VEHICLES TAXATION IN ROMANIA: A COMPARATIVE APPROACH

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Abstract: The taxes on vehicles are a very controversial issue nowadays, especially in Romania. The actual registration tax was much contested and, as a result, new projects were proposed by government authorities. The present paper makes a comparative analysis of the three versions, trying to see if the new versions are within the European Union requirements and to make some recommendations in order to improve the actual assessment of the tax.

Key words: vehicles taxation, comparative analyses, progressivity of taxation, solutions for improvement

JEL Classification: H20, H 21, H 23

The recent tax on passenger vehicles raised a lot of controversies, which have culminated with a recent petition addressed to the European Parliament signed by approximately 120.000 Romanian citizens, which was the biggest (in terms of number of people who had signed) in the entire history of the European Union. In spite of some issues that must be considered in order to judge the opportunity of such an initiative, it is a fact that the so-called "tax on first registration" represents a major issue of fiscal and environmental policy in Romania. Enacted at the 1st of January 2007 when Romania had became a full member of European Union, the tax had two major objectives: to provide revenues to the Romania state budget to offset the abolition of customs duties and partially of VAT in commercial relations with the other member states and to prevent the massive imports of used passenger vehicles in order to improve the age structure of the vehicles in circulation.

The criticism of measure was very intense. The amount of tax can range from 0 EUR/cm3 (for hybrid cars) to 2 EUR/CM3 (for non-euro vehicles). There are also, correlation coefficients that vary in accordance with the years of service and the depreciation of the vehicle. The formula used for calculating this tax is:

Tax = A * B * C * ((100-D)/100 (1),

A = cylindrical capacity (cm3)

B = unit of taxation (EUR/cm3) varying on pollution level;

C = correlation coefficient depending on the years of service of the vehicle;

D= depreciation coefficient depending on the years of service of the vehicle

The main critics of the assessment of this tax consist in its discriminatory characteristics, because it affects only imported second-hand cars, leaving indigenous second-hand cars untaxed and also in restricting the possibility of replacement of the old car, which is a non-desirable situation when the old car is more polluting than the "new" car. The European Commission had also criticized this measure, claiming its inconsistency with the European requirements. The registration taxes on vehicles put some problems like: double taxation, administrative procedures and extra costs, which creates obstacles to the free movement within the Community. In a recent paper[92], I have made some recommendations in order to improve the design of such a tax:

- the introduction of the CO2 based element in the assessment of tax;
- the implementation of a refund system in order to avoid double taxation;
- the gradual abolition of registration tax until 1st of January 2016 (Directive of the Council of European Union (2005/0130));

[92] Lazăr S. - „Registration Taxes on Vehicles: Evolutions and Trends in The European Union and Romania", Annals of Oradea University, Economics Series. Oradea, 2007;

On the other side, the partisans of such a tax considered that it has a positive impact on environment protection, and contributes to the development of indigenous automotive industry due to the prevalence of small cylindrical capacity vehicles in our domestic production.

Due to the numerous critics of the registration enacted on 1st January 2007, the authorities have came up with a new project of the tax[93], called now "vehicles pollution tax", meant to eliminate the inconsistencies with the EU requirements. The proposed formula used for the tax is:

Tax = A * B * (100-C)/100 (2),

A = cylindrical capacity (cm3)

B = unit of taxation (EUR/cm3) varying on pollution level;

C = diminution coefficient depending on the years of service of the vehicle, medium annual mileage, technical condition and optional equipments;

A starting point of analyses of the complying degree with the European normative is to reveal what European rules stipulate. In the field of registration taxes, there are few common rules that may be taken into account when it comes to tax the cars put in circulation. Nevertheless, a recent Directive of the Council of European Union (2005/0130) stipulates that every member state shall abandon any registration tax by the 1st January 2016. Nevertheless, in order to respond to environmental targets, the design of the registration tax must take into account the CO2 emissions as the main pillar of assessment. The reform of registration tax means that by 1 December 2008 (the start of the Kyoto period) at least 25% of the total tax revenue from registration taxes (but also from annual circulation taxes) should originate in the CO2 based element of each of these taxes. By 31 December 2010, at least 50% of the total tax revenue from both the annual circulation tax and the registration tax (pending its abolition) should originate in the CO2 based element of each of these taxes[94]. The proposed formula of the tax takes into consideration the CO2 emissions, but only indirectly, through the emission standards of vehicles and cylindrical capacity. But, too often such indicators do not reflect the real level of CO2 emission, due to the alteration of the nominal car specifications. Also, the new formula eliminates the depreciation coefficient (D) that was depending on the years of service of the vehicle and proposes new intervals of years of service for used cars. One major critics of the proposed project is the excessive taxation of new cars compared to the taxation of the same cars in the previous situation. For new cars that posses Euro 4 engines, the tax will rise by 2.614379 for capacities below 1600cm3 and by 1.24183 for capacities above 3000cm3. This will influence the selling of new vehicles in Romania, especially of those with lower power, but more environmentally friendly, greatly affecting the domestic producers which have the majority of the their cars below 1600 cm3.

