

MOTOR VEHICLES TAXATION IN THE EUROPEAN UNION – COOPERATION OR COMPETITION?

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ABSTRACT

This study focuses on registration taxes and regularly paid taxes in conjunction with motor vehicles. It analyses time and performance charging for the use of road infrastructure only to a certain and necessary extent. This study follows the IMRaD structure. The text demonstrates that the level of motor vehicle taxation in individual EU Member States differs not only in the number and type of taxes imposed on motor vehicles, but also in the legal construction of individual structural components. The level of harmonisation in motor vehicle taxation is currently extremely low. European cooperation regarding motor vehicle taxation is limited, and the competition between the EU Member States prevails. The EU rules concerning car taxation are adequate with regard to single market principles. However, the EU rules in this area are not acceptable in terms of economic circumstances. De lege ferenda, several motivational factors should be considered to improve the regulation. Registration taxes on motor vehicles should be abolished entirely. The tax base should be green-based, determined by the amount of CO₂ emissions, to follow sustainable and polluter-pays principles. Circular taxes on motor vehicles should remain under the responsibility of each EU Member State, and the EU should refrain from taking steps to harmonise this area of taxation. Nevertheless, the principles of sustainability should be strengthened in national regulations. Taxes on motor vehicles are an ideal example of reflecting environmental elements.

KEYWORDS

tax on motor vehicle
registration tax on motor vehicle
circular tax on motor vehicle
sustainability

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1. Introduction

In some parts of the world, owning a car is essential for everyday life: it is necessary to make journeys, whether professional (for work or business) or private (for shopping or pleasure). Such a situation is caused primarily owing to the low level of public transport, lifestyle, and historical development. Therefore, there is no property tax on cars in the United States. However, in Europe and Japan, vehicle ownership is one of the indicators of the owner's wealth. As Láchová points out, owning more than one car in a household often indicates taxpayers' wealth and social situation more than owning a standard family home or apartment.²

Motor vehicles are subject to many types of taxation in the European Union (EU) countries. Many countries apply various tax instruments to secure significant budgetary revenues from both private car users and commercial vehicles.

In principle, two basic types of taxes on motor vehicles can be distinguished:

- Taxes payable at the time of acquiring the car or when it is first put into service. In some countries, this tax is called a registration tax.
- Taxes paid periodically (circulation taxes) in relation to the ownership or possession of the vehicle. The advantage of this system of taxation is, above all, a more stable source of revenue, since vehicles are subject to the tax for their entire lifetime. Unlike registration taxes, taxes paid regularly are not sensitive to the economic cycle.

In addition to these basic types, taxes affecting motor vehicles include value-added tax (VAT), fuel taxes, and various fees and other charges for using the motorway and road network. Typical examples are vignettes and various toll systems. Some authors also add administrative charges connected with vehicle registration, insurance tax, and parafiscal charges on insurance premiums.³

Owing to different historical developments and social backgrounds, the level of motor vehicle taxation in individual EU Member States differs. This study aims to examine how and to what extent the EU can influence motor vehicle taxation, that is, whether there is any European cooperation in this area or competition between EU Member States prevails. As the EU clarified some rules that Member States must respect when car registration and circulation taxes are applied, the hypothesis to be confirmed or disproved is: The EU rules concerning car taxation are adequate with regard to single market principles and economic circumstances.

The following text examines registration taxes and regularly paid taxes in conjunction with motor vehicles. It analyses time and performance charging for the use of road infrastructure only to a certain and necessary extent. VAT, fuel taxation, and other possible taxes connected to motor vehicles (e.g. charges for issuing a registration plate) remain outside the scope of this text.

2 | Láchová, 2004, p. 153.

3 | Kunert and Kuhfelt, 2007, p. 307.

2. Methodology

This study follows the IMRaD (introduction, methodology, research, and discussion) structure. In the Research section, it is necessary to describe the existing policy of the EU regarding motor vehicle taxation. As there were several changes in the political approaches, it is also helpful to compare historical consequences and developments. Moreover, the descriptive and comparative approaches are used when evaluating national regulations with one another and with EU regulations. The analytical method allows to assess both the current harmonisation within the EU regarding legal regulation of motor vehicle taxation and the implementation of European law into the national legal systems.

The research question of how and to what extent the EU can influence motor vehicle taxation can be answered by synthesising acquired knowledge. The Discussion and Conclusion sections compare the structural components of motor vehicle taxes. This enables to evaluate the level of European cooperation in the field of motor vehicle taxation and the tendencies of individual EU Member States to maintain their own tax policy instruments in this sector. As non-harmonisation causes competition between EU Member States, assessing whether national policies interfere with the free movement of people, goods, and services is necessary. The Conclusion section confirms or disproves the hypothesis whether EU rules concerning car taxation are adequate with regard to single market principles and economic circumstances.

