Tax competition in EU and USA: A comparative analysis of the automotive and telecommunication industries

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TAX COMPETITION IN EU AND USA: A COMPARATIVE ANALYSIS OF THE AUTOMOTIVE AND TELECOMMUNICATIONS INDUSTRIES

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Abstract

The aim of this article is to define the meaning of tax competition. More specifically, it carries out a comparative analysis between the European Union and the United States of America studying two key sectors of their economies, the motor industry and telecommunications with the aim of featuring which of these is more tax competitive. The comparison criteria are VAT and sales tax, excise duties, corporate income tax, wage costs and in particular the tax burden on labor, taxing savings and duties on trade. In some cases, the EU seems to be more competitive, and in other cases, the USA does so. With regard to motor industry and telecommunications, it seems that in most of the criteria featured, they are affected according to the rest areas of economy. We conclude that the issue of tax competition, and in particular the comparison between the EU and the USA, needs further investigation. Finally, substantial tax reforms as a means of promoting healthy tax competition, seems to be desiderata by both parties.

Key words: Tax competition, EU, USA, Automotive Industry, Telecommunications

Jel Codes: H25, K34, L62, L96

1. Introduction

Since the middle of the last century, until today, in modern times and in the era of globalization, tax competition constitutes a phenomenon that interests scientists and economic analysts. Each government, in every country, globally, has tax means in order to finance their activities, at their disposal. Tax means are constituted by income tax, corporate taxes, consumption taxes, excise duties and more. Each country adopts its own tax policy and sets its own tax rates, in order to be more competitive and enhance its economic performance.

Tax competition seems to be defined very broadly as any form of non-comparative taxation by independent governments (Wilson and Wildasin, 2004) It can enhance the countries' economic performance, encourage the better allocation of resources and enhance economic efficiency (Mitchell, 2004). A number of definitions regarding tax competition have been given, as well as regarding its advantages and disadvantages. Up to an extent, it can be positive and enhance the countries' competitiveness. However, at the same time, it can limit the countries' independence in defining income tax rates, saving and corporate profits (Halkos and Kyriazis, 2006).

Additionally, the globalization which provokes new challenges in the area of tax policy, leads the tax arrangements to attract economic and other, geographically mobile activities which can create harmful tax competition which distorts trade and investments and can lead to the corrosion of international tax bases (OECD, 2000).

The aim of this article is to examine the phenomenon of tax competition and, in particular to examine how the EU and the USA as well as the areas of motor industry and telecommunications are affected by tax competition, and feature which of the two is more tax competitive.

Initially, we define the phenomenon of international tax competition, drawing data from the existing bibliography. Next, tax arrangements of the EU and the USA are featured as well as data on tax competition, taking place in this country, with a view to understanding both their dissimilarities and probably, similarities. Additionally, various elements and data are cited, by the existing bibliography, for the areas of motor industry and telecommunications in these countries.

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Taking these data under consideration and setting specific criteria, we proceed carrying out a comparative analysis between the EU and the USA considering the areas of motor industry and telecommunications.

The criteria chosen affect and are affected by tax competition. These criteria are Value Added Tax, sales tax, excise duties, corporate income tax, wages cost and in particular tax burden on labor, taxing savings and, finally, trade duties.

2. Identifying the international tax competition

Tax competition, as Mitchell (2004) mentions, exists when people can reduce tax burdens by moving capital and / or labor from high-tax countries to low-tax ones. This migration discourages costly governments and rewards nations which reduce tax rates and apply developmental tax policy. As other forms of competition, tax competition produces positive outcomes.

The competition among countries does not involve only tax policy. Tax competition is only a part of this competition among countries, however it is more and more fundamental due to increasing capital and labor mobility.

The tax competition can be global (Konrad and Schjelderup, 1999; Rixen, 2011, et al.), international (Altshuler and Goodspeed, 2002; Keen and Konrad, 2013, et al.) and interregional (Besley and Coate, 2003; Wilson and Janeba, 2005, et al.).

Depending on the form of competition, it can be divided in certain categories, which are asymmetric tax competition (Bucovetsky, 1991, DePater and Myers, 1994, et al.), capital tax competition (Zodrow and Miezkowski, 1986; Wilson and Wildasin, 2004, et al.), tax competition in goods and services (Arnott and Grieson, 1981; Mintz and Tulkeys, 1986, et al.), and tax competition in foreign direct investments (Devereux and Griffith, 1998; Haufler and Wooton, 1999, et al.).

According to Edwards and De Rugy (2002), as economic fulfillment is achieved, people and businesses acquire more freedom in benefitting from economic opportunities abroad. This, in turn, enhances the sensitivity of investments and decisions regarding the place of establishment of the businesses and taxation. The countries are under pressure to reduce their tax rates, in order to avoid tax bases from falling. Therefore, the international tax competition increases, as capital and labor mobility increases as well.

Most industrial countries pursue tax reforms in order to ensure that their economies will remain attractive for investments. Therefore, over the last decades, the fall of average income tax rates of natural persons and corporate income tax rates, is noted, internationally. Additionally, the increasing tax competition has led countries to adopt restrictive mechanisms, in order to deter citizens and businesses in their territories from seeking lower tax rates abroad.

With the term “international”, Keen and Konrad (2013), covered issues which rise regarding tax competition among countries within federations or unions and territories within countries.

According to Altshuler and Goodspeed (2002), tax competition is a substantial power, which forms national tax systems internationally and affects countries tax incomes, development, tax systems and finally, total efficiency of the countries.

According to Andersson and Forslid (2003), the deals of economic integration among countries such as the European Union’s and the North American Free Trade Agreement (NAFTA), aim to achieve free mobility of goods, people, capitals and services. There is a wide recognition of potential benefits regarding the best and most efficient allocation and increased competition. At the same time, however, local and national politicians, especially in smaller regions, are concerned about the potential geographic consequences in economic integration. In particular, there are widespread fears that geographic competition through taxes, will be increased more intensely as the economic integration proceeds, and, consequently, it has been proposed that the next step should be the harmonization of taxes.

Weiner and Ault (1998), report in their article that, the globalization of national economies has increased the challenges of harmful tax competition. In this more and more complete global economy, a country’s tax policies, have more chances to provoke impacts on other countries.

3. Tax Competition in EU and USA

3.1 EU

According to Cnossen (2001), the more the economic integration in the European Union is evolving, the more the interactions among tax systems in Member States are becoming of greater and greater importance. These interactions can affect the planning and coordination of Member States tax systems in the EU and limit the potential of adopting an efficient redistributive tax policy.

Zodrow (2003) supports that coordinating tax policies, including harmonization of tax rates, has raised a topic of intense discussion in the European Union, however, its Member States, mainly, still function independently with quite differentiated tax systems. The need for tax coordination among Member States of the EU stems from the “fear” that, tax competition will significantly reduce the level of capital tax and the states will be exclusively supported by income tax which results from labor and consumption.

Davies and Voget (2009), supported that the expansion of the EU has aggravated tax competition. The theory they supported mentions that the market potential, meaning the importance of domestic market in combination with the access to foreign markets, is a factor of great importance. Due to this factor, there are strong indications of tax competition within the EU.

The reduction of tax rates constitutes a significantly important issue for the EU, according to Crabbe and Vandenbussche (2008). Over the last ten years corporate taxes have been reduced in a bigger percentage in the EU in comparison to other countries out of OECD (Organisation for Economic Co-operation and Development). A new European trend is the hedging of reducing tax rates with the increase of income tax. Therefore, tax competition exists, but not regarding the real tax rates.

Nicodeme (2006), in his research about corporate tax competition and coordination of tax policies in the European Union, came to the conclusion that the political actions regarding taxation in the EU, are relatively rare. This reflects both the institutional planning which promotes subsidiarity in taxation issues, and ambiguous results regarding the existence and the potential consequences of tax competition in Europe. Even though the tax rates have been reduced over the last decades, the revenues acquired by corporate income tax in rate of Gross Domestic Product (GDP), was extremely stable.

Several tax obstacles have been noted in the implementation of a really complete European market and there have been empirical indications for activities of tax avoidance through relocation, handling pricing and shifting the profit through low capitalization.

3.2 USA

The United States constitute a monetary and tax union, with fifty small open economies, each of which controls an additional level of Fiscal and regulatory policy (Liu and Williams, 2019).

Within a federal system of governments, there are various ways to distribute the power of taxation to provide revenues to all levels of governance. The structure in the United States gives the federal and local governments the power to tax. There are usually more than three levels of tax authority, when special regions are also included (Sobel, 1997).

What may be more important than the formal tax rates or even the rates of total tax revenues, in order to comprehend the American tax system, are the thousands exceptions, reductions, credits, minimum taxes and the special rules of the taxation law (Steinmo, 1989).

The corporate tax rate is an important defining factor of the foreign direct investments in the USA, but non-fiscal factors also influence, such as the size of the market, labor cost, bilateral transaction as well as exchange rates (Wijeweera, Dollery and Clark, 2007).

Two extensive review of the tax system were carried out in the USA over the last years, the tax reform of 1986 which provoked tax reforms in Europe the following years (Steinmo, 1989; Aaron and Gale, 1996; Altshuler and Goodspeed, 2002) and the law about tax cuts and jobs act in 2017 (Auerbach, 2018; Steinmuller, Thunecke and Wamser,2019).

As tax competition among the states in USA, the American states have the legal power to determine their own sales and their own taxes on consumption on goods and services. Consequently, tax rates on sales and bases differ per state. Since the goods tax bases (meaning the goods and services people purchase) are mobile, the state seek to steal the tax base among them, underestimating the tax rates on consumption of their neighboring states. This can lead to a game of tax competition, where states interact repeatedly (Jacobs, Ligthart and Vrijburg, 2009).

When a multinational company invests in a country, the potential host countries compete for the business, offering specific corporate benefits. The potential locations the multinational business is examining are competing among them offering particular tax reductions for specific businesses, as well as other motives to ensure that they will be the host country. This competition is conducted among countries, as well as states within a union, and the USA as well (Davies, 2005).

According to Chirinko and Wilson (2017), the United States of America have the freedom to determine their own tax sources of capital and in reality they set very different tax policies, however they share a lot of important and environmental factors. The general declining tendency in capital taxation which was observed in industrial countries over the last decades, was also observed among the states in USA. They mention that the state capital taxation has changed dramatically over the last years and has become friendlier towards business. They conclude, however, that tax competition is not solely responsible for the falling of capital taxation rate, both in the USA and the EU, but total jolts as well which affect all the nations and create common motives which lead them to act in coordination.

4. Previous studies in tax competition analysis

Konrad and Schjelderup (1999), in their study, examine how much a group of countries can gain from the harmonization of income taxes and capital taxes, if the rest of the world does not follow this harmonization of taxes process. They support that cooperation among the countries of this group can be favourable, as long as tax rates are strategically structured and complement one another. In this case, the taxing harmonization among the countries of this group, will have advantages on a global scale.

The opinion of harmonizing the tax policies was also supported by Bovenberg and Tanzi (1990) whose concluded that there is the need of harmonizing the income tax rates and capital tax rates towards an integrated market, with free capital flows and stable nominal exchange rate. Such a process of tax harmonization could be achieved by coordinating the tax bases and defining minimum obligatory rates.

Rixen (2011), in his article, features the case of global tax governance and supports that tax competition undermines the principles of integrity and distribution of domestic tax system and aggravates inequality between developed and developing countries. Furthermore, in his article it is proven that tax competition may become unfair in the context of globalization and supports that it would be necessary to set global rules which will ensure that the national tax systems will remain capable of implementing a redistributional policy.

Baldwin and Krugman (2004) mention that in a globalised economy, tax competition among states, applies pressure on domestic tax arrangements. The mobile production rates have the chance to minimize their tax burden due to tax competition. This interdependence of national tax arrangements creates external consequences, which undermine the states dominance. For this reason, tax competition can aggravate income and wealth inequalities, both within countries and across borders.

