

Technical Report

The impact of tobacco tax increases on tobacco consumption, tax revenue, and premature deaths in Albania

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Acronyms

ADHS	Albanian Demographic and Health Survey
DSA	Development Solutions Associates
GNI	Gross National Incomes
EC	European Commission
EU	European Union
FCTC	Framework Convention on Tobacco Control
HBS	Household Budget Survey
HDI	Human Development Index
INSTAT	The Institute of Statistics in the Republic of Albania
MC	Manufactured Cigarettes
MFE	Ministry of Finance and Economy
SEE	Southeast Europe
STC-SEE	Survey on Tobacco Consumption in South-eastern European Countries
VAT	Value Added Tax
WB	World Bank
WHO	World Health Organisation

Executive Summary

Tobacco smoking prevalence in Albania remains high: one in four adults are current smokers. Although smoking prevalence has slightly declined over recent years, it is significantly above the global average. High smoking prevalence results in high economic and health costs for the Albanian population. Smoking prevalence is determined by various factors, including tobacco taxation.

Tobacco excise levels in Albania are the lowest compared to all South-eastern European (SEE) countries. Albania, similar to other countries in the Western Balkans, is in the process of EU integration. In order to meet the European Union (EU) target, the country will need to almost double the current excise rate to reach the required minimum of €90 euros per 1,000 cigarettes.

The changes in taxation/excise can affect both health and state budget revenues. Therefore, it is important to have a sound and accurate quantitative assessment of the impact of changes of excise levels in both domains, while also considering the Covid-19 context, which is characterized by a high public deficit/debt and growing awareness of public health.

The current study provides evidence of the impact of future tobacco excise tax increases on tobacco consumption, government revenues, and deaths averted due to price increases. The study uses Albanian household level data¹ and elaborates two scenarios of tax increases to meet EU requirements:

- The first scenario is the “business-as-usual” scenario, based on the annual historical change of the excise in recent years in Albania (4 percent). In this scenario, Albania would achieve the EU requirements within 15 years (by year 2035).
- The second scenario follows the guidance of the World Bank (2018)², and is based on an accelerated excise plan, an increase of 8 percent for the first 3 years (2022-2024) followed by 5 percent afterwards (2025-2030). In this scenario, Albania would achieve the EU requirements within 10 years.

Results from the first “business as usual” scenario predict a stable level of consumption, slightly lower levels of government tax revenue growth, and higher number of premature deaths averted than the alternative scenario – more specifically the number of premature deaths in the second scenario is about 33,000 lower when compared to the first scenario. In the second scenario, higher excise tax rates are expected to significantly reduce cigarette consumption. While in both scenarios, government revenues increase, in the second scenario government revenues are projected to be around €77 million more or 5 percent higher for the period 2022-2030 when compared to the first scenario.

The findings indicate that applying a higher yearly excise tax increase than the historical 4 percent increase is instrumental to achieve policy goals including increasing tax revenues, reducing premature deaths and health problems and the associated expenditures, all while enabling faster harmonization with EU policies/requirements.

¹ A previous analysis by DSA (refer to IES, 2019) using household-level data indicated that a 10% increase in cigarette prices is associated with a 5.7% decline in cigarette consumption. Therefore, tobacco tax increases that lead to higher cigarette prices are effective in reducing tobacco consumption in Albania.

² World Bank reports, using accumulated evidence and country experiences, state that tripling the excise tax worldwide offers a way to achieve the Sustainable Development Goal of reducing Noncommunicable diseases (NCDs) deaths by 30% (World Bank, 2018).

Figure ES-1. Comparing tax scenarios

	First scenario	Second scenario
	<ul style="list-style-type: none"> • Business-as-usual scenario • 4% yearly increase of excise level 	<ul style="list-style-type: none"> • WB advised scenario • 8% increase in the first 3 years and 5% afterwards
Time to meet EU requirements	15 years (2020 - 2035)	10 years (2020 - 2030)
Consumption	Almost constant (-0.2% yearly change)	Slightly decrease (-1.2% yearly change)
Government revenues	Slightly increase (3.5% yearly increase)	Slightly increase (4% yearly increase)
Premature deaths	High (14,525 more premature deaths caused from 2022-30)*	Low (18,598 fewer premature deaths from 2022-30)

*Note: * For comparable reason number of deaths are presented for a period of 10 years.*

Source: Tax simulator, 2021

Based on these findings, the Ministry of Economy and Finance should consider the possibility of applying a multiyear schedule based on more rapidly increasing specific excise tax levels (a yearly increase of 8 percent for the first 3 years (2022-2024) and 5 percent up to year 2030). Although these excise increases are higher than the current excise calendar increases, they are still relatively modest by international standards.