3. Research

3.1. General EU approaches and principles

The European Commission Press release from 2012 states that:

Car taxation accounted for around 1.9% of all tax revenue across Member States in 2010.⁴ Each year, more than 13 million new passenger cars are registered in the EU, while over 3 million cars are moved to another Member State. Registration and circulation taxes are not harmonized in the EU, risking double taxation for citizens and businesses and the fragmentation of the Single Market.⁵

Regarding charges for using the motorway and road network, it is usual practice that a carrier is *de facto* taxed in each country it passes through (in the form of various taxes or charges for the use of motorways and roads). However, this is not inherently double taxation. In fact, the charge is always levied only on the use of the transport infrastructure of that State. Double taxation would perhaps only arise in the case of a regular tax

4 | Kunert and Kuhfelt (2007, p. 306), having a broader list of taxes on motor vehicles, including petroleum tax and VAT, state that the generated taxes in EU Member States compare to up to 5% of the gross national product.

5 | European Commission, 2012c.

on motor vehicles. However, even this situation does not need to be dealt with by double taxation treaties, as the practice throughout the EU is to tax vehicles only in the State of registration. Such a practice is also incorporated into the Eurovignette Directive, and it was confirmed by the judgement of the European Court of Justice in joined cases C-151/04 and C-152/04 (Nadin and others) in 2005:

It is contrary to Article 43 EC for the domestic legislation of one Member State, such as the legislation at issue in the cases in the main proceedings, to require a self-employed worker residing in that Member State to register there a company vehicle made available to him by the company for which he works, established in another Member State, when it is not intended that that vehicle should be used essentially in the first Member State on a permanent basis and it is not, in fact, used in that manner.

For several decades, the European Commission has attempted to solve problematic issues in vehicle taxation, that is, in cross-border situations (high registration taxes on cars transferred between Member States in the context of the transfer of permanent residence, the multitude of different and uncoordinated thresholds, and technical triggers for different levels of taxation such as engine size, fuel used or CO₂ emissions⁶). The type, structure, and level of taxation of motor vehicles are influenced not only by the different tax bases and rates, but also by the location of the country, social background of the citizens, state of infrastructure, country's transport policy, structure of the industry, environmental protection level and so on. It is these factors that are also reflected in the tax area and consequently affect not only the freedom to decide in which of the EU Member States to purchase a vehicle, where to register it, and where to pay taxes when changing residence or company headquarters, but ultimately also the competitiveness of entrepreneurs in individual Member States.

Three initiatives of the European Commission should be mentioned regarding circular and registration taxes. In 1983, the Council Directive that restricts the rights of Member States to apply consumption taxes to vehicles⁷ was adopted. In 1998, the proposal introducing a mandatory exemption when private motor vehicles were permanently brought into a Member State from another Member State in connection with the transfer of normal residence of a private individual was presented. The most substantial proposal was introduced in 2005.⁸ The Commission aimed to abolish registration taxes altogether (over a transitional period of five to ten years) and replace them with annual ('green') circulation taxes. The lost revenue from registration taxes would be offset by higher rates of motor vehicle taxes paid annually. The EU has also developed a possible scenario (although it has been withdrawn from the EU website⁹). The sustainability was expressed by the demand to restructure the tax base to include elements directly related to carbon dioxide emissions of (passenger) cars. The 2005 proposal aimed only to establish an EU structure for passenger car taxes and not to harmonise tax rates or oblige Member States to introduce new taxes. The following negotiations between the EU Member States

6 | European Commission, 2012a, p. 2.

7 | Council Directive 83/182/EEC of 28 March 1983 on tax exemptions within the Community for certain means of transport temporarily imported into one Member State from another.

8 | European Commission, 2005.

9 | European Commission, 2008.

in the Council were unsuccessful, and the Commission withdrew the proposal in 2015. Moreover, the 1998 proposal never received the required unanimous support of the Member States.

To summarise, the level of harmonisation of national fiscal provisions applied by the Member States in motor vehicle taxation is currently extremely low. Only the Council Directive 83/182/EEC restricts the rights of Member States to apply consumption taxes to vehicles. In all other aspects, each EU Member State has almost full discretion to regulate car taxation. The only limitations are set in the Treaties (TEU and TFEU) containing general principles such as national provisions should not give rise to border-crossing formalities in trade between Member States and must respect the non-discrimination principle.¹⁰

| 3.2. Several notes on time and performance charges for the use of road infrastructure

In the road and motorway use taxation sector, the primary objective of European legislation is to prevent discrimination between road and motorway users from different countries and strengthen competition. The first step towards achieving these aims was Council Directive 93/89/EEC of 25 October 1993 on the application by Member States of taxes on certain vehicles used for the carriage of goods by road and tolls and charges for the use of certain infrastructures. The Directive became the European framework for methods of taxation of motorway and road use, such as tolls and vignettes. However, owing to the lack of consultation of the Directive with the European Parliament after the Council made some changes to the proposal, the Directive was declared invalid by a judgement of the Court of Justice on 5 July 1995. However, its effects, which were reasonable for achieving the goals, were maintained in the national regulations.

It was not until 1999 that a new directive was adopted. However, in practice, the Directive is referred to as the 'Eurovignette Directive' rather than by its official title, Directive 1999/62/EC of the European Parliament and of the Council of 17 June 1999 on the charging of heavy goods vehicles for the use of certain infrastructures. The Directive applies only to vehicles weighing more than 12 tonnes. It regulates a somewhat broader area than simply tolls (performance charges) and user (time) charges; it also regulates regular (circular) vehicle taxes in a framework. For example, this Directive includes the requirement to collect the tax only in the Member State where the vehicle is registered. Owing to the possibility of circumventing this provision (low or even zero rates in a Member State), minimum rates are also prescribed. Tolls and time charges are generally stipulated to be levied only for the use of motorways or multi-lane roads for motor vehicles and for the use of bridges, tunnels, and mountain passes. Unlike circular vehicle taxes, tolls and time charges are subject to maximum rates, however, for the same anti-discriminatory reasons and to ensure the free movement of services.

