

DEVELOPMENTS OF VAT RATES IN EU COUNTRIES IN THE CONTEXT OF HARMONIZATION AND FISCAL CONSOLIDATION

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Abstract

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Although the value added tax is most often used tax it is a relatively young tax instrument that can assure significant increase in countries tax revenues. The advantage of VAT is that it is a consumption tax and so the tax payers take it as a natural part of the price. To assure the transparency and flexibility of relationships between EU countries, EC stresses the need of harmonizing Member States' approaches to VAT rates and tax bases. Development of its rates refers to a relative autonomy of the states' policies and at the same time illustrates the changes in the tax harmonization process, which enhances the need for its research. The paper analyzes the development of VAT rates in the EU since their introduction, with the emphasis on the period 2000–2012. Development is evaluated in terms of harmonization and fiscal consolidation in the crisis years. At the same time the implicit rate of value added tax is determined, which serves as a measure of tax collection success to its base.

Keywords: VAT, standard VAT rates, reduced VAT rates, harmonization, fiscal consolidation, implicit tax rates

INTRODUCTION

Value added tax (VAT) is characterized as general, indirect and consumption tax, charged as a percentage of price, collected fractionally, via a system of partial payments, paid to the revenue authorities by the seller of the goods, who is the "taxable person" (European Commission, 2013). As the Article 2 of the 1st VAT Directive states: VAT is defined: „...on each transaction, value added tax, calculated on the price of the goods or services at the rate applicable to such goods or services, shall be chargeable after deduction of the amount of value added tax borne directly by the various cost components. The common system of value added tax shall be applied up to and including the retail trade stage" (First Council Directive 67/227/EEC of 11 April 1967). As stated by Šinkyříková and Soukopová (2012), VAT is one of the key

resources within tax collection and therefore VAT effectiveness and VAT complexity represent one of the current world topics.

Value added tax is not a phenomenon of our times. Wilhelm von Siemens is often cited as the first protagonist of this type of tax in Germany in 1919 under the name "Veredelte Value added tax" (Wilhelm von Siemens, 1919). American Lindholm (1980) states, however, that the Americans suggested that tax as first in 1911, even though this fact has no scientific basis. Most authors (e.g. Lindholm, Terra and Kajus, Lock-Rau-Hamilton, Papke, Terra and Kajus and others) agree that VAT was first introduced in 1953 in Michigan.

Within European countries VAT was initially introduced in some form in France. In Europe, on 11.04.1967 the first two VAT Directives (67/227/EEC and 67/228/EEC) were adopted, which replaced the sales tax in the Member States. Directives had

only a general character of a recommendation for setting up the structure of the system. Issues concerning rates and tax base have been left to individual governments. After 1970 has a significant boom for VAT introduction in EU countries started. On May 17, 1977 the Sixth VAT Directive (77/388/EEC), was adopted, which has created a uniform framework of the value added tax system (European Commission, 2014). As reported by Charlet (2010), the introduction of the VAT system has gradually become one of the conditions for entry into the EU. Individual countries decisions for VAT implementation were under the interest of IMF, which also provided for those countries support and assistance by VAT implementation (Grun, 2001). As the author states, introduction of VAT led to general alleviating of the businesses' tax burden and business support during the introduction of VAT. Implementation of VAT in countries that had centrally planned economy was related mainly to the necessity of simplifying tax systems and their adaptation to international markets within the EU. These reforms were the main reason that helped countries to open their economies and promote foreign trade (Bánociová, 2009).

The process of introduction of value added tax and development of VAT rates in countries should be examined on several levels. The first is the level of harmonization, since the EU legislative activities are aimed at coordinating and harmonising VAT law for the purpose of a proper functioning internal market. According to 67/227/EEC, the introduction of value added tax is necessary for several reasons, such as creation of a common market with fair competition and achieving simplicity and tax neutrality, which is proved a powerful organising concept in the economic assessment of tax reform (Kay and King, 1990; Leape, 1990; OECD, 2011; Mirrlees *et al.*, 2011; Raisová, Buleca and Michalski, 2014). To tax harmonization issues are devoted several studies of domestic and foreign origins like Nerudová (2008), Wide (2010, 2012), Bušovská (2012), Kolassa (2014) and others.

The second level of VAT research is a fiscal level. VAT is one of the important tools of fiscal policy (according to the criteria of impact on the public budget) because of its ability to increase revenues and its relative simplicity and effectivity (Owens and Battiala, 2011; Šinkyříková and Soukopová, 2012; Široký and Kovářová, 2010; Blundell, 2009; Keen and Lockwood, 2006; etc.). It is due to two fiscal reasons, "hidden" tax burden and relatively simple collection, control and management (Široký, 2012). Therefore, over the years, VAT has become a major and significant source of revenues for all member states. Its importance is also steadily growing, as confirmed by the steadily increasing share of GDP (in 2011 grew to 7.7% of GDP) (Taxation Trends in the European Union, 2013). Despite the fact that the empirical literature specifically looking at the VAT as a determinant of economic growth is quite limited, the value added tax is considered

as a "growth friendly tax" (a less negative impact on economic growth than income taxes), and therefore is often used to raise revenues (European Commission, 2011; AGS, 2011; Gabik, 2010; Wide, 2011).