Considering the illicit trade concerns, enhanced law enforcement related to tobacco control is crucial particularly in the case of higher excise scenarios. On the other hand, to further address social and health costs of tobacco, more efforts should be taken toward implementing tobacco control policies, namely, tobacco marketing restrictions and achieving smoke free environments, in accordance with EU requirements and the WHO Framework Convention on Tobacco Control (FCTC).

1. Introduction

Over the past decade, tobacco consumption in Albania has been decreasing both in terms of prevalence³ and smoking intensity⁴. However, Albania's smoking prevalence remains high when compared to the global average. One in four Albanian adults smoke tobacco products, though smoking is far more common among men (Gjika *et al.*, 2020).

The high prevalence of smoking among adult males, youth, and the poor in Albania, along with high second-hand smoke exposure and low cessation rates result in high economic and health costs. According to Burazeri (2020), smoking is one of three main risk factors for the disease burden in Albania and the proportionate mortality attributable to smoking is about 16 percent. The WHO (2016) estimates that 50 percent of smokers die prematurely, which may even worsen in the absence of stronger tobacco control policies. In Albania, according to previous studies (Tobacco Atlas, 2018), the economic costs resulting from health care expenditures and indirect costs related to lost productivity due to early mortality and morbidity amount to at least US\$ 315 Million annually.

Introducing and implementing effective policies that contribute to the reduction of smoking should be a priority from a health perspective. There is a consensus in the literature that raising taxes on tobacco is the most effective policy solution for reducing tobacco use (WHO, 2014). However, it is important that new policies and taxation strategies are based on country-specific evidence to ensure the desired outcomes in terms of health and fiscal goals.

This study aims to investigate the impact of future tobacco tax increases scenarios on tobacco consumption, tax revenue, and number of deaths caused by smoking in the case of Albania. Two different scenarios are analysed reflecting different time frames for compliance with EU minimal excise level requirements (EC, 2021) in light of Albania's future EU integration. The first scenario is based on the historical increase rate of excise of 4 percent, while the alternative (second) scenario predicts an 8 percent increase in the first 3 years and 5 percent afterwards.

In the following section, an overview of the current context of Albania related to tobacco consumption is presented in which tobacco consumption, taxation, and health costs are discussed. The review of data and methodology follows. Section 4 discusses the results of the simulation, while section 5 concludes with the policy implications.

³ According to WHO (2003) the share of smokers in 2000 was 39% while in 2015, it was 29.2% (WHO, 2016).

⁴ More specifically, in 2005 the mean number of cigarettes smoked per day per smoker was around 21 cigarettes, in 2012 it was about 19 cigarettes, while in 2019 it was 16 cigarettes per day on average (see Gjika *et al.*, 2020; Rama *et al.*, 2018; WHO, 2016).

2. The context of Albania

2.1 An overview of tobacco consumption in Albania

The consumption of manufactured cigarettes in Albania is mainly based on cigarette imports, typically in the form of factory-made cigarettes in packs. During the last five years, the average yearly import of cigarettes (or cigarette packs) has been around 150 million cigarette packs, corresponding to a range of €52 - €56 million per year. The overall import of manufactured cigarettes during recent years has been in gradual decline – in 2020, recorded imports were slightly more than 131 million cigarette packs (EUROSTAT, 2021).

WHO (2016) data show that smoking prevalence in Albania, similar to other SEE countries, is steadily (but slowly) declining; however, it remains much higher when compared to the world (see Table 1). Approximately 25 percent of the adult population (14 to 85 years of age) smoke some type of tobacco (Gjika *et al.*, 2020). Smoking prevalence for men remains high while it is relatively low for women - the latest available figures from STC-SEE (2019) survey show that more than 42 percent of men and 7 percent of women consume tobacco in Albania. In terms of smoking frequency, 92 percent of current smokers⁵ are daily/regular users of tobacco.

