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MODELING THE RELATIONSHIP BETWEEN EXCISE TAX LEVELS AND PRODUCTS HARMFUL TO HEALTH. CASE STUDY OF EUROPEAN UNION COUNTRIES

Ana-Maria BORES
"Ştefan cel Mare" University of Suceava, Romania
anamaria.bores@usm.ro

Abstract:

The substantial increase in the consumption of certain products known to have repercussions on the health of consumers has led to the establishment of measures to help discourage consumption, but also to increase health awareness.

The aim of our work is to highlight the correlation between excise duties and consumption at EU level, with the application of excise duties having the expected effects in relation to the worrying consumption of alcohol and tobacco products. For this research we have used SPSS statistical software, the correlation being determined on the basis of an econometric model with the level of excise duty as the dependent variable and alcohol and cigarette consumption as the independent variables

The research results reveal that if the per capita recorded alcohol consumption decreases by one unit and the per capita recorded cigarette consumption remains constant, then the excise tax level increases on average by 0.782 units, and if the per capita recorded cigarette consumption decreases by one unit and the per capita recorded alcohol consumption remains constant, then the excise tax level increases on average by 1.638 units. Therefore, this correlation highlights consumption as a factor generating health problems at national and international level.

Key words: excise duties, products harmful to health, econometric model, regression analysis

JEL classification: H20, O20

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1. INTRODUCTION

The imposition of consumption taxes on specific goods and services is not only a long-standing practice, but also one that is considered or associated as having an impact on socio-economic and environmental components. Excise taxes can be said to contribute to government financing and can be integrated into the achievement of other important social objectives, in particular the reduction of externalities by making taxed goods more expensive. The benefits of excise taxes in terms of realizing social, economic or environmental objectives make this practice an attractive option (Hájek et al., 2021).

We can say that excise taxes allow us to reduce activities that are considered socially undesirable, such as environmental pollution, increased tobacco consumption as a factor of pollution and affecting the health of the population, increased alcohol and drug consumption as negative practices with major impact on the quality of health, gambling and its impact on the mental health of the population and the well-being of families, or other issues with environmental impacts such as increased transportation and road congestion (Best et al., 2020).

2. LITERATURE REVIEW AND DEFINITION OF WORKING HYPOTHESES

The theoretical prediction of the relative price effect works and is supported by multiple empirical evidence. The extended economic theory of taxation as applied to excise duties yields important insights that are far from trivial. But this theory only focuses on a limited number of aspects traditionally considered to have an impact on the economics, thus some equally important components tend to be ignored (Aklilu, (2020). Certainly, in the literature, we identify bibliographic sources that have documented the subject of excise taxes and found that under certain identifiable circumstances and conditions, the application of excise taxes can lead to undesirable and even

counterproductive outcomes. However, these studies do not dispute the merits of excise duties, but suggest that the relative advantages and disadvantages of excise duties should be carefully evaluated in relation to other methods of taxation and economic and social policies in general.

A review of the literature shows that excise taxes have for a long time been treated as the stepchild of tax policy. In this respect we can mention the case of the puritanical Anglo-Saxon countries, where the perception of excise taxes was associated with a tax that consumers paid on certain products, being associated with punishing people for vices such as smoking and drinking (Papageorgiou et al., 2021). In recent decades, however, excise taxes have come to the fore, especially in developed economies, as appropriate instruments to correct market failures, but also to control consumption for certain products or services considered less beneficial. In these economies, by imposing excise taxes that take into account the social or external cost of production and consumption, producers and consumers relate to the real price of the product or service they produce or purchase (Horáková et al., 2020).

Most governments impose excise taxes on tobacco products primarily to raise revenue, although some governments have recently increased excise taxes to discourage tobacco use and to promote public health. Aggressive taxation of vices has been explained by the assumption that a voluntary exchange between two individuals may have negative effects on a third party. Therefore, the legitimate goal of government is to force individuals to bear the full cost of their decisions through taxes and regulations "to correct market errors" (Sepulveda, 2023).

At the European Union level we identify the so-called euro area consisting of 17 countries with a common monetary policy coordinated by the European Central Bank, using the euro as the single currency and where macroeconomic policies are relatively autonomous. The 27 fiscal policies have been harmonized by the acquis communautaire to meet the four fundamental freedoms enshrined in the EU Treaty: free movement of goods, persons, services and capital. Such treatment applies equally to all countries, regardless of the category of taxation (direct or indirect).

In Romania, the process of harmonization of excise duties started to have effects on the economic market in 2007, when our country joined the European Union and as a result of this new EU membership our country had to align itself to the rules like the other EU countries. However, this was a period which coincided with the beginning of the economic crisis, and the situation itself was not favourable to the process of harmonization of excise duties, and an improvement in the situation was only observed after 2012, when Romania and other European countries started to show some positive signs of recovery from the crisis.Este evident că după 2007, când România a devenit membră a Uniunii Europene, iar în acest context sistemul său fiscal suferise schimbări substanțiale, iar țara noastră a trebuit să dezvolte mecanismele care să eficientizeze instrumentele utilizate pentru colectarea veniturilor bugetare.

