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ABSTRACT

The paper presents the Romania tax framework concerning passenger cars taxation in a

comparative manner in European context. This framework causes a lot of criticism from

European officials and led to some reconsideration that shaped the actual form, which,

in our opinion, can be further improved. The paper designs a new methodology of the

assessment of the tax, which smoothed its progressivity, which can be considered as

exaggerate.

KEY WORDS

vehicles taxation, comparative analyses, progressivity of taxation, improvement

Jel Codes: H21

INTRODUCTION

Cars are the most important means of transport used by the European citizens in order to accomplish their right of free movement within the Community. Also, vehicle taxation is one of the most consistent sources of budget revenues in all member states, and also generates massive public expenditure for road infrastructure and environment protection. At the same time, vehicles generate a lot of CO2 emissions, and therefore, represent one of the biggest polluters. So, vehicle taxation is becoming one of the key factors of EU politics, because it deals with two major European issues: the free movement and the environmental protection, which apparently seems to be in opposition with each other.

The major vehicle related taxes in European Union can be summarized as follows: registration taxes, circulation taxes, fuel taxes, property taxes (especially for company cars), turnover taxes (VAT), excise duties and other consumption taxes. The present paper deals with the registration taxes, which became more disputed in the actual context of Romania.

AIM AND METHODOLOGY

The aim of the paper is to propose a framework for the assessment of the registration taxes on cars in Romania in compliance with the European requirements and taxation principles. The methodology used consists in:

- 1. studying the similar registration taxes existent in EU members;
- 2. identifying the core principles of the assessment of such taxes agreed at the European level;
- 3. analyzing the degree of conformity of the actual framework with the European requirements, and, on this basis, proposing solutions for improvement.

RESULTS

Paper finds that the progressivity of actual taxation of cars in Romania can be seen as very high, due to the simple progressive tax rates used in the assessment and propose a

system based on the compound progressive tax rates. Also, the paper suggests the extension of the CO2 based element in the assessment of the tax.

1. Registration taxes in EU

In The European Union there is little harmonization concerning registration taxes on vehicles. The tax rate lies between 0% and 180% of pre-tax car price in relative terms, and between 267 EUR and 15659 EUR [1]. A summary of such taxes can be viewed in the following table

Table no.1. Registration taxes in member states of the European Union

Member State	Registration taxes	Approximate amount of registration taxes and charges (EUR)	
Belgium	Registration tax (on the first registration) Tax base is cc	Range from 61,5 to 4,957	
Germany	None		
Denmark	Registration tax. Tax base is price incl. VAT. Advantages for save and eco-friendly cars	Rate is differentiated with price, 105% up to DKK 62,700 and 180% of remainder	
Spain	Registration tax. Tax base is price excl. VAT	Rate is differentiated with cc and diesel or gasoline. Range from 7 to 12 %.Rates can be increased up to 10% by Regional Government	
Greece	Registration tax. Tax base is the higher between ex-factory value of the vehicle+ freight+insurance or paid price	Rates take into account engine capacity and anti-pollutant technology	
France	None		
Italy	Registration tax. Fixed amount that can be increased by each Province up to 20%	150.81 (180.97)	
Ireland	Registration tax. Tax base is price incl. VAT	Rates depending on the cc between 22,5 and 30%	
Luxembourg			
Netherlands	Registration tax. Tax base is price excl. VAT	Rate is differentiated between petrol(45,2%) /diesel(45,2%)	
Austria	Registration tax. Tax base is price excl. VAT. Bonus-malus system for particle emissions	Rate is differentiated with fuel consumption. Maximum 16%	
Portugal	Registration tax. Tax base is cm3		
Finland	Registration tax. Tax base is price excl. VAT.	28%	
Sweden	None		
United Kingdom	None		
Czech Republic	None		
Hungary	Consumption tax (RT) -based on engine size and catalytic converter or not. Wealth tax, based on size of engine	10% -20% of purchase price of car. Differentiated petrol and diesel cars 15HUF/cm3<1890cm3 20HUF/cm3>1890cm3	
Latvia	Motor vehicle tax based on vehicle's years of service at time of acquisition	373 for new vehicle 223 for 2 year old vehicle	
Malta	Registration tax (1st registration)	Vary from 50,5% of car value if <1300cc, up to 75% if>2000 cc	
Slovakia	None		
Slovenia	Registration tax (1 st registration)	1% -13% purchase price	

Cyprus	Registration tax on new vehicles based on cc, type	Rates ranging from 0.51 CYP per cc for cars
- 51	of vehicles and with a CO ₂ emissions adjustment	<1450 cc up to 8.01 CYP for cars >2650 cc.
	-	-15% for cars emitting <150 g CO ₂ Km, but
		+10% for cars >2250 emitting >275g CO ₂
		Km
Estonia	None	
Lithuania	None	
Poland	Registration tax based on the value/price and the vears of service of the vehicle	Tax rate between 3.1 and 65%

Source: COMMISSION OF THE EUROPEAN COMMUNITIES – Annex to the proposal for a COUNCIL DIRECTIVE on passenger car related taxes, Brussels, 5.7.2005, COM(2005) 261 final, p. 35, available at: http://ec.europa.eu/taxation_customs/resources/documents/taxation/other_taxes/passenger_car/impact_assessment_ElAfinal_en.pdf;

From the table we can notice that countries such: Germany, France, Luxembourg, Sweden, United Kingdom, Czech Republic, Slovakia, Estonia and Lithuania have no registration taxes. The rest of the countries taxes the registration of cars, using a variety of tax bases (price, cylindrical capacity, age, level of pollution) and tax rates (advalorem or fixed amount).