Based on the analysis of the VAT rates development and their changes in those two levels – the process of harmonization and fiscal consolidation can be the Member States national interests compared and assessed, while respecting the Community law and the relative autonomy of the States by the usage of VAT as a tool to mitigate the effects of the crisis.

MATERIALS AND METHODS

The aim of this paper is to analyze the development of VAT rates in the EU in the context of VAT harmonization and to evaluate changes in VAT rates in the context of fiscal consolidation during the crisis years. Part of the objective is the analysis of the effectiveness of VAT rates setting expressed as a gap between the base and the implicit rate of value added tax.

The subject of this research is the development and changes in the standard and reduced VAT rates across the EU since their introduction up to 2012, with the emphasis on the period of fiscal consolidation since 2009. Given the importance and relevance to the indicator of implicit tax rate is then the object of interest the development and change of the implicit VAT rates in the years 2000–2012 and determination of the gaps between the standard and implicit VAT rate in the EU. The calculation of implicit VAT rate is based on the weighting of each rate with a share of the transactions value to which that rate applies, and therefore is called the weighted average rate (European Commission, 2014). In this paper when determining the implicit rates instead of the weights application private household consumption as a stable indicator was used. The value thus calculated rates are also takes into account other factors that prevent effective tax collection, and tax frauds. Implicit rates are based on the stated intended as a proportion of total tax revenues and final consumption of households. For the need of efficient VAT rates setting identification is gap between the standard and the implicit tax rate expressed as a percentage.

For graphical interpretation only, also data from 2013 were used, including Croatia as a EU member. Analysis carried out does not include data from Croatia. Analysed countries are divided into two groups. By the date of accession to the EU form the first group of countries that can be considered old members (OM 15) (BE, DK, DE, IE, EL, ES, FI, FR, IT, LU, NL, AT, PT, SE and UK) and a second group of countries called new members of integration (NM 12) (BG, CZ, EE, CY, LT, LV, HU, MT, PL, SI, RO and SK).

In the analysis secondary data obtained from online statistical database provided by the European Statistical Office (Eurostat) were used. Also

secondary sources of analytical research studies and reports published by domestic and foreign financial departments and analytical capacities of Ministries of Finance, OECD, Ernst & Young, the ECOFIN Council or the Institute for Financial Policy (IFP) were used.

The main method of research is analytical-synthesis method. Statistical analysis of secondary data is secured by using mathematical and statistical methods supported by statistical programs and software such as: MS Excel, SPSS Base software and software R. For fulfilling the research objectives general methods – analysis, comparison, induction and synthesis and statistical methods, in the form of descriptive statistics and graphical and numerical data description were used.

Changes in the VAT Rates in the Process of Harmonization

In the context of European integration, taxes play an important role in national economic policy as well as have an international importance. Large differences in tax systems of countries, whether

in the way of tax collection or tax bases create a space for tax frauds. To remove this lack is tax harmonization an important process, whose main idea is to define legislative frameworks to achieve the certain degree of harmonization and achieve mutual benefits arising from harmonization. In order to support the tax neutrality and to remove barriers of single market functionality has the European Commission (EC) tried to remove the multiphase turnover tax within the tax systems of countries, with which countries had a bad experiences. The main problem of this tax is a “cascade effect,” which means that the tax is passed on from one stage of production to another with increasing intensity (EC, 2014). As the default model for EC served France that had a certain form of value added tax. As the Tab. I shows, VAT was gradually introduced in all 27 EU countries. Tab. I shows the year of VAT implementation, year of entry into the EU and the standard rate of VAT in the EU.

In the context of Directive 67/227/EEC, Member States had to replace their general indirect tax system of value added tax till to 1.1.1970. As shown

I: The introduction of the VAT system in the EU 27

Country	Code	Year of VAT introduction	Year of entry to EU	Standard Rate (in %)
France	FR	1967	1958	16.66%
Denmark	DK	1967	1973	10%
Germany	DE	1968	1952	10%
Netherlands	NL	1969	1952	12%
Sweden	SE	1969	1995	11.11%
Luxembourg	LU	1970	1952	8%
Belgium	BE	1971	1952	18%
Ireland	IE	1972	1973	16.37%
Italy	IT	1973	1958	12%
United Kingdom	UK	1973	1973	10%
Austria	AT	1973	1995	16%
Spain	ES	1986	1986	12%
Portugal	PT	1986	1986	16%
Greece	EL	1987	1981	18%
Finland	FI	1994	1995	22%
Hungary	HU	1988	2004	25%
Estonia	EE	1991	2004	10%
Cyprus	SY	1992	2004	5%
Czech Republic	CZ	1993	2004	23%
Slovakia	SK	1993	2004	23%
Poland	PL	1993	2004	22%
Romania	RO	1993	2007	18%
Lithuania	LT	1994	2004	18%
Bulgaria	BG	1994	2007	18%
Latvia	LV	1995	2004	18%
Malta	MT	1995	2004	15%
Slovenia	SI	1999	2004	19%