The changes in excise tax collection have been dynamic and are likely to continue to be so until Romania achieves an optimal tax policy that brings sufficient budget revenues and encourages enterprises to produce goods for optimal consumption in a market economy.

In this context, we set out to highlight the correlation between the level of excise duties levied on two of the categories of products considered to pose a high risk to human health, namely alcoholic products and cigarettes.

We determine the correlation on the basis of an econometric model with the level of excise duty as the dependent variable and the consumption of alcohol and cigarettes as the independent variables, and the hypotheses from which we start are:

H_0: The level of excise tax on alcoholic beverages and cigarettes is significantly influenced by their consumption.

H_1: The level of excise duty on alcoholic beverages and cigarettes is not significantly influenced by their consumption.

3. RESEARCH METHODOLOGY

The research methodology includes both qualitative and quantitative research.

Thus, in the first part of the paper, the literature on the studied topic was analyzed in order to achieve a current state of knowledge and to substantiate the research hypotheses tested in the second part of the paper, the one dedicated to quantitative research.

Thus, in the second part of the paper, the research aimed at an econometric analysis of the correlation between excise duties and consumption in the European Union and Romania.

4. RESEARCH RESULTS AND DISCUSSIONS

4.1. ANALYSIS OF THE CORRELATION BETWEEN EXCISE DUTIES AND CONSUMPTION

4.1.1. DRINKING ALCOHOLIC BEVERAGES

Consumption of alcoholic products especially in excessive quantities and with increased frequency can be considered as a serious social problem among the global population. Both in our country and through the statistical situations presented at the level of the EU member countries, we can see that we are characterized as a geographical region the region with the highest level of alcohol consumption in the world since 2012-2013 (David et al., 2020). Therefore, over time, efforts have been made to establish and use excise duties as a mechanism to regulate and control consumption.

Excessive consumption of alcohol is said to trigger more than 230 health conditions according to the International Classification of Diseases (ICD) code, as per the World Health Organization's 10th revision. Thus the impact of alcohol consumption on the health of the drinking population is extremely high. In addition, alcohol consumption is considered as the fifth most important risk factor leading to health problems worldwide (Monteiro et al., 2017).

General alcohol consumption is most often correlated with aspects related to the mortality aspects of excessive and high frequency alcohol consumption and with the specific disabilities of excessive consumption and addiction, therefore changes in consumption also generate changes in the range of alcohol-specific illnesses in the population.

Mortality and morbidity are not the only problems caused by alcohol consumption; it can be said that this habit is a major social problem in that it involves significant social segments in terms of weight, but also an economic burden, since it generates costs linked to reduced productivity and healthcare costs. However, the consequences of alcohol-related problems can be avoided or considerably reduced through effective public health policies.

According to the World Health Organization's global strategy to reduce the harmful use of alcohol, international trends in alcohol consumption can be linked to population health and serve as tools for monitoring policy changes at national, regional and global levels. Therefore, it is extremely important that data on alcohol consumption and consumption patterns should be collected in a systematic and rigorous manner, so as to make comparability possible over time. Below we present alcohol consumption at the level of EU countries, the comparison is for the years 2010 and 2019, so that the analysis is relevant and based on the gender criterion, as we see in table no. 1:

Table no. 1. Alcohol consumption in EU countries. Comparison for 2010 and 2019

No. Crt	Country	Male consumption, liters of pure alcohol, 2010	Male consumption, liters of pure alcohol, 2019	Female consumption, liters of pure alcohol, 2010	Female consumption, liters of pure alcohol, 2019
1	**Austria – [AT]**	19,36	18,81	5,58	5,46
2	**Belgium – [BE]**	17,90	16,16	5,13	4,65
3	**Bulgaria – [BG]**	17,43	19,51	4,43	4,91
4	**Croatia – [HR]**	15,36	13,79	4,13	3,68
5	**Cyprus – [CY]**	14,26	12,70	3,99	3,43
6	**Czech Republic – [CZ]**	21,15	21,09	5,91	5,48
7	**Denmark – [DK]**	16,24	14,64	4,72	4,29
8	**Estonia – [EE]**	23,30	18,40	6,59	5,11
9	**Finland – FI**	16,90	14,38	4,89	4,14
10	**France – [FR]**	19,55	18,04	5,57	5,14
11	**Germany – [DE]**	19,66	19,22	5,57	5,49
12	**Greece – [GR]**	13,76	11,34	3,86	3,12
13	**Hungary – [HU]**	17,66	17,22	4,82	4,68
14	**Ireland – [IE]**	18,88	18,06	5,75	5,58
15	**Italy – [IT]**	11,57	12,72	3,22	3,54
16	**Latvia – [LV]**	18,25	21,73	5,12	5,99
17	**Lithuania – [LT]**	23,12	19,34	6,60	5,39
18	**Luxembourg – [LU]**	18,71	17,60	5,71	5,44
19	**Malta – [MT]**	10,82	13,03	3,08	3,79
20	**Netherlands – [NL]**	15,96	14,51	4,62	4,23
21	**Poland – [PL]**	18,10	18,67	5,05	5,15
22	**Portugal – [PT]**	18,29	16,89	5,24	4,81
23	**Romania – [RO]**	28,25	27,30	7,82	7,51
24	**Slovakia – [SK]**	16,81	16,74	4,72	4,61
25	**Slovenia – [SI]**	17,71	17,33	4,81	4,69
26	**Spain – [ES]**	14,92	17,26	4,26	4,92
27	**Sweden – [SE]**	15,27	14,42	4,42	4,18