The Eurovignette Directive was amended several times. Since 2006,¹¹ the range of vehicles covered by the provisions of the Eurovignette Directive was extended to include

10 | European Commission, 2012b.

11 | Directive 2006/38/EC of the European Parliament and of the Council of 17 May 2006 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures.

vehicles weighing between 3.5 and 12 tonnes, with effect from 2012. In 2011,¹² the scope of the Directive was extended to cover the Member States' motorways network, which is not part of the TEN-T. Moreover, the amendment states that the Member States shall impose either tolls or user charges; only for the use of bridges, tunnels, and mountain passes, tolls may be imposed in either case. User charges shall be proportionate to the duration for which the infrastructure is used, not exceeding a certain percentage for a day, week, month, or year. New sustainability aspects occurred: the external-cost charge may be related to the cost of traffic-based air pollution, and if road sections are crossing areas with a population exposed to road traffic-based noise pollution, the charge may also include the cost of this pollution. Member States have to determine the use of revenues received under the Directive, and they should invest the proceeds in a manner that makes transport more sustainable.¹³

The latest important amendment was adopted in 2022.¹⁴ The ecological and sustainable aspects are crucial as the amendment aims to phase out the time-based charging model across the core trans-European transport network by 2030 and replace it with distance-based charges (tolls). Member States have the option of establishing a combined charging system for (all or some types of) heavy-duty vehicles, which would bring together distance and time-based elements and integrate the two variation tools (the new one based on CO₂ emissions and the existing one based on EURO classes). The new system means fully implementing the 'user/polluter pays' principle. However, individual Member States have the flexibility to design their road charging systems; they can apply different tolls and user charges for different categories of vehicles.¹⁵

| 3.3. National regulations

As aforementioned, this study examines two basic types of taxes on motor vehicles. The registration tax is payable at the time of acquiring the vehicle or, in some cases, when it is first put into service. For the purposes of this study, the term 'registration tax' covers all types of taxes currently linked to the registration of a vehicle, not considering the title of such a public payment. In practice, this term includes taxes, charges, fees, excise duties, different types of environmental bonus-malus schemes and so on. However, it does not include VAT, administrative fees connected with the registration of a vehicle, or technical inspection costs. The registration tax as a one-time tax is sensitive to the economic cycle owing to the downturns in economic activities during the recessions.

The circulation tax on motor vehicles is paid periodically (usually yearly). The term 'circulation tax' does not cover tolls, vignettes, and excise taxes on fuels. The circulation tax is generally connected with the possession of the vehicle. As it is a property tax, one would expect the connection with the ownership. However, owing to the high number of cars on lease owned by leasing companies, the possession and usage of the vehicle is more appropriate when setting the taxpayer. The circulation tax is more common in the

12 | Directive 2011/76/EU of the European Parliament and of the Council of 27 September 2011 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures.

13 | Weismann, 2013, pp. 11–13.

14 | Directive (EU) 2022/362 of the European Parliament and of the Council of 24 February 2022 amending Directives 1999/62/EC, 1999/37/EC and (EU) 2019/520, regarding the charging of vehicles for the use of certain infrastructures.

15 | Croner-i, 2022.

EU Member States compared with the registration tax. Double taxation is impossible as the circulation tax is levied only in the State in which a car is registered. Generally, the circulation tax is a stable revenue source for public budgets since vehicles are liable for the tax for their entire lifetime, therefore, the tax is not sensitive to the economic cycle. In addition to the fiscal function, the circulation tax has some regulative (ecological) effects: it may be differentiated according to the type of car, type of engine, engine size or engine power, the fuel used, or the environmental performance of the vehicle.

3.3.1. Registration tax

In 2012, I published a table summarising motor vehicle taxes in the EU Member States that was valid in 2012¹⁶ (according to the Taxes in Europe Database¹⁷). Concerning the registration tax, 19 countries were collecting any registration tax. In the same year, the European Commission published a Commission staff working document¹⁸ mentioning 18 EU Member States collecting registration taxes. Comparing both materials, I did not mention France, while the European Commission omitted Bulgaria and Latvia. Table 1 combines both sources.

Table 1: Registration taxes in the EU Member States in 2012

State	Tax	Tax base
Austria	Standard consumption tax	Price, fuel consumption, CO ₂ emissions
Belgium	a. Vehicle registration tax b. Eco-Malus (Région Wallonne)	Engine power
Bulgaria	Vehicle registration tax	Engine power or weight and number of axles (depending on the type of vehicle)
Cyprus	Registration tax	Engine power, CO ₂ emissions
Denmark	Registration tax	Price, fuel efficiency
Finland	Car tax	CO ₂ emissions
France	a. Tax on vehicle registration certificates b. Additional tax on registration certificates – Malus applicable to polluting passenger cars	a. Horsepower b. CO ₂ emissions
Greece	a. Registration tax b. Luxury tax	Price
Hungary	Registration tax	Engine power, year of manufacture, fuel type
Ireland	Vehicle registration tax	CO ₂ emissions
Italy	a. Provincial registration tax b. Stamp duty and tax on value-added tax	Engine type and power
Latvia	Vehicle registration tax	CO ₂ emissions, year of manufacture
Luxembourg	Motor vehicle tax	CO ₂ emissions
Malta	Motor vehicle registration tax	CO ₂ emissions, vehicle value
The Netherlands	Tax on passenger cars and motorcycles	Price, fuel type, CO ₂ emissions
Poland	Excise duty levied on vehicles before first registration in the territory of Poland	Price
Portugal	Tax on motor vehicles	Engine power, CO ₂ emissions

16 | Radvan, 2012, pp. 138–141.