Table 1: Smoking prevalence in SEE countries, total (ages 15+ in %)

Year	Albania	B&H	Montenegro	Serbia	EU	World
2000	34.8	47.7	52.7	48.7	36.4	27.7
2005	32.7	44.3	50.2	45.3	33.5	25.0
2010	31.2	41.7	48.3	42.1	30.9	22.7
2011	30.7	41.2	47.8	41.7	30.4	22.3
2012	30.2	40.7	47.4	40.9	29.9	22.0
2013	29.8	40.2	47.0	40.4	29.5	21.6
2014	29.5	39.7	46.7	40.0	29.0	21.2
2015	29.1	39.4	46.1	39.4	28.6	20.8
2016	28.7	38.9	45.9	38.9	28.2	20.5

Source: WHO (2016) (Tobacco control factsheet)

Domestic demand of hand-rolled tobacco is very low when compared to demand for manufactured cigarettes. Only around 6 percent of smokers use hand rolled tobacco while most smokers consume manufactured cigarettes (Gjika *et al.*, 2020).

⁵ Current smoker is an individual who currently smokes cigarettes (last 30 days) and has smoked at least 100 cigarettes in their lifetime.

2.2 Tobacco taxation and revenues in Albania

Albania applies a specific excise tax on manufactured cigarettes at €52 per 1,000 sticks (2021)⁶, which despite an increasing trend⁷, is far below the minimum excise tax required by EU regulation (which is €90 per 1,000 cigarettes). Albania, similar to Kosovo, applies only a specific excise, while other SEE countries apply a combined tobacco excise system with both ad valorem and specific excise taxes (see Table 2).

Table 2: Excise tax structure by country

	Ad valorem (% of retail sales price) (2017)	Specific (€ per 1000 sticks) (2017)	VAT rate (%) (2017)	% of ex- cise in price (2018)	% of total tax in price (2018)
Albania	0	46	20%	48.0	66.0
BiH	42%	34,5	17%	75.7	90.2
Kosovo	0	45	18%	44.0	66.0
North Macedonia	9%	33,5	18%	58.8	74.0
Montenegro	32%	30	19%	60.6	77.9
Serbia	33%	29,5	20%	61.0	77.7

Source: IES (2019a)

The share of the total tax in the weighted average price of cigarettes accounts for 66 percent and is the lowest in the region (comparable only to Kosovo). The current specific excise levels in Albania will have to almost double (from 130 ALL per pack to 220 ALL per pack) to reach the EU-required minimum, one of the requirements that should be met in the context of EU integration efforts⁸.

Tax revenues from tobacco account on average for 13 percent of total customs revenues. Total excise revenues in 2019 reached 46.7 Billion ALL, a 3.9 percent increase from 2018 according to the Ministry of Finance and Economy (MFE) (2020a). Customs revenues sourced from imported tobacco (mainly cigarettes) have been increasing since 2015, except for 2018 and 2020. The reduction of cigarette imports in 2020 was accompanied by a small decrease in customs revenues (a reduction of 3.1 percent from 2019). Despite this decrease in monetary terms, the overall contribution to total income from customs still increased (from 13.6 percent to 14.2 percent - see Table 3), highlighting the importance of tobacco customs revenues from a fiscal viewpoint.

⁶ From 1 January 2021: 6,500 ALL/1000 sticks (Law No. 98/2018 dated 3 December 2018 on Additions to Law No. 61/2012 on Excise Taxes is published on Official Gazette No. 187 dated 28 December 2018 (<https://qbz.gov.al>)).

⁷ Tobacco excise duties have increased in annual steps, from €49.8 per 1,000 cigarettes in 2019 to €52 in 2021.

⁸ The tobacco excise regime requirements are of high relevance to the screening process in the negotiations to accession for EU (part of Chapter 16). For more information on the legal alignment requirements emerging from the Acquis see https://ec.europa.eu/taxation_customs/taxation-1/excise-duties/excise-duties-tobacco_en

Table 3: Customs Revenues (2015-2020)

Category	2015	2016	2017	2018	2019	2020
Tobacco/cigarette Customs Revenues (Mln ALL)	17,300	20,900	22,377	20,896	22,536	21,823
Contribution to total customs income (%)	11.92	14.04	14.07	12.85	13.66	14.2

Source: Fiscal report (Buletini fiskal) (2015-2020) <http://www.dogana.gov.al/>

2.3 Health consequences of tobacco consumption

Smoking tobacco is one of the three main risk factors associated with premature deaths in Albania (World Bank, 2006; Burazeri, 2020). Overall, more than 4,100 deaths (or 21.8 percent) each year are attributable to tobacco smoking (Table 4). The percentage of deaths caused by tobacco among Albanian men is higher than in high Human Development Index (HDI) countries. The Tobacco Atlas (2018) reveals that for 2016, the proportion of total deaths caused by tobacco is around 25.2 percent among men and 9.1 percent among women. Since the 2000s, the percentage of deaths in the country caused by tobacco smoking has been declining. Nevertheless, the percentage of deaths caused by tobacco is higher than the global average. The WHO (2016) estimates that the share of premature deaths (attributable to smoking) to the number of smokers is projected to be 50 percent, an estimate likely to prevail in the absence of stronger tobacco control policies.