Source: Own processing based on data provided by https://www.who.int/

We note that in countries where excise policy was more effective, consumption levels were still reduced, but we also see cases such as those of Latvia or Spain, where consumption among men in 2019 surpassed that of 2010. However, in the specialized literature we identify opinions according to which the role of alcohol consumption in society has often been neglected compared to smoking and obesity. However, due to its major effects on health, decision-makers at local, national and global levels should work together to reduce consumption, as it causes the emergence of various health problems which, in the absence of effective prevention measures, lead to increasingly worrying percentages of the loss of a healthy life, so that it has become a major public health problem. However, we see that consumption in 2019 compared to 2010 had a similar trend, as we see in figure no. 1:

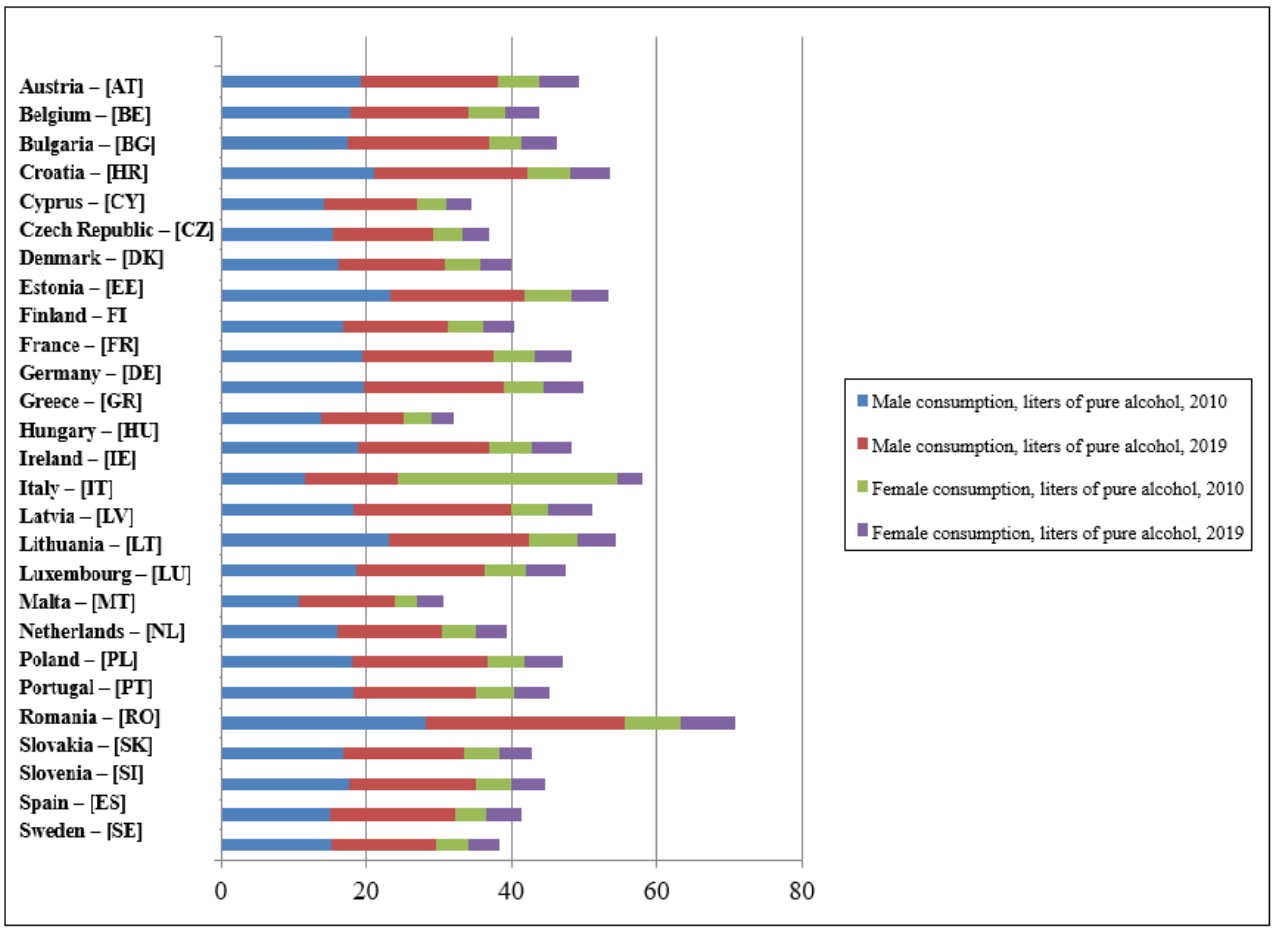

Figure no. 1. Alcohol consumption by gender in EU countries, a comparison for the years 2010-2019

Source: Own processing based on data provided by https://www.who.int/

Thus, in the next subchapter we will discuss in more detail the aspects related to the excise tax on alcoholic beverages as a possible solution to improve the impact on the health status of the consuming population.

4.1.2. EXCISE DUTY ON ALCOHOLIC BEVERAGES – A POSSIBLE SOLUTION

Alcohol consumption is a leading cause of death and disability worldwide, particularly among those of working age. Heavy alcohol consumption is a major risk factor for heart disease and stroke, cirrhosis of the liver and certain types of cancer, but even low and moderate alcohol consumption increases the long-term risk of these diseases. Alcohol consumption has also led to an increase in the frequency of road accidents, various crimes, suicides and mental health disorders than any other psychoactive substance, especially among young people. The diseases caused by excessive alcohol consumption involve high costs for society.

According to data presented at the level of OECD countries, on average, 2.4% of health expenditure is allocated to cover the costs generated by alcohol consumption, and the figure reaches up to 4% in some countries (OECD). While national data on total per capita consumption make it easier to assess long-term trends, they do not identify patterns of harmful consumption, such as heavy episodic drinking (also called binge drinking). Almost one in five adults (19%) reported drinking episodic alcohol at least once a month, on average across 29 OECD countries in 2019. In all countries, men are more likely than women to report drinking episodic alcohol.

On average across OECD countries, 26% of men reported drinking episodic at least once a month, compared with 12% of women. Policies to combat harmful alcohol use include broad

strategies and those targeting heavy drinkers. Comprehensive policy packages built around a pricing strategy to reduce or limit the availability of cheap alcohol, to combat drink-driving, to provide primary care-based counselling for people with harmful drinking patterns, and to protect children from alcohol promotion are all crucial. These strategic approaches are designed in terms of cost-effectiveness in addressing harmful alcohol use.

Two recent innovative developments are emerging in the alcohol policy landscape. One is the use of minimum unit pricing, which sets a minimum price below which alcohol cannot be legally sold. This measure specifically targets cheap alcohol that is consumed by a fairly wide range of people. The measure was introduced in some countries such as Ireland in 2022, and has also been implemented in Scotland and Wales and in parts of Australia and Canada. The second innovative measure is the legislative approach that requires the labelling of alcohol products. While some countries already have warning labels about the dangers of drinking alcohol during pregnancy, Ireland has become the first country globally to require population-level health warnings on alcohol products (such as the risk of cancer and liver disease associated with alcohol).

4.1.3. PURPOSE OF TAXING ON TOBACCO AND CIGARETTE CONSUMPTION

In 2020, 2.7 million people in the European Union were diagnosed with cancer, and another 1.3 million people lost their lives to it, including over 2,000 young people. If we do not take decisive action now, the number of cancer cases will increase by 24% by 2035, becoming the leading cause of death in the EU. However, the figures and statistics have the same trends as consumption or the percentage of smokers, which is also increasing, especially among young people. Thus, we continue to present the percentage of smokers in 2023 in EU member countries. According to the data, our country is positioned somewhere in the middle of the ranking, and in first place is Bulgaria, which has a percentage exceeding 28%, at the opposite pole is Sweden, which has the lowest percentage of smokers in the EU, as we can see in the figure below:

