to focus on using increased tobacco taxation as a source of additional public revenue over the near and medium terms.

A tobacco tax policy option such as the minimum EU excise tax rates scenario would take Russia a step closer to full compliance with Article 13 of Federal Law 15 FZ, which introduced measures to increase excise taxes on tobacco products.<sup>22</sup> As shown under the minimum EU excise tax rates scenario for 2019–2021, **raising tobacco taxes can offer Russia a “win–win”: higher revenue and positive health outcomes**. Furthermore, Cevik (2016) provides evidence on how the structure of cigarette taxes is critical in determining the relative prices of different tobacco products and brands across the price spectrum, thereby influencing the behavior of consumers within a country. While tax policy could help reduce negative externalities associated with tobacco consumption, **the taxation arrangement needs to avoid providing incentives to switch to cheaper cigarette brands in response to tax-related and other price increases**.

# APPENDIXES

## Appendix 1: Macroeconomic Indicators, Actual (2010–2017) and Projected (2018–2021), the Russian Federation

THE RUSSIAN FEDERATION TOBACCO EXCISE DATA MATRIX	2010	2011	2012	2013	2014	2015	2016	2017 BASELINE	2018 FORECAST	2019 FORECAST	2020 FORECAST	2021 FORECAST
Average exchange rubles/\$ (estimate)	30.36	29.35	31.07	31.82	37.97	60.66	66.9	58.33	60.8	63.2	63.8	64
Macroeconomic data												
GDP per capita growth (annual %), current prices			12.9	7.1	8.0	5.1	3.1	6.7				
Inflation rate (inflation, annual %) deflator			9.1	5.4	7.5	8.0	3.5	5.2	7.2	4.1	3.0	3.8
CPI (annual average)	6.9	8.5	5.1	6.8	7.8	15.6	7.1	3.7	2.6	4.2	3.6	4.0
CPI (end of period)	8.8	6.1	6.6	6.5	11.4	12.9	5.4	2.5	3.1	4.3	3.8	4.0
GDP nominal, billion rubles		60,283	68,164	73,134	79,200	83,387	86,149	92,037	100,519	106,154	111,558	119,385
Real wages growth, percent, year on year (per employee)	5.2	2.8	8.4	4.8	1.2	-9.0	0.8	2.9	6.3	0.8	1.5	2.3

Sources: Data from CBR, <https://www.cbr.ru/eng/>; Rosstat, <http://www.gks.ru/dbscripts/cbsd/DBInet.cgi?pl=1921001>; Russian Ministry of Economic Development, <http://economy.gov.ru/en/home>.

## Appendix 2: Tobacco Tax Scenarios – Assumptions for Price and Income Elasticity for Upper-Middle-Income and High-Income Countries

To estimate the impact of changes in retail price on consumption, the crucial parameters are:

- **Price elasticity of demand.**

The greater the price elasticity, the greater the fall in tobacco consumption in response to a given change in the price (price elasticity falls in the inelastic range, but closer to -1 than zero).

- **Income elasticity of demand.**

Greater income elasticity may lead to greater consumption of cigarettes in response to a given percentage change in income (income elasticity tends to be unit elastic or somewhat more elastic).

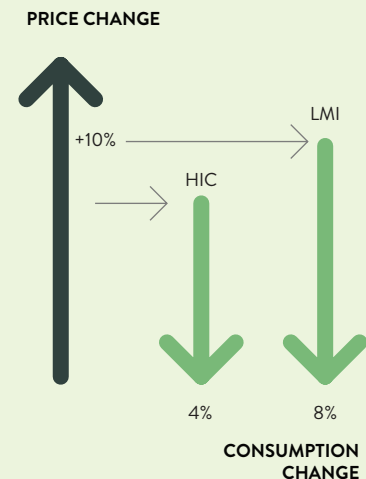
- It is assumed that to protect profit margins, importers and distributors pass on the tax increase to consumers.

- Bill 489169-7 adopted by the State Duma will raise the VAT rate from 18% (15.25% of MRP) to 20% (16.67% of MRP) beginning 2019.

### Price Elasticity

Price elasticity of demand for high-income countries (HIC) is estimated to be -0.4 and between -0.6 and -0.8 in low and middle income countries (LMIC) (IARC, 2014)

Meta-analyses of the relationship between tobacco prices and use suggest that the (adult) overall elasticity of demand lies between -0.3 and -0.7 (CBO 2012, IARC 2011, Gallet and List 2003, Chaloupka and Warner 2000).



