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THE STANDARD VAT RATE AND THE EFFECTIVENESS OF FISCAL POLICY IN EUROPEAN UNION COUNTRIES

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ABSTRACT

The purpose of this article is to present and assess the impact of a standard VAT rate on fiscal revenues of the European Union Member States. The article follows the method of economic statistical analysis and offers a review of available literature on the subject. The basic VAT rates of the European Union countries are presented, compared and correlated with tax revenues related to consumption taxes in the years 2005–2019. These years were chosen for analysis because of the biggest European Union enlargement which took place during 2004. A statistical analysis was conducted. The data of a correlation coefficient for each country and the dynamics indicators were calculated. The results of the statistical analysis for Member States were interpreted. The article assesses the relationship between the standard VAT rate and the share of consumption tax revenues in GDP.

Key words: consumption tax, fiscal policy, European Union

JEL code: M4

INTRODUCTION

Fiscal policy is a very important element of national economic policy in every country. Tax revenues provide income to cover government budget expenditures. In the Member States of the European Union, each country has some freedom in designing its fiscal policy. While income taxes have not been a subject of harmonization, consumption taxes have proved to be very flexible in adapting to the common European Union directives. The best example of this is the Value Added Tax – VAT. According to the European Council Directive 2006/112/EC, Member States may apply a VAT rate no lower than 15%. The maximum rate has not been defined. Setting the lowest limit was aimed at alleviating differences in tax rates occurring within the European Union. However, Member States are free to apply reduced VAT rates on specific goods and services. Poland currently has two preferential VAT rates – 5 and 8%. In each European Union country, a catalogue of products with reduced rates is set individually. Because some Member States exercise the right to apply reduced rates, and sometimes even use two reduced rates, problems arise when trying to statistically analyze the impact of these rates on consumption tax revenues. Therefore, this study adopts variables in the form of basic rates and data on consumption tax revenues for its analysis. The research problem in this paper is to examine the impact of the standard VAT rate on the effectiveness of fiscal policy through statistical analysis and a survey of available literature on the topic.

The VAT was implemented for the first time in France in 1954. It was widely disseminated in 1967 as part of the effort to create uniformity of turnover taxes in countries comprising what was then called the European Economic Community (EEC) [Famulska 2007]. In the Polish tax system, a tax on goods and services plays a primary role, providing a stream of cash for the

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state budget. From a macroeconomic point of view, this tax is a stabilizer of the economy, because the increase in its rates leads to a decrease in demand. This public levy respects the principle of a one-time taxation. The technique for calculating the tax due on goods and services consists in deducting, from the amount of calculated VAT, the amount of tax that has been previously collected, e.g. during the purchase of materials. Separating the tax burden on goods and services into a producer, broker and trader is the basic principle of a value added tax, because only the value generated at a given stage of production or exchange is subject to levy. Business entities that pay a goods and services tax usually do not calculate the amount they will have to pay due tax, which is very important in the case of seasonal production. It should be noted that VAT is a consumption tax. Therefore, the tax rate affects the price of goods or services in the last stage of trading and it is fully paid by the consumer. In turn, the consequence of the high tax rate is a reduction in turnover [Furman 2019].

The motive of this analysis is to check the impact of arbitrariness in shaping the maximum basic VAT rate on tax revenues from this tax. The purpose of this article is to present and assess the impact of a standard VAT rate on fiscal revenues of the European Union Member States. The research question is: what is the impact of standard VAT rate on the effectiveness of a Member State's fiscal policy. The article follows the method of economic statistic analysis and offers a review of available literature on the subject.

The research paper consists of four parts. The first offers a survey of the literature on fiscal policy. In the second part, the research method is presented – the statistical analysis. Next, the data on the effectiveness of fiscal policy in the area of consumption taxes is presented and analyzed. And finally, conclusions are presented.

LITERATURE REVIEW – FISCAL POLICY

Effective fiscal policy faces many difficulties. First of all, it is necessary to determine whether the existing conditions and objectives require the introduction of expansive or more restrictive policies. Even if the diagnosis of scope is correct, governments must then determine which instruments will be most appropriate and effective in implementing the chosen policy objectives. It is important to keep in mind that the rationale behind fiscal decisions is affected by the relatively short electoral cycles within which governments must operate and the fact that public office-holders can change after an election. Therefore, the credibility of fiscal policy, as well as the related ability (or inability) to provide transparency and stability, is a serious impediment to its effectiveness. As are the delays between making decisions on the course of fiscal policy and the consequences for the economy [Grabia 2018].

Fiscal policy became a subject of criticism in the 1970s, and with the emergence of M. Thatcher in the United Kingdom and R. Reagan in the United States in the 1980s, a negative attitude towards fiscal policy, the public sector and its role in the functioning of the economy was clear. Economists began to look at monetary policy and tools as the way to stabilize the economy with a significant increase in the role of a free market. Therefore, the main assumptions of fiscal policy, in force since the Keynesian revolution, were reviewed. In fiscal doctrine, reference was made to classical economics. Against this background, the concept of a new fiscal conservatism was born. Its main assumptions boil down to the following elements [Owsiak 2018]:

- the concept of ' a small budget',
- balance in the state budget,
- reduction of public debt,
- neutrality of tax.

The national macroeconomic and fiscal policy of European Union Members has been limited to and subject to significant restrictions. Member States cooperate closely in the area of macroeconomic policy and delegate powers to shape it in order to reach and maintain a European level. This means that factors for creating macroeconomic policy cease to be the sole responsibility of individual Member States, but rather they are established and monitored at the European Union level. As for fiscal policy, the fiscal parameters (level of debt and deficit of the public finance sector) in which member countries can pursue a national budget policy, are specified. Regulations (Pact and Growth Stability with subsequent additions / modifications) define in detail the acceptable limits of debt and deficit, and the procedures and possible sanctions for countries that do not comply with certain rules. The programs of stability and convergence are, therefore, instruments that serve to discipline the European Union Member States in order to ensure that they conduct a responsible fiscal policy. The coordination of fiscal policy within the European Union has its theoretical and practical-political justification [Postuła 2018].

Fiscal effectiveness can have different faces. But in general, the effectiveness of fiscal policy should be understood as fulfillment of legally regulated policy aims. Furthermore, it can mean satisfying public and social needs by maintaining a high quality of public services. Governments can then accomplish two parallel aims: fiscal and non-fiscal. The first aim is basically to satisfy the state's demand for money through collecting taxes or taking loans. Non-fiscal aims can include: aiming for high and steady economic growth and simultaneously a high rate of society wealth; maintaining a low rate of unemployment; stabilizing prices with cooperation from monetary authorities; reducing fluctuations of the business cycle; reducing excessive income inequalities in society. Achieving these aims depends to a large extent on the effectiveness of fiscal policy, including: the methods of public budget planning, the scale of redistribution of GDP, the structure of public expenditures, the size of the grey economy, etc. [Klonowska 2019].

At the beginning of the twentieth century, imperfections in actions of the "clean" market were noted, which manifested in the form of creating monopolies, along with their negative effects on the economy, stratification of society, economic crisis, and unemployment. The answer to a market failure was the creation and strengthening of new economic theories. The first of these was the prosperity theory created by the English economist A.C. Pigou. The second one, which revolutionized the economic world in the 1930s and was an attempt to understand the Great Depression, was the theory of interventionism created by J.M. Keynes, often called by his name – Keynesian theory. Keynes felt that to overcome market imperfections, state interventionism should be introduced, whose instruments are: public investments financed directly from the state budget, a progressive tax scale, a system of social benefits and benefits for the poorest sections of society. Keynes saw the need for state interventionism to ease the business cycles, and especially the recession periods. He felt that one way to rescue the economy was by having the state regulate the level of investment and propensity for consumption as key factors influencing the level of production and employment. The instruments of this regulation would be fiscal instruments. He attached great importance to public spending as a solution to achieve rapid economic growth and to reduce unemployment. In taxes, he mainly saw an economic function. In his opinion, the fiscal function was of secondary importance. The postulates of J.M. Keynes met with the approval of economists and politicians around the world, and were behind much of the impetus for growing involvement of governments in the economy. The 1950s and 1960s were periods of very extensive fiscal policy in which taxes had extensive functions. As R.A. Musgrave writes: "The very concept of fiscal policy has acquired a meaning: the use of fiscal instruments as macro-policy tools" [Alińska and Woźniak 2015].

Among economists and economic politicians, the main axis of disagreement over how fiscal policy is conducted and its consequences lies between neo-classical and neo-Keynesian economics. Simply speaking, neo-classical economics is in favor of a restrictive fiscal policy, while the neo-Keynesian economics advocates that fiscal easing during an economic crisis will put the economy back on a growth path [Wiliński 2019]. Keynesians presented the impact of fiscal and monetary policy on the economy using a simple IS-LM model. Expansiveness or restrictiveness of both policies were expressed in this model by an appropriate curve shift. The flat LM curve and the steep IS are the assumptions of the Keynesian orthodox approach – in this variant, fiscal policy was more effective. In turn, promoting an expansive fiscal policy was associated with a departure from the classical theory of public finance – identified with the classic principle of a balanced budget supported by economists. Keynesians believed that an expansive fiscal policy and often the related budget deficit help counteract short-term declines in economic activity, and additional expenses by multiplier effects contribute to an employment and product growth [Stawska 2018].

Consistently basing fiscal policy on stabilization objectives is important for fiscal authorities. Fiscal policy should be in a countercyclical position, that is, expansionary in bad times and contractionary during booms. The analysis of the changes in the cyclically adjusted components of the budget balance (especially the cyclically adjusted primary balance or the structural primary balance) is one of the simplified approaches used for fiscal position identification. Central and Eastern European countries as members of the European Union, although outside the Eurozone, are of particular special interest, mainly from the point of view of their future participation in the euro area. At present, the group of European Union countries outside the Eurozone includes six economies from the Central and Eastern Europe region: the Czech Republic, Hungary and Poland (those three countries joined the European Union in 2004), Bulgaria and Romania (accession to the European Union in 2007), and Croatia (accession to the European Union in 2013). The ability to conduct fiscal policy in a countercyclical manner is an important issue not only for countries participating in the single currency area, but also for each individual country [Szymańska 2019].

Since the Czech Republic joined the European Union in 2004, the Czech tax legislation has undergone and is still undergoing a number of significant changes, especially in the area of indirect taxes, namely the value added tax. The European Union's single market must work in the same way as the domestic market. The differences between domestic and intra-Community transactions must therefore be eliminated so that entities can limit themselves to only two valid tax systems, namely intra-European Union transactions and transactions with third countries. The logical consequence of processing intra-European Union transactions in the same way, as if they occurred in one member state, was the introduction of a single place of taxations. In the areas of indirect taxes, the harmonization process in the Czech Republic focuses not only on value added tax but also excise taxes every year. The main direction of harmonization is aimed at balancing individual rates so that domestic products are not favored by lower or zero tax rates, and the European Union single market and economic competition within the European Union are not jeopardized [Hakalova et al. 2018].

In the sphere of direct taxation, the Member States of the European Union enjoy a considerable degree of formal independence. Nevertheless, in a considerable number of instances it transpires that the ruling of the Court of Justice of the European Union intervenes in tax regulations of its member states. When these regulations impede the freedom of an internal market, the ruling of the Court obliges the state member in question to adjusts its legislature to the European Union model. The principle of free movement (except for the free movement of capital) does not straightforwardly concern the issues of direct taxation. However, despite a considerable autonomy of the European Union member states in developing tax regulations, the Court of Justice of the European Union with consequence rules according to European Union law, whereby the said autonomy may be limited to some degree. Therefore, the member states should exercise their autonomy respecting the European Union legislature, and in particular for the free internal market [Lipniewicz 2015].

The value added tax is the second type of taxation which is frequently the subject of tax optimization. Tax exemptions constitute an important element of the design of this form of taxation. According to Article 287 of Council Directive 2006/112/EC of November 28, 2006 on the common system of value added tax, the member states joining the European Union after January 1, 1978 hold the right to give tax exemption to these taxpayers whose annual turnover has not exceeded the equivalent in the local currency of the levels of annual turnover specified by the Directive. Article 287 was included in the Directive so that the member states would be able to take into account the limits of annual turnover which qualifies for tax exemption [Jarczok-Guzy 2018].

The integration of services in the European Union can take place either by a cross-border trade or by establishing a branch in another Member State. It illustrates the extent to which service providers are able to access potential customers in another European Union country. Trade integration in the scope of services measured by the share of exports and imports within the European Union to GDP is significantly lower than one related to goods. At the same time, there are large differences between individual service sectors: the rate of trade integration is particularly low for construction services and regulated professions. The same applies to integration in the form of activities carried out by a branch in another Member State; cross-border investment in services amounts to 11% and is disproportionately low compared to investment in goods (18%). This is a serious obstacle to integration, as the cross-border provision of services often requires the establishment of an enterprise in the destination country [Myszkowska 2018].

When examining the history of the VAT acts in different European Union Member States, one can often find that the Member States have maintained some of the legislation that they had before the common European Union VAT entered into force. Interestingly, the structure of some VAT acts and some of the provisions in them can be traced back to the time before VAT was introduced. For example, there are provisions in the Swedish VAT act that stems from the *omsen*, which was the general sales tax that was applied before VAT was introduced in 1969 [Kristoffersson 2015].

RESEARCH METHODOLOGY

This part of the work presents a statistical analysis of basic data on the standard VAT rate and the share of consumption tax revenues in GDP. These data are presented in Tables 1 and 2.

The analysis of the linear correlation between the data from Tables 1 and 2 will be performed and the indicators of the dynamics of the share of tax revenues in the GDP in 2005–2019 will be calculated.

Table 1. VAT rates in the European Union Member States

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Belgium	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Bulgaria	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Czechia	19	19	19	19	19	20	20	20	21	21	21	21	21	21	21
Denmark	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Germany	16	16	19	19	19	19	19	19	19	19	19	19	19	19	19
Estonia	18	18	18	18	20	20	20	20	20	20	20	20	20	20	20
Ireland	21	21	21	21	21.5	21	21	23	23	23	23	23	23	23	23
Greece	19	19	19	19	19	23	23	23	23	23	23	23	24	24	24
Spain	16	16	16	16	16	18	18	18	21	21	21	21	21	21	21
France	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	20	20	20	20	20	20
Croatia	22	22	22	22	22	23	23	25	25	25	25	25	25	25	25
Italy	20	20	20	20	20	20	20	21	21	22	22	22	22	22	22
Cyprus	15	15	15	15	15	15	15	17	18	19	19	19	19	19	19
Latvia	18	18	18	18	21	21	22	22	21	21	21	21	21	21	21
Lithuania	18	18	18	18	19	21	21	21	21	21	21	21	21	21	21
Luxembourg	15	15	15	15	15	15	15	15	15	15	17	17	17	17	17
Hungary	25	20	20	20	25	25	25	27	27	27	27	27	27	27	27
Malta	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Netherlands	19	19	19	19	19	19	19	19	21	21	21	21	21	21	21
Austria	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Poland	22	22	22	22	22	22	23	23	23	23	23	23	23	23	23
Portugal	21	21	21	20	20	21	23	23	23	23	23	23	23	23	23
Romania	19	19	19	19	19	24	24	24	24	24	24	20	19	19	19
Slovenia	20	20	20	20	20	20	20	20	22	22	22	22	22	22	22

Table 1, cont.

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovakia	19	19	19	19	19	19	20	20	20	20	20	20	20	20	20
Finland	22	22	22	22	22	23	23	23	24	24	24	24	24	24	24
Sweden	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
United Kingdom	17.5	17.5	17.5	17.5	15	17,5	20	20	20	20	20	20	20	20	20

Source: [European Commission 2019, 2020, Eurostat 2020].

