

from a decrease in spending in education, and the least contractionary ones when VAT is increased.

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### АЛЬТЕРНАТИВНІ СТРАТЕГІЇ СКОРОЧЕННЯ ДЕФІЦИТУ ДЕРЖАВНОГО БЮДЖЕТУ ДЛЯ ІСПАНІЇ

*Високий дефіцит державного бюджету входить у сферу інтересів багатьох європейських країн. Ми розглядаємо ефекти декількох альтернативних заходів, спрямованих на скорочення дефіциту державного бюджету через податки або витрати. Наш аналіз застосовується для іспанської економіки з використанням моделі загальної рівноваги.*

*Ключові слова: дефіцит державного бюджету, податки, видатки, обчислювана загальна рівновага.*

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### АЛЬТЕРНАТИВНЫЕ СТРАТЕГИИ СОКРАЩЕНИЯ ДЕФИЦИТА ГОСУДАРСТВЕННОГО БЮДЖЕТА ДЛЯ ИСПАНИИ

*Высокий дефицит государственного бюджета являются предметом озабоченности во многих европейских странах. Рассмотрены эффекты нескольких альтернативных мер, направленные на сокращение дефицита государственного бюджета через налоги или расходы. Наш анализ применяется для испанской экономики с использованием модели общего равновесия.*

*Ключевые слова: дефицит государственного бюджета, налоги, расходы, рассчитываемое общее равновесие.*

Jel classification: E64, G32, H25

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## TAX SYSTEMS OF THE MEMBER STATES OF THE EUROPEAN UNION

*This article contains analysis of the tax systems of the member states of the European Union. Despite the numerous EU tax harmonization initiatives, national tax systems still have some differences. In order to evaluate these differences a comparative analysis of these tax systems is performed.*

*Keywords: tax systems, tax equity, tax efficiency, tax administration.*

National tax system and its proper functioning (raising tax revenues) are of great importance for sustainability of public finance. Moreover, tax revenues are necessary for funding various functions of the state. Proper execution of state functions leads to economic and social well-being of its citizens.

Tax system is a difficult and complex subject to study. For that reason it is difficult to specify the particular method which would be appropriate to evaluate and compare tax systems in all cases. Tax systems could be evaluated on the basis of classical principles of taxation – tax equity, tax efficiency, simplicity of tax administration. This method helps to reveal whether tax system, existing in a given country, violates or not general principles of taxation, as well as provides the directions for improving tax system. Tax system is being evaluated and key areas for improvement are set regarding to each principle of taxation independently. However, it must be recognized that conducting assessment of tax system by this method faces with a problem that evaluation criteria are not easily expressed in terms of clearly measurable parameters, which, in turn, complicates the research and decreases the objectivity of results. Moreover, different authors suggest different indicators corresponding to the same principles of taxation. In order to assess several national tax systems, indicators corresponding to general principles of taxation should be evaluated in conjunction, not isolated one from another. Therefore, comparative analysis of calculated indicators and systemic approach are necessary.

The object of this research is tax system. The purpose of research is assessment of equity, efficiency and simplicity of administration of tax systems of 27 member states of the European Union. Although the primary data necessary for comparative analysis are available in public databases, during the investigation we encountered problem of data freshness. Consequently, in order to reach appropriate reliability and accuracy of research results, the comparative analysis of tax systems was carried out based on year 2009 data.

#### 1. Theoretical basis of taxation

Tax revenues represent the largest portion of government income and act as a main source for government needs funding [5], therefore formulation of an appropriate national tax system can be identified as one of the most important problems of public economics. Each national tax system not only has a significant impact on smooth functioning of the public finance system, but also affects economic decisions of operators and, finally, influences wellbeing of citizens. For this reason, theoretical and practical issues of tax systems are widely discussed in academic literature.

The importance of taxes can be based on its importance for formulating public finance, as well as funding general need of the country and its citizens. The government needs to collect some (usually monetary) resources which are used to finance its functions. Government participation in economic processes and regulation are extremely significant

in addressing economic problems in the areas where market failure is observed [9, p. 143].

State's role in economic processes is not unambiguous, and this implies the discussion both among scientists and practitioners. Individualism and holism are two paradigