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Tax Structures in OECD Countries – An Empirical Analysis

Introduction

Tax systems may be more or less harmful to the private decisions for two reasons. Firstly, depending on tax rates they deprive taxpayers of greater or smaller resources. Secondly, they may deliver public goods in a more or less disturbing way, depending on the tax structure. The role of a tax structure in tax systems has been slightly neglected in the macroeconomic literature on fiscal policy and growth, however the differences in distortions caused by individual taxes may be significant, and the negative influence of taxes may ultimately depend on what exactly governments decide to tax. This suggests that there is a relationship between economic growth and the way in which taxes are designed to generate income.

Another reason to focus on the structure of tax revenues and not on the rate of the overall tax burden is the fact that the overall taxation level reflects social choices concerning the size of the public sector, whereas the tax structure is, first of all, a tool to implement these choices. Governments may plan modifications in the tax structure with a view to minimalising the negative results of taxation for economic growth while keeping the desired level of the delivered public goods and services.

Hence, it is reasonable to seek an answer to the question whether the tendencies occurring in tax systems of particular countries indeed reflect the plans to implement tax structures which are economic growth-friendly.

1. Growth-friendliness of taxation – literature review

While evaluating the consequences of a state's tax policy for economy, one has to determine what kind of influence it exerts on the basic parameter characterising its condition, namely the GDP growth. To this end, it is necessary to refer to the conclusions drawn from the analysis of the economic growth theory.

From the point of view of the exogenous growth theory, taxation does not exert a permanent influence on GDP dynamics, although changes in the taxation policy may have temporary results affecting the equilibrium level of income. The analysis of Solow-Swan's models demonstrates that the economic growth rate is determined by exogenous factors such as population increase or technological progress (Solow 1970).

In the light of endogenous theories (Lucas 1998) policies and institutions can have a direct effect on the long run rate of economic growth. Especially taxation may influence the economic growth rate through the effects connected to the accumulation of both human and physical capital.

Barro (1989, 1991) demonstrated that there exists a significant negative correlation between the level of government expenditure as a share of GDP and economic growth. **Koester and Kormendi** (1989) examined the influence of the marginal and average rate on economic growth (not differentiating the type of taxation). The obtained results did not confirm the existence of a strong correspondence between the examined variables. **Easterly and Rebelo** (1993) used many different measures of marginal tax rates as variables explaining economic growth. Apart from one measure, they did not find any significant correspondence between tax rates and economic growth rates, concluding that this relation is of a very delicate character. **Levine and Renelt** (1992) did not confirm the existence of a stable relationship between fiscal policy indicators (in individual countries) and economic growth. **Slemrod** (1995) demonstrated that the relation of the taxation level and GDP dynamics depends on the specification of parameters and the examined countries. **Folster and Henrekson** (2001) showed that there exist a negative relationship between the size of the public sector measured with the public expenditure-to-GDP ratio and economic growth. **Agell et al.** (2006) found only an unstable and insignificant relation between the expenditure rate and GDP growth rate. Table 1 presents a synthetic comparison of the conclusions of studies on the relationship between the taxation level and GDP growth.

There exist numerous studies indicating that the tax structure is of greater significance for the growth rate than the level of fiscalism. As the most of studies demonstrate, direct taxes exert unambiguously negative influence on the GDP growth rate, whereas indirect taxes have neutral effect on economic growth (table 2).

Kneller et al. (1999) differentiated distortionary taxes (income and property taxes) and non-distortionary taxes (consumption taxes). Their study suggests that the distortionary taxes inhibit economic growth, while the non-distortionary taxes remain growth-neutral. **Gemell et al.** (2006) using annual data corroborated the results obtained by Kneller et al. **Widmalm** (2001) examined economic growth in 1965–1990 in 23 OECD states and discovered that the share of income obtained from personal income tax is negatively correlated to the growth dynamics. It has not been confirmed in this study a negative relationship between the taxation

of corporate profits and GDP growth. The results of this analysis are somewhat surprising because in general this is corporate taxation which is attributed with a more significant role in distorting the economic reality than household taxation. Widmalm also proved that consumption taxes support growth.