Table 2. Taxes of consumption as % of GDP

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Belgium	10.8	10.7	10.7	10.5	10.4	10.6	10.4	10.4	10.5	10.4	10.3	10.5	10.5	11	13.9
Bulgaria	15.6	16.2	15.7	16.5	13.9	13.7	13.3	14.2	14.8	14.1	14.7	14.9	14.5	14	15.6
Czechia	10.4	10	10.2	10.1	10.5	10.8	11.6	12	12.3	11.5	11.8	11.9	12.1	11.9	12.1
Denmark	15.7	15.6	16	15	14.8	14.6	14.7	14.7	14.4	14.1	14.1	14.2	14	14.2	15.7
Germany	9.9	9.9	10.3	10.4	10.8	10.4	10.5	10.4	10.5	10.4	10.4	10.2	10.1	10.2	10.9
Estonia	12.2	12.9	12.8	11.5	14.1	13.2	13	13.3	12.9	13.3	13.8	14.3	13.8	13.4	14.2
Ireland	11.1	11.1	11	10.5	9.8	9.8	9.5	9.5	9.8	9.8	7.7	7.9	7.6	7	7.8
Greece	11	11.1	11.3	11.1	10.4	11.9	12.6	12.7	13.2	13.4	13.5	14.6	14.6	14.6	17.5
Spain	9.4	9.3	8.8	7.6	6.3	8	7.9	8.1	8.9	9.2	9.5	9.4	9.4	9.6	11.7
France	11.1	10.9	10.7	10.5	10.5	10.6	10.8	10.9	11	11.1	11.2	11.4	11.6	11.7	17
Croatia	17.9	17.8	17.4	17.1	16.3	17	16.6	17.6	18	18	18.5	18.8	19	19.4	20.3
Italy	10.2	10.6	10.4	10	10.1	10.7	10.8	10.9	11	11.1	11.2	11.4	11.6	11.1	14.6
Cyprus	13.4	13.4	13.9	14	12.4	12.3	11.8	12	11.8	13	12.9	13.2	13.7	13.9	15.1
Latvia	11.3	11.6	11.1	10.1	10.4	11.3	11.3	11.6	12	12.3	12.7	13.3	13.1	13.5	14.2
Lithuania	10.7	10.8	11.2	11.2	11	11.3	11.1	10.6	10.6	10.8	11.2	11.4	11.4	11.4	11.8
Luxembourg	11.1	10	10.2	10.4	10.8	10.4	10.5	11	10.9	11	9.7	9.5	9.3	9.1	11.6
Hungary	13.8	13.3	13.8	13.5	14.3	14.2	14	15.1	15.7	15.8	16.1	15.8	15.7	16	18.1
Malta	13.2	13.3	13.8	13.5	14.3	14.2	14	15.1	15.7	15.8	16.1	15.8	15.7	11.9	12.2
Netherlands	11.4	11.4	11.1	11.1	11.1	11	10.9	10.7	10.9	11	11.1	11.4	11.6	11.4	12.5
Austria	11.9	11.4	11.3	11.4	11.7	11.6	11.6	11.7	11.6	11.6	11.5	11.5	11.5	11.4	14.1
Poland	12.5	12.7	13	13	11.5	12.4	12.4	11.6	11.4	11.5	11.4	11.8	12.2	12.6	14
Portugal	12.6	12.8	12.3	11.9	10.6	11.4	11.9	12	11.6	12.1	12.3	12.5	12.7	12.9	15.2
Romania	12.2	12	11.5	10.7	9.7	11.3	12.5	12.6	12.1	11.9	12.6	10.7	9.9	10.3	10.7
Slovenia	13.1	12.9	12.9	13.1	13.3	13.7	13.7	14	14.5	14.4	14.4	14.2	13.9	13.8	13.8
Slovakia	11.9	10.7	10.7	10.1	10	9.7	10.1	9.3	9.6	9.9	10.2	10.1	10.4	11.3	12.2
Finland	13.3	13.2	12.6	12.5	12.9	13	13.8	14.1	14.4	14.3	14.2	14.4	4.2	14.2	14.2
Sweden	12.1	11.9	11.9	12.1	12.6	12.5	12.2	12.1	12	11.9	12	12.2	12.1	12.2	22.2
United Kingdom	10	9.9	9.8	9.7	9.4	10.3	11.1	11	10.9	10.9	10.9	10.9	10.9	11	11

Source: [European Commission 2019, 2020, Eurostat 2020].

RESULTS

The first part of the statistical analysis involves calculating the correlation coefficient for the standard VAT rate and the share of consumption tax revenues in GDP separately for each Member State. The results of these calculations together with the interpretation are illustrated in Table 3.

In the second part of the analysis, dynamics indicators for the share of tax revenues from consumption in GDP are calculated. The results are presented in Table 4.

