

Expected Effects of Tobacco Taxation in Five Countries of the Former Soviet Union

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In this policy brief, we discuss the results from a study of different dimensions of tobacco taxation policy in five former Soviet Union countries: Belarus, Kazakhstan, Kyrgyz Republic, Russia and Ukraine. We find that the increase in budget revenue from raising excises on filter cigarettes is high in all studied countries. Furthermore, due to a low elasticity of the demand for cigarettes, the increase in excise taxes needs to be substantial to lead to a noticeable improvement in public health.

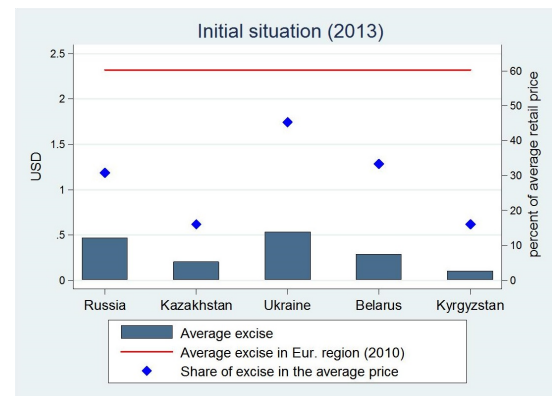
Evidence

The situation in former Soviet Union (FSU) countries is characterized by a high smoking prevalence among males and a growing smoking prevalence among females. The situation in Russia is the most alarming: in 2009, about 60 percent of males and more than 20 percent of females smoked (WHO GHO 2014).

Although tobacco taxation policies are known to be the most important policy instruments for reducing tobacco consumption (Chaloupka et al., 2010), they have not been used effectively, and tobacco excises remain modest. Even in Ukraine where tobacco taxes were raised substantially 2008-2010, excise on filter cigarettes in 2013 was four times less than the 2010 average excises in the European region of WHO (i.e. EU countries and European former USSR countries) (see Figure 1). Kazakhstan and the Kyrgyz Republic have the most liberal tobacco excise policies — in

2013, the share of excise in the average retail price in these countries was about 15 percent.

Figure 1. Average Excises on Filter Cigarettes in 2013



Source: Study estimates on the base of national official statistics (Belstat, 2014; Kazstat, 2014; NSCKR, 2014; Rosstat, 2014; and Ukrstat, 2014) and WHO data (WHO GHO, 2014).

Ukraine presents a successful example of the use of excises on tobacco products. In 2008 to 2010, Ukraine sharply increased its excise rates, leading to higher prices and a lower consumption and smoking prevalence. The budget revenues from tobacco excises also

increased significantly. Unfortunately, the rapid growth of excises has stopped since 2011, and the achievements of recent years are at risk (Krasovsky, 2013).

Method

A recent study by Denisova and Kuznetsova (2014) in collaboration with the World Bank and with financial support from the Europe and Central Asia Poverty and Social Impact Analysis Task Force (the ECA-PSIA TF) addresses the relation between the changes in cigarette consumption and excise revenues from tax changes. In this study, we use an advanced multi-period version of tobacco macro-simulation model TETSIM (the basic model was developed by Corne van Walbeek; see van Walbeek 2010). This model employs country specific data, and explicitly takes into account possible responses to tax changes by the tobacco industry as well as expected changes in illicit trade, population, inflation, real incomes and other factors.

Tobacco taxation policy has multiple effects affecting tax revenue, public health, profits of companies involved in manufacturing, wholesale and retail trade of tobacco products, and illegal markets. Two policy scenarios of the state excise policy are examined: the current governments' plans of relatively slow increase in tobacco taxation; and another scenario in which countries would increase excise taxes to the average European level estimated as US\$2.32 in 2010. We decided not to run the European scenario for the Kyrgyz Republic, since there is a possibility of a significant rise in the use of smokeless tobacco in this country. It is produced informally, and could become a dangerous substitute to smoking in the case of a dramatic increase in cigarette excise taxes. In the second scenario for the Kyrgyz Republic, we assume that the average excise will grow up to the Custom Union's average by 2017. The scenarios would be implemented over the 2014–17 period (see the full version of the report for more details).

Basic assumptions

We include the illegal market effects in the model. We assume that a significant increase in excise will lead to (a) an increase in the share of illegal domestic consumption, and (b) a decrease in the volume of illegal exports (part of tax-paid domestic sales illegally transported and sold abroad). Our estimates show that although budget losses caused by changes in illegal markets are large with the European average scenario, they are still exceeded considerably by the growth of excise revenues.

Table 1. Annual Nominal Excise Tax Growth Rates by Scenario, 2014–17.

	Belarus	Kazakhstan	Kyrgyz Republic	Russia	Ukraine
Scenario 1 (Current plan, %)	35	38	41	23	25
Scenario 2 (European average, %)	104	105	79	63	58

Source: Study estimates.

Another specific feature of national tobacco markets is a low level of price elasticity of demand. Due to a number of factors, including a wide range of prices for cigarettes, high social acceptability of smoking, and limited efforts to control tobacco use, the demand for cigarettes in the studied countries reacts slowly to changes in retail prices. Earlier studies carried out on Russian and Ukrainian data estimate elasticity of demand as -0.3 -0.2 (see Arzhenovsky 2006; Ross et al. 2012; Lukinykh and Zasimova 2009). The low level of elasticity of demand for cigarettes reflects a strong addiction to smoking. However steep growth of prices could change the situation as there would be reduced possibility for smokers to switch to cheaper brands rather than to quit smoking altogether. Taking this into consideration, we assume that elasticity changes from -0.2 to -0.3 when the share of

excise in average retail price exceeds 40 percent and from -0.3 to -0.4 when it exceeds 55 percent and becomes closer to the European average.

