VALUE-ADDED TAX AND ITS EFFICIENCY: EU–28 AND TURKEY

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Abstract

This paper analyses value-added tax (VAT), with special emphasis on efficiency in the EU-28 Member States and Turkey, over the period from 2009 to 2013. From the results of the analysis, we concluded that, the highest efficiency ratio (50.8) was recorded in Croatia in 2013. This indicates that Croatia's value-added tax revenues as percentage of gross domestic product in the state budget were very high (12.7) in comparison to Turkey's (9.0) in 2013. As such, VAT is one of the most important taxes in the EU-28 Member States and many countries worldwide, like Turkey. The current VAT system in EU-28 Member States and Turkey is quite complex for the growing number of businesses operating cross-border. To increase investment, competitiveness and growth, an action plan on VAT is proposed for the creation of a single VAT area. The VAT system needs to be more efficient and simpler for businesses to use.

Keywords: Value-added tax (VAT), tax efficiency, fiscal policy, tax system.

INTRODUCTION

Every state budget contains government revenues and expenditure. Its primary mission is to finance public goods and services, and it affects the economic development of a country. One part of government revenues are tax revenues, which are divided into three main categories. These are direct taxes, indirect taxes and social contributions. Value-added tax is a tax that pertains to the category of indirect taxes. As such, VAT is a central platform of policy at both the EU and international levels. The tax systems of each of the EU-28 Member States and Turkey are extremely important for the government, multinational companies and individuals. Therefore, the tax system needs to be adjusted to the conditions and relationships within a government. The main elements that determine the tax system are constitutional order, territorial size, population size,

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demographic structure, size of the public sector, economic structure, unemployment, public debt size, etc. Every country has specific characteristics of a functioning tax system. Economic cooperation among the EU-28 Member States and Turkey is nowadays widespread and continuously increasing. The main problem is the diversity of tax and legal regulations and legislation in each country. To remove all the obstacles, every EU-28 Member State must improve its tax system. The biggest improvement is achieved in the area of value-added tax. Although Turkey is not an EU Member State, the implementation of VAT has been triggered by agreements with the European Community. With the aim of convergence of its tax law with European laws, Turkey introduced VAT by means of Law No. 3065 in 1985.

Value-added tax is a common system of sales taxation in every EU-28 Member State according to the EU Council Directive 2006/112/EC. The year 1967 was a crucial year for the establishment of VAT. Special merit for creating European VAT is owed to the Neumark Commission. The main task of this Commission was to move away from using gross value-added tax and to implement net value-added tax under the destination principle. The harmonization of VAT is carried out in three steps. The first step is individual countries' attempts to implement VAT, the second step is the harmonization of the VAT tax base and then, as the third step, countries determine the number of different value-added tax rates. It is important to mention here that, because of the adaption aim as well as the convergence of Turkish law with European law and its membership candidacy, this VAT harmonization progress is also relevant for and impacts Turkey. Moreover, Turkey's VAT adaption progress has been evaluated annually by the European Commission since 1998 (European Commission 1998). Therefore, we integrate this relationship with Turkey into our study with respect to EU Member States.

The main objective of this paper is to provide a VAT efficiency analysis in the EU-28 Member States and Turkey by using standard VAT efficiency indicators for the period from 2009 to 2013. The paper is structured in the following way. In order to achieve the objective of this paper, the introduction is followed by a description of the main characteristics of VAT and the recent policy initiative for a single EU VAT area. In the second section, data and methodology are presented. The third section presents the results of the VAT efficiency analysis in the EU-28 Member States and Turkey, while the last section provides a conclusion.

