



tobaccotaxation

Economic Research Informing
Tobacco Taxation Policy

Economics of Tobacco and Tobacco Taxation -Romania-

Aspen Institute Romania, Bucharest

Macroeconomic Overview

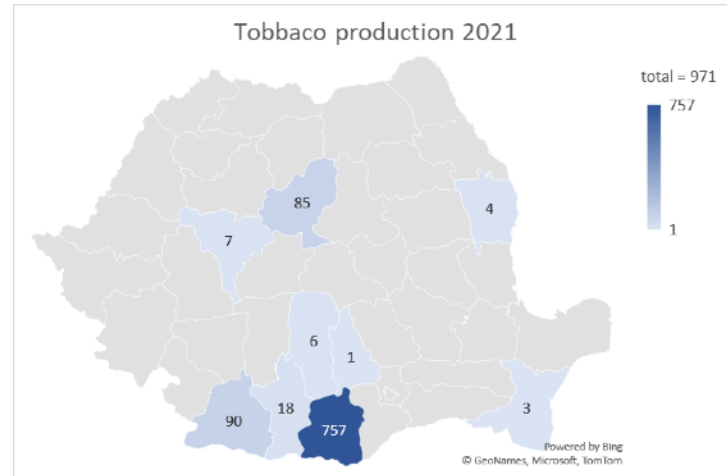
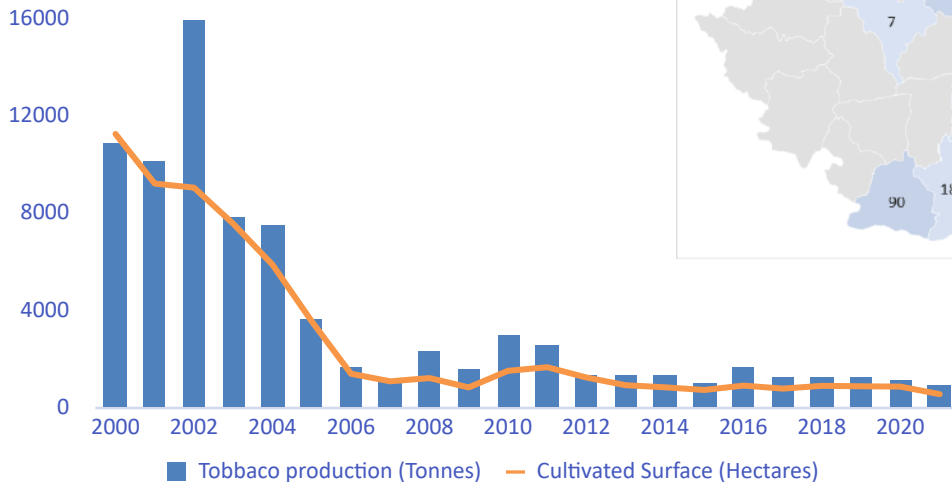
General info	Data
Population (2021)	19.201.662
Population over 15 years old (2021)	16.174.719
Gross domestic product, (2021 in Billions EUR)	240,15
Gross domestic product, per capita, (2021)	12.440 €
Gross domestic product, real growth, (2021 in %)	5,1%
Inflation (2021)	4,1%
Unemployment according to LFS (2021 in %)	5,6%
Average net wage (2021)	716 €
Employed population (2021)	7.755.487
Wage earners (2021)	5.094.288