Table 4: Smoking-related mortality data (Albania)

Smoking-related mortality	Indicator
Annual number of deaths attributable to tobacco smoking	4,110
Annual number of deaths attributable to tobacco smoking (female)	876
Annual number of deaths attributable to tobacco smoking (male)	3,234
Annual percentage of all deaths attributable to tobacco smoking	21.8%
Annual percentage of all deaths attributable to tobacco smoking (female)	9.1%
Annual percentage of all deaths attributable to tobacco smoking (male)	25.2%

Source: The Tobacco Atlas fact sheet (2018)

3. Data and Methodology

Through multi-year simulations, this study predicts the effects of two different tobacco specific excise tax policy scenarios, which are projected to meet the EU requirements on excise tax level (€90 per 1000 cigarette sticks). The simulations begin in 2020 and continue until the EU excise level is achieved.

The first scenario is the “business-as-usual” scenario, as it is based on the historical excise growth implemented so far in Albania. It depicts a 15-year scenario with a constant excise growth rate of 4 percent (the average rate of excise increase that the government used during the period 2018-2021 based on the Law No. 98/2018 and related amendments⁹).

The alternative (second) scenario follows the guidance of the World Bank (WB) that suggests a larger increase of the excise tax in the first years followed by smaller increases afterwards. Accordingly, this alternative scenario applies an escalated excise plan: for years 2022–2025, a yearly excise increase of 8 percent is applied, while for years 2026–2030 the yearly increase rate is reduced to 5 percent.

Other assumptions are the same for both scenarios (see Box 1 below). The calculations of both scenarios are carried out for three identified income categories (low, medium, and high)¹⁰. Analysing these groups separately reveals the impact of price increase on different social and economic groups, which may react differently to market changes (e.g., price). Moreover, this distinction may be useful to policy makers who may want to target a specific group and/or make sure a particular group is not unfairly burdened.

The aim of this study is to estimate, for both scenarios and for each income group, the impact of an increased excise rate on the following indicators:

1. Cigarette pack price (price is adjusted annually by the expected inflation rate)
2. Tobacco consumption (manufactured cigarettes)
3. Government revenue collection
4. Number of premature deaths due to changes in cigarette prices

The study assumes that cigarette consumption is influenced by changes in price (mainly driven by excise policies), income, and population. Elasticity of demand related to price, and elasticity of demand related to income are used to estimate respectively the influence of tobacco price increase (caused by the tax increases) as well as expected income increase on tobacco consumption. Forecasted changes in population are also taken into consideration when estimating consumption of

⁹ Law No. 98/2018 dated 3 December 2018 on Additions to Law No. 61/2012 on Excise Taxes is (published on Official Gazette No. 187 dated 28 December 2018).

¹⁰Calculations are carried out for three distinct income groups, namely those with low, medium and high income - to each social group a specific elasticity coefficient and representative price (price per pack) are designated. For each of these social groups, share of total smokers' population and overall consumption are calculated using the extrapolations made by the sample of smoking households in the HBS survey from 2014-2017.

cigarettes as they are directly linked to changes in the number of future smokers and therefore in the quantity of cigarette consumption¹¹.

The overall changes in consumption are also necessary to predict the changes in revenues collected from specific excise and value added taxes. The increased specific excise tax and the decreasing consumption influence as opposing forces in the overall trend of excise collection, thus there is a need to assess the net effect.

Following the work of other scholars analysing the impact of tobacco tax increases on deaths attributable to smoking (see Barkat *et al.*, 2012; Burki *et al.*, 2013) the study simulates the impact of tax increases and consequent price increases on smoking prevalence and future deaths from diseases caused by cigarette smoking among adults in Albania.

Smoking prevalence (number of smokers divided by the adult population) and future deaths are closely linked. The study assumes that the number of smokers (or smoking prevalence), and indirectly the number of premature deaths, is influenced by three factors: price, income, and demographic characteristics¹². The prevalence elasticity of price and the prevalence elasticity of income account for the impact of prices and income changes, while demographic projections of the population account for broader demographic trends.

Simulations in both scenarios are calculated for all three income groups (low, middle, and high) given that each group reacts differently to an increase in price because they are characterized by different elasticities of income, price, and prevalence. Since smokers in these groups typically buy different brands taking into consideration primarily price levels, a simple price average is used for each group representing a low, medium, and high price of purchased cigarette packs.