Table 1
The level of fiscalism versus GDP growth – conclusions from the studies

Authors of the study	Year of the study	There is a negative relationship between the taxation level and GDP dynamics	The relation between the fiscalism level and GDP dynamics does not exist, is insignificant, or unstable
Barro	1989, 1991	✓	
Koester and Kormendi	1989		✓
Levine and Renelt	1992		✓
Easterly and Rebelo	1993		✓
Slemrod	1995		✓
Folster and Henrekson	2001	✓	
Agell et al.	2006		✓

Source: own study.

Table 2
Direct and indirect taxes versus GDP growth rate – conclusions from the studies

Authors of the study	Influence of indirect taxes on growth rate GDP	Influence of direct taxes on growth rate GDP
Kneller et al. (1999)	0	–
Gemell et al. (2006)	0	–
Widmalm (2001)	+	–/0
Lee and Gordon (2005)	x	–
Johansson et al. (2008)	+	–
Roeger and In't Veld (2010)	+	–
Arnold et al. (2011)	+	–
Xing (2011)	0	x

(+) positive influence on the GDP growth rate
(−) negative influence on the GDP growth rate
(0) neutral influence on the GDP growth rate
(x) the correspondence was not studied

Source: own study.

Lee and Gordon (2005) discovered that there exists a significant negative correspondence between the nominal rates of corporate income tax and economic growth in the group of 70 countries (1970–1997). **Xing** (2011) indicated that there exists no convincing evidence pointing to the advantage of consumption taxes over income taxes and the advantage of personal income taxes over corporate income taxes. However, he noticed that in the long-term the increase of the role of tax revenue from immovable property taxes is related to the higher level of GDP per capita.

In numerous EU member states high taxation of labour, especially of persons who possess low qualifications, co-exists with a relatively low level of taxes considered to be less harmful to economic growth such as: consumption taxes, immovable property taxes, or environmental taxes. It is in line with the ranking of taxes prepared by OECD according to their growth-friendliness (Johansson et al. 2008; Arnold et al. 2011). These studies demonstrated that the structure of tax revenue is in the long-term significantly related to the level of per-capita income, which is also corroborated on a wider sample of countries by Acosta-Ormaechea and Yoo (2012).

The empirical analysis prepared by OECD (2010) suggests a "tax and economic growth" ranking order according to which corporate income taxes are the most harmful type of tax for economic growth, followed by personal income taxes and then consumption taxes, with recurrent taxes on immovable property being the least harmful. This reflects the different distortionary effects of different taxes. A growth-oriented tax reform would, therefore, shift part of the tax burden from income to consumption and residential property.

Çevik (2015) found, in his research for Turkey, the share of consumption taxes as the percentage of total tax revenue is positively related to gross domestic saving, while the share of income taxes as the percentage of total tax revenue is negatively related to gross domestic saving, for a long-term relationship. The short-run Granger causality imposes unidirectional causality toward saving from tax system, except for the variable on income taxes. These findings may support the reform initiatives of reducing income taxes to promote economic performance throughout the world, and the fact that consumption taxes are in favour of saving.

EU calculations on the basis of the QUEST III model confirm the relationship between particular taxes and economic growth, both in long- and short-term perspective (Roeger and In't Veld 2010; European Commission 2011 and 2013). The simulation of fiscal consolidation (reduction of the deficit to GDP ratio by 1%) emphasises the importance of the selection of a tax instrument. It turns out that the increase of taxation of companies' profits has indeed little influence on GDP in the short-term perspective, but in the successive years it contributes to losses of GDP by reducing investments and limiting access to capital. Taxation of labour has different consequences – the increase of labour taxation initially results in loss in GDP, but in the long term it may have positive effects (mainly

by achieving fiscal consolidation and reducing public debt). Consumption taxes (including VAT) and immovable property taxes have little impact in the short period of time. GDP decreases by 0.1–0.2% in relation to the baseline, to gradually reconstruct its level in the time span of 3–4 years. Therefore, the shift from the taxation of labour towards the taxation of consumption, which is neutral from the point of view of tax revenue volume, has a positive effect on employment and GDP. Apart from the positive influence on GDP in the long term, the shift of tax burdens from labour taxation to consumption may also have positive effects in the short term perspective. It pertains to these countries which have lowered their price competitiveness in recent years. In a situation when VAT burdens domestic and foreign producers to the same extent, the decrease of labour taxation due to the modification of the taxation structure is profitable for domestic producers, because their production costs become lower in comparison to foreign competitors. This phenomenon known as tax devaluation and its influence on competitiveness are observed in a short period of time (de Mooij and Keen 2012; European Commission 2013a).

These findings are supported by the European Commission data concerning the number of tax reforms carried out in the EU member states (table 3).

Table 3
Number and direction of tax reforms in EU Member States (2011–2014)

Type of the tax	Direction of reforms	2011	2012	2013	2014	Overall 2011–2014
CIT	increase	5	10	2	14	31
	decrease	10	10	1	18	39
PIT	increase	16	17	2	17	52
	decrease	10	14	2	19	45
Social security contributions	increase	7	13	2	10	32
	decrease	3	3	1	13	20
VAT	increase	14	18	2	10	44
	decrease	5	6	1	of	21
Excises	increase	22	27	4	25	78
	decrease	4	1	2	7	14
Others	increase	14	21	1	26	62
	decrease	1	1	1	7	10

Source: European Commission, Taxation Reforms Database.

On the basis of the data presented in table 3, we can observe that in EU countries there is a clear majority of tax reforms which involved increasing consumption taxes rates (VAT, excise duty) and taxes classified as other taxes (mainly property and environmental taxes). A gradual change of relations of reforms

in taxes levied on labour (PIT, social security contributions) may be also observed. In the field of labour taxation, more countries decreased than increased the tax burden. Additionally, many of the measures introduced to reduce the tax burden on labour were focused on specific groups, such as low-income earners.

2. Level and structure of taxation vs. GDP growth in OECD countries – an empirical analysis

The main purpose of the paper is the assessment of directions of changes in the tax structure of OECD countries in the period of 2000–2012. The study period was selected in such a way as to include the period preceding the financial crisis, the period of the crisis, as well as the years following the crisis. In the first place, the authors will analyse the directions of changes in the structure of fiscal burdens of OECD countries with special attention paid to their influence the economic growth rate. Four parameters characterising tax systems were used in the study. The first of the parameters – tax revenue to GDP ratio describes the overall level of tax burden in the examined countries, whereas the three other parameters characterise the revenue structure of tax systems taking into account three most important sources of tax revenue, i.e. income taxes, social security contributions and consumption taxes.