1. THE SIGNIFICANCE AND CHARACTERISTICS OF THE VAT SYSTEM

VAT is a tax levied on goods and services purchased by end users. It depends on the price elasticity of the taxed goods and services. For example, when the price elasticity is high, it means that even small price hikes slash demand significantly. VAT is guided by traditional principles of fiscal policy, which include neutrality, efficiency, certainty and simplicity, effectiveness and fairness, as well as flexibility. The VAT system ensures that there is no unfair competitive advantage afforded to domestic or foreign business. However, it may reduce international trade and limit consumer choices. To counteract this, the application of the destination principle is needed. According to this principle, exports are free of VAT and imports are taxed on the same basis and at the same rate as domestic supplies (OECD 2011, 4).

The main framework of legislation for establishing a common system of VAT was the VAT Directive 2006/112/EC. As stated in Art.1 (2) of this Directive, "the principle of the common system of VAT entails the application to goods and services of a general tax on consumption exactly proportional to the price of the goods and services." The transactions that are subject to VAT are the supply of goods, the intra-Community acquisition of goods for consideration within the territory of a Member State, the supply of services and the importation of goods. Other legislation regarding the common VAT system are Directive 2007/74/EC (travelers' allowances), Directive 2006/79/EC (private consignments), Directive 2009/132/EC (VAT-free importation), Directive 86/560/EEC (VAT refund-non-EU business) and Directive 2009/9/EC (VAT refund-EU business). In 2011, the European Commission also implemented Council Implementing Regulation (EU) No. 282/2011, laying down implementation measures for Directive 2006/112/EC on the common system of value-added tax.

Even though the directives mentioned above are not directly compulsory for Turkey, due to the convergence aim and its EU membership candidacy, they also have an impact on the Turkish VAT system. The VAT system of Turkey has to be examined from two perspectives, namely legislative and economic. From the legislative perspective, as mentioned above, the Turkish VAT system was triggered by the agreements signed with the European Community in 1985. In line with the aim of converging the Turkish tax system with European systems, Turkey replaced eight different tax types in 1985 through the VAT Law, No. 3065. It is important to mention here that, although Turkey formally introduced VAT in legislation in 1985, Turhan (1998) states that Turkey was the first country to implement the tax refund principle of VAT in 1925 within the framework of transaction tax (called 'muamele vergisi') and, therefore, the VAT principle had been known in Turkey for many years before its implementation in 1985 (Turhan 1998; Merter, Acar and Arslan 2007).

Moreover, regarding the adaption of Turkish VAT law to European laws, nearly every progress report published since 1998 has stated that Turkey needs convergence with respect to consumer products covered by VAT (European Commission 2015; Comaklı, Ayrangol and Tekdere 2014; European Commission 1998). Over time, the convergence of the standard rate has been successfully reached; however the same has not occurred for the reduced rates (Karadeniz 2013). In particular, the addition of the special reduced rate of 1 per cent to the existing 8 per cent and 18 per cent VAT rates in 2012 impaired the convergence progress of Turkish VAT (Comaklı, Ayrangol and Tekdere 2014).

A further point regarding the taxation at the level of the end consumer is the special consumption tax in Turkey (called 'OTV'). This tax covers a very broad range of goods in contrast to the existing special consumption tax laws of the EU Member States, which are in force for a limited range of products. This triggers the discussion on whether the OTV should not be regarded as a general consumption tax, like VAT, which is regarded as a complementary part of the VAT system (Ilhan 2009; Merter, Acar and Arslan 2007). When analyzing VAT, it is important that we focus on VAT revenue collected under VAT Law No. 3065. Therefore, the economic view of the OTV as a general consumption tax is not taken into consideration in our analysis, which can be found in the next part.