The following box summarises the information for each scenario.

¹¹ The authors use the prevalence elasticity to measure the effect of the changes in number of smokers and apply it to the consumption.

¹² The prevalence elasticity of demand related to price is used to estimate the influence of the tobacco price increase on the (reduced) number of smokers and indirectly on the number of averted premature deaths. The prevalence elasticity related to incomes is also used to estimate the influence of smokers' income increases on the number of smokers and indirectly on the number of premature deaths. The expected number of smokers is also influenced by the new smokers' cohorts as calculated by the population projections of adult population (following a projection scenario guided by the assumption of low birth rate, low mortality rate and high emigration).

Box 1. Information inserted in the tax simulator

1. Cigarette consumption in 2021 is proxied by the quantity of manufactured cigarettes imported (data provided upon request by General Directorate of Customs for year 2020). Cigarette consumption in the following years is calculated using the price elasticity, income elasticity, and demographic changes of population.
2. Real consumption growth rate estimated by Gross National Income (GNI) per capita growth (average 2010-2018) based on fixed prices of 2020 (USD currency) as provided by the World Bank (WB) is used as a proxy for income growth.
3. Real price growth is influenced by controlled excise growth. A supply chain margin (a result of the tobacco industry's incentive to achieve higher profit, adjusted to inflation rate and then rounded to generate the prices for consumers) is considered as zero. Real price growth is adjusted for the expected inflation rate in Albania, as projected by the IMF for the future years.
4. In the first scenario, a 4 percent increase is used for 15 years. This rate is based on the recent historical increases in Albania. In the second scenario, real specific excise growth is stipulated by using two stages, the 8 percent increase rate for years 2022-2024 and 5% for year 2025-2030. The yearly increase is assumed to meet the EU minimal excise level in 2035 for the first scenario and 2030 for the second scenario.
5. Weighted Average Retail Price for brands consumed by each socioeconomic group is calculated using a division of the current list of prices of brands into three groups for 2021. Simple average price is used for each group determining a low, medium, and high price of cigarette pack.
6. Value Added Tax (20 percent) is placed on overall retail price.
7. Overall price elasticity (of specific income group) is based on HBS data (IES, 2019b).
8. Overall income elasticity (of specific income group) is based on HBS data (IES, 2019b).
9. Prevalence elasticity related to price (for specific income group) is based on HBS data (IES, 2019b).
10. Prevalence elasticity related to income (for specific income group) is based on HBS data (IES, 2019b).
11. Rate of premature deaths among current smokers (50 percent) (WHO, 2018). Rate of those who survive due to quitting cigarettes is assumed to be included in this indicator.
12. Smoking prevalence rate is based on HBS data (IES, 2019b).
13. Share of relevant income group of total population (IES, 2019b) is used to estimate the population for each income group.
14. Population projections are provided by INSTAT (INSTAT 2021 scenario with low population growth).

Source: Tax simulator inputs defined by the authors

In the following section, comparisons are made between the first scenario (applying a “business as usual” 4 percent increase of the excise until 2035) and the second scenario expected to meet EU excise level by 2030 (applying a more rapid increase of 8 percent in the first years than 5 percent in the following years). The changes in excise rate result in changes of the overall prices as well as changes in the share of excise of final price (Table 5).

Table 5: Projected price and tax indicators in meeting EU requirements

Expected indicators	Scenario 1		Scenario 2	
	2022	2035	2022	2030
First and last year for each scenario				
Low-income group				
Cigarette specific excise in ALL	135	225	140	219
Cigarette tax share to overall price in %	77%	84%	78%	84%
Cigarette price in ALL	222	332	228	325
Mid-income group				
Cigarette specific excise in ALL	135	225	140	219
Cigarette tax share to overall price in %	68%	77%	69%	77%
Cigarette price in ALL	273	383	279	377
High-income group				
Cigarette specific excise in ALL	135	225	140	219
Cigarette tax share to overall price in %	60%	70%	61%	70%
Cigarette price in ALL	324	435	331	428