Recently, Romanian authorities have come with the third version of the tax, which was under public debate, until April, the 10th. The major change consists in the introduction for Euro 4 and Euro 3 vehicles of a CO2 based element in the assessment of tax, in order to comply with the EU recommendations. For the rest, the tax is assessed in the same way, the only difference being the introduction of a supplementary interval of taxation for the vehicles with cylindrical capacity between 1401 and 1600 cm3. For Euro 4 and Euro 3 vehicles, the tax is determined as follows:

Tax = A * B *30/100 + C * D *70/100 * (100 – E)/100 (3),

A = CO2 emission (g/km) as mentioned in vehicle identification document;

B = unit of taxation (EUR/g CO2) varying on quantity of CO2 emitted;

C = cylindrical capacity (cm3)

D = unit of taxation (EUR/cm3) varying on emission standard;

E = depreciation coefficient depending on the years of service of the vehicle

The first term of the tax is taking into consideration the quantity of CO2 emitted by the vehicle, counting for 30% of the amount of the tax, while the second is taking into consideration the emission standard and the years of service of the vehicle, counting for the rest of 70%. The unit of taxation D was also changed, being now more progressive for Euro 2, Euro 1 and Non-euro vehicles (see figure no. 1). The 30 percents allocated to the CO2 emission may be questionable, but nevertheless it must be taken into consideration

[93] Available at http://www.mmediu.ro/proiecte_acte.htm;

[94] COMMISSION OF THE EUROPEAN COMMUNITIES - Proposal for a COUNCIL DIRECTIVE on passenger car related taxes, Brussels, 5.7.2005, COM(2005) 261 final, p. 8, available at: http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0261en01.pdf;

that the CO2 emission is just one of the pollutants generated by cars, along with nitrogen oxide, hydrocarbon and particulate matters which are more polluting, but do not generate global warming. The CO2 is the major source of the global warming, but the global warming is not the only concern when it comes to fight against pollution. The specific tax related to the CO2 emission (B from equation 3) is presented in table no. 1

CO2 emission (g CO2/km)	Specific tax (euro/g CO2
<=120	0
121 - 150	0,5
151 - 180	1
181 – 210	2
211 – 240	4
241 – 270	6
>=271	8

Table No. 1 The specific tax related to the CO2 emission

Source:
http://www.taxapoluare.audieripublice.ro/view_page.php?hash=9d828cc97915a651d29106b8e49bb60e

It is clear that the specific tax is progressive, the amount paid for every gram of CO2 increasing dramatically along with the amount of CO2 emitted. Thus, for a vehicle that emits less than 120 g CO2 per km there is no tax to pay, for a vehicle that emits 280 g CO2 per km the tax will be 2240 EUR and will generate 672 EUR in the general formula of tax (30% as specified in equation 3). The amount of tax generated by the CO2 emission is presented in figure no. 1

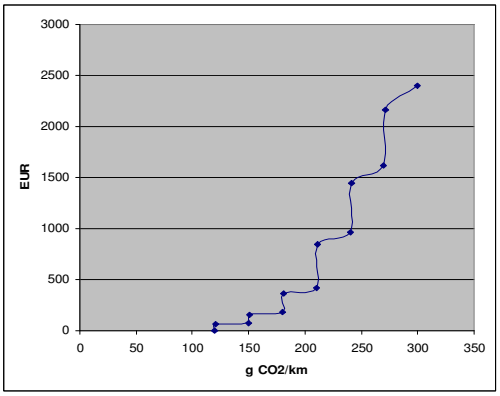

Figure no. 1. The amount of tax generated by the CO2 emission

The progressivity of taxation is obvious and one could appreciate it as being exaggerate. The simple progressive rates have the major inconvenient that they tax excessively the lower limit of an interval comparative to the higher limit of the previous interval. Thus, for 150 g CO2 emitted per km the tax will be 22.5 EUR (75 EUR * 0.3), but for 151 g CO2 emitted per km the tax will be 45.3 EUR (151 EUR * 0.3), more than twice as much. So, for just 1 g of CO2 emitted, the owner of the car will pay 22.8 EUR in extra taxes. Even though the partisans of this draft proposal must claim that such a solution of taxing the CO2 emission may discourage the acquisition of high polluting vehicles, the marginal taxation of an extra gram of CO2 emitted is, in our opinion, ***extremely progressive***. A solution may consist in imposing of a system based on ***compound progressive tax rates***, designed as follows:

CO2 emission (g CO2/km)	Specific tax (euro/g CO2)
<=120	0
121 - 150	0,5
151 - 180	75 EUR + 1 EUR for every g of CO2 emitted above 150 g
181 – 210	105 EUR + 2 EUR for every g of CO2 emitted above 180 g
211 – 240	165 EUR + 4 EUR for every g of CO2 emitted above 210 g
241 – 270	285 EUR + 6 EUR for every g of CO2 emitted above 240 g
>=271	465 EUR + 8 EUR for every g of CO2 emitted above 270 g

Table No. 2 The alternative specific tax related to the CO2 emission

Source:
http://www.taxapoluare.audieripublice.ro/view_page.php?hash=9d828cc97915a651d29106b8e49bb60e

Graphically, the alternative specific tax may be represented as follows:

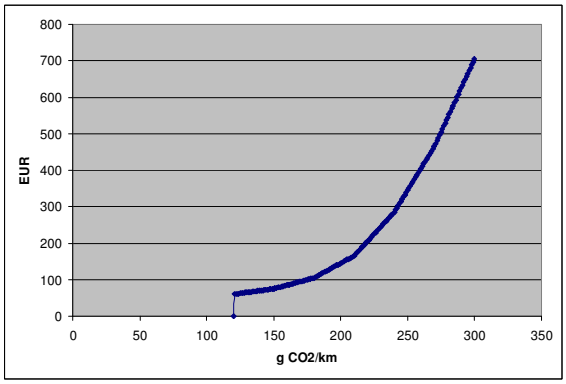

Figure no. 2. The amount of alternative tax generated by the CO2 emission

Such a taxation eliminates the situation in which for an extra gram of CO2 emitted, the owner has to pay much more in taxes. Also, we must take into consideration the fact that ***the quantity of CO2 emission is not a precise amount, being subject to numerous variations***, such as driving conduit or outside temperature. Nevertheless, almost everyone knows that consecutive tests on CO2 emissions may result in different results, an error of 1 g of CO2 being almost negligible. These are the reasons for which we plead for compound progressive tax rates and not for simple progressive tax rates as the authorities have proposed. The other part of the tax, the one that counts for the rest of 70 percents for Euro 3 and Euro 4 vehicles is related to cylindrical capacity, emission standards and depreciation of the vehicle. For Euro 2, Euro 1 and Non-Euro vehicles, this formula counts for the entire amount of tax (100%). The specific tax is denominated in EUR per cm3 of cylindrical capacity and it is presented in figure no. 3 by comparison with the actual variant (equation 1) and the precedent proposal (equation 2).

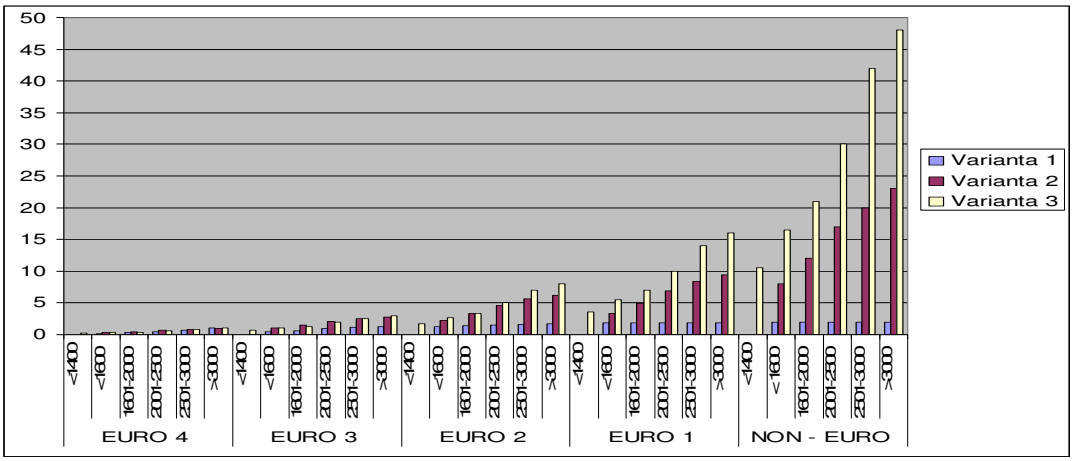

Fig. No. 3 The unit of taxation (EUR/cm3) for the three versions of the tax

The level of taxation is the highest for the last proposal (variant 3), especially for the Euro 2, Euro 1 and Non-Euro vehicles, when this form of taxation counts for the entire amount of tax (not just 70% as for Euro 3 and Euro 4 vehicles). Also, in the last proposal it has been introduced a new interval for cylindrical capacity, the one for engines below 1400 cm3. The tax rate has increased dramatically especially for Euro 1 and Non-Euro vehicles which are the most polluting in accordance with the "polluter pays" principle.