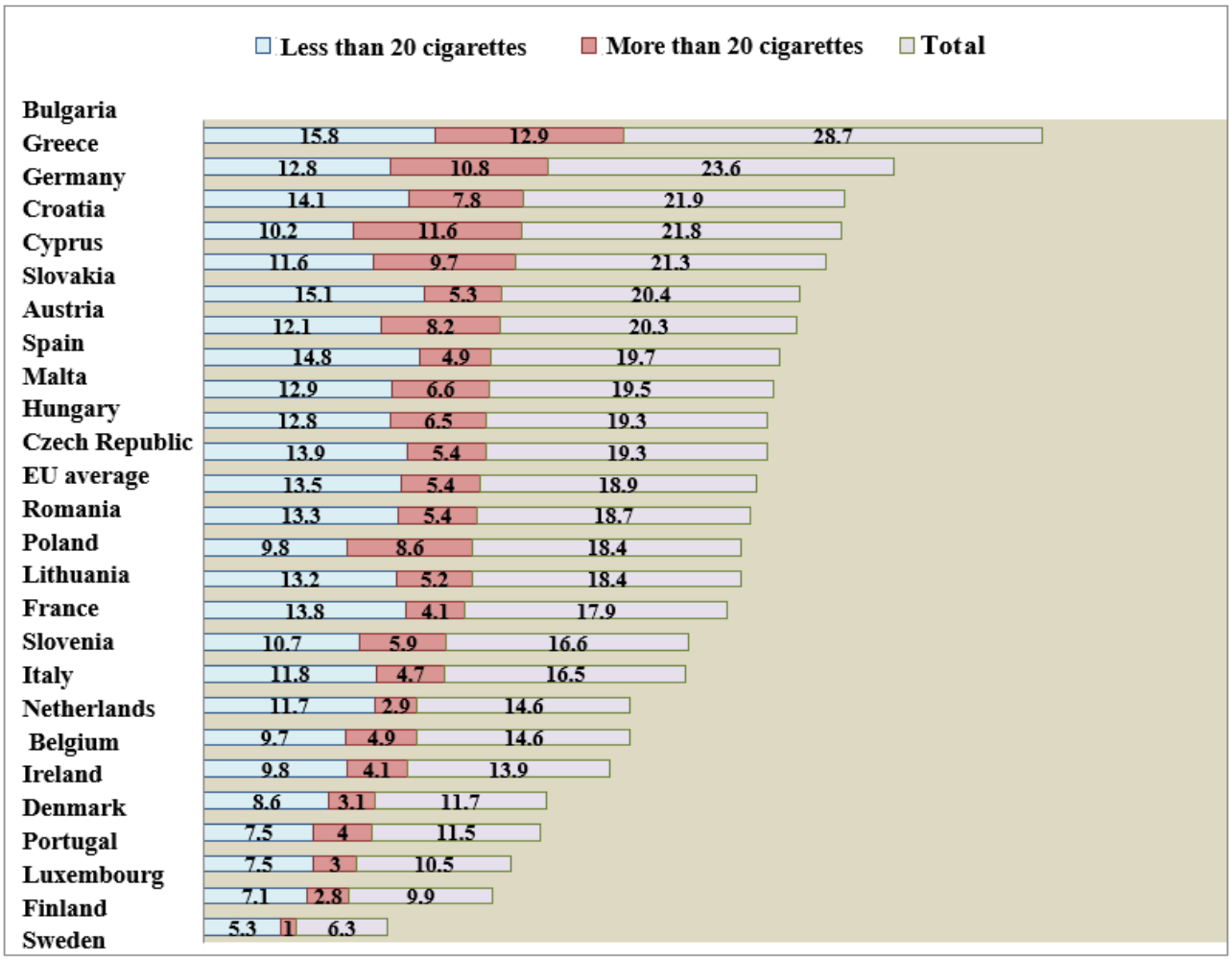

Figure no. 2. Percentage of daily smokers among people over 15 years of age, EU, 2023
Source: Own processing based on data provided by: https://ec.europa.eu/

We note that the highest percentage of active smokers is in Bulgaria – 28.7% of Bulgarian citizens over 15 years old are smokers who fall into one of the two categories in terms of daily consumption. At the opposite end is Sweden with a total percentage of 6.3% compared to its population.

4.2. RESULTS OF THE ECONOMETRIC ANALYSIS REGARDING THE ANALYSIS OF THE EXCISE DUTIES-CONSUMPTION CORRELATION IN THE EU

Historically, alcohol and tobacco products have had and continue to have an important role in social engagement with an impact on the economic and social fields. Excessive consumption of alcohol or tobacco products generates a series of negative consequences, representing a risk factor in the occurrence of various diseases and having effects on public health.

Our research was based on data on the level of excise duties for alcoholic beverages and cigarettes but also on the consumption of these product categories at the level of EU countries. As we can see in table 3.2 the number of records is 27, meaning the research was based on records from all 27 member countries of the European Union, and the values are for the year 2023. The table also presents the maximum and average values for the analyzed benchmarks.

The developed model analyzes the correlation of dependence between excise taxes and independent variables, i.e. the consumption of alcoholic products and cigarettes. From table no. 3 we can see that the model accepted all the established variables, thus none of them were excluded:

Table no.2. Descriptive statistics

	Mean	Std. Deviation	N
Excise duties	21.2352	13.10425	27
Alcohol, consumption recorded per capita (in liters of pure alcohol)	9.6241	2.55438	27
Cigarettes, consumption recorded by daily consumers	17.626	4.8142	27

Source: own elaboration in SPSS

Table no.3. Variables Entered

MModel	Variables Entered	Variables Removed	Method
1	Cigarettes, consumption recorded at the level of daily consumers, Alcohol, consumption recorded per capita (in liters of pure alcohol) [b]	.	Enter
a. Dependent Variable: Excise duties			
b. All requested variables entered.			