Dietsch and Rixen (2014) suggest that, a way to confront these issues, is to denounce the distributional outcomes and redistributional policies be proposed, in order to rectify the inequalities. Furthermore, each government could itself examine the “rules” of international taxation by adopting a tax policy, which will not create an unequal distribution and further inequalities and they propose the creation of a “National Tax Organisation”, which will aim to resolve taxation differences among states and the resolution of various problems regarding compliance issues.

In their article, Wilson and Janeba (2005), study the tax competition between two countries which are separated in territories. The level of decentralisation of a country serves as a strategic tool, through its effect on creating externalities within the context of tax competition. The different levels of governance can better control the various tax instruments and expenditures, and provide the central government with facts which it can use in order to adopt the appropriate policy. Furthermore, the decentralized administrations control their preferences on local goods more efficiently and use this information for their more effective provision, in contrast to the central government, which features difficulties as to reveal their citizens’ preferences on public goods.

Janeba and Peters (1999) have proven that the governments which adopt their tax policy with no discriminations, have succeeded greatly in fighting tax evasion in comparison to the total amount of means of taxation. The international mobile capital avoids taxation via transition to tax heavens. In their model, this situation can be explained as the outcome of a tax competition game between the Member States of the EU, which discriminates at the expense of people who are not their citizens. The EU capital market is not closed and the capital often escapes to tax heavens outside the EU. Their analysis shows that the coordination within the EU is difficult, especially if the laws regarding bank secrecy and unanimity convention on decision taking are abided. They also propose that the governments should examine the possibility to introduce a minimum tax rate.

On the other hand, Keen (2001) supports that the national restrictions of preferential tax arrangements can reduce the revenues to all the countries which participate in the agreement. Keen (2001) studies a model whose bases are incompletely mobile, but the size of each tax base is defined in total and shows that in this environment, banning the tax preferences can never increase the revenue.

Weiner’s and Ault’s (1998) review makes a crucial discrimination among the countries which generally, tax the revenue with a relatively low rate but do not exert harmful tax competition and those where the existence of low tax rate is connected with other factors and special features, which, in combination, constitute harmful tax competition.

The EU and OECD aim to limit the harmful tax practices, without making an effort to eliminate tax competition totally. In this context, OECD (2000) detected forty-seven (47) harmful tax arrangements and thirty-five (35) countries operating as tax heavens. The EU Board (2000) numerates a number of regulations with harmful features implemented on EU Member States.

According to Haupt and Peters (2005), investment tax policy of non-residents with a lower rate of the residents, is a tax differentiation which intensifies the undeniable competition and deprives governments from the fiscal means required to fulfill their duties. This discrimination policy is characterized as a preferential tax arrangement. They defend their initial objections in preferential regimens including, in their analysis, the favouritism investors may show in their country, meaning their tendency to invest domestically.

5. Methodology

Secondary data drawn to study the cases of the EU and the USA, regarding tax competition, as it takes place in them. Case studies is a common way to conduct quality research. A case study does not constitute methodology policy, but a choice of what should be examined (Stake, 2005). According to Tellis (1997), the case study may be considered to satisfy the three principles of qualitative method: description, understanding and interpretation. This method was chosen because, as Zainal (2007) mentions, via references to previous studies, it allows the exploration and understanding of complicated issues. It can be regarded as a powerful survey method, especially when a holistic and in-depth investigation is required. Quantity and quality data included, the case study contributes to explaining both the process and the outcome of a phenomenon, through complete observation, reconstruction and analysis of the cases in consideration (Tellis, 1997).

Next, a comparative analysis between the EU and the USA was performed, taking the sections of motor industry and telecommunications into consideration, in order to answer which of the two is more tax competitive. The comparison is a common research method with outstanding advantages and with a wide implementation (Azarian, 2011; Metaxas and Trompatzi, 2015). The method of comparative analysis was chosen because, according to Collier (1995), via this method we can achieve in-depth knowledge of certain cases, we can analyse the connection between a group of variants which we can generalize, if possible, for more cases. Also, according to Azarian (2011), the purpose of a comparative analysis refers to detecting similarities and differences between social units. For the purposes of comparative analysis, specific criteria were chosen, which affect and are affected by tax competition. These criteria are value added tax, sales tax, excise duties, corporate income tax, wage cost, and more specifically tax burden on labor, savings tax and, lastly, duties on trade. So, after collecting data for these criteria for the EU and the USA, we initiated the comparison.