17 | European Commission, 2012d.

18 | European Commission, 2012.

Romania	Registration tax	Engine power, CO ₂ emissions, vehicle type
Slovenia	Motor vehicle tax	Price, CO ₂ emissions, fuel type
Spain	Excise tax on certain means of transport	Price

As aforementioned, in 2005, the European Commission proposed abolishing registration taxes altogether in a horizon of five to ten years. The Commission was aware that the registration tax created a significant part of the budget revenues for some countries and prepared a possible scenario for replacing the lost revenue from registration taxes with higher rates of circular motor vehicle taxes.

Table 2: Impact of shifting registration taxes to circular taxes in EU Member States¹⁹

	Registration tax 2005 (EUR)	Registration tax 2015 (EUR)	Circular tax 2005 (EUR)	Circular tax 2015 (EUR)	Difference in circular tax 2005 – 2015
Austria	1,556	0	180	321	78 %
Belgium	307	0	303	335	11 %
Denmark	14,400	0	370	1,347	264 %
Finland	11,108	0	239	587	146 %
France	0	0	49	49	0 %
Germany	0	0	130	130	0 %
Greece	1,887	0	119	198	66 %
Ireland	3,737	0	292	585	100 %
Italy	181	0	147	160	9 %
Luxembourg	12	0	79	81	3 %
The Netherlands	4,438	0	494	811	64 %
Portugal	4,520	0	40	568	1,314 %
Spain	1,341	0	57	144	152 %
Sweden	0	0	170	170	0 %
Great Britain	0	0	230	230	0 %

In addition to replacing registration tax revenue with circular tax revenue, the second theme of the Commission's proposal was sustainability. The 'green taxation' principle was expressed by the demand to restructure the tax base to include elements directly related to the carbon dioxide emissions of cars.

However, the following negotiations concerning the 2005 Commission proposal on passenger car-related taxes between the EU Member States in the Council were unsuccessful. It was impossible to receive the required unanimous support of the Member States. In 2015, the Commission completely withdrew the proposal.

Proceeding to 2024, according to the Taxes in Europe Database,²⁰ the motor vehicle registration tax is collected in the following countries:

19 | European Commission, 2008. All numbers are the average taxes in each country.

20 | European Commission, 2024.

Table 3: Registration taxes in EU Member States in 2024

State	Tax	Tax base
Austria	Standard consumption tax	Price, CO ₂ emissions (no tax on electric cars)
Belgium	Vehicle registration tax	Engine power, CO ₂ emissions
Bulgaria	a. Vehicle registration tax b. Environmental fee	Price Vehicle type
Croatia	Special tax on motor vehicles	Price, CO ₂ emissions
Denmark	Registration tax	Price, CO ₂ emissions
Finland	Car tax	CO ₂ emissions
France	a. Tax on vehicle registration certificates b. Additional tax on registration certificates - Malus applicable to polluting passenger cars	a. Horsepower b. CO ₂ emissions
Greece	a. Registration tax	Price, CO ₂ emissions
Hungary	Registration tax	Engine power, year of manufacture, fuel type
Ireland	Vehicle registration tax	Price, CO ₂ emissions
Italy	a. Public motor vehicle register tax b. Stamp duty and tax on value-added tax	Engine type and power, EURO limits
Lithuania	Motor vehicle registration fee	CO ₂ emissions
Latvia	Vehicle registration tax	CO ₂ emissions
Malta	Motor vehicle registration tax	CO ₂ emissions, length
The Netherlands	Tax on passenger cars and motorcycles	Price (only motorcycles), fuel type, CO ₂ emissions
Poland	Excise duty levied on vehicles before first registration in the territory of Poland	Price
Portugal	Tax on motor vehicles	Engine power, CO ₂ emissions
Romania	Environmental stamp duty	Engine power, CO ₂ emissions, vehicle type
Slovakia	Registration tax	Engine power
Slovenia	Motor vehicle tax	CO ₂ emissions, fuel type
Spain	Special tax on certain means of transport	Price

Comparing Tables 1 and 3 demonstrates that only a few countries changed their tax base towards sustainability. However, in several states, CO₂ emissions play a more significant role (e.g. in Denmark). It is insufficient to refer only to environmental aspects in the title but to leave the tax base as the type of the vehicle (Bulgarian Environmental fee).

3.3.2. Circular tax

The overview of motor vehicle circulation tax in EU Member States in 2012 was published in my previous study²¹ (according to the Taxes in Europe Database²²). These data, improved by a Commission staff working document²³ published in the same year, serve as a source for the following Table 4. Interestingly, there was no circular tax on motor vehicles in Estonia. Moreover, the Commission materials stated that no circular tax was collected in France, Poland, and Lithuania.