Source: own elaboration in SPSS

In table no. 4 we have determined: the coefficient of determination (R), the ratio of determination (R Square), the adjusted value of R, the standard error of the estimate and the Durbin-Watson coefficient.

Table no. 4. Model Summary[b]

MModel	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.646[a]	.417	.368	10.41510	1.922
a. Predictors: (Constant), Cigarettes, consumption recorded at the level of daily consumers, Alcohol, consumption recorded per capita (in liters of pure alcohol)					
b. Dependent Variable: Excise duties					

Source: own elaboration in SPSS

The correlation coefficient R = 0.646, presents a value that shows that there is an average correlation between the variables analyzed based on the linear model. To interpret the model we use the determination ratio R2 = 0.417, therefore for the model used, the linear multiple regression, the variation of the variables Cigarettes, consumption recorded at the level of daily consumers, Alcohol, consumption recorded per capita (in liters of pure alcohol) explains 41.7% of the variation of the variable Excise duties.

Table no. 5 presents the estimates of the two components of the variation, the corresponding degrees of freedom, the estimates of the explained and residual variances, the calculated value of the Fischer ratio and the significance of the test.

From the table above, the components of the variation are presented as follows:

- Regression Sum of Squares represents the estimated explained variation and has a value of 1861.373;
- Residual Sum of Squares represents the estimated residual variation and has a value of 2603.384;
- Total Sum of Squares represents the estimated total variation and has a value of 4464.757.

Table no. 5. ANOVA

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1861.373	2	930.686	8.580	.002[b]
	Residual	2603.384	24	108.474		
	Total	4464.757	26			

a. Dependent Variable: Excise duties
b. Predictors: (Constant), Cigarettes, consumption recorded at the level of daily consumers, Alcohol, consumption recorded per capita (in liters of pure alcohol)

Source: own elaboration in SPSS

The ANOVA table also shows us the value of the Fisher coefficient is F = 8.580, and the Sig. value for the F test is less than 0.05, as a result, the constructed model explains the dependence between the mentioned variables, characterized by a significant linear relationship.

The parameters of the simple linear regression model are determined in table no. 6:

Table no. 6. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	57.625	10.109		5.701	.000	36.762	78.488
	Alcohol, consumption recorded per capita (in liters of pure alcohol)	-.782	.812	-.152	-.963	.345	-2.458	.894
	Cigarettes, consumption recorded at the level of daily consumers	-1.638	.431	-.602	-3.801	.001	-2.527	-.748
a. Dependent Variable: Excise duties								

Source: own elaboration in SPSS

The data in table no. 6 allow us to establish the estimated equation of the multiple linear regression model, presented as follows:

$$\text{Excise duties} = 57,625 - 0.782 * \text{Alcohol, consumption recorded per capita } 1,638 * \text{Cigarettes, consumption recorded at the level of daily consumers}$$

As it results from the model equation established based on the coefficient table, the ordinates at the origin are significantly different from zero. We therefore outline some benchmarks through which we explain the estimated equation of the multiple regression model:

 If Alcohol, the consumption recorded per capita decreases by one unit, and Cigarettes, the consumption recorded at the level of daily consumers remains constant, then the excise tax level increases on average by 0.782 units;

 If Cigarettes, the consumption recorded at the level of daily consumers decreases by one unit, and Alcohol, the consumption recorded per capita remains constant, then the excise tax level increases on average by 1.638 units;

It follows from this that the independent variables influence the dependent variable, so there is a correlation between them.

Table no. 7. Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.8843	41.5919	21.2352	8.46116	27
Std. Predicted Value	-2.287	2.406	.000	1.000	27
Standard Error of Predicted Value	2.280	8.129	3.229	1.300	27
Adjusted Predicted Value	.1108	37.7545	21.2389	8.86143	27
Residual	-18.78786	24.92555	.00000	10.00651	27

Std. Residual	-1.804	2.393	.000	.961	27
Stud. Residual	-1.952	2.492	.002	1.029	27
Deleted Residual	-22.00906	27.02307	-.00375	11.58047	27
Stud. Deleted Residual	-2.084	2.833	.020	1.092	27
Mahal. Distance	.283	14.877	1.926	2.989	27
Cook's Distance	.000	.284	.057	.089	27
Centered Leverage Value	.011	.572	.074	.115	27
a. Dependent Variable: Excise duties					

Source: own elaboration in SPSS

Table no. 7 provides a perspective that summarizes the predictions and the values of the regression residuals. Therefore, according to the table, the lowest value of the residual is -18.78786, and the highest value is 24.92555.

If we analyze the histogram shown in figure no. 3, we find that it has an asymmetric shape between -2 and 3. According to theory, the histogram should have followed the shape of the normal curve that highlights the residual values.