6. Comparative analysis

Drawing all the required data, we can observe some special features in the USA and in the EU tax systems. In order to draw more accurate conclusions regarding the meaning of tax competition, tax rates and measurements are compared, both in the countries in the USA and in the EU, and between the motor industry and telecommunications sectors.

In the chart below we cite some basic date for the EU compared to the USA regarding the criteria we have chosen.

Comparative analysis between the EU and the USA		
	EU	USA
VAT – Sales tax	• Valued Added Tax • VAT is 21,46% on average	• Sales tax • The average sales tax is 6,52%, which has been calculated taking into account taxes rates at both state and local levels.
Excise duties	• Imposed on certain categories on goods and services (e.g. fuel), in order to protect human health and the environment. • In the EU, each Member State selects its own excise duties for each good and sets its own tax rates.	• Imposed on certain categories on goods and services (e.g. fuel), in order to protect human health and the environment. • Federal and local excise duties are levied.
Corporate income tax	• The rate of corporate income tax is on average 21,70%. • The rate of each Member State is determined by its national authorities.	• Corporate income tax is levied at federal and state level. • The federal rate is 21%, and the state rate is added to it. Therefore, the total corporate income tax rate is an average of 25,89%.
Tax burden on labor	The tax burden on labor in the EU is 15,6% on average. The percentage results from significant differences in tax rates among its Member States.	Tax burden on labor in the USA amounts to 29,6%.
Savings tax	In most European Union countries, pension funds and real estate for lease are taxed more favourably and shares which accord capital gains are taxed at a lower rate than other types of savings.	Only pension funds are favoured regarding tax. Real estate (owner-occupied and leasing) and most types of savings are taxed at progressive rates and constant tax rates.
Tariffs	• Free trade is fundamental principle. • Duties are not imposed within the EU. • There is a Common Customs Tariff for imports from third countries. • It concludes a number of trade agreements. • Secure environment for businesses.	• The USA conclude a number of trade agreements. • Particularly in the USA, over the last two years, the tendency to impose trade measures that increase tariffs is reinforced even more, resulting in international trade being affected.

Commencing our comparison, the data collected refer to sales tax in the USA and Value Added Tax in the EU, which belong to the category of general consumption tax. From the data collected it is concluded that sales tax is imposed only in the USA, whereas regarding the corresponding category in the EU, Value Added Tax is imposed.

In the USA, the average sales tax on 1st January 2019, amounts to 6,52% (Cammenga, 2019; salestaxinstitute.com). It is noted that, this average rate resulted from taking tax rates under consideration, both on state level and locally. On the other hand, Value Added Tax is imposed on the EU, which, on average amounts to 21,46% on the twenty-eight countries in the EU (europa.eu(1)). As pre-mentioned, these two categories are a part of general consumption tax and therefore, can be seen in the areas of motor industry and telecommunications, in the countries of the USA and the EU.

Another category of consumption tax is excise duties. They consist another criterion in this comparison.

In general, excise duties are imposed on specific categories of goods and services, for example alcoholic beverages, tobacco, or fuel. Excise duties burden the final consumer and are imposed by the governments of the countries to fund particular needs. In our times, globally, excise duties are imposed in order to protect human health and fight air pollution.

The differences in excise duties rates among countries result from different national traditions, different social, environmental and health policies, local policies in every country, local production of the countries and different needs of funding of the current governments (OECD, 2018a).

In the EU, regulations have been set and instructions on excise duties have been issued. However, there is not a single excise duty, but each Member State can itself choose excise duties for each of the products, and set its own tax rate (europa.eu(2)). On the contrary, in the USA, both federal and local excise duties exist, which are collected by the federal government, the states and local governments respectively (OECD, 2018a; taxpolicycenter.org).

Regarding corporate income tax, according to the data presented above, in the European Union the tax rate is 21,70%. This is the average corporate income tax rate of the twenty-eight Member States of the European Union, as defined by the national authorities and the EU plays no immediate part in collecting taxes or defining tax rates.