Another major critics that was tackled consists in the depreciation factor that has to be in accordance with the years of service of the vehicle, the average annually mileage, the technical status and the level of equipment. So, the actual proposal takes into consideration these factors, proposing new coefficients of depreciation better corresponding to the period of service of the vehicle, as seen in table no. 3.

Period of service	Depreciation coefficient (actual variant) (%)	Depreciation coefficient (proposal) (%)	Period of service	Depreciation coefficient (actual variant) (%)	Depreciation coefficient (proposal) (%)
new	15	0	6 - 7 years	47	49
< 1 month	15	3	7 - 8 years	47	55
1 - 3 months	15	5	8 - 9 years	47	61
3 - 6 months	15	8	9 - 10 years	47	66
6 - 9 months	15	10	10 - 11 years	47	73
9 months - 1 year	15	13	11 - 12 years	47	79
1 - 2 years	25	21	12 - 13 years	47	84
2 - 3 years	32	28	13 - 14 years	47	89
3 - 4 years	32	33	14 - 15 years	47	93
4 - 5 years	43	38	>15 years	47	95
5 - 6 years	43	43			

Table no. 3 The depreciation coefficient in actual variant and proposal

Source:
http://www.taxapoluare.audieripublice.ro/view_page.php?hash=9d828cc97915a651d29106b8e49bb60e

By comparison to the existent scheme, the proposal takes into consideration much more intervals for the years of service of the vehicles, and the coefficient is rising up to 95% for cars of more than 15 years of service. Also, for new cars the proposed depreciation coefficient is zero, as it should be. The comparative evolution of the depreciation coefficient in the actual scheme and the proposal can be seen in the figure no. 3.

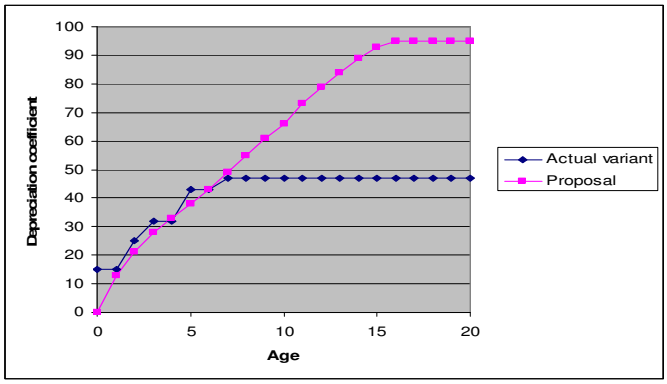

Figure no. 4. The comparative evolution of the depreciation coefficient

In the case of the proposal, the depreciation coefficient rise constantly with every year of service of the vehicle, reaching the maximum level of 95% for vehicles of more than 15 years of service. The increasing of the coefficient is more accelerated in the first years of service, as it can be seen in the figure no. 3. Another major critic of the registration tax, respectively the double taxation was tackled by instituting a ***procedure of reimbursement*** of the tax when the car is taken out from the domestic park of vehicles. The value to be refund is set to the residual value of the tax which represents the tax that would have been paid if the vehicle has been registered at the moment of the taking out. So, if a Romanian resident registers a car of two years of service, he pays the tax accordingly, and if he sells the car abroad (in the other member state) after four yeas, he is entitled to a refund calculated for the same car but with 6 years of service. This mechanism requires the tax to decrease along with the years of service, in order to avoid situations when the owner of the car receives more than he had been paid when he first registered the car. The new tax that will replace the actual one will not be a revenue for the state budget, but it will represent a revenue for the special fund for environment, thus, ***being dedicated to the financing of the specific environment preservation actions***, emphasizing the ecological characteristics of such a tax. The public debates did not change in any way the draft proposal of the authorities, but it is still to be seen the final form of the tax after the European Commission consultation, which could improve the assessment of the tax, by applying the ***progressive taxation using compound tax rates.***

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