The analysis of the general direction of changes in tax systems of OECD member states (chart 1) allows to notice that in the years 2000–2012 the average level of fiscalism in OECD countries lowered, which was caused, among others, by the decrease of burden from income taxes and consumption taxes.
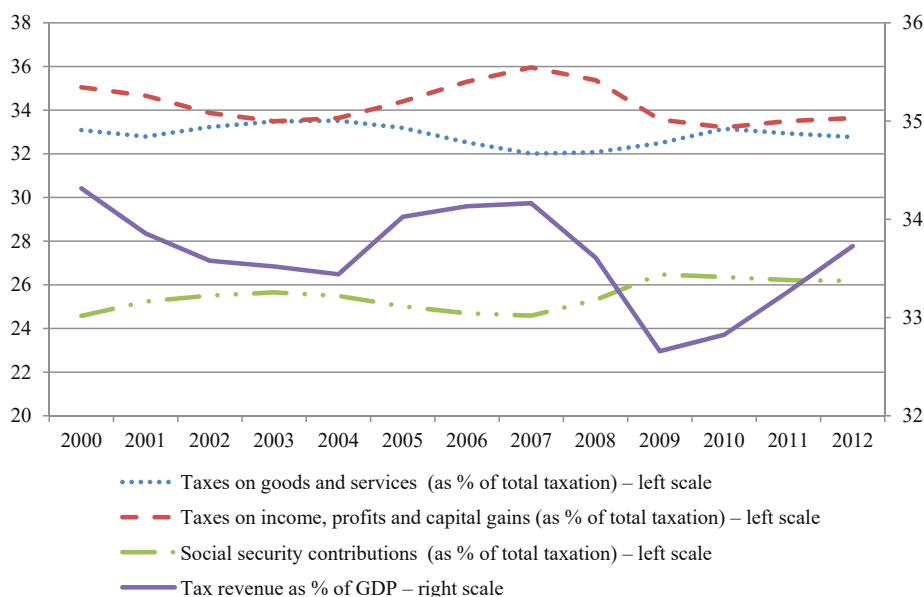
While the reduction of tax revenues from income taxes was to a great extent related to the tendency to reduce tax rates, in the case of consumption taxes the change of the consumption structure induced by the financial crisis contributed to the decrease of revenue from this type of taxation. The only group of burdens whose importance increased in the examined period was the group of social security contributions.

When assessing the indicated changes in the tax systems, it has to be observed that these changes do not have a pro-upward character. As it follows from the quoted studies, the drop of the share of indirect taxes, which are positively correlated with the dynamics of economic growth, may restrict the pace of economic growth. Apart from that, the growth of social security contributions may increase the labour costs and consequently the unemployment rate. The decline of the fiscalism level may be considered to be a positive change; however as it follows from the earlier studies, only in some of them the authors managed to prove that the restriction of the taxation level may positively affect economic growth.

Since there is no unequivocal confirmation of the relation concerning the direction of the influence of the general level of fiscalism on economic growth,

it is reasonable to examine the influence of the tax structure on economic growth. For this purpose, the panel data model was used. Panel data describe a certain population in more than one period of time. Panel data possess the features of cross-sectional data (providing a description of a population at same point in time) and of time series data (providing a description of a given entity over a time interval). Taking into account the value of the Hausman test, we have adopted the model with constant effects. In other words, it was assumed that the differences among the examined countries are constant over time.

Chart 1
Average rates of basic parameters characterising tax systems of OECD countries in 2000–2012

.... Taxes on goods and services (as % of total taxation) – left scale

– – – Taxes on income, profits and capital gains (as % of total taxation) – left scale

–··– Social security contributions (as % of total taxation) – left scale

——— Tax revenue as % of GDP – right scale

Source: OECD Revenue Statistics.

On the basis of the data from 34 OECD countries, four specifications of a model were estimated (table 4). The research was modelled over the period of 2000–2013, which was selected in such a way as to include not only the period of economic growth but also the period of crisis. The dependent variable of the model is the economic growth dynamics. The independent (explanatory) variables include: the general level of fiscalism specified as the total tax revenue (including social security contributions) to GDP ratio, the share of revenue from income taxes (as a percentage of total taxation), the share of revenue from social security contributions (as a percentage of total taxation), and the share of revenue from consumption taxes (as a percentage of total taxation).

Table 4

Model of the dependence of economic growth on the level and structure of taxation

Variables	(1)	(2)	(3)	(4)
	Coef./Std. Err.	Coef./Std. Err	Coef./Std. Err	Coef./Std. Err
Tax revenues to GDP	0.1063151*		0.1693371	0.0652118
	(0.1097048)		(0.1051795)	(0.1092453)
Income tax revenues to total tax revenues	0.3330561*	0.3817705**		0.6931307***
	(0.1707141)	0.1631341		(0.098869)
Social security contributions to total tax revenues	−0.4262091***	−0.4029412**	−0.6899071***	
	(0.1652644)	0.1634996	0.0954026	
Consumption taxes to total tax revenues	0.4093132**	0.440201	0.0822588	0.7849944***
	(0.1816409)	0.1788101**	(0.0701612)	(0.1092079)
R^2	0.0143	0.0168	0.0120	0.0162
Number of observations	471	471	471	471
Number of groups	34	34	34	34

Standard errors are in brackets. * significant at 10% level; ** at 5% level; *** at 1% level.
Source: own calculations.

The analysis carried out indicates that both the high share of indirect taxes and the high share of income taxes promote economic growth. This conclusion remains valid irrespective of whether or not social security contributions are taken into consideration. At the same time, the analysis of the models demonstrates that consumption taxes have a stronger impact on GDP dynamics, which substantiates the statement that they are more growth-friendly.

Our results are, thus, contradictory to the results presented so far, according to which income taxes as direct taxes have negative influence on economic growth. The reason for this may be the fact that the period under analysis included the years of crisis. The high share of income taxes considered to be the automatic stabilizers of the economic situation could have contributed to limiting the negative results of the crisis.

It has to be emphasised that social security contributions have a negative influence on economic growth. It may result from the fact that these burdens, being a type of fixed costs for business entities, generate additional economic activity risks.

Moreover, the analysis carried out allows us to formulate another conclusion that the level of fiscalism does not influence economic growth negatively. In accordance with the first variant of the model, the growth of the tax revenues to GDP ratio may even increase the economic growth dynamics. In the case of the remaining three variants of the model, the general level of taxation is irrelevant

to GDP dynamics. Thus, we can conclude that not only the very level of tax burdens conditions economic growth. It is also important what influence the size of the collected taxes will have on the structure of public expenditures.

The results of our research indicate that the tax structure is not indifferent to economic growth. Simultaneously, the juxtaposition of our results with the results of other studies demonstrates that the influence of the tax structure on economy may differ in the periods of economic prosperity and recession.

3. Similarities and differences in the structure of taxation in OECD countries – an empirical analysis

The other aspect of the study was the specification of changes in the diversification of OECD states' tax systems. To this end, we applied the standard deviation analysis for basic characteristics describing these systems.

Table 5

Standard deviation of basic characteristics of tax systems in 2000 and 2012

Standard deviation	Total tax revenue as % of GDP	Taxes on income and profits as % of total taxation	Social security contributions as % of total taxation	Consumption taxes as % of total taxation
2000	7.68	11.56	12.32	9.13
2012	6.99	11.85	12.59	8.54

Source: OECD Revenue Statistics.

It follows from the standard deviation values presented in table 5 that the diversification of tax systems with regard to the fiscalism level decreases, which may be a consequence of the growing tax competition among countries. However, an increase in the diversification of tax systems with regard to revenue from income taxes and social security contributions was observed. This change resulted, to a considerable extent, from the fact that in the period of 2000–2012, in some of the OECD states (however, not in all of them), there was a tendency to lower income tax revenues, which was simultaneously compensated by the increase of social security revenues. At the same time, what is noticeable is the decrease in the diversification of tax systems in terms of the share of revenue from consumption taxes in tax revenues.

The aim of the study is not only determining the general direction of changes in tax systems but also finding an answer to the question whether the process of the convergence of tax systems is taking place, i.e. whether tax systems are becoming similar to one another under the influence of such phenomena as globalisation and the growing tax competitiveness being its result.

As part of the analysis of the similarities of tax systems, the authors will carry out grouping which will enable to specify the factors shaping tax systems. Special attention will be paid to the significance of tax competition.

Statistical grouping methods can be applied to assess the impact of the phenomenon of tax competition on changes occurring in tax systems. It should be expected that the countries competing in the field of taxation, despite the changes occurring in tax systems, should stay in the same groups congregating the most similar systems. However, countries which do not attempt to make their taxation similar to a given group of states will move among the groups.

Grouping of the OECD countries' tax systems was carried out with the use of data clustering. Data clustering involves grouping most similar objects clustered inside groups and dissimilar among groups.