In the United States of America, on the other hand, income tax is imposed on businesses both by the federal government and by the states. The federal corporate income tax rate is 21%, however businesses pay taxes on a state level too, where each state defines its own tax rate. So, when we add the average state tax rates to the federal tax rates, then the total corporate income tax rate in the USA, amounts to 25,89% (European Commission, 2019a; OECD, 2019a).

Another criterion which was used is the labor cost. In general, labor cost includes wages cost and non-wages cost. From the businesses' side, the wages cost include gross earnings paid to the employees, whereas non-wage cost include social contributions deducted by the employees and social contributions paid by the employers. The tax burden on labor constitutes the contribution rate, in the form of taxes paid by the employers, in order to fund public needs and various programs followed by the current governments.

According to studies, the average hourly labor cost, in the countries of the EU amounted to 27,40€, in 2018(Eurostat(1)), whereas the average non-wage cost in the total labor cost amounted to 23,70% in the EU in 2018 (Eurostat(2)). The total labor tax burden ranged at 15,6% on average, in the twenty-eight countries of the EU (Rogers and Phillippe, 2018). We must note that tax rates differ substantially, both from country to country within the EU, and depending on the type of household and businesses.

On the other hand, in the USA, the date is more clear. Labor tax burden includes two types of taxes, the income tax and the wage tax. The tax burden in the USA, in 2018, amounted to 29,6%. Generally in the USA, an employee pays individual income taxes which are imposed by the federal state and, occasionally, local governments. Besides them, government impose wage taxes both on employees and on employers. Wage taxes on employers consist of contributions in programs such as social insurance, health insurance and unemployment insurance. The tax for social insurance, from the employers' side, is 6,20% for an income up to 132.900,00$ annually, the tax on health insurance is 1,45% for all incomes and the tax for unemployment insurance is 6%for incomes up to 7.000,00$. We must note that each state can set its own tax rates to cover unemployment insurance (Bellafiore, 2019; OECD, 2019b).

In the savings area, both in the USA and in the EU countries, there is intense interest in their taxation as a means of reinforcing efficiency and fair taxation of countries. By the term savings we refer to capital placement in bank accounts, in the pension system or in investment funds as well as bonds, shares and real estates. These types of saving are taxed differently, from country to country, so, there is a chance to affect the choices of people's and businesses' savings portfolio.

The Modeling of the marginal real tax rate METR, which was carried out in the countries of OECD, focused on six different areas of savings and, more particularly bank deposits, dividends, shares which give capital profits, pension funds, the real estate funded by share capital and are destined for owner-occupancy and the real estate funded by share capital and are destined for leasing. Both in the USA and in the EU, these types of savings are of great importance and interest in order for the tax systems to become fairer for the best allocation of savings.

The results of the METR research concluded that, in most countries in the EU pension funds and real estate destined for leasing are those types of savings taxed more favourably. Furthermore, shares which give capital gain are taxed with a lower interest rate compared to dividends. On the other hand, in the USA, pension funds are more favoured regarding tax compared to the rest types of savings. As far as real estate destined for both owner-occupancy and leasing are concerned, just as most types of savings, are taxed with progressive interest rates and stable tax rates. The shares which give capital gain are taxed with really low interest rates compared to bank deposits (OECD, 2018b).

Finally, as far as national trade is concerned, China, the EU and the USA constitute the three main factors globally (Eurostat(3)).

The EU is one of the most extrovert economies on a global scale. It is also the strongest single market in the world. Free trade among its Member States is one of the most fundamental principles in the EU which has also committed to promote global commerce freedom. Member States apply the same duties on products imported in their territory from the rest of the world and do not impose duties within. The EU defines the trade policy of Member States and negotiates agreements on their account (europa.eu(3); europa.eu(4)).

Trade agreements constitute an important factor of economic growth both by offering great benefits on citizens and businesses and by substantially contributing on the performance of foreign trade (Europa.eu(5)); European Commission, 2018a; European Commission, 2018b, European Commission, 2019b; European Commission, 2019c; European Commission, 2019d).