21 | Radvan, 2012, pp. 138–141.

22 | European Commission, 2012d.

23 | European Commission, 2012.

Table 4: Circular taxes in EU Member States in 2012

State	Tax	Tax base
Austria	Motor vehicle tax	Weight, engine power
Belgium	Motor vehicles tax - Tax on traffic circulation	Engine power
Bulgaria	Transport vehicles tax	Engine power, year of manufacture
Cyprus	Motor vehicle tax	Engine power, CO ₂ emissions
The Czech Republic	Road tax	Engine power (personal cars), combination of weight and number of axles (other vehicles)
Denmark	a. Motor vehicle weight tax b. Green tax on personal motor vehicles	a. Weight b. Fuel consumption
Finland	Vehicle tax	Weight, CO ₂ emissions
France	Business vehicle tax	Engine power, CO ₂ emissions
Germany	Motor vehicle tax	Engine power, weight, CO ₂ emissions
Greece	Road tax on motor vehicles	Engine power, weight, number of seats, CO ₂ emissions
Hungary	Motor vehicle tax	Engine power, weight
Ireland	Motor vehicle duty	CO ₂ emissions
Italy	Motor vehicle tax	Engine power, weight
Latvia	Vehicle operation tax	CO ₂ emissions, weight
Lithuania	Business motor vehicle tax	Weight
Luxembourg	Motor vehicle tax	CO ₂ emissions, fuel type
Malta	License fee on motor vehicles	Engine power, fuel type, year of manufacture
The Netherlands	Motor vehicle tax	Weight, fuel type, regional surcharge
Poland	Motor vehicle tax	Weight
Portugal	Motor vehicle tax	Engine power, weight, number of axles, CO ₂ emissions
Romania	Motor vehicle tax	Engine power, weight, number of axles
Slovakia	Motor vehicle tax	Engine power, weight, number of axles
Slovenia	Motor vehicle usage charge	Engine power, weight, number of seats
Spain	Motor vehicle tax	Engine power
Sweden	Motor vehicle tax	CO ₂ emissions, fuel type
The United Kingdom	Motor vehicle tax	CO ₂ emissions

Circular taxes on motor vehicles in EU Member States appeared less modern and more conservative than the registration taxes. The aspects of weight and engine power prevail when setting the tax base. However, as early as 2012, there were sustainable aspects of CO₂ emissions in several countries, specifically in Benelux, Scandinavia, and also in the United Kingdom. Over the last 12 years, legislative developments have been characterised by a greater inclination towards the green aspects of motor vehicle taxation in EU Member States, as evident from the Taxes in Europe Database.²⁴

Table 5: Circular taxes in EU Member States in 2024

State	Tax	Tax base
Austria	Motor vehicle tax	CO ₂ emissions
Belgium	Motor vehicles tax - Tax on traffic circulation	Engine power
Bulgaria	Transport vehicles tax	Engine power, year of manufacture
Croatia	Tax on road motor vehicles	Engine power, year of manufacture
Cyprus	Motor vehicle tax	CO ₂ emissions
The Czech Republic	Road tax	Combination of weight and number of axles
Denmark	a. Motor vehicle weight tax b. Green tax on personal motor vehicles	a. Weight b. Fuel consumption
Finland	Vehicle tax	CO ₂ emissions, weight
France	a. Annual tax on CO ₂ emissions b. Annual tax on air pollution	a. CO ₂ emissions b. Pollutions levels
Germany	Motor vehicle tax	CO ₂ emissions, engine power, weight
Greece	Road tax on motor vehicles	CO ₂ emissions, weight, number of seats
Hungary	a. Motor vehicle tax b. Company car tax	a. Engine power, weight b. Engine power, environmental protection class
Ireland	Motor vehicle duty	CO ₂ emissions
Italy	Motor vehicle tax	Engine power, weight
Latvia	Vehicle operation tax	CO ₂ emissions, weight
Lithuania	Motor vehicle tax	Vehicle emission class
Luxembourg	Motor vehicle tax	CO ₂ emissions
Malta	License fee on motor vehicles	CO ₂ emissions
The Netherlands	Motor vehicle tax	Weight, fuel type, CO ₂ emissions, regional surcharge
Poland	Motor vehicle tax	Weight
Portugal	Motor vehicle tax	Engine power, weight, number of axles, CO ₂ emissions
Romania	Motor vehicle tax	Engine power, weight, number of axles
Slovakia	Motor vehicle tax	Engine power, weight, number of axles
Slovenia	Motor vehicle usage charge	CO ₂ emissions, Euro emission standards, fuel type
Spain	Motor vehicle tax	Engine power
Sweden	Motor vehicle tax	CO ₂ emissions, fuel type
The United Kingdom	Motor vehicle tax	CO ₂ emissions

Comparing regulations between 2012 and 2024, several states began using CO₂ emissions or other ecological tools as the tax base (e.g. Austria, France, Slovenia, Lithuania) or increased the importance of CO₂ emissions in determining the tax base (e.g. Malta, the Netherlands, Sweden).