Source: own processing according European Commission (2014)

in Tab. I, the stated objective was rather unrealistic. After France, Denmark was the next country to adopt VAT. Another group of states were countries – founding members of the EEC (Belgium, Germany, Italy, Luxembourg and the Netherlands). These states have implemented VAT to mid-70s. Sweden is a country that did not stand at the birth of the EEC, but belongs to the states which have introduced VAT among the first countries and replaced its retail sales tax in 1969 (Grunt, 2001).

The 80s are associated with entrance of another group of countries within the VAT system (Spain, Portugal and Greece), which justified the implementation of VAT as a condition for EU accession. The 90's are characterized by the country's post-communist regimes like the Slovak Republic. VAT legislation for Slovakia was originally formed under conditions of CSFR. Like for most countries was the implementation of VAT a preparation for EU accession. This concern for example of Czech Republic, Poland, Romania, and Bulgaria. Among the last countries to introduce VAT belong Slovenia, Malta, and Latvia.

The initial Directives (67/227/EEC and 67/228/EEC) did not contain any guidance on the amount and the number of rates that States should apply. The highest rate among founding EEC countries, Belgium introduced at the level of 18%. Later joined Greece, with the same high of standard rate as Belgium. Luxembourg used the lowest rate, namely 8%. These levels of rates have been decisive for the further development of the standard rate for accessing new members.

After the introduction of VAT in different countries, Due to the Second Directive states had relatively large maneuvering space regarding the rules for rates application. EEC in 1970 decided, that the budget will be financed from its own resources, namely a proportion of VAT by applying a common rate of tax on uniform basis of assessment. Therefore, the Sixth Directive 77/388/

EEC introduced a relatively consistent tax base (European Parliament, 2014).

Concept of VAT rates harmonization is mainly mentioned mainly in relation to Directive 92/77/EEC, which entered into force in 1993. This directive definitely set the minimum level of standard rate to 15% and to 5% for the reduced rate for its member states. Decision about the maximal standard and reduced rates were left up to individual countries. Directive determined also the possibility of using one, or maximally two reduced rates in country. Changes in specified rates according to this directive are shown in Tab. II.

Concerning the implementation of Directive 92/77/EEC can be stated, that all member countries met the minimum rate threshold. In Tab. II can be seen, that not all states have been forced to change these rates in the context of this Directive. Greece among these states has not changed the rates from their introduction until the year 1993. Another group of member countries in this period was compelled to raise their rate to meet EC guidelines. Luxembourg, Germany, Denmark and Estonia are among the states that had during the implementation and deployment of the Directive to increase their rates. Except Denmark, all countries had appointed their rates below the minimum recommended value of 15%. Denmark is a country, that had for the analysed time period, namely from the introduction of VAT to the implementation of the Directive, radically changed its VAT rate for 15%. The average standard rate in 1993 within the 12-EC countries stood at 18.09%.

Tab. III illustrates progress in implementation of reduced rates, namely whether States have complied with the minimum level of 5% and a maximum of 2 rates. More than two rates are used in Belgium and Italy, which were reduced to two in 1993. All other countries kept the maximum count of rates. Guidance on the minimum level of rates was not

II: *Changes in standard VAT rates after the implementation of Directive 92/77/EEC*

Country	The rate of introducing	Implementation of Directive 92/77/EEC		
		1991	1992	1993
FR	16.66	18.6	18.6	18.6
BE	18	19.5	19.5	19.5
NL	12	18.5	17.5	17.5
LU	8	12	15	15
DE	10	14	14	15
IT	12	19	19	19
DK	10	22	25	25
IE	16.37	21	21	21
UK	10	17.5	17.5	17.5
EL	18	18	18	18
PT	16	17	16	16
ES	12	12	13	15

Source: own processing according European Commission (2014)

III: *Changes in reduced rates after the implementation of Directive 92/77/EEC*

Country	The rate of introducing	Implementation of Directive 92/77/EEC		
		1991	1992	1993
FR	6; 13	2.1; 5.5	2.1; 5.5	2.1; 5.5
BE	6; 14	1; 6; 12	1; 6; 12	1; 6; 12
NL	4	6	6	6
LU	4	3; 6	3; 6	3; 6
DE	5	7	7	7
IT	6	4; 9; 12	4; 9; 12	4; 9
DK	-	-	-	-
IE	1; 5.26; 11.11	2.7; 12.5	2.7; 12.5	2.5; 12.5
UK	-	-	-	-
EL	3; 6	4; 8	4; 8	4; 8
PT	8	8	5	5
ES	6	6	6	3; 6

Source: own processing according European Commission (2014)

kept by France, Luxembourg, Italy, Ireland, and Greece. In the case of standard rate no complete harmonization can be seen, because not all the countries did respected the Directive. The result of this fact was, that certain amendments have to be made, that extended the validity of the specific reduced rates for specified products and services for a certain period. In addition to reduced rates currently in a transitional period the countries also apply zero rates and parking rates. As a zero rate is considered a rate lower than 5% and the parking rate is higher than 12%.