While grouping, the authors took into account four parameters characterising tax systems of particular countries. They include: the level of fiscalism measured as the tax revenue to GDP ratio, the share of income taxes in total tax revenue, the share of social security contributions in total tax revenue and the share of consumption taxes in total tax revenue. The authors started the grouping process by testing whether a given group has outliers. Next, in order to specify the number of the selected clusters a Ward's method was applied (Ward 1963). Ward's method uses the hierarchical agglomerative approach. This method uses the variance analysis to estimate the distance among the clusters. In other words, this method aims at minimalising the sum of squared deviation of any two clusters, which may be formed at any stage. For the purpose of the analysis, the Euclidean distance was adopted. It has to be underlined that this method is treated as very effective although it aims at creating small size clusters. Using the Ward's method, the authors created a tree diagram on the basis of which three clusters were singled out.

The next step of the analysis was the application of k-means clustering method, which was used to divide the entire set into three groups. The analysis of the composition variability of each particular group will allow to indicate these countries which remain similar in terms of taxation structure.

13 countries were admitted to the first group (table 6) in 2000. They were mainly rich countries such as: Switzerland, Israel, the countries of Northern Europe (Scandinavia) and North America. The most typical country of this group was Canada, whereas the most deviant one was Denmark. 4 countries joined this group in 2012: Belgium, Italy, Korea and Luxembourg, while 5 countries left it, i.e., Australia, Denmark, Iceland, Ireland and New Zealand – and were transferred to group 3.

In 2000, the second group comprised mainly of EU member states. The only non-EU country in this group was Japan. In 2012 Turkey joined this group, and Belgium, Luxembourg and Italy left it.

Table 6
Composition of groups in 2000 and 2012

Country	2000	2012	Country	2000	2012
	Group number			Group number	
Australia	1	3	France	2	2
Canada	1	1	Germany	2	2
Denmark	1	3	Greece	2	2
Finland	1	1	Hungary	2	2
Iceland	1	3	Italy	2	1
Ireland	1	3	Japan	2	2
Israel	1	1	Luxembourg	2	1
New Zealand	1	3	Netherlands	2	2
Norway	1	1	Poland	2	2
Sweden	1	1	Portugal	2	2
Switzerland	1	1	Slovakia	2	2
UK	1	1	Slovenia	2	2
United States	1	1	Spain	2	2
Austria	2	2	Chile	3	3
Belgium	2	1	Korea	3	1
Czech Republic	2	2	Mexico	3	3
Estonia	2	2	Turkey	3	2

The third group was characterised by the lowest variability of its composition. In 2000 it consisted of only 4 countries: Chile, Korea, Mexico and Turkey. In 2012 Australia, Denmark, Iceland, Ireland and New Zealand entered this group, whereas, Turkey and Korea left it.

Comparing the selected group of countries in the year 2000 (table 7), it can be noticed that the first of them was characterised by the highest level of fiscalism, a very high share of income taxes in total taxes, the lowest share of social security contributions and consumption taxes in tax revenue. The characteristic feature of the second group was the highest share of social security contributions. The third group was characterised by the lowest level of tax revenue to GDP and a low share of income taxes in the structure of tax revenue. Consumption taxes were the most important source of tax revenue in the third group of countries.

Table 7

Average value of tax characteristics for particular groups in 2000 and 2012

	Group no 1		Group no 2		Group no 3	
	2000	**2012**	**2000**	**2012**	**2000**	**2012**
Total tax revenue as % of GDP	36.70	35.18	35.80	34.24	20.23	30.14
Taxes on income and profits as % of total taxation	47.26	38.04	27.55	23.97	27.22	46.81
Social security contributions as % of total taxation	14.53	24.26	34.56	36.67	14.80	6.99
Consumption taxes as % of total taxation	28.09	26.19	29.86	32.00	47.49	36.52

Source: own calculations.