From the economic perspective of VAT, the study by Merter, Acar and Arslan (2007) shows that by means of VAT, the Turkish government achieved higher indirect tax revenue than the tax revenues collected by the previous eight different tax types. Even

though VAT revenue shows an increasing trend over time, the study finds that VAT is the tax type that reacts most sensitively to changes in the gross national product. Karadeniz (2013) shows a further sensitivity of VAT, namely the positive relationship between the poverty risk and VAT revenue. Furthermore, the study by Akar and Sahin (2015) analyzes the tax buoyancy in Turkey, which covers not only efficiency, but also the changes in the rates and bases in the Turkish tax system. The results show that, in the short-run, tax buoyancy is negative; however, in the long-run, the tax system is efficient and buoyant. Hence, this study does not analyze different kinds of taxes separately; no conclusion is possible regarding the buoyancy of VAT. Alm and El-Ganainy (2013) examined the impact of a broad-based consumption tax (VAT) on the aggregate consumption of fifteen European Union countries over the period 1961–2005. They found that an effective VAT tax rate is negatively correlated with the level of aggregate consumption. On the other hand, the presence of tax evasion and informal economy introduces inefficiencies in the VAT system (Emran and Stiglitz 2005; Piggott and Whalley 2001). McLure (2003) discusses the application of value-added tax to electronic commerce in the European Union. He found that the primary problems affecting taxation of electronic commerce involve the difficulty of taxing sales of digitized products to households and unregistered traders.

1.1. VAT rates in EU–28 and Turkey

According to Directive 2006/112/EC and Council Directive 2010/88/EU, Member States are required to have a single value-added tax rate of at least 15 per cent. In addition to this rate, they may have a maximum of two reduced value-added tax rates set no lower than 5 per cent. The reduced rates are restricted to the specific products defined in Appendix III of Directive 2006/112/EC. This includes foodstuffs for human and animal consumption, live animals, seeds, plants and ingredients normally intended for use in the preparation of foodstuffs, supply of water, pharmaceutical products, medical equipment, books, periodicals, hotel accommodation, restaurant and catering services, etc. All EU-28 Member States and Turkey have a standard and a reduced rate. The VAT rates, which were in effect as at 1 August 2016, are presented in Table 1.

Table 1. VAT rates in EU-28 Member States and Turkey, 1 August 2016 (as percentage)

	Standard Rate	Reduced Rate	Super Reduced Rate	Zero Rate
Belgium	21	6 / 12	-	0
Bulgaria	20	9	-	-
Czech Republic	21	10 / 15	-	-
Denmark	25	-	-	0
Germany	19	7	-	-
Estonia	20	9	-	-
Ireland	23	9 / 13.5	4.8	0
Greece	24	6 / 13	-	-
Spain	21	10	4	-
France	20	5.5 / 10	2.1	-
Croatia	25	5 / 13	-	-

Table 1. (*continued*)

	Standard Rate	Reduced Rate	Super Reduced Rate	Zero Rate
Italy	22	5 / 10	4	0
Cyprus	19	5 / 9	-	-
Latvia	21	12	-	-
Lithuania	21	5 / 9	-	-
Luxembourg	17	8	3	-
Hungary	27	5 / 18	-	-
Malta	18	5 / 7	-	0
Netherlands	21	6	-	-
Austria	20	10 / 13	-	-
Poland	23	5 / 8	-	-
Portugal	23	6 / 13	-	-
Romania	20	5 / 9	-	-
Slovenia	22	9.5	-	-
Slovakia	20	10	-	-
Finland	24	10 / 14	-	0
Sweden	25	6 / 12	-	0
United Kingdom	20	5	-	0
Turkey	18	1/ 8	-	-

Source: European Commission data, https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/
documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf (accessed July 30, 2016)