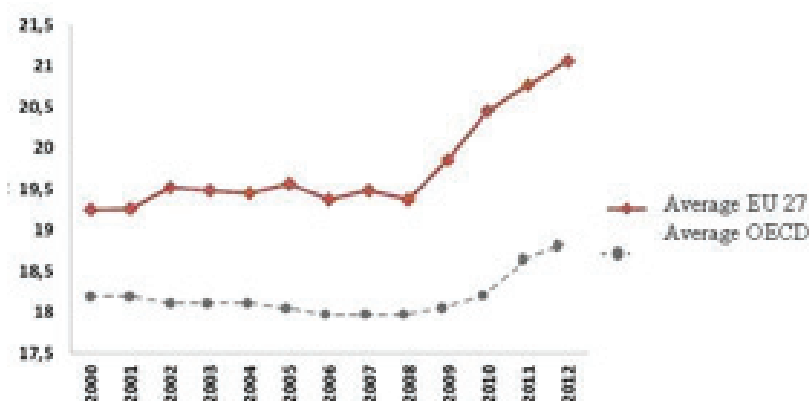
Developments in VAT Rates Year on Year

In the previous sections developments and changes in VAT rates in the context of the harmonization process were analyzed. Despite the fact, that VAT is quite the most harmonized tax; there is no legislative regulations that restricts the maximal tax rate for member states. Therefore almost all individual states can within their tax and fiscal policy adjust the tax rates according to

the economic situation and the amount of revenue they expect from these taxes.

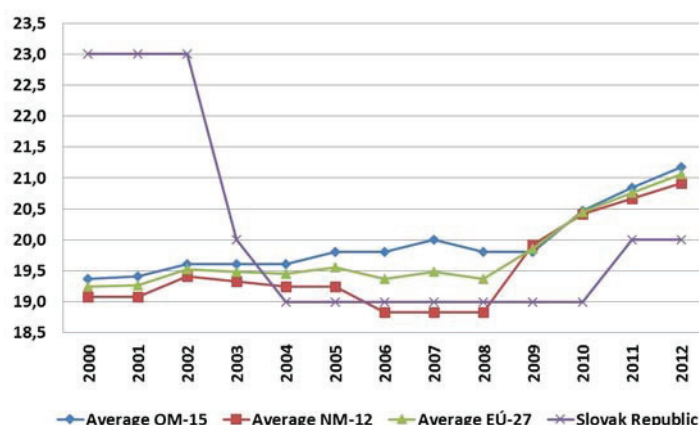
Development of the average tax rate in the EU-27 and OECD countries in the period 2000 to 2012 is shown in Fig. 1. On the basis of the rates development can be concluded, that VAT rates have a generally rising trend especially since 2009. States faced a slowdown in economic growth and deepening of fiscal imbalances. Particularly strong trend of VAT rates growth can be seen in the EU compared to the OECD average. OECD countries have a moderate growth rate and the total amount is lower. Basic OECD average tax rate since 2000 stood at 18% and from 2009 began to rise slightly. The increase in the average standard tax rate accounted in countries like Japan that is struggling with large public deficits. In the USA, tax rates remained relatively stable. Overall, in the EU 27 average tax rates are higher by nearly 3% compared to rates in the OECD for 2012 (Ernst & Young, 2013).

States in the progressive integration process entered the EU gradually. Therefore, it is possible

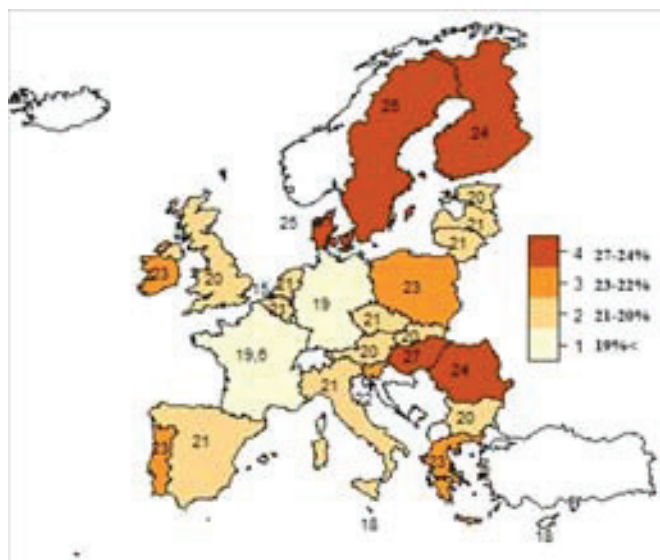


1: Annual changes of standard VAT rates for the period 2000–2012 in the OECD and EU-27