The same applies for the USA, regarding market opening, globally, in order to create new opportunities and higher standard of living for its citizens. The USA already participate in numerous trade agreements with other countries, as well as in negotiations for new ones (tcc.export.gov.; ustr.gov).

Over the last years, we can see a tendency from a lot of countries to impose measures which can distort trade because they contradict to the regulations of World Trade Organisation. The reason is that, each country, in its effort to protect its domestic industry, increases duties on goods or services from other countries, in order to affect their consumers' preferences in favour of domestic products.

In the USA, over the last two years, this phenomenon is increasing. The trade war between the USA and China does not affect only these countries but many more countries trading with them (Bouet and Laborde, 2018; Petersmann, 2018; Hoekman, 2019; Evenett & Fritz, 2018).

6.1 The automotive industry

In the board below, we can see how the sector of motor industry, both in the EU and in the USA, is affected, according to the data set as criteria in this comparison and analysed above.

Comparative analysis on motor industry between the EU and the USA		
	EU	USA
VAT- Sales Tax	Car market is burdened with VAT.	Car market is burdened with sales tax.
Excise duties	Excise duties, purchase tax and property tax.	Excise duties, purchase tax and property tax.
Corporate income tax	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Tax burden on labor	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Savings tax	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Tariffs	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.

In most of the criteria used for this comparison, this sector is equally affected as the rest sectors of economy.

We can observe that, both in the USA and in the EU, excise duties, purchase tax and property taxes are introduced, in order to reduce the number of vehicles which emit great quantities of pollutants and are harmful to the environment (ACEA Tax Guide, 2019; OECD, 2018a).

It is worth noting that, regarding trade, with the policy the USA follow over the last years, motor industry has become targeted by the people in charge over trade policy issues in the USA. As announced by the USA Ministry of Commence, over the last twenty years, passenger vehicles import in the USA has increased from 32% of vehicles sold in the USA to 48%. Also, employment in car production was reduced by 22% even though the Americans continue to purchase cars in record levels. Finally, the American vehicles manufacturers in the USA represent only 20% in global research and growth in the sector of motor industry whereas American manufacturers of car accessories represent only 7% in this area. So, they announced that they will conduct a survey which will examine how much the reduction of domestic car and accessories production threatens to weaken the USA domestic economy (United States Department of Commence).

6.2 The Telecommunications Industry

In the table below, we can see how the sector of telecommunications in the EU and in the USA is affected by the criteria used.

Comparative analysis between the EU and the USA on telecommunications		
	EU	USA
VAT- Sales Tax	As all services, landline and mobile communications services are burdened with VAT.	Landline and mobile communications services are burdened with sales tax on states and occasionally local level.
Excise duties	Roaming tax rates valid but has almost been abolished within the EU since 15/06/17.	Taxes are levied on local, state and federal level.
Corporate income tax	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Tax burden on labor	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Savings tax	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.
Tariffs	It affects all sectors of economy in the same way.	It affects all sectors of economy in the same way.

In most of the criteria used for this comparison, this sector is equally affected as the rest sectors of economy.

However, we can see that, regarding excise duties, in the sector of telecommunications, in the USA, duties are levied locally, stately and federally, whereas in the EU the roaming tax was valid but which has almost been abolished within the EU since 15/06/17 (Mackey, 2004).

7. Results and Discussion

Taking the comparative analysis carried out in consideration, we conclude that firstly, about excise duties in the European Union, Value Added Tax is imposed on sales tax. Given the fact that VAT and sales can affect the final price of goods and services which arrive to consumers, based on the above-mentioned data, the EU countries are tax affected greatly as the products' final prices are higher. However, in the USA, sales tax is more favourable and the prices of the final products are lower.

Secondly, both in the USA and the European Union excise duties are levied on specific categories of goods and it is therefore unclear which of the two is more competitive in taxation.

Comparing corporate income tax in the EU and in the USA, we can observe that in the USA, the tax rate is higher so, the companies based there will be asked to pay higher tax for their profits compared to these based in the EU. However, in both cases, tax rate is estimated by the average tax rate of the states and countries respectively and the rates differ substantially from country to country within the EU, but also from state to state in the USA regarding corporate income tax stately. In New York, for example, state corporate income tax rate for 2019 is 6,5%, and in combination with the federal rate 21%, a company based there will be taxed with a total rate of 27,5% and will be asked to pay less tax than a company based in Sweden, whose tax rate is 30% or a company based in Greece, where tax rate is 28%.