Table 1 showed that the EU Member States with the highest standard rate are Hungary (27 per cent), Croatia, Denmark and Sweden (25 per cent), while the lowest are Luxembourg (17 per cent) as well as Malta and Turkey (18 per cent). Moreover, by observing the reduced rate, we noticed that the countries with the lowest reduced rates are Turkey (1 per cent and 8 per cent[2]) and Poland (5 per cent and 8 per cent[3]). The super reduced rate is present in only a few countries (i.e. 4.8 per cent in Ireland, 4 per cent in Spain and Italy, 3 per cent in Luxembourg and 2.1 per cent in France). This super reduced rate in Ireland applies to the supply of livestock and horses normally intended for use in the preparation of foodstuffs or in agricultural production. In Spain, it applies to food products, books, newspapers, periodicals, pharmaceuticals, supply of new buildings and construction work on new buildings, etc. Italy applies this rate to food products, books, newspapers, periodicals, television license fees, supply of new buildings, construction work on new buildings, medical equipment for disabled persons and social services. Luxembourg applies this rate to radio and television broadcasting services, copyrights, food and beverage products (except alcoholic drinks), books and periodicals, clothes for children under the age of 14, water, pharmaceutical products, transports of individuals, accommodation and access to cultural, educational, sporting and entertainment events, while France applies it to newspapers, pharmaceuticals, periodicals and admission to cultural services and shows. Furthermore, zero rates applied to consumption have been recorded in Belgium, Denmark, Ireland, Italy, Malta, Finland, Sweden and the United Kingdom.

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[2] The reduced rate of 1 per cent applies to certain agricultural products, newspapers and magazines, used cars, bicycles and vehicles for handicapped persons, funeral services, etc., while 8 per cent is for basic food products, cashier machines, cinema, theater, opera and ballet tickets, stationery, books and similar publications, accommodation services at hotels, motels, pensions and similar facilities, etc.

[3] The reduced rate of 5 per cent applies to the supply of books and periodicals and 8 per cent to food products, certain books, newspapers and magazines, certain goods relating to health care, services relating to agriculture and forestry and construction, etc.

According to Jensen and Wanhill (2002), the advantages of value-added tax include the following: it is a broadly based tax that does not distort consumer choice; it is more flexible as a revenue-raising device than income tax; and regressive aspects of VAT can be handled through zero rating. Claus (2013) examined the use of value-added tax as a macroeconomic stabilization tool. He found that a variable VAT rate is a more effective macroeconomic stabilization tool than an interest rate. This could lead to larger fluctuation in the real economy and inflation. Keen and Lockwood (2010) explored the performance and adoption of VAT, using an unbalanced panel of 143 countries over 26 years.

1.2. Policy initiatives for a single EU VAT area

VAT is one of the most important consumption taxes in the EU and many countries worldwide. In order to introduce a common VAT system, an action plan on VAT was proposed for the creation of a single VAT area. The main aim of the single VAT area in the twenty-first century is to increase investment, competitiveness and growth and to create more jobs. The current VAT system is quite complex for the growing number of businesses operating cross-border, and also for domestic and cross-border transactions.

The current VAT system urgently needs the following reforms. According to the European Commission (2016), the VAT system needs to be more efficient and simpler for businesses to use; it must combat the growing risk of fraud and must be based on greater trust between businesses and EU tax administrations.

Key actions to reduce the complexity of the VAT system are the improvement of transparency of e-commerce in the single market, a simpler package for SMEs, measures to tackle VAT gaps, a definitive VAT regime for cross-border trade and more freedom for Member States regarding rate-related policies. The European Commission (2016) proposes to modernize and simplify the VAT system, including introducing a common EU-wide simplification measure (VAT threshold) to help small start-up e-commerce businesses, extending the One-Stop-Shop mechanism to EU and non-EU countries and removing the VAT exemption for imports of small consignments from non-EU suppliers. This will be particularly important for SMEs.