2. Principles and directives set by the European Commission

The first directives in the field were 83/182 and 83/182 that were adopted when internal frontiers between member states still existed. They referred to VAT, excise duties and other consumption taxes, but make no reference to registration taxes. From 1st of January 1993, Directive 91/680 set new rules applicable to VAT on cars purchased in another member state. But 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.

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 the same time, registration taxes could prevent the registration of high-polluting cars, by differentiation in the level of taxation in accordance with the CO2 emissions. Thus, authorities in member states are confronted with a controversial issue, when it comes to registration tax on vehicles, mainly due to both the advantages and disadvantages of such an instrument of fiscal policy.

When it comes to the reduction of the pollution generated by cars, the target set at European level consists in reducing CO2 emissions from new passenger cars to 120

gram per kilometre by 2010 at the latest. In the year 2000, the average level of CO2 emissions from newly registered cars was 172 g/km [4], which indicates a very long way to meeting the target.

In this context, the major issue that appears consists in the way in which the authorities should react in order to reduce CO2 emissions, and in the same time to gradually abandon a powerful fiscal instrument meant to assist them in fulfilling CO2 emissions objective. Thus, the registration taxes have to be designed in such manner as to fulfil the following European requirements:

- the implementation of a refund system in order to avoid double taxation;
- the introduction of the CO2 based element in the assessment of tax;
- the gradual abolition of registration tax until 1st of January 2016;

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 [1].

3. The Romania' Case

The registration tax on passenger cars first appeared in Romania when the country adhered to the EU, on January the 1st, 2007, mainly to compensate the abolition of customs and excise duties due to the new status as a member of the EU. The criticism was very intense, both from the part of the tax payers and of the European Commission and led to a new design of the tax that was put into practice on July, the 1st, 2008. The new framework took into considerations the European principles by introducing the CO2 based element in the assessment of tax and by implementing the refund system based on the residual value of the tax.

Table No.2. The assessment of the tax depending on pollution standards

Hybrid, Electric,	Euro 3, Euro 4	Euro 2, Euro 1, Non Euro
Euro 5, Euro 6		
-	A * B *30/100 + C * D *70/100 * (100 – E)/100	C * D * (100 – E)/100
	A = CO2 emission (g/km) as mentioned in vehicle identification document;	$C = cylindrical\ capacity\ (cm3)$
	B = unit of taxation (EUR/g CO2) varying on quantity of CO2 emitted;	D = unit of taxation (EUR/cm3)
	$C = cylindrical\ capacity\ (cm3)$	varying on emission standard;
	D = unit of taxation (EUR/cm3) varying on emission standard;	E = depreciation coefficient depending
	E = depreciation coefficient depending on the years of service of the vehicle	on the years of service of the vehicle

Source: fiscal legislation

As we can notice, the CO2 based element is taken into considerations only for Euro 3, and Euro 4 vehicles, for 30% of the total amount of the tax. The rest of 70% is based on emission standard and the years of service of the vehicle. The specific tax related to the CO2 emission (B from equation 3) is presented in table no. 1

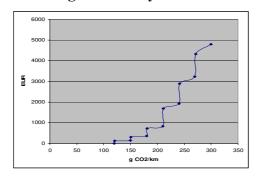
Table No. 3 The specific tax related to the CO2 emission

CO2 emission (g CO2/km)	Specific tax (euro/g CO2) – OUG 50/2008- from July, 1 st , 2008	Specific tax (euro/g CO2) OUG 9/2009 – from March, 1 st , 2009
<=120	0	0
121 - 150	0,5	1
151 - 180	1	2
181 - 210	2	4
211 – 240	4	8
241 – 270	6	12
>=271	8	16

Source: fiscal legislation

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



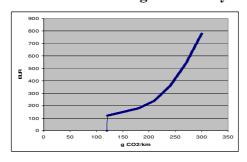
The progressivity of taxation is obvious and one could appreciate it as being exaggerate. The simple progressive rates have the major inconvenient that they tax excessively the lower limit of an interval comparative to the higher limit of the previous interval. Thus, for 150 g CO2 emitted per km the 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:

Table No. 4 The alternative specific tax related to the CO2 emission

CO2 emission (g CO2/km)	Specific tax (euro/g CO2)
<=120	0
121 - 150	1
151 - 180	150 EUR + 1 EUR for every g of CO2 emitted above 150 g
181 – 210	180 EUR + 2 EUR for every g of CO2 emitted above 180 g
211 – 240	240 EUR + 4 EUR for every g of CO2 emitted above 210 g
241 – 270	360 EUR + 6 EUR for every g of CO2 emitted above 240 g
>=271	540 EUR + 8 EUR for every g of CO2 emitted above 270 g

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.

CONCLUSION

Although there has been some progress in the improvement of the assessment of the registration tax in Romania, there is still to be done, mainly in the field of progressivity of the tax, through introduction of a system based on compound progressive rates as suggested in table no.4.

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