In 2012 significant shifts took place between the selected groups. Although the first group was still characterised by the highest level of fiscalism, it took place after the third group with regard to the share of income taxes in total revenue. In the first group, a considerable increase of the significance of social security contributions was noted. Another characteristic feature of this group was a very low share of indirect taxes in total tax revenue, which in comparison to the year 2000 decreased considerably. The second group, including mainly EU countries, differed in 2012 from other groups with a very high share of social security contributions. The third group differed from the other groups with the lowest level of fiscalism and the lowest share of social security contributions and at the same time the highest share of income taxes.

Conclusions

Our results do not corroborate the results published so far in literature, according to which income taxes as direct taxes have negative influence on economic growth. It may result from the fact that the period under analysis included a period of crisis. In such a situation, the high share of income taxes considered to be the automatic stabilizers of economic situation could have limited the negative results of the crisis. The detailed conclusion resulting from our research can be formulated as follows:

- there is no sufficient evidence that the level of fiscalism measured by the ratio of tax revenues to GDP has negative influence on economic growth in OECD countries;
- it is difficult to prove unequivocally that direct taxes do not support economic growth. The analysis carried out demonstrates that both the high share of indirect taxes and the high share of income taxes influence favourably economic growth, although consumption taxes have greater impact on GDP dynamics than income taxes;

- the only group of tax burdens which has definitely negative influence on economic growth are social security contributions. It may result from the fact that these burdens being a type of a fixed cost for business entities generate additional risk of economic activity;
- in the examined period, the burden of social security contributions, which may have negative economic effects in the short term perspective, increased;
- in OECD countries no significant changes were observed towards the increase of the importance of growth-friendly consumption taxes;
- the most stable group of OECD countries, both in terms of its composition and the level of basic characteristics, is the group of EU states – which may be the consequence of taxation harmonization but also of the convergence resulting from tax competition;
- the second group composed of EU countries has the lowest share of income taxes. It may indicate that tax competition in these countries mainly comes down to income taxes;
- what can be observed is that geographical proximity facilitates the convergence of tax systems. It refers not only to the EU member states but also to countries such as Australia, New Zealand, Denmark and Iceland. Another example of tax system adjustment is making the Turkish tax system similar to the systems of the EU member states;
- the similarity of tax systems may be also affected by the level of the GDP per capita, as quite clear similarities are visible between countries with high level of output.

The results of the carried out analysis indicate that the taxation structure is not indifferent to economic growth. However, juxtaposing our results with the results of other studies we have to observe that the influence of the taxation structure on economy may differ in the periods of economic prosperity and recession.

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Summary

Numerous studies indicate that the structure of taxation (measured by the share of revenue from individual taxes in total tax revenue) is of greater significance for economic growth than the level of fiscalism measured by the tax revenue to GDP ratio. Hence, it is reasonable to seek an answer to the question whether the tendencies occurring in tax systems of particular countries indeed reflect the plans to implement tax structures which are economic growth-friendly. Thus, the aim of the paper is to assess the influence of the changes in the OECD countries' tax structure on economic growth. The subject of the study was OECD member states in the period of 2000–2012. The study period was selected in such a way as to include the period preceding the financial crisis, the period of the crisis, as well as the years following the crisis. In the analysis, four parameters charactering tax systems were used: the ratio of tax revenues to GDP, which describes the overall level of tax burden in the examined countries and three parameters charactering the tax revenue structure of tax systems, i.e. the share of income taxes in total tax revenue, the share of social security contributions in total tax revenue and the share of consumption taxes in total tax revenue. The main conclusions drawn on the basis of the carried out study indicate that: 1) there is no sufficient evidence that the fiscalism level measured by the tax revenue to GDP ratio has negative influence on economic growth; 2) both the high share of indirect taxes and high share of income taxes support economic growth, although consumption taxes have a stronger influence on GDP dynamics than income taxes; 3) the only group of tax burdens, which has definitely negative influence on economic growth are social security contributions, 4) in OECD countries no significant changes were observed towards the increase of the importance of growth-friendly consumption taxes.

Keywords: tax systems, fiscal policy, growth-friendliness