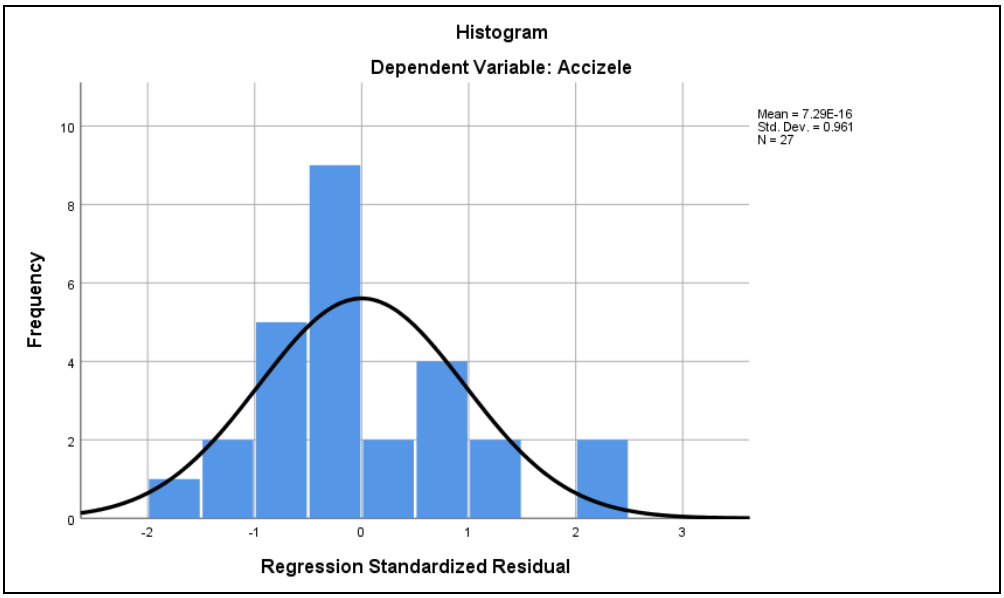

Figure no. 3. Histograma

Source: own elaboration in SPSS

The normal probability graph is presented in Figure 3, and it is used to determine whether the data set used in determining the econometric model follows a distribution as close as possible to normal values.

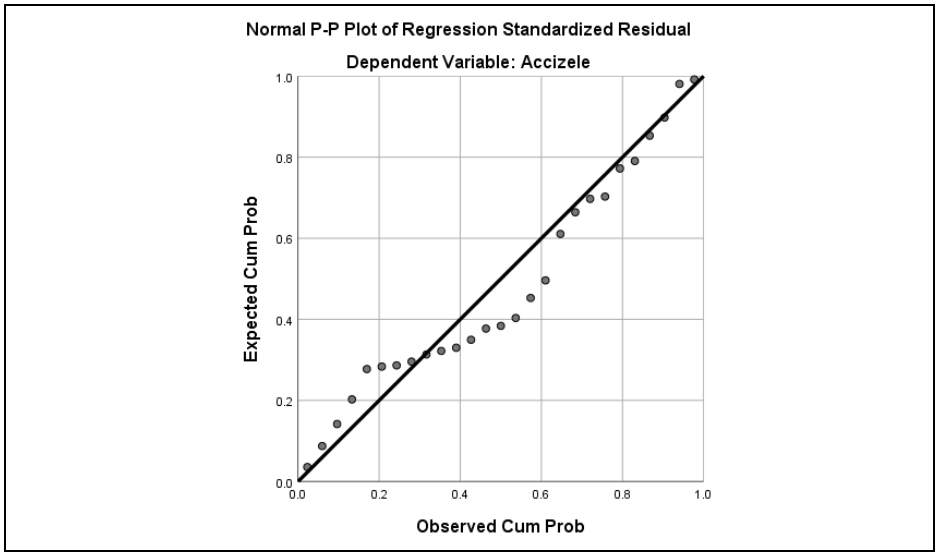

Figure no. 4. Normal P-P Plot
Source: own elaboration in SPSS

The normal probability plot is a graphical technique for assessing whether or not a data set is approximately normally distributed. The data is plotted against a theoretical normal distribution so that the points form an approximate straight line. Deviations from this straight line indicate deviations from normality. So, in our case the distribution is favorable.

4.3. ANALYSIS OF THE EXCISE DUTIES-CONSUMPTION CORRELATION IN ROMANIA

In a general context, sustainability is a benchmark to which global social, economic, political, and environmental policies are reported, it is highlighted that a concordance is desired at the level of several aspects of activities with an impact on the social and economic framework, which involves and requires constant improvements through the application of measures, one of these measures aims at the excise policy of product categories considered harmful to the population of our country correlated with aspects related to the actual consumption of those products, among which we highlight the consumption of cigarettes and alcohol products. This correlation highlights consumption as a factor generating health problems at the national level.

According to the OECD, at the European level, alcohol represents the third risk factor associated with illnesses and deaths for young people, after the problem of smoking and hypertension. And at the level of our country, the main risk factors affecting the health of the population at the national level have been established: a diet based on unhealthy habits, smoking, excessive consumption of alcoholic products and a low level of physical activity.