Source: own processing according European Commission (2014) a Ernst & Young (2013)



2: Development of standard VAT rates for the period 2000–2012 for the EU-27
Source: own processing according European Commission (2014)



3: Current status of standard rates of the EU-27 for 2013
Source: own processing in R

to divide countries into groups of old members (OM 15) and new members (NM 12). To compare the development of countries in the EU three curves are used. The green curve represents the average rate of VAT in 27 EU Member States. Older members have since 2000 set rates by about 0.5% higher than the new Member States (NM). The common development feature of old and new Member States is especially visible in 2009, from which on the rates had begun to rise, as in OECD countries. During the entire period rates for the old Member States increased in average by 2% and for the new Member States by almost 2.5%.

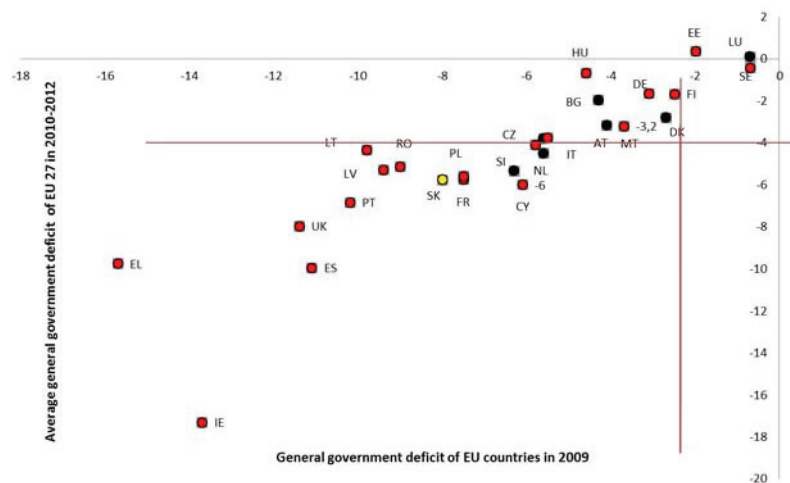
New members (NM 12) had in a relatively short time since 2009 increased the VAT rates to the greatest extent. Old states according to their moderate tax rate had not increased their taxes in such extent. Slovak Republic ranks among the group of new member states. The rate had since 2000 degressive trend, and as one of the few fell over

next 4 years for 4% points. During 2010 temporarily increased to 20%.

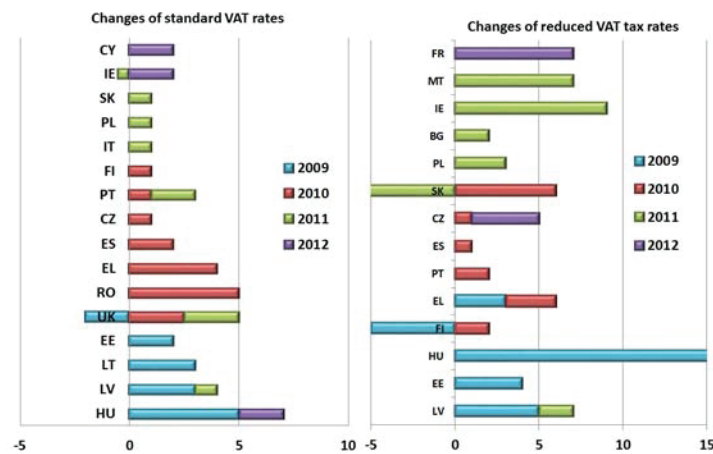
To illustrate the current state of standard VAT rates a map of the EU-27 for year 2013 is illustrated in Fig. 3. Countries are classified into intervals according to the level of their rates. Compared to 2012 growth of rates continued, specifically in the Czech Republic, Ireland, Finland, Cyprus and Slovenia. Listed rate increases meant that the average VAT rate in the EU increased by 0.26% to absolute value of 21.32%.