Results

The expected values of key characteristics of the national tobacco markets for the two scenarios in 2017 are presented in the table below. All monetary variables are presented in 2013 prices.

Potential revenue from an increase of excises on filter cigarettes is very high in the countries in the study.

According to the modeling results, the potential revenue from an increase of excises on filter cigarettes is very high in all the countries, especially if the European average scenario is realized. Even in Russia and Ukraine where tobacco excises are the highest in the region, a realization of the European scenario would allow for an increase of excise revenue of 3.8 to 4.6 times in real values. This can be explained by several factors. As mentioned before, the initial level of excises is very low. Due to the low initial values of tobacco excises, even moderate increases can lead to considerable increases in state excise revenues.

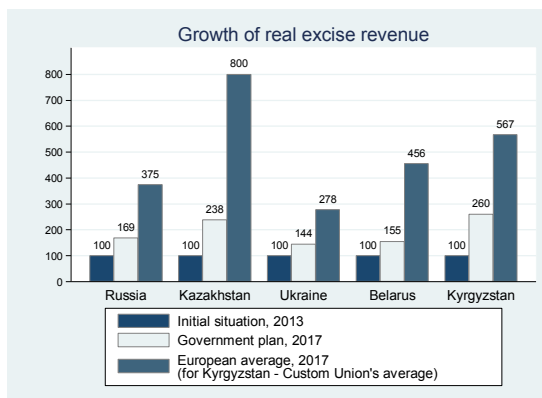
Table 2. Summary of Modeling Results for the Five Countries (all monetary variables in 2013 prices)

	Average retail price, units of national currency per pack (prices 2013)	Share of excise taxes in the retail price, %	Excise revenues, billion units of national currency (prices 2013)	Losses due to illegal markets, billion units of national currency (prices 2013)	Prevalence of smoking, % of the adult population	Number of lives saved, thousands
Belarus						
Initial situation, 2013	7,500.0	33	3,000	0	24.0	0
Current plan, 2017	10,448.4	44	4,662	626	23.4	17
European average, 2017	33,160.2	72	13,677	6,031	18.5	151
Kazakhstan						
Initial situation, 2013	193.1	16	47	0	22	0
Current plan, 2017	275.0	30	111	11	21.6	16
European average, 2017	617.4	67	372	114	18.9	142
Kyrgyz Republic						
Initial situation, 2013	30.0	16	1	0	25	0
Current plan, 2017	42.3	31	4	0	24.1	12
European average, 2017	70.9	55	8	0	21.3	52
Russia						
Initial situation, 2013	48.2	31	260	0	33.7	0
Current plan, 2017	66.4	42	439	26	32.9	316
European average, 2017	132.4	66	974	168	28.8	2,047
Ukraine						
Initial situation, 2013	9.6	45	16	0	23.6	0
Current plan, 2017	12.8	57	24	2	22.6	136
European average, 2017	30.5	72	45	15	19.1	607

Source: Study estimates.

Other factors contributing to the high fiscal potential of excises are the high level of tobacco market monopolization (it is easier for the state to control the taxpayers) and the low elasticity of demand for tobacco products (tobacco consumption falls slowly after a price increase, due to addictive character of smoking).

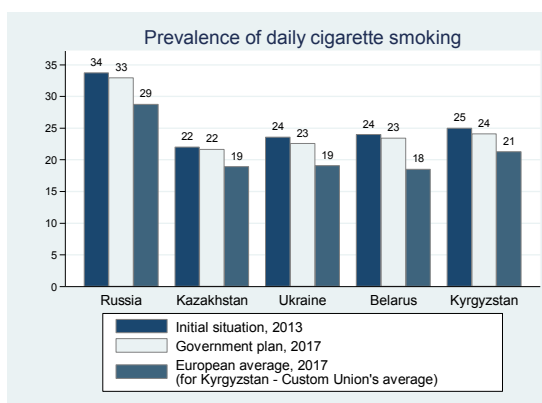
Figure 2. Expected Growth of Real Excise Revenue, 2014–17.



Source: Study estimates.

Due to low elasticity of the demand for cigarettes, noticeable improvement in public health would only arise from a substantial growth of excise taxes.

Figure 3. Smoking Prevalence (daily smokers), 2013–17.



Source: Study estimates.

Due to the addictiveness of smoking and low prices, the price elasticity of demand for tobacco in the region is low, and the reduction of consumption is considerably smaller than

the initial increase of retail prices. The estimates show that a moderate growth of excises, such as with the governments' plans scenario, will not lead to significant reductions in consumption and smoking prevalence.

In turn, health benefits in the case of a realization of the European scenario are considerable — for example, in Russia, the largest country in the region with the highest smoking prevalence, fast growth of excises allows a reduction in tobacco-caused mortality of two million lives in four years. Policy makers should understand that morbidity and mortality from smoking in the region could only be reduced by a radical increase in excise taxes.

Conclusions and Policy Implications

We show that an increase in the budget revenue in the five former Soviet Union countries from raising excises on filter cigarettes to the average level in Europe is high. Furthermore, the increase would allow noticeable improvement in public health resulting in millions of saved lives. Our analysis strongly argues for a sizable increase in tobacco excises, as it will not only increase the budget revenues but also provide health benefits for the nations.

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