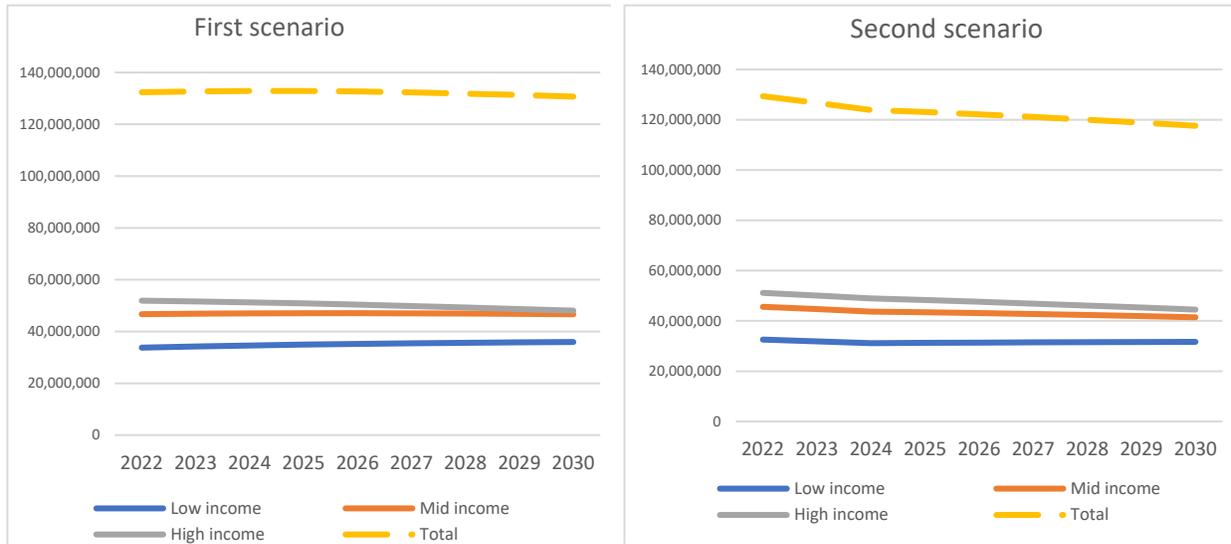
Source: Tax simulator milestones

4. Simulation results

The simulation results provide solid evidence that a gradual increase of excise level in a multiyear schedule (similar to the *status quo*) is not sufficiently effective in reducing cigarette consumption. An alternative scenario with a larger excise increase would have a stronger effect in reducing tobacco consumption. An excise policy with more proactive increases leads to decreased cigarette consumption (9 percent in 10 years) due to the combined effect of the excise increases and demographic trends.

The first scenario predicts a nearly flat trend of cigarettes consumption for the next 10 years (Figure 1: First scenario). Here, the effects of the price increase are modest compared to the increasing income effect. For both scenarios, the consumption of cigarettes of the high-income group and the low-income group are expected to experience decreasing trends, while for the mid-income group, a stagnant trend is projected. Following the more effective scenario (the Scenario 2), a higher pace of decrease will be evident in the beginning years due to the higher increase in the excise rate. The effect of the price increase is higher than the expected income increase, reducing mostly the consumption of the mid- and high-income groups (Figure 1: Second scenario). The low-income group experiences a stagnant trend.

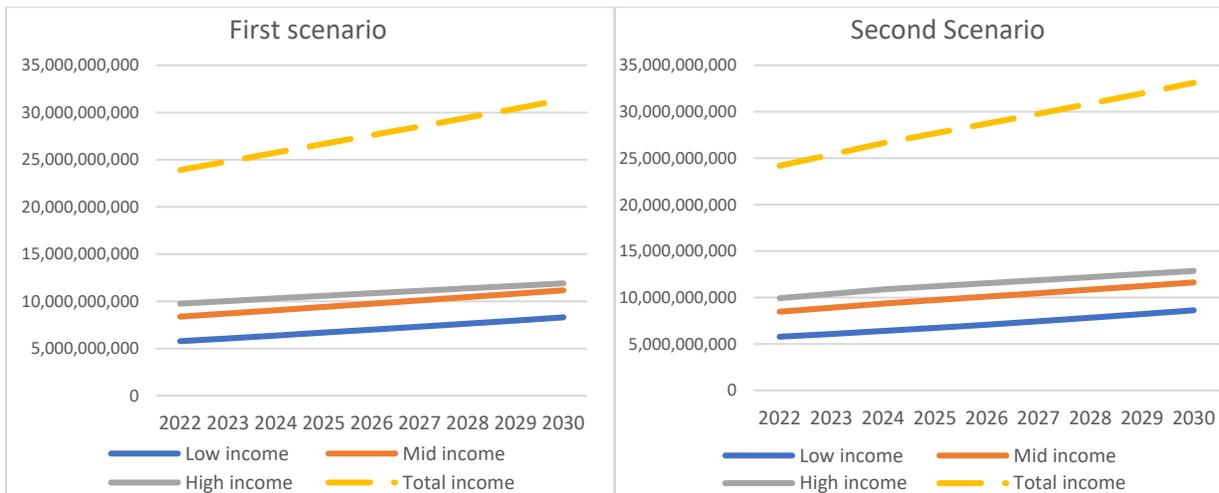
Figure 1: Cigarette consumption (packs) by income categories of tobacco consumers¹³