Development of VAT Rates in the Context of Fiscal Consolidation

When approaching instruments of economic policy that may reduce the consequences of the crisis, tools of fiscal policy are widely considered. During the deficient state of the public finances of the EU states, is for some countries raising VAT rates one of the best solution in raising public



4: Development of the deficit of public finances in the EU in the period 2009–2012
Source: own processing according European Commission (2013)



5: Changes in standard and reduced rates in the period 2009–2012
Source: own processing according European Commission (2014)

revenues. Slovak Republic is a good example of how the country has responded to a temporary increase in the standard VAT rate to achieve a deficit reduction. This tax tool is used by Poland, where the standard rate will increase automatically if public debt rises above a certain level. Although the VAT acts indirectly on the economy and shifts the tax burden onto consumption, this may not always be the most effective tool. Whether rate increases will be effective for the Treasury or not, depends on many factors. This is mainly related to the size of the tax base utilized in the form of reduced rates, not least with the efficiency of collection of the tax as a result of the informal economy (Ovens, 2011).

The following section of the development VAT rate analysis is focused on changes in tax rates during fiscal consolidation period, particularly in the context of the indebtedness indicators. The focus is on states, which tended to increase respectively to reduce tax rates within individual mix of consolidation measures. The analyzed period is from 2009 to 2012, because the year 2009 can be

considered the peak of the economic crisis coupled with the economic slowdown, the necessity of States to review the financial statements and taking measures to reduce the government deficit.

Fig. 4 illustrates the general government deficit of European countries in the initial crisis year 2009. The vertical axis shows the average general government deficit for EU27 in 2010–2012. Red represents country in which there has been a change, either in the base, tax rate or in reduced rate. Yellow is shown Slovakia that also belongs to the countries that joined the consolidation by changes in rates. Countries marked by gray color did not change their tax rates at all. These are the countries with lower public deficits, for example. As Luxembourg, Denmark, Austria, Bulgaria, the Netherlands, Slovenia. Mostly it comes to advanced economies with stable economic situation, which did not had to increase rates to cover the unfavorable situation.

As indicated by the deficient state of public finances in countries, it is possible to follow certain dependence between the amount of the deficit and

the number of changes in VAT rates. The closer is the country to the left side, the greater the tendency to reach for the change in VAT rates. This dependence is not supported by correlation test, but this issue can be the subject of further research. This fact is, however, supported by the basic outline of the changes in standard rates and reduced rates of VAT for the period 2009–2012 in each country (Fig. 5). Overall, 16 of the 27 Member States tended to increase their standard rates. The total sum of the countries' increased standard rates is 41.5%. The average rate of the EU-27 in 2009 was 19.85% and in 2012 was 21.06%. There was an increase in the average rate of 1.2%.

Exception in the EU is United Kingdom, which in response to the crisis in 2009 reduced the standard rate, and so believed to revive the economy through increased consumption. Finally in 2010 and 2011 began to increase its standard rates too. Highest increase in standard rates was in Hungary, Romania and England. Hungary has during the period increased its rates by 7%, Romania by 5%. Slovakia joined the increase in rates in 2011 by 1%, namely at 20%. However, this is only a temporary measure and the rate should be reduced to the original level of 19% if the country will reduce the deficit.

In the changes of reduced VAT rates countries applied different strategies. One group of countries (PL, PT, and IE) acceded to increase standard rates only; another group of countries have introduced reduced rates (HU, SK, MT, FR). Slovak Republic is the only country that in this period introduced a reduced tax rate of 6% and subsequently in 2010 it also abolished. Finland alone reduced the standard rate in 2009 and then took the same route as United Kingdom and its tax rate begun to rise. In reduced rates in Fig. 5 are the introduction and abolition of the tax marked bold.

Determination of the Gap Between the Standard and the Implicit Tax Rate

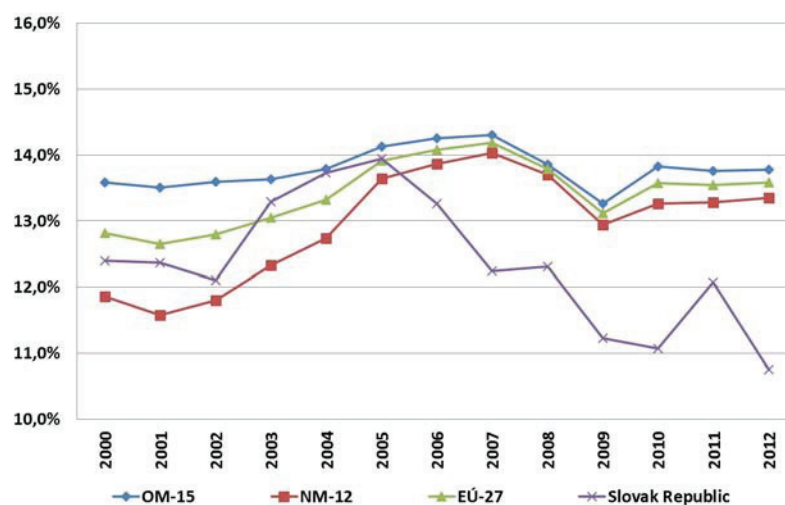
According to several authors as Soukupova and Šinkyříková (2014), Gabík (2010), Keen (2008), Mathis (2014) were for the tax analysis implicit tax rates (ITR) used, which carry more relevant information than the standard rates. ITRs serve as an indicator of political decisions about changes in standard rates. It is an appropriate indicator for international comparison of tax burdens and for the emergence of a real collection of taxes to the tax base.