As a consequence of e-commerce, a huge problem can arise in VAT gaps. In order to set up this kind of commerce, a new approach to tax collection is required. To enhance cooperation within the EU and with third countries (for example, Turkey), the Commission will need to take some measures. These will consist of examining the possibility of extending the use of automated access to data, proposing options to reinforce the role and impact of Eurofisc on tackling intra-Community VAT fraud, supporting deeper cooperation between different authorities, enabling tax administrations to obtain more information on non-established traders liable for VAT in the EU and fighting VAT fraud more effectively. For proper collection of taxes and to improve the business environment, the Commission will facilitate agreement on minimum quality standards for core tax administration functions and evaluation based on good practices in different countries, monitor the tax administration's performance in collecting and controlling VAT, including by means of fact-finding visits to the Member States, provide technical assistance on topics of tax administration and combatting fraud. In order to improve VAT compliance, the Commission will facilitate a higher role for

the EU VAT Forum in bridging the gap between businesses, in particular SMEs, and tax administrations by promoting dialogue and joint projects, launching a study on the impact of administrative penalties on compliance and competition so as to identify good practices and adverse effects and to intensify education and communication to raise citizens' and companies' awareness of the importance of paying taxes. All of this, after its implementation in the EU area, will also affect the Turkish market, especially since Turkey is now a candidate country for the EU.

2. DATA AND METHODOLOGY

This part analyzes the VAT efficiency in the EU-28 Member States and Turkey by using two standard efficiency indicators. Eurostat and the Revenue Administration of Turkey database have been used in the analysis of VAT efficiency. The database contains yearly data collected from 2009 to 2013 for the EU-28 Member States and Turkey. According to Ebrill et al. (2001), the two most frequently used VAT efficiency indicators are the Efficiency Ratio (ER) and the C-Efficiency Ratio (CER). Sopek (2012) found that, in 2010, Croatia had the best efficiency indicators (ER and CER) of all observed EU Member States.

ER is expressed as:

$$ER = \frac{R}{Y*r} * 100 \tag{1}$$

R   total amount of VAT revenues
Y   nominal GDP
r   standard VAT rate.

This indicator presents the GDP ratio collected by every percentage point of standard VAT rate.

CER is expressed as:

$$CER = \frac{R}{FC*r} * 100 \tag{2}$$

R   total amount of VAT revenues
FC final household consumption
r   standard VAT rate

The optimal C-Efficiency ratio of 100 per cent should be considered totally efficient in the case when it covers the whole tax base with a flat rate. In the case of a reduced VAT rate on certain goods or services, the C-Efficiency ratio is below 100 per cent. According to Keen (2013, 3), "C-efficiency is an indicator of the departure of VAT from a perfectly enforced tax levied at a uniform rate on all consumption."

According to Simovic and Deskar-Skrbic (2016), a special decrease in VAT efficiency in Croatia was recorded in 2012 and 2013, when the reduced rate was extended to all tourism and hospitality services.

Tagkalakis (2014) provides empirical evidence that VAT revenue efficiency is positively associated with economic activity. He found evidence that a 1-per cent increase in real gross domestic product growth improves VAT efficiency by about 0.63 percentage points. Hajduchova, Sedliacikova and Viszlai (2015) ascertained that expenditures for tax and duties collection are several times lower in the Slovak Republic

than the tax revenues to the state budget and that collection of tax and duties can be considered effective. Slintakova and Klazar (2010) analyzed the progressivity of VAT in the Czech Republic within the framework of both annual and lifetime incidence. They found that Czech VAT is regressive when annual income is analyzed, while the lifetime income analysis indicated that VAT is progressive. On the other hand, Jansky (2014) explored the impact of the changes in VAT which were implemented between 2011 and 2013 on household's quantity demanded and government revenues in the Czech Republic. Cnossen (2011) proposes applying VAT to the increase in the value of residential property each time the property is sold after the first taxable sale following construction.

3. RESULTS OF VAT EFFICIENCY

VAT is a type of consumption tax, so it is clear that household consumption, as the largest component of GDP, highly influences total VAT revenue. Annual VAT revenues, as a percentage of GDP, are presented for Croatia, the EU-28 Member States and Turkey in Table 2.

Table 2. VAT revenues as percentage of GDP

	2009	2010	2011	2012	2013
Croatia	11.2	11.6	11.3	12.3	12.7
EU–28	6.4	6.8	6.9	6.9	6.9
Turkey	9.1	9.2	9.0	8.9	9.0

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/ submitViewTableAction.do (accessed July 30, 2016).