4. Discussion

The first important issue to be clarified is the characteristics of taxes and charges/fees (or other public payments, such as levies and duties) connected with motor vehicles. The systematics of these taxes have been conducted in the Introduction section. In

addition to VAT and fuel taxes, three types of taxes on motor vehicles can be identified. In principle, two basic types of taxes on motor vehicles can be distinguished: registration tax, circular tax, and various fees and other charges for using the motorway and road network (vignettes and tolls). The registration tax is payable at the time of acquiring the vehicle or when it is first put into service. From these perspectives, the registration tax is similar to an (indirect) excise tax. Similar to alcohol or tobacco excise taxes, the sum of the price of a motor vehicle and the registration tax is the tax base for the value-added tax. Altogether, these public payments create the final price to be paid by the customer. From this perspective, the tax is sensitive to the economic cycle.

The circulation tax is a periodical tax related to the ownership or possession of the vehicle. It is a typical property tax to a certain limit, similar to an immovable property tax. As a tax on property, it should be identified as a direct tax (being paid directly by the taxpayer to the tax office, calculated by a taxpayer, and based on a tax return). However, according to the Taxes in Europe Database,²⁵ some countries classified it as an indirect tax. As a tax paid regularly for the entire lifetime of the vehicle, it is not sensitive to the economic cycle and creates a stable source of public revenues.

| 4.1. *Selected structural components of motor vehicle taxes*

The research on registration and circulation taxes on motor vehicles in the EU Member States indicated that the system of taxes on motor vehicles is extremely different. Regardless of the fact that the titles of taxes are often similar, the structural components differ. For example, the circulation tax should be connected with the vehicle's possession (or usage) as the high number of cars on lease are owned by leasing companies. Although possession and/or usage of the vehicle is more appropriate and preferable when setting the taxpayer, many countries continue to indicate the owner as a taxpayer (e.g. leasing companies contractually pass on the tax costs to the car user).

The other problematic issue is the definition of the object of taxation. Thus, which motor vehicles should be liable to taxation? As the Eurovignette Directive sets minimum circular tax rates for all vehicles with a weight over 12 tonnes, it can be stated that all trucks exceeding this limit are to be taxed. However, in the case of vehicles below this limit, the EU Member States are free to tax or not tax them. The Czech Republic can serve as an excellent example where private (non-business) personal cars were never liable to tax. In the middle of 2022 (and with a retroactive effect from 1 January 2022), the amendment to the Road Tax Act²⁶ was published. According to the existing valid legal regulation, the objects of taxation are no longer all vehicles with a weight lower than 3.5 tonnes, that is, all personal cars. With respect to the Eurovignette Directive, other vehicles continue to be liable to tax. Nevertheless, the effective motor vehicle tax (non-zero tax rate) is levied on a vehicle of a certain number of axles only from a certain specified tonnage of its maximum permissible weight (for example, for single vehicles with two axles up to 12 tonnes, for vehicles with three axles up to 16 tonnes).²⁷ Similar discussions can be held about which vehicles should be liable for registration tax.

Other interesting differences can be found in the construction of the tax base. The price is highly expected to be selected as the criteria for the registration tax as an excise

25 | European Commission, 2024.

26 | Act no. 16/1993 Sb., as amended.

27 | Radvan, 2023, p. 234.

tax. However, the registration tax can also be considered as a type of surcharge to the price of the vehicle. Such a surcharge can be influenced by engine power, fuel type, fuel consumption and so on. As a registration tax is increasingly considered as a green (ecological) tax, CO₂ emissions play a more crucial role in the tax base construction. Interestingly, in some countries (Hungary and Latvia), the age of a motor vehicle can influence the registration tax.

Some of these findings concerning the tax base are also valid for the circular tax. However, CO₂ emissions are becoming even more relevant compared with the registration tax. In practice, splitting the EU Member States into two groups is possible. In the first group, the circular tax is a type of ecological tax where primarily CO₂ emissions (Euro emission standards, environmental protection classes, pollution levels, etc.) are the tax base. The second group is created by countries with the more traditional concept of determining the tax base, usually by the engine capacity. However, some countries, following the principle of load and road damage, use the combination of the weight of the vehicle and the number of its axles to set the tax base. As the circular motor vehicle tax is a typical property tax, the interesting fact is some countries continue to consider the year of manufacture: if the tax rate is increasing with the age of the vehicle, it is not related to the basic idea of property tax being imposed on the value of the property.

Comparing the tax rates of both registration and circular motor vehicle taxes is irrelevant, as the constructions of tax bases differ significantly. Moreover, the degree of legislative discretion to invent various corrective elements in the form of tax reliefs, exemptions, and other reductions is infinite. It could be generalized that many of the corrective elements are linked to the public utility of motor vehicles and environmental aspects. For example, an interesting question arises about electric cars, which are exempt in some countries (e.g. Austria²⁸).

| 4.2. *EU harmonisation tendencies*

As evident from the text above, the level of motor vehicle taxation in individual EU Member States differs. The reasons are primarily historical developments and social background. The EU Member States have a broad level of freedom in determining taxes on motor vehicles because this field of taxation is not harmonised at the EU level. To be fair and transparent, any harmonisation is almost impossible owing to the unanimity requirement for harmonisation in the field of indirect taxes under Article 113 of the Treaty on the Functioning of the European Union (TFEU). The freedom of EU Member States in determining taxes on motor vehicles is limited to certain limits according to Article 110 of the TFEU. This article comprises some general principles, primarily the prohibition of tax disadvantages for imported products.²⁹

As some taxes on motor vehicles are considered direct taxes, it is also necessary to distinguish between the usage of Article 113 and Article 115 of the TFEU; the Court of Justice of the European Union does not accept European legislation that is passed based

28 | European Commission, 2024.