The main difference between the standard and the implicit rate is in particular consideration of reduced rates for certain transactions in the country, exemptions from the law, and not least inefficiency in tax collection mainly associated with tax frauds.

Within the structure of implicit VAT rates take into account the existence of any applicable VAT rates. The calculation is based on the weighting of each rate with a share of the transactions value to which that rate applies, and therefore is called the weighted average rate (European Commission, 2014). In this paper when determining the implicit rates instead of the weights application private household consumption as a stable indicator was used. The value thus calculated rates are also takes into account other factors that prevent effective tax collection, and tax frauds. Implicit rates are based on the stated intended as a proportion of total tax revenues and final consumption of households.

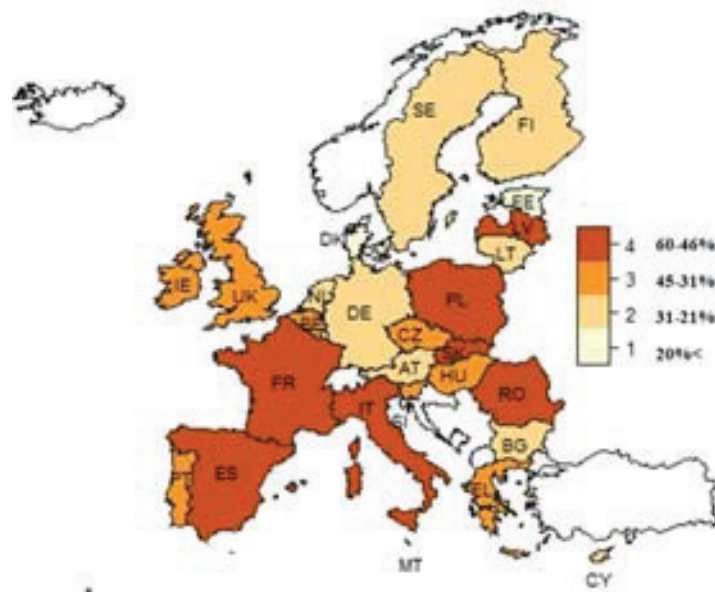
The implicit tax rate provides information on tax differences and the fact remains that the closer the standard and implicit rate are, the less impact on the overall tax revenues reduced rates, zero rates and inefficient selection will have (Mathis, 2004).

Development of the average implicit tax rates in the years 2000–2012 for a group of old members (OM 15), the new members (NM 12), EU-27 and Slovakia illustrates Fig. 6. On the basis of this



6: Development of implicit tax rate for the period 2000–2012 for the EU-27

Source: own processing according Eurostat



7: Map EU-27 gap between the standard and the implicit rate for 2012
Source: own processing in R

development is conceivable that reduction in the implicit rates values will result in that the ratio between the yields from VAT taxes to consumption will be less effective. If rates are rising, this has the effect that tax revenues are close to the revenue that would have been achieved if the consumption is multiplied by the base rate. Thus, exceptions to the law of reduced rates and the shadow economy have less impact.

For the need of efficient VAT rates setting identification is gap between the standard and the implicit tax rate expressed as a percentage.

Positive period for all groups of countries was the period of years 2005–2007, when the rate had an upward trend. The critical year is 2009, when the average standard rates began to rise, but the implicit rate started their fell. Crisis period is reflected in the implicit rate, which has a relatively large loss in tax revenues, which did not correspond to the respective household consumption. After 2010 there was a slight increase in these rates, but comparing to standard rates it's a much slower increase. Since 2005 had the implicit rate of Slovakia a downward trend, suggesting an inefficient setup in collection of the tax.

Overall can be stated that the old Member States (OM 15) are more stable and there is less difference between the standard rates and specified implicit rates. The new Member States have significantly

higher gap between the rates, and also gaps in the system settings and application of reduced VAT rates. At the beginning of the period are the gaps between rates higher and by the end of the period they start to decline. The year 2009 represents an increase for all states. In the initial reporting period for NM 12 are implicit rates lower by 38% over its standard rates. Later, these Member States recorded a positive decrease in the gap, even below the OM-12. On Fig. 6 are shown results for Slovakia that is part of the NM 12. The curve clearly indicates that Slovakia is a country with a higher gap.

According to numerous studies (Soukupová and Šinkyříková, 2014; Keen, 2008; Mathis, 2004, etc.) are implicit rates comparatively lower than standard. Based on the calculations can be stated that the implicit rates are on average by 30% lower over its standard rates. As reported by Mathis (2014), implicit rates are lower by 20% and according to a study by Fabrizio Borselli, Salvatore Chir (2014) is the standard rate used only on 65% of the tax base, which consists of transactions subject to VAT.