Table 3. Linear correlation coefficients

Country	Correlation coefficient	Strength
Belgium	n.a.	n.a.
Bulgaria	n.a.	n.a.
Czech Republic	**0.913**	very strong
Denmark	n.a.	n.a.
Germany	0.663	moderate
Estonia	0.739	quite strong
Ireland	–0.760	quite strong
Greece	0.817	quite strong
Spain	0.578	moderate
France	0.496	moderate
Croatia	0.686	moderate
Italy	0.631	moderate
Cyprus	0.239	weak
Latvia	0.425	moderate
Lithuania	0.253	weak
Luxembourg	–0.528	moderate
Hungary	0.758	quite strong
Malta	n.a.	n.a.
Netherlands	0.396	weak
Austria	n.a.	n.a.
Poland	–0.283	weak
Portugal	0.397	weak
Romania	0.665	moderate
Slovenia	0.761	quite strong
Slovakia	–0.106	none
Finland	**0.905**	very strong
Sweden	n.a.	n.a.
United Kingdom	**0.961**	very strong

Source: Author's own elaboration.

Table 4. Dynamics indicators for the previous year (%).

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Belgium	–	–1	0	–2	–1	2	–2	0	1	–1	–1	2	0	5	26
Bulgaria	–	4	–3	5	–16	–1	–3	7	4	–5	4	1	–3	–3	11
Czech Republic	–	–4	2	–1	4	3	7	3	3	–7	3	1	2	–2	2
Denmark	–	–1	3	–6	–1	–1	1	0	–2	–2	0	1	–1	1	11
Germany	–	0	4	1	4	–4	1	–1	1	–1	0	–2	–1	1	7
Estonia	–	6	–1	–10	23	–6	–2	2	–3	3	4	4	–3	–3	6
Ireland	–	0	–1	–5	–7	0	–3	0	3	0	–21	3	–4	–8	11
Greece	–	1	2	–2	–6	14	6	1	4	2	1	8	0	0	20
Spain	–	–1	–5	–14	–17	27	–1	3	10	3	3	–1	0	2	22
France	–	–2	–2	–2	0	1	2	1	1	1	1	2	2	1	45
Croatia	–	–1	–2	–2	–5	4	–2	6	2	0	3	2	1	2	5
Italy	–	4	–2	–4	1	6	1	1	1	1	1	2	2	–4	32
Cyprus	–	0	4	1	–11	–1	–4	2	–2	10	–1	2	4	1	9
Latvia	–	3	–4	–9	3	9	0	3	3	3	3	5	–2	3	5
Lithuania	–	1	4	0	–2	3	–2	–5	0	2	4	2	0	0	4
Luxembourg	–	–10	2	2	4	–4	1	5	–1	1	–12	–2	–2	–2	27
Hungary	–	–4	4	–2	6	–1	–1	8	4	1	2	–2	–1	2	13
Malta	–	1	4	–2	6	–1	–1	8	4	1	2	–2	–1	–24	3
Netherlands	–	0	–3	0	0	–1	–1	–2	2	1	1	3	2	–2	10
Austria	–	–4	–1	1	3	–1	0	1	–1	0	–1	0	0	–1	24
Poland	–	2	2	0	–12	8	0	–6	–2	1	–1	4	3	3	11
Portugal	–	2	–4	–3	–11	8	4	1	–3	4	2	2	2	2	18
Romania	–	–2	–4	–7	–9	16	11	1	–4	–2	6	–15	–7	4	4
Slovenia	–	–2	0	2	2	3	0	2	4	–1	0	–1	–2	–1	0
Slovakia	–	–10	0	–6	–1	–3	4	–8	3	3	3	–1	3	9	8
Finland	–	–1	–5	–1	3	1	6	2	2	–1	–1	1	–71	0	0
Sweden	–	–2	0	2	4	–1	–2	–1	–1	–1	1	2	–1	1	0
United Kingdom	–	–1	–1	–1	–3	10	8	–1	–1	0	0	0	0	1	0

Source: Author's own elaboration.

DISCUSSION

In the countries where the VAT rate did not change in the analyzed years, due to technical reasons, there is no coefficient. The strongest positive linear correlation was found in three countries: Czech Republic, Finland and the United Kingdom. It means that when one variable increased, the other also went up. Estonia, Greece, Hungary and Slovenia also showed a quite strong positive correlation. A strong negative correlation occurred in Ireland. It means that with an increase in the standard VAT rate, a lower share of consumption tax revenues in GDP was obtained. Interestingly, in Poland the correlation is weakly negative. Along with an increase in the basic VAT rate, tax revenue from consumption decreased.