29 | No Member State shall impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar domestic products.

Furthermore, no Member State shall impose on the products of other Member States any internal taxation of such a nature as to afford indirect protection to other products'.

on bad regulations.³⁰ While Article 113 of the TFEU allows harmonisation ‘necessary to ensure the establishment and functioning of the internal market and to avoid distortion of competition’, Article 115 of the TFEU allows approximation directly affecting ‘the establishment or functioning of the internal market’. The differences between Articles 113 and 115 of the TFEU are essential for establishing the basis of regulations for direct and indirect taxes. Therefore, specific and extremely detailed definitions of direct and indirect taxes is important.

The research revealed that double taxation in motor vehicle taxation within the EU is highly improbable. While charges for the use of motorways and roads are levied only on the use of the transport infrastructure of individual EU Member States, a single circulation tax is guaranteed by both case law and the Eurovignette Directive. In the case of registration taxes, double taxation is possible only if the second State applies a registration tax on second-hand vehicles. Such a situation was solved by the case law. The Court of Justice of the EU decided (in the context of Article. 110 of the TFEU) that:

when a registration tax is imposed only once in the lifetime of a vehicle, the amount of that tax is incorporated in the value of the vehicle. A second-hand vehicle, which was first registered and on which registration tax was paid as new, incorporates in its value a ‘residual tax’ that diminishes proportionally with the depreciation of the vehicle. The Court considered that a system of taxation should be capable of guaranteeing that the tax due on a second-hand vehicle transferred from another Member State does not exceed, even if only in certain cases, the amount of the ‘residual tax’ incorporated in the value of similar vehicles already registered in the national territory.³¹

Although double taxation is not an extremely problematic issue connected to motor vehicle taxation in the EU, some others should be discussed, as evidenced in this study. The most concerning issue appears to be the registration tax. Table 3 presents the differences among individual EU Member States not only in terms of whether the registration tax is applied, but also in the construction of the tax base. Moreover, if the price is the tax base and the tax rate is extremely high, the registration tax creates an obstacle to the free movement of goods. The most notable example is Denmark, where the basic tax rate was 105% of the vehicle price. The increased rate of 180% was applied for the remainder of the price exceeding DKK 62,700.³²

If the registration tax in one country is collected, and specifically if it is highly above average, the price for the consumer significantly increases. In some cases, such a high price influences the decision of the consumer, who eventually decides to buy a car in another country where the registration tax is not imposed or is lower, which means a lower final price. Car manufacturers and distributors are aware of this situation and attempt to incorporate the differences in vehicle registration taxation into the final prices for customers, usually by setting the lower prices of the vehicle, excluding taxes. Shehaj

30 | Judgement of the Court of 11 June 1991. *Commission v Council*. Case 300/89. See also Barents, 1993, and Dougan, 2000.

31 | European Commission, 2012, p. 10. Bases on case C-47/88 *Commission v Denmark*, paragraph 20, and Judgement of 9 March 1995, case C-345/93 *Fazenda Pública and Ministério Público v Américo João Nunes Tadeu*, paragraph 13. See also Costas, 2007.

32 | European Commission, 2012, p. 25.

and Zagler³³ confirmed that firms tend to offer lower motor vehicle pre-tax prices to compensate for the higher tax effect. Consequently, in countries where registration taxes are applied to purchased cars, it is usually possible to buy a car cheaper. Thus, customers from countries where a registration tax is adopted are purchasing and registering cars not in their home country, while customers from countries where no registration tax is collected, buy vehicles in countries where a registration tax is adopted and they register them in their home country. The described situation does not violate Article 28 of the TFEU, guaranteeing the free movement of goods, as the registration tax is not a customs duty on imports and exports or a charge having an equivalent effect. Moreover, no TFEU tax provision (Article 110 – 113, Article 115) has been breached. However, according to Article 26 of the TFEU, the EU ‘shall adopt measures with the aim of establishing or ensuring the functioning of the internal market.’ The internal market is defined as ‘an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured’. I believe that the ‘Danish case’ described above can be considered to a certain limit as the ‘internal frontier’ and that the EU should adopt mechanisms to ensure the functioning of the internal market, specifically to adopt rules regulating registration taxes on motor vehicles.

In contrast, the regular circulation tax on motor vehicles generally does not have such an intensive tendency to influence the economic decisions of the taxpayers. It does not interfere with the free movement of goods between the EU Member States. Circulation taxes on motor vehicles do not have any influence on the internal market: taxes are paid in the country where the taxpayer lives, and it is improbable that any taxpayer shifts to another country because of a circular tax on motor vehicles. The internal market principle could possibly be violated only if some countries have extremely high tax rates.