### Assumptions

CIGARETTE CATEGORIES	TOBACCO PRICE ELASTICITY (BOTH GENDERS) IN RUSSIA			
	PRICE ELASTICITY FOR	VALUE (MUST BE NEGATIVE)	MEDIUM BOUND ELASTICITY (UMIC)	LOWER-BOUND ELASTICITY (HIC)
Low-price cigarettes	Value (must be negative)	-0.679	Lowest-income decile	-0.479
Medium-price cigarettes	Value (must be negative)	-0.513	Income deciles 4 to 7	-0.313
Premium cigarettes	Value (must be negative)	-0.415	High-income decile 10	-0.215
Income elasticity for		a		a
Low-price cigarettes	Value (typically positive)	0.2		0.2
Medium-price cigarettes	Value (typically positive)	0.2		0.2
Premium cigarettes	Value (typically positive)	0.2		0.2

Source: Fuchs. forthcoming.

Note: <sup>a</sup> For income elasticity, the selected range value (positive 0.2) has been adopted for Russia by van Walbeek's model. Other comparative studies in ECA like in Ukraine by Ross H, Stoklosa M, Krasovsky K. Economic and public health impact 2007-2010 tobacco tax increases in Ukraine" found income elasticity close to 0.3.

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## ENDNOTES

<sup>1</sup> All dollar amounts are U.S. dollars unless otherwise indicated.

<sup>2</sup> WHO Regional Office for Europe. 2017. "Tobacco control: a comprehensive approach at country level in the Russian Federation." Geneva: World Health Organization. The report describes the initiatives and policy changes that made the reduction in smokers and tobacco sales possible.

<sup>3</sup> The law became fully effective on June 1 2014, incorporating all main provisions of the WHO FCTC.

<sup>4</sup> Set by the draft agreement on the tax policy principles in respect of excise duties on tobacco products in the Eurasian Economic Union from November 10 2015.

<sup>5</sup> Law No. 51-FZ on the accession of the Russian Federation to the WHO Framework Convention on Tobacco Control.

<sup>6</sup> The EU tobacco excise duty directive requires Member States to levy a minimum overall excise duty on cigarettes: at least €90 per 1,000 cigarettes, and at least 60% of the weighted average retail selling price. Member States that apply an excise duty of €115 or more, however, do not need to comply with the 60 percent criterion above.

<sup>7</sup> The simulation tool has been developed using WHO Tobacco Tax Simulation Model (TaXSiM) adapted by the WBG experts to the country's cigarette excise tax structure to assess prices, consumption, and revenue impact.

<sup>8</sup> In general, international best practice is to impose uniform specific taxes that are adjusted regularly to account for increases in the price level in the economy and increases in average household incomes.

<sup>9</sup> Price elasticity of demand for high-income countries is estimated to be -0.4 and between -0.6 and -0.8 in low- and middle-income countries (IARC, 2011).

<sup>10</sup> Adopting uniform specific excise tax increases (both in the specific and minimum) to exceed year to year inflation and per capita GDP growth is in line with international best practice.

<sup>11</sup> According to the Guidelines for the implementation of Article 6 of the WHO FCTC, effective taxes on tobacco products that lead to higher real consumer prices (inflation-adjusted) are desirable because they lower consumption and prevalence, and thereby reduce mortality and morbidity, and improve the health of the population.

<sup>12</sup> The simulation tool was developed using the WHO Tobacco Tax Simulation Model (TaXSiM) and adjusted to the Russian Federation current cigarette excise Tax Code and structure.

<sup>13</sup> World Bank list of economies (June 2017).

<sup>14</sup> Meta-analyses of the relationship between tobacco prices and use suggest that the overall elasticity of demand for adults lies between -0.3 and -0.7 (CBO 2012, IARC 2011, Gallet and List 2003, Chaloupka and Warner 2000).

<sup>15</sup> According to Polina Kuznetsova, "Elasticity in Ukraine with similar tobacco market in early 2010s was estimated as .3. A set of empirical evidences (show) that the demand on cigarettes in the countries of the region is quite inelastic."

<sup>16</sup> Price elasticity of demand for high-income countries is estimated to be -0.4 and between -0.6 and -0.8 in low- and middle-income countries. See detailed discussion in (IARC 2011).

<sup>17</sup> Professor Corne van Walbeek, School of Economics at the University of Cape Town, South Africa.

<sup>18</sup> Euromonitor. "Cigarettes in Russia." Euromonitor International, July 2018.

<sup>19</sup> The new tax rates for 2021 as per bill 493989-7 were adopted by the Duma and sent to the Federation Council for approval (see <http://sozd.parliament.gov.ru/bill/493989-7>).

<sup>20</sup> According to the bill <http://sozd.parliament.gov.ru/bill/489169-7>, VAT will rise from 15.25% to 16.67% of retail price starting from 2019. The bill has been adopted by the State Duma (the lower chamber of Parliament) but not by the Federation Council (the Upper Chamber). It also needs to be signed by the President.

<sup>21</sup> Price elasticity of demand for high-income countries is estimated to be -0.4 and between -0.6 and -0.8 in low- and middle-income countries (IARC, 2011).

<sup>22</sup> Adopting uniform specific excise tax increases (both specific and minimum) to exceed year to year inflation and per capita GDP growth is in line with international best practice.