The highest increase in the share of consumption tax revenues in GDP was achieved in France (45%) in 2019, Italy (32%) in 2019, Spain (27%) in 2010, Belgium (26%) in 2019, Austria (24%) in 2019, Estonia (23%) in 2009, Greece (20%) in 2019, Romania (16%) in 2010 and Greece (14%) in 2010. The largest decrease in the share of income was recorded in Malta (–24%) in 2018, Ireland (-21%) in 2015, Spain (–17%) in 2009, Luxembourg (–12%) in 2015, Cyprus (–11%) in 2009 and Estonia (–10%) in 2008. It should be noted here that most of these falls were related to the years after the economic crisis with which the world was struggling in 2008. In France tax rates were almost at the same level in the analyzed period. In Italy, the standard VAT was at the same level. In Spain, the tax rate increased by 2 p.p. in 2019 in relation to 2005. In Belgium, the VAT rate also was the same in the analyzed period. In contrast, in Greece, the VAT rate was increased from 19 to 23% in 2010.

CONCLUSIONS

This article presents and assesses the relationship between the standard VAT rate and the share of consumption tax revenues in GDP. As a result of the statistical analysis, a strong linear relationship was demonstrated between the studied variables in such Member States as: Czech Republic, Finland, United Kingdom, Estonia, Greece, Hungary and Slovenia. In turn, a strong negative relationship occurred in Ireland. The analysis covered the years 2005–2019. Then, a survey was carried out with an indicator of the dynamics of data on consumption tax revenues. The largest increases in revenues related to the increase in the standard VAT rate were recorded in France, Italy, Spain and Belgium. Contribution to this work is to demonstrate the dynamics of changes in revenues from Member State budgets from VAT. It was also shown in which states there is a correlation between the change in the VAT rate and budget revenues.

The question remains as to why, in other countries despite having no change in the VAT rate, a decrease in consumption tax revenues was recorded. Here, there is an opportunity for a completely new study concept, for individual countries in which a decrease in the dynamics index and a negative correlation was detected. In order to fully analyze the situation in each of these cases, it would be necessary to take into account the political situation and tax policy that Member States pursue. The problem of the tax gap, the shadow economy and instruments of combating tax fraud is not without significance here. This work, through a statistical study of the effects of fiscal policy of the European Union Member States in the area of consumption taxes, constitutes a research contribution to literature studies on the effectiveness of applied fiscal policy.

For researchers and practitioners, the results of the analysis can provide conclusions that are the seed for further research in each Member State individually.

This goal of this work, to present and assess the impact of a standard VAT rate on fiscal revenues of the European Union Member States, was achieved. In future studies, a similar analysis should be prepared for countries outside the European Union. Also, it would be beneficial and timely to check the indicator in relation to 2020, due to immense changes in the global economy as a result of the coronavirus pandemic.

REFERENCES

Alińska, A., Woźniak, B. (2015). Współczesne finanse publiczne. Difin, Warszawa.

European Commission (2019). Taxation Trends in The European Commission. Retrieved from https://ec.europa.eu/taxation_customs/sites/taxation/files/taxation_trends_report_2019.pdf [accessed 29.10.2019].

European Commission (2020). Taxation Trends in The European Union. Retrieved from https://ec.europa.eu/taxation_customs/sites/taxation/files/taxation_trends_report_2020.pdf [accessed 05.02.2021].

Eurostat (2020). Taxation in 2019. Retrieved from https://ec.europa.eu/eurostat/documents/2995521/11469100/2-29102020-BP-EN.pdf/059a7672-ed6d-f12c-2b0e-10ab4b34ed07 [accessed 05.02.2021].

Famulska, T. (2007). Teoretyczne i praktyczne aspekty funkcjonowania podatku od wartości dodanej. Wydawnictwo Akademii Ekonomicznej, Katowice.

Furman, Ł. (2019). Efektywny system poboru podatków. CeDeWu, Warszawa.