5. Conclusion

The preceding text has clearly demonstrated that the level of motor vehicle taxation in individual EU Member States differs not only in the number and type of taxes imposed on motor vehicles, but also in the legal construction of individual structural components such as the taxpayer, object of taxation, tax base, and tax rate, corrective elements. The level of harmonisation in motor vehicle taxation is currently extremely low. Only the Council Directive 83/182/EEC restricts the rights of Member States to apply consumption taxes to vehicles. In all other aspects, each EU Member State has almost full discretion to regulate car taxation. The only limitations are set in the Treaties (TEU and TFEU) containing general principles such as national provisions should not give rise to border-crossing formalities in trade between Member States and must respect the non-discrimination principle.³⁴ European cooperation regarding motor vehicle taxation is limited, and the competition between the EU Member States prevails. This conclusion is also owing to the fact that any harmonisation is almost impossible owing to the unanimity requirement for harmonisation in the field of indirect taxes under Article 113 of the TFEU.

33 | Shehaj and Zagler, 2023, p. 181.

34 | European Commission, 2012b.

However, extremely high registration taxes on motor vehicles in some EU Member States are causing significant differences in final prices for consumers and influencing their decision about where to buy and in what country to register the motor vehicle. Yanatma presented many examples of car prices before and after different taxes on motor vehicles.³⁵ Moreover, they influence the pricing of manufacturers and distributors in terms of motor vehicle pre-tax prices. Although the free movement of goods principles and general tax principles, as mentioned in TFEU, are not violated, the internal market principle could possibly be breached. As the regular circulation taxes on motor vehicles generally do not have such an intensive tendency to influence the economic decisions of the taxpayers, the internal market principle could possibly be violated only if some countries have extremely high tax rates.

The hypothesis stated in the Introduction was confirmed only partially. The EU rules concerning car taxation are adequate with regard to single market principles. However, the EU rules in this area are not acceptable in terms of economic circumstances. The European Commission, being aware of this statement, focused primarily on registration taxes and proposed the Directive on passenger car related taxes³⁶ in 2005. The chief aim was, among other things, to abolish registration taxes altogether over a transitional period of five to ten years. However, the following negotiations with the EU Member States were not successful; the proposal never received the required unanimous support, and the Commission withdrew the proposal in 2015. In the period from 2012 to 2024, the registration tax was really abolished only in Cyprus and Luxembourg; however, it newly occurred in the tax systems of Bulgaria, Croatia, Lithuania, and Slovakia.³⁷

After 2015, there are no longer any attempts by the European Commission to regulate or harmonise registration taxes on motor vehicles. It should also be recalled that in the case of circular taxes on motor vehicles, such attempts have never been made in history. However, harmonisation failures do not mean that the legal regulation regarding car taxation at the European and national levels could be better. *De lege ferenda*, several motivational factors should be considered to improve the regulation.

Primarily, existing legal rules concerning registration taxes, together with extremely high tax rates in several EU Member States, constitute an economic barrier: not only companies and entrepreneurs, but also non-business individuals adapt their behaviour to the tax law regulation and buy in such countries where they achieve the best final price of the motor vehicle. Often, it is an uncomfortable, time-consuming solution with multiple costs. Therefore, the registration taxes on motor vehicles should be entirely abolished. Considering that such a solution does not have political support, another solution may be setting maximum registration tax rates at the European level, ideally in combination with harmonising the tax base. The tax base should be green-based, determined by the amount of CO₂ emissions, to follow sustainable and polluter-pays principles. In practice, the trend to change the tax towards greening is not apparent; only a few countries changed their tax base towards sustainability between 2012 and 2024. However, in several states (e.g. Denmark), CO₂ emissions began to play a more significant role.

Circular taxes on motor vehicles should remain under the responsibility of each EU Member State, and the EU should refrain from taking steps to harmonise this area of

35 | Yanatma, 2023.

36 | European Commission, 2005.

37 | European Commission, 2024.

taxation. Any harmonisation considerations would only be permissible if the tax rates in a particular country were exceptionally high. Nevertheless, the principles of sustainability should be strengthened in national regulations. Taxes on motor vehicles are an ideal example of reflecting environmental elements. Comparing regulations between 2012 and 2024, several states began using CO₂ emissions as the tax base (e.g. Austria, France, Slovenia) or increased the importance of CO₂ emissions in determining the tax base (e.g. Malta, the Netherlands, Sweden). Other countries use different ecological values to determine the tax base (e.g. emission classes in Lithuania and pollution levels in France concerning the annual tax on air pollution). The most common is the use of ecological instruments in constructing corrective elements, typically tax exemptions and tax reliefs. Some countries (e.g. Austria) have no circular tax on electric cars.

To summarise, CO₂ emissions appear to be the best (although not the only) tool to be used as the circular motor vehicle tax rate. Kunert and Kuhfelt highlighted the need to begin using more CO₂ emissions as early as 2007.³⁸ Moreover, David prefers CO₂ emissions, arguing that the taxation of motor vehicles should be an essential tool to fulfil the obligations of the Kyoto Protocol.³⁹ Moreover, he highlights the fiscal function of motor vehicle taxes in the sense of the selection of means for the renewal of environmental and other damage caused by the operation of motor vehicles.

38 | Kunert and Kuhfelt, 2007, p. 315.

39 | David, 2012, p. 490; David, 2024, pp. 121–136.

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