It is not new that alcohol consumption has a major negative influence on public health as a whole, given that, on average, more than a third of adults in our country report excessive consumption of alcoholic products, with a frequency of at least once a month. Therefore, our country occupies the second position at the European level, presenting a 35% rate of excessive consumption in terms of the frequency of these episodes, thus, this percentage is above the European Union average, which is 20% (WHO, 2012). According to the analyses carried out by the European Observatory on Health Systems and Policies 2019, there are substantial differences in terms of gender, which highlights that alcohol consumption is visibly higher among men compared to that recorded in relation to the female category (OECD, 2019).

As presented by the most current analysis found in the report prepared by the WHO (World Health Organization) (WHO, 2018), in Romania, alcohol consumption by the category of people over 15 years of age in the total population is 12.6 liters per capita per year in 2016. According to official data, almost 70% of our country's population over 15 years of age consumed alcohol in

2020. Despite the fact that the evolution of the level of consumption of alcoholic products was a decreasing one, from almost 15 liters/person as consumption in 2010, it dropped to 12.6 liters per capita in 2016. It is noted that Romania was, according to consumption at the European level in the period 2010-2016, over 3% above the European averages. As a result of this high consumption of alcoholic products, the percentage of deaths attributed to excessive alcohol consumption has also increased over time, a share that also exceeds the average reported at European level. The situation becomes even more delicate and worrying, as the consumption of alcoholic products has also spread among children in adolescence. Thus, in 2015, two out of five adolescents aged between 15 and 16 claimed to have experienced an episode of excessive alcohol consumption in a calendar month (WHO, 2019). This last aspect also positions us above the average recorded at European level.

According to statistics presented by WHO, for 2016, the share of the category of people over 15 years old, dependent on alcohol, of the total population of Romania was 1.3%. In terms of preferences in terms of the range of alcoholic products, it results that the highest shares reflect that more than half (56%) of Romanians prefer beer, 28% wine and 16% spirits. A proportion of over 50% of alcohol consumers in our country have developed habits characterized by frequent episodes in which they consume excessive amounts of alcohol. A rate that substantially exceeds the European average (Bostan and Rusu, 2021).

The level of mortality rates that could have been prevented and/or treated is extremely high, and our country is not in a favorable situation from this point of view either. The value of this indicator specific to the year 2016 indicates a preventable mortality ratio of 310 cases per 100,000 inhabitants. This statistic places us in fourth place at European level, a sign that measures need to be taken to streamline preventive actions in the field of public health. The main causes of mortality that can be reduced by taking preventive measures include heart disease, lung cancer, deaths and accidents caused by alcohol consumption. Thus, in 2017, only 18 euros were allocated from the state budget as expenses for health prevention at the national level, i.e. only 1.7% of total health expenditures, a significantly lower percentage than the 3.1% recorded at that time at the European level. Studies in this area emphasize that deaths and accidents caused by alcohol consumption, for example, could be reduced through prevention measures. Of course, it is desirable to promote a behavior characterized by responsible alcohol consumption. However, the materialization of this desire is most often associated with the adoption of appropriate measures and policies regarding the increase in responsibility in the consumption of alcoholic beverages. The consumption of alcohol and tobacco products in relation to the extent of health problems caused by excessive consumption of these problems are influenced by a variety of factors that affect both individuals and society as a whole.

5. CONCLUSIONS

The research was conducted using information provided by the World Health Organization and Eurostat on alcohol and tobacco consumption in order to achieve the proposed objective, namely the correlation between excise duties and consumption.

Our research was also based on data on the level of excise duties for alcoholic beverages and cigarettes, as well as the consumption of these product categories at the level of EU countries and Romania, respectively.

The choice of these products is justified by the fact that the EU and Romania have accounting and fiscal regulations on excise duties.

As a result of the interpretation of the data, the research results highlight the fact that if alcohol consumption recorded per capita decreases by one unit, and cigarette consumption recorded at the level of daily consumers remains constant, then the excise duty level increases on average by 0.782 units. In another vein, if cigarette consumption recorded at the level of daily consumers decreases by one unit, and alcohol consumption recorded per capita remains constant, then the excise duty level increases on average by 1,638 units. Therefore, we can conclude that the independent variables, represented in the econometric model of Cigarettes, the consumption

recorded at the level of daily consumers and Alcohol, the consumption recorded per capita (in liters of pure alcohol) influence the dependent variable, represented by excise taxes, so there is a correlation between them.

We consider that a negative aspect of these repercussions, of excesses in alcohol or tobacco consumption, also relates to the expenses allocated to health. In this regard, it was found that our country allocates extremely few resources to strengthen the application of measures to prevent mortality caused as a result of practicing these habits.

We believe that the results of the research can be useful to the state, but also to accounting regulatory bodies regarding the adaptation of accounting policies having these results as a starting point. Also, the results of the research can be useful to fiscal control bodies, regarding the optimization of control.

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