Source: Tax simulator results

The total tax revenues collected by the government are increasing in both scenarios at a similar pace (3.5 percent vs 4 percent of yearly change: Figure 2). The share of excise revenues to total tax revenues is on average 76 percent in both scenarios. The second scenario, depicted by a larger excise increase rate, is slightly more effective in generating excise revenues and overall tax revenues (Figure 2: Second scenario). Indeed, for the same period of time, it is predicted that the government will obtain a slightly higher amount of total tax revenues in the second scenario compared to the first scenario (€77 million more or 5 percent higher for the period 2022-2030) since the positive effect of the increased excise offsets and even exceeds the negative effect resulting from reduced consumption.

Figure 2: Tax revenues by income categories of tobacco consumers

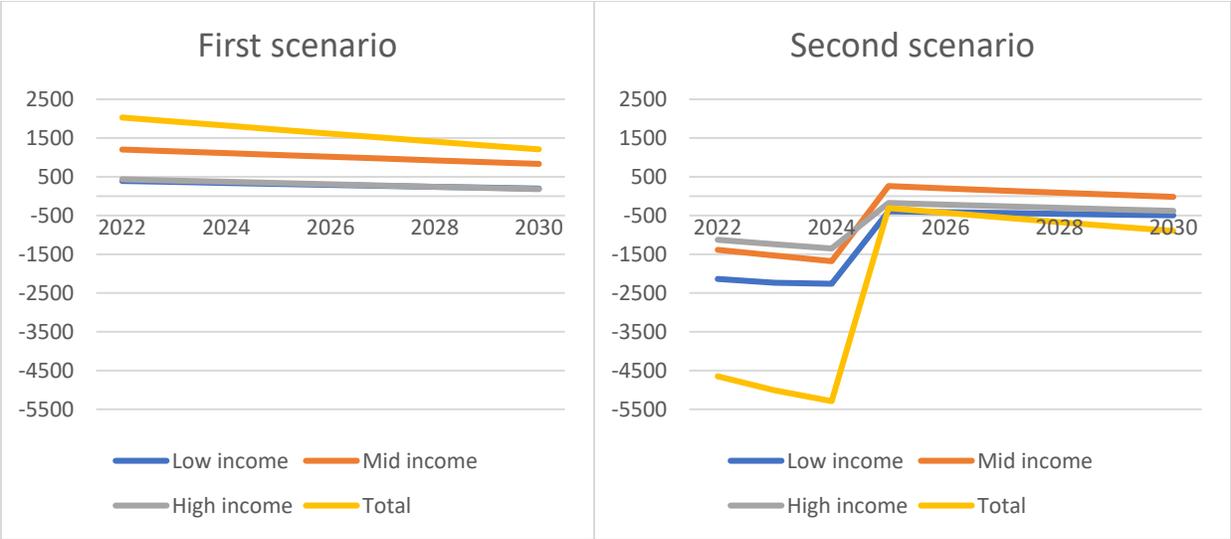


Source: Tax simulator results

¹³ Note: for the sake of comparison, illustration graphs describe the period 2022-2030 for both scenarios.

The effect of excise increases on the number of future premature deaths averted differs significantly between scenarios. The results illustrate the strong contractionary effect on smoking prevalence and consequently deaths, due to a larger excise increase. It is clear that the higher the excise, the higher is the number of future premature deaths that will not happen. The number of future premature deaths averted in the second scenario is expected to be 18,598 by 2030 or approximately 33,000 fewer premature deaths compared to the first scenario (in which 14,525 more smokers are expected to die prematurely by 2030). Nonetheless, in both scenarios, the excise increase contributes to a reduction in the number of deaths related to tobacco use.

Figure 3: Future premature deaths averted



Source: Tax simulator results

The excise growth of 4 percent in Scenario 1 is simply not able to reduce the prevalence to a level that can overcome the existing trend of premature deaths emerging from tobacco (Figure 3: First scenario). The influence of the excise increases in the second scenario is superior, especially in years 2022-2024, in reducing health costs and saving lives due to a stronger effect on tobacco prevalence (Figure 3). Moreover, the excise increase in the second scenario has a pro-poor contractionary effect, since 50 percent of the averted deaths are from the low-income group. This implies that lower health costs for lower-income Albanians, who are the ones more likely to suffer relatively higher vulnerabilities from outstanding health costs in the case of economic shocks (for example, paying for treatment of tobacco-attributable illnesses).