Data sources: Eurostat, National Institute of Statistics



Tobacco farming

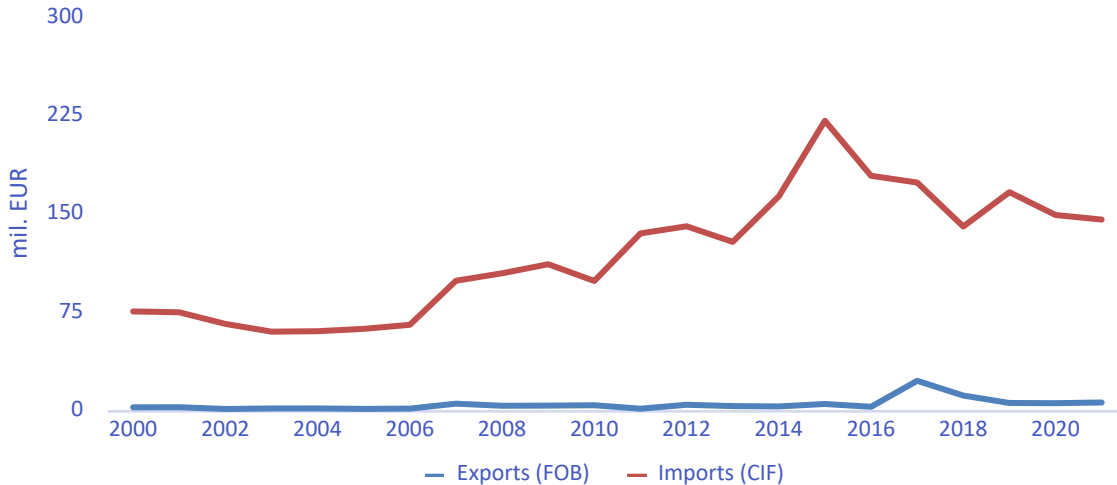
– Decreasing trend –



Telorman, Dolj and Mures – relevant farming counties



Foreign trade of raw tobacco



Source: National Institute of Statistics

Romania is a net importer of raw tobacco

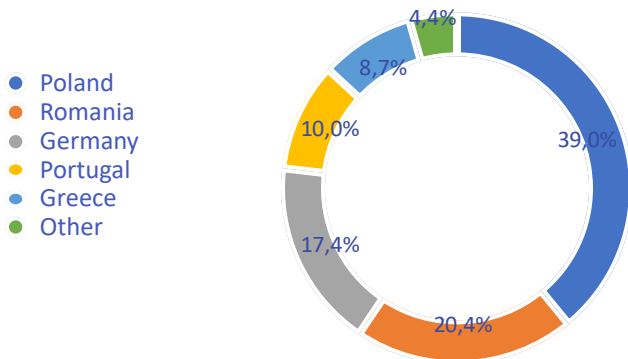


Cigarettes manufacturing and trade

Production, Exports and Imports of cigarettes



Production Shares Europe (2021)



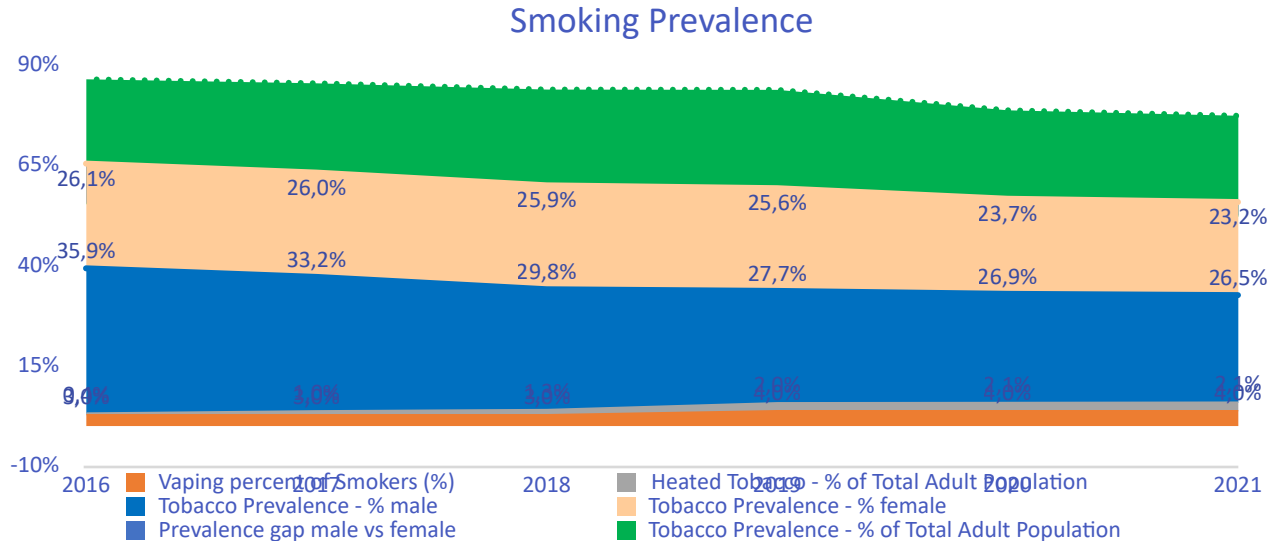
- 66% of cigarettes produced are intended for export
- Romania is the second largest cigarettes producer in EU