Based on Table 2, it is evident that, considering data taken from the Eurostat database, VAT revenues are very different. Croatia is in an interesting situation, with VAT revenues higher than in all EU-28 Member States and Turkey, especially in 2013 (12.7). This indicates that increasing the VAT rate in Croatia (to 25 per cent from 2012) after the crisis also had effects on increasing VAT revenues in the state budget. The use of reduced rates and exemptions of the VAT base lead to VAT revenue falling below the level of state budget revenues that could have theoretically been collected. To avoid economic distortions and to reduce compliance costs, it is necessary to limit the use of VAT reduced rates and exemptions. To what extent these elements affect VAT efficiency was examined in Table 3 and 4. Table 3 shows the results for the Efficiency Ratio (ER) indicator for the EU-28 Member States and Turkey over the period 2009–2013.

Table 3. Efficiency Ratio for the EU-28 Member States and Turkey over the period 2009–2013

	2009	2010	2011	2012	2013
Austria	38.5	38.5	38.0	38.5	38.5
Belgium	32.4	32.9	32.9	32.9	32.9
Bulgaria	42.5	43.5	41.0	45.0	46.5
Croatia	44.8	46.4	45.2	49.2	50.8
Cyprus	44.2	44.2	41.1	42.6	41.1
Czech Republic	31.4	31.9	32.9	33.8	35.7

Table 3. (*continued*)

	2009	2010	2011	2012	2013
Denmark	39.2	38.0	38.4	38.4	38.0
Estonia	43.5	42.5	41.0	42.0	41.0
Finland	35.0	34.6	36.7	37.5	38.8
France	33.5	34.0	34.0	34.0	34.0
Germany	37.9	36.8	36.8	36.8	36.8
Greece	27.4	30.9	31.7	31.3	30.4
Hungary	30.7	31.9	31.5	34.1	33.3
Ireland	26.5	26.5	24.3	25.2	25.2
Italy	25.0	27.7	27.3	27.3	26.4
Latvia	28.1	31.9	32.4	34.3	35.2
Lithuania	34.8	37.1	37.1	36.2	35.7
Luxembourg	40.0	38.2	40.0	42.4	42.9
Malta	41.1	40.0	42.2	41.7	42.2
Netherlands	31.0	32.4	31.0	31.0	31.0
Poland	31.7	33.0	33.9	30.9	30.4
Portugal	29.6	32.6	35.2	36.1	35.2
Romania	32.5	37.5	43.0	42.0	41.5
Slovakia	33.0	31.0	33.5	30.0	32.0
Slovenia	35.9	36.8	36.8	36.4	38.6
Spain	18.6	25.7	25.2	26.2	28.6
Sweden	36.4	36.8	36.0	35.6	36.0
United Kingdom	27.0	31.0	34.5	34.0	34.0
Turkey	35.0	38.3	41.1	40.6	43.9

Over the observed period, it was noted that, among the EU-28 Member States, the highest efficiency ratio was recorded in Croatia (highest in 2013, 50.8). On the other hand, the lowest efficiency ratio was recorded in 2009 (18.6) and 2011 (25.2) in Spain, while from 2011 to 2013 the lowest efficiency ratio was recorded in Ireland (i.e. 24.3 in 2011 and 25.2 in 2013). However, in Turkey as a non-EU country, the efficiency ratio rose from 35.0 in 2009 to 43.9 in 2013. This indicates that Croatian VAT revenues are much higher than Turkish VAT revenues. The main reason for this can be found in more reduced VAT rates (1 and 8 per cent in Turkey) and other VAT exemptions in the fiscal policy. As we have already explained, the higher the efficiency ratio is, the lower the number of exemptions and reduced VAT rates are. In Table 4, the C-Efficiency Ratio for the EU-28 Member States and Turkey are presented.