5. Conclusions and recommendations

The findings of this study serve as supporting evidence for revising tobacco prevention and control policies in accordance with EU requirements and consistent with the WHO FCTC. The Albanian government can achieve tax policies for inclusive growth (reduced smoking rates, improved health and productivity, etc.) while also supporting the revenue-raising capacity of the tax system and ensuring the sustainability of public spending. Challenges brought by the reduction of imports of manufactured cigarettes can be addressed by pursuing larger and faster excise tax increases, which also enable the government to fulfil the requirements for alignment with the EU excise tax regime. The current excise tax levels need to almost double to reach the EU-required minimum of €90 per 1,000 cigarettes, a level that may yet increase further in the next couple of years as the EU possibly revises the directive's rates upward.

In this analysis, the authors compare the first scenario of 15 years (assuming 15 years to reach the EU required excise amount) where the increase of the excise follows the existing trend of 4 percent from recent years with a second scenario of 10 years assuming that Albania will achieve the EU requirements by 2030 (by applying a more rapid increase of 8 percent in the first 3 years and then 5 percent in the subsequent years). A relatively steady consumption trend is predicted by the first scenario compared to lower (decreased) consumption expected in the second scenario as the high excise rate will make more people quit or smoke less, and fewer youth are likely to start. As a result, the total amount of excise revenues in the second scenario is higher when compared to the first scenario (€77 Million more or 5 percent higher for the period 2022-2030).

In addition to the fiscal benefit emerging from higher tax collection, the second scenario also provides lower health expenditures¹⁴ for treating the negative health effects of smoking. The proposed rate of increase of cigarette excise tax rates is expected to contribute to reducing the number of smokers and enabling a higher number of averted deaths. In the first scenario, the excise increase contributes to a smaller reduction in the number of deaths related to tobacco use compared to the second scenario – more specifically the number of premature deaths averted in the second scenario is 18,598 or about 33,000 fewer premature deaths compared to the first scenario (in which 14,525 more smokers are expected to die prematurely). Moreover, the excise increase in the second scenario has a pro-poor contractionary effect, since 50% of the averted deaths are estimated to be part of the low-income group. This implies lower health costs particularly for lower-income groups, who are more likely to suffer relatively higher vulnerabilities when confronted with economic shocks (i.e., from paying for tobacco-attributable disease treatments).

The tax simulator results indicate that applying a yearly excise growth rate higher than the historical 4 percent increase is instrumental to several policy goals, namely increasing tax revenues,

¹⁴ Based on the study estimates it is possible to assess the potential effect of an excise increase on number of deaths averted. However, different from other studies (e.g., Chaloupka and Tauras, 2010), the calculation of the consequences of an excise increases on more precise health costs using treatment costs was not feasible due to data scarcity on public expenditures at patient level, lung cancer and other tobacco related diseases (Xhemalaj et al., 2016).

reducing health expenditures and meeting earlier the EU requirements on its tobacco excise tax regime. Applying a rate of growth of 8 percent for the first 3 years (2022-2024) and 5 percent up to year 2030 will also save significantly more economic costs caused by tobacco use (resulting from health care expenditures and indirect costs related to lost productivity due to premature mortality and morbidity). The proposed increases modelled here are still relatively modest by international standards and an even higher increase in the specific excise tax would lead to even greater revenues and more deaths averted, and the cost savings and productivity gains that would come with those benefits. However, considering illicit trade concerns, enhanced (fiscal) law enforcement related to tobacco control is important to consider and implement in the case of higher excise tax scenarios.

Other (non-fiscal) tobacco control policies are similarly important to reduce tobacco consumption. Thus, the specific excise increase is a much more effective instrument if it is combined with non-fiscal instruments for controlling tobacco. To further address social and health costs of tobacco, more efforts should be done toward implementing tobacco control policies namely tobacco marketing restrictions and achieving smoke free environments, in accordance with the WHO FCTC and EU requirements (the EU *acquis* Chapter 16 on Stabilisation and Association Agreement a15).

¹⁵ The *acquis* on taxation (Chapter 16) requires harmonisation of acceding countries' tax legislation with that of the EU (indirect and direct taxation, elimination of double taxation and prevention of tax evasion while requiring administrative co-operation on tax matters).

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