For 2012, the program R plotted a map of the EU-27, with specific gap intervals between the standard and the implicit tax rates (Fig. 7). According to the graphical evaluation, the largest gaps are in central and southern Europe led by France, which belongs to the group OM-15.

DISCUSSION AND CONCLUSION

Importance of value added tax is constantly growing, which is given not only by its purpose of a proper functioning of the internal market with fair competition and achieving simplicity and neutrality of taxation, but also by fiscal reasons like one of the key resources within tax collection for increasing budget revenues. Based on the above, the development of VAT rates and changes in the European countries are studied in two dimensions, in the context of the harmonization and in the context of

fiscal consolidation during the crisis years. Through the analysis, it was possible to compare and evaluate the national interests of the Member States in complying with Community law of the EU and the relative autonomy of the States by using VAT as a tool to mitigate the effects of the crisis.

Value added tax is the most harmonized tax in the single internal market of the European Communities. Despite this fact, legislation does not restrict member states for the maximum value of the tax rate, and therefore there is lot of space left for states to adjust their VAT rates according to their fiscal and tax policy. Different settings of legislation and implementation in their own tax policies, combined with lack of control for tax administration are the main reason that the gap between real and theoretical tax income to the base deepens. This fact is pointed out also in this analysis, based on which we can conclude that there is a difference in the gap between EU Member States. The New Member states have significantly higher gaps compared with the Old Member states, which have more stable and lower gap in the setting system and in application of reduced VAT rates. The analysis also points out that these differences are gradually reduced in the process of harmonization, whereas the NM 12 had at the beginning of the reporting period implicit rates lower by 38% compared to standard rates and gradually showed a positive decline in the gap, even below the OM-12.

The process of harmonization was significantly affected by crisis period, which is demonstrated not only by increase of the gap in all EU countries, but also in the changes in standard and reduced VAT rates in the context of the fiscal consolidation period. In search of economic policy instruments that may mitigate the consequences of the crisis are widely used tools of fiscal policy. And given that the VAT is considered as "growth friendly tax" it is often used for increasing the state budget revenues to ease the deficits of public finances of the EU states.

Although the reason for all the changes is not necessarily a reflection of the economic policy adopted as a reaction to the economic crisis, as confirmed by the analysis, there is some correlation between the amount of the deficit and the number of changes in VAT rates. The higher the level of debt of the country reached, the greater the tendency to go after fundamental changes in VAT rates. This fact was confirmed by the analysis of changes in basic and reduced VAT rates for the period 2009–2012 in the EU countries. Overall, 16 of the 27 Member States tended to increase their base rates, and while the average base rate of the EU-27 increased from 19.85% (in 2009) to 21.06% (in 2012). The changes of reduced VAT rates in countries follow different strategies, either a base rate increase or new reduced rates introduction.

Owens (2011) points out, that raising rates for consolidation has its limits, especially in countries which base rate is already quite high. This author recommends a reform to improve the performance and efficiency of VAT tax systems and broaden the tax base. As also noted by the European Parliament (2012), measures should simplify tax systems and avoid further increases in standard rates, that are compared to income from them inefficient and only increase burden of household consumption of all countries. Rising VAT taxes in the context of public finances deficit problems is not a effective solution to increase revenues.

Based on the analysis on the development of implicit rates and determination of gaps between the standard and implicit rates can be stated that the period of crisis in the EU was also reflected in the implicit rate values, which signalized a relatively large loss of tax revenues, which did not correspond to the respective household consumption. After 2010 there was a slight increase in these rates, but the ratio of increase in standard rates was slower. It is confirmed that the implicit rates are comparatively lower than the standard. By calculations are on average lower by 30% over its standard rates and, the more the standard and implicit rates are closer, the less impact on the overall tax revenues have reduced rates, zero rates and inefficient selection. Overall can be stated that the old Member States (OM 15) have stable development of the implicit rates and the difference between fundamental and implicit rates is lower. The new Member States have significantly higher loopholes in the system settings and application of reduced VAT rates.

Process of harmonization of value added tax is necessary for several reasons, therefore the EC stresses the need of harmonizing approaches for Member States for VAT rates and tax bases. The economic crisis has significantly affected the changes in VAT rates, and it is evident that the states should have manouvering room for their fiscal policy and for adjustment of tax rates under the current economic situation. Usage of the instrument by increasing the tax rates has its limits, and therefore an overall challenge for the EU-27 is the identification the region for broadening the tax base, reducing tax exemptions, simplifying VAT systems for better efficiency and equity, ensuring sufficient penalties for tax fraud and ensure the efficiency of tax.

Based on the analysis in this paper can be assessed, that the process of harmonization within the observed developmental stage, which includes the crisis period, is very complicated and can not be clearly declared, nor denied that formed larger and smaller gaps will not occur in the future.

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