Table 4. C-Efficiency Ratio for the EU-28 Member States and Turkey over the period 2009–2013

	2009	2010	2011	2012	2013
Austria	51.7	51.7	51.6	52.0	51.9
Belgium	41.8	42.6	42.6	42.2	42.0
Bulgaria	53.5	55.1	52.5	55.4	58.1
Croatia	57.0	58.4	56.5	61.1	62.8
Cyprus	51.2	51.2	46.8	48.4	46.7
Czech Republic	43.6	44.4	46.1	47.6	50.0
Denmark	49.5	49.0	49.8	49.5	49.4
Estonia	57.5	57.7	58.2	59.3	57.0
Finland	43.9	43.1	45.8	46.0	47.1
France	40.4	41.0	41.4	41.3	41.3

Table 4. (*continued*)

	2009	2010	2011	2012	2013
Germany	48.2	47.8	48.1	48.0	47.9
Greece	29.5	33.7	34.5	34.4	34.0
Hungary	39.9	42.4	42.4	45.3	44.8
Ireland	38.2	38.7	36.6	38.4	38.4
Italy	30.6	33.9	33.4	33.7	32.8
Latvia	34.7	39.1	40.5	43.5	44.6
Lithuania	38.5	43.9	45.6	44.7	44.3
Luxembourg	76.8	77.4	82.5	85.4	88.0
Malta	48.9	50.3	52.8	52.0	53.7
Netherlands	41.5	43.6	42.2	41.8	42.1
Poland	39.9	41.2	42.9	39.0	38.6
Portugal	33.9	37.3	41.0	43.0	42.2
Romania	40.3	46.8	54.8	53.4	53.5
Slovakia	43.5	39.9	44.3	39.8	42.4
Slovenia	44.4	47.3	47.0	46.8	50.7
Spain	23.8	32.4	31.6	32.9	36.0
Sweden	47.3	49.0	48.3	47.3	47.4
United Kingdom	30.8	35.6	39.9	38.8	38.8
Turkey	40.6	44.6	48.3	47.7	51.1

Regarding the C-efficiency ratio, we observed that, over the period from 2009 to 2013, the highest C-efficiency ratio was recorded in Luxembourg (88.0 in 2013) and the lowest in Spain, Italy and Greece. In Turkey, the C-efficiency ratio is also high (51.1 in 2013), which confirms that the VAT tax base with a standard VAT rate of 18 per cent is very effective.

CONCLUSION

VAT is the most important form of taxation in the EU-28 Member States and Turkey. As the EU will continue to expand in coming years, it will encourage potential Member States to adopt VAT according to Directive 2006/112/EC, the so-called "Sixth Directive". This will be of special concern to Turkey's tax system. In order to introduce a common system of VAT, the EU has been attempting to harmonize individual VAT rules. Moreover, the VAT system needs to be reformed. These reforms include a simpler system for businesses to use, combatting fraud and being more efficient, in particular, at exploiting the opportunities of digital technology, and it must be established on trust between businesses and tax administrations. Based on the action plan on VAT, key actions to reduce the complexity of VAT systems are the improvement of e-commerce in the single market, a simpler package for SMEs, measures to tackle VAT gaps, a definitive VAT regime for cross-border trade and more freedom for Member States on rate-related policies.

Regarding VAT efficiency over the period from 2009 to 2013 among the EU-28 Member States, the highest efficiency ratio was recorded in Croatia (highest in 2013, 50.8), while on the other hand, the lowest efficiency ratio was recorded in 2009 (18.6) and 2011 (25.2) in Spain. In Turkey, as a non-EU country, the efficiency ratio rose from 35.0 in 2009 to 43.9 in 2013. The EU-28 Member States and Turkey need to have more stability and effectiveness of VAT revenues, since they are the key segments in the

stabilization of public finances. By the end of 2016, the European Commission will present a legislative proposal to modernize and simplify the VAT system.

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