Grabia, T. (2018). Czynniki utrudniające skuteczne oddziaływanie polityki fiskalnej na gospodarkę [Factors hindering the effective impact of fiscal policy on the economy]. Studia i Prace WNEiZ US, 51 (3), 101–112, https://doi.org/10.18276/sip.2018.51/3-09

Hakalova, J., Palochova, M., Psenkova, V., Bielikova, A. (2018). Regulation of Czech Accounting and Taxes in the Context of European Accounting, Taxes and Ongoing International Harmonization. Proceeding of the 4th International Conference on European Integration, 388–395.

Jarczok-Guzy, M. (2018). Tax strategies of polish companies in the light of changes in taxation since 2017. Journal of International Scientific Publications. Economy & Business, 12, 21–28. Retrieved from https://www.scientific-publications.net/en/article/1001715/ [accessed 09.09.2020].

Klonowska, A. (2019). Barriers for effectiveness of fiscal policy: the case of Poland. Ekonomia i Prawo. Economics and Law, 18, 29–45, https://doi.org/10.12775/EiP.2019.003

Kristoffersson, E. (2015). Comparative studies of national law in the EU harmonized VAT. Nordic Tax Journal, 1–12, https://doi.org/10.1515/ntaxj-2015-0011

Lipniewicz, R. (2015). Zasada proporcjonalności a podatkowe ograniczenia swobód rynku wewnętrznego Unii Europejskiej [The principle of proportionality and tax restrictions on the freedoms of the European Union internal market]. Ruch prawniczy, ekonomiczny i socjologiczny, 4, 93–103, https://doi.org/10.14746/rpeis.2015.77.4.8

Myszowska, M. (2018). Stan integracji jednolitego rynku usług Unii Europejskiej. [In:] T. Sporek, A. Czech (Eds), Zjawiska i procesy w globalnej gospodarce. Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice, 56–63.

Owsiak, S. (2018). Finanse publiczne. Współczesne ujęcie. Wydawnictwo Naukowe PWN, Warszawa.

Postuła, M. (2019). Skuteczność wybranych narzędzi oddziaływania na politykę fiskalną w krajach Unii Europejskiej [Effectiveness of selected tools of influencing on fiscal policy in the European Union countries]. Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach, 358, 192–201. Retrieved from http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.cejsh-028dab7f-b316-44b4-97cf-3e92ada83b12 [accessed 09.09.2020].

Stawska, J. (2018). Ekspansywność oraz restrykcyjność polityki pieniężnej i fiskalnej a wzrost gospodarczy w Polsce [Expansiveness and restrictiveness of a monetary and fiscal policy and the economic growth in Poland]. Przedsiębiorczość i zarządzanie, 19 (10), 27–38. Retrieved from http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.ekon-element-000171548083 [accessed 09.09.2020].

Szymańska, A. (2019). A comparative analysis of fiscal policy changes in selected European Union countries outside the Eurozone. Comparative Economic Research, Central and Eastern Europe, 22 (3), 131–143, https://doi.org/10.2478/cer-2019-0027

Wiliński, W. (2019). Changes in the fiscal policy of EU states after the 2008 crisis. International Journal and Management and Economics, 55, 52–65, https://doi.org/10.2478/ijme-2019-0004

STANDARDOWA STAWKA VAT A SKUTECZNOŚĆ POLITYKI FISKALNEJ W KRAJACH UNII EUROPEJSKIEJ

STRESZCZENIE

Celem artykułu jest przedstawienie i ocena wpływu podstawowej stawki VAT na dochody fiskalne państw członkowskich Unii Europejskiej. W artykule zastosowano metodę analizy statystyki ekonomicznej i przedstawiono przegląd dostępnej literatury przedmiotu. Przedstawiono podstawowe stawki VAT krajów Unii Europejskiej, porównano je i skorelowano z wpływami podatkowymi związanymi z podatkami konsumpcyjnymi w latach 2005–2019. Lata te wybrano do analizy ze względu na największe rozszerzenie Unii Europejskiej, które miało miejsce w 2004 roku. Dokonano analizy statystycznej. Obliczono dane współczynnika korelacji dla każdego kraju oraz wskaźniki dynamiki. Zinterpretowano wyniki analizy statystycznej dla każdego państwa członkowskiego. W artykule dokonano oceny relacji między standardową stawką VAT a udziałem wpływów z podatku konsumpcyjnego w PKB.

Słowa kluczowe: podatki konsumpcyjne, polityka fiskalna, Unia Europejska