So, we conclude that, ever though we take the average corporate income tax rate into consideration, the USA seem less competitive in connection with the EU, actually, taxation differs from country to country and depends on the choice of the location of a business each time.

According to the specific data of the research conducted, regarding tax burden on labor, we conclude that in the EU it amounts to 15,6% on average, whereas in the USA at 29,6%, both cases for an average working, single and with no children person. Observing the data, it seems that the USA is less competitive regarding labor. However, since the average rate featured for the European Union constitutes the average rate of Member States, it is difficult to draw clear conclusions. This is due to the fact that the average rate results from substantial differences in tax rates among Member States.

In the field of savings, there are various types of taxes that are rated differently, so there is no clear conclusion as to if the USA or the EU are more competitive. In both cases, prominent importance is given to pension funds and rental properties, as well as to shares which accord capital gains.

Finally, in the area of international trade, the USA has a stricter tariff policy, which hits the international trade, and although the target is to protect domestic products, most of the times there are severe consequences for the country itself, which adopted this policy in the first place. Due to the fact that the USA takes the lead on these policies, the EU seems to be safer for businesses.

Regarding motor industry, about consumption taxes, as to all goods and services, VAT is levied in the EU, however, sales tax is levied in the USA, which is more favourable, as pre-mentioned. Both in the EU and in the USA, excise duties, purchase and property taxes are levied. As for the rest criteria used for this comparison, this sector is equally affected as the rest sectors of economy.

Finally, regarding telecommunications, we can observe that this sector is equally affected as the rest sectors of the economy, with the sole peculiarity of excise duties where, in the USA, they are levied locally, stately and federally and is a sector characterized by high taxation with a number of excise duties. On the other hand, in the EU, only a roaming tax is applied, which, as of June 2017, has almost been abolished. As in all services, in the EU there is VAT and in the USA there is sales tax.

8. Conclusions

The governments of the countries use various tax means in order to fund their activities. Some of these means are income tax, capital taxation, investment and savings taxation, Value Added Tax etc. Each country can define its own tax base and tax rates. However, in the EU and in the USA, Member States and states respectively, depend on central governments up to a certain point. The tax competition which exists among countries, reinforces their economic performance, encourages better allocation of resources and enhances their economic efficiency.

Tax competition constitutes a great power, which forms international tax systems, internationally, and affects the total efficiency of the countries. In modern times, the development of international trade, the effort to free the financial sector and globalization affect the society's structure and taxation in every country. Tax competition is more and more intensified among countries as well as in different areas of each country's economic activity.

Tax competition has a lot of positive outcomes and is beneficial just like every form of competitiveness. However, the policies some governments adopt can cause harmful tax competition with substantial unwanted consequences for other countries.

In order to fully comprehend the meaning of tax competition, we used data for the United States of America and the Member States in the European Union. The above-mentioned choice took place taking their dissimilarity in governance policies and decision-making bodies for the adoption of taxation policies, into consideration. On the one hand, in the USA, there is the federal government system, where the federal and each government, has the power to tax. On the other hand, in the European Union, there is interaction between taxation policies among Member States, whereas, each of them can tax independently.

For this research, the sectors of motor industry and telecommunications were used, and we compared the two groups based on specific criteria.

In conclusion, most of the differences in the USA and EU taxation arise to a greater extent due to the different governance systems. In some areas the EU seems to be more competitive and in others, the USA does so. We should always bear in mind that the EU Member States adopt their own tax policies, unlike the USA where is state is dependent on the federal government.

In order for tax competition to function positively and to increase the profitability of countries globally, cooperation among countries is desirable so as to set international taxation regulations which will protect states from harmful tax competition policies. The issue of tax competition, and more specifically the comparison between the EU and the USA, needs further investigation on more parts which affect tax competition or needs to compare specific EU countries and the USA with each other so that the data are more specific.

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