Source: Eurostat



Smoking prevalence

- The reducing gap between men and women -



Source: Euromonitor

Substantial decrease in prevalence in the span of 5 years, driven by male prevalence.
Increasing share of other tobacco products (vaping and heated)



Policy framework and relevant legislation for tobacco control

Important moments for tobacco industry regulations

- Limiting smoking in public spaces (Law no. 349/2002 for preventing and combating the effects of tobacco product consumption)
- Tobacco advertising on TV was banned in 2002
- Graphic health warnings on cigarette packs - mandatory since 2008
- Banning e-cigarette advertisements, starting with 2012
- Law no. 15/2016 for preventing and combating the consumption of tobacco products - ban the smoking in closed public places, including bars, restaurants, official buildings, cabs. The law completely prohibits smoking in health and education facilities.

Cancer prevention policies: as part of the newly adopted National Plan to Fight Cancer, there is a measure related to “the reduction of the consumption of tobacco” which involves the “implementation of the Framework Convention on Tobacco Control and of the National Strategy “2035 – the First Generation Without Tobacco in Romania” by aligning the level of excise duties on modern tobacco products and cigarettes in the elaboration of a new national strategy regarding smoking prevention”

Affordability and Consumption

- Gross National Disposable Income used as proxy for income.
- Despite yearly WAP increases, cigarettes become more affordable.
- Per capita consumption rose steadily and is on a rising trend since 2016.
- Since 2017 larger shares of Monthly GNDI is spend on cigarettes consumption.

Source: Eurostat, Ministry of Finance, Fiscal Code



Excise structure and tax revenues

In current fiscal code total excise is provided up until 2026. In order to break it down into ad valorem and specific excise we used the 2021 assumptions (ad valorem 13% of TIRSP and 27% producer share

Revenues resulting from tobacco taxes have high shares because total general government revenues has very low ratio in GDP compared to Eu average (32.8% vs 46.8%)



Elasticity estimation using macro data

- Methodology: Ross, H., & Al-Sadat, N. A. (2007). *Demand analysis of tobacco consumption in Malaysia. Nicotine & tobacco research, 9(11), 1163-1169.*
- $Y_t = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \varepsilon_t$, where $t=1, \dots, 16$
- Y_t - consumption per capita adult, 15+
- X_{1t} - tobacco price index
- X_{2t} - real GNDI per capita
- β_1 - price coefficient
- β_2 - income coefficient



Elasticity model results

VARIABLES	(1) Consum (GDP)	(2) Consum (Wage)	(3) Consum (GNDI)
tcpi	-4.116*** [0.822]	-3.867*** [0.667]	-3.659*** [0.810]
rgdp_pc	0.045*** [0.014]		
ravg_wage		0.537*** [0.147]	
rgndi			0.030** [0.011]
Constant	886.814* [432.142]	1,731.723*** [172.891]	1,593.158*** [264.826]
Observations	16	16	16
R-squared	0.730	0.763	0.689
Adj. R-squared	0.689	0.726	0.642
Dickey-Fuller test for unit root – residuals	Z(t) = -2.738	Z(t) = - 2.957	Z(t) = -2.43

- The variables are not stationary, but the tests show that they are cointegrated (i.e. the error of the model estimated in level is stationary)
- In level values were selected and used further on because there are clearly structural factors that influence all the variables simultaneously

Elasticity estimation				
Model:		(1)	(2)	(3)
From model	Price	-0.791155	-0.7432675	-0.7033173
	Income	1.256863	0.6999306	0.7434639
Bootstrapped values (n=500)	Price	-0.8188341	-0.7368373	-0.7371596
	Income	1.273531	0.6807097	0.8001611

Per capita consumption forecast

- We assumed that GNDI will increase at the historical 2011-2021 CAGR of 5.08% and continued the 2011-2021 demographic trend (Pop. Over 15 is decreasing at approx. 80.000 inhabitants per year.
 - If the current status quo (total excises as provisioned in the Fiscal Code) is maintained, a slight increase in per capita consumption will occur.
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- Scenario 3 – 100% higher increase of the total excise than what is provisioned in the Fiscal Code would lead to an approx. 12% decrease in per capita consumption by 2026.



Tax revenues forecast (excise only)

In both scenarios (historical GDNI CAGR and 3% CAGR) a steeper increase of excises would lead to higher tax revenues.

Doubling the excise tax increase compared to the one provisioned in the Fiscal Code, would generate additional revenues to the state budget of 1.1 billion lei cumulated for the entire period up until 2026.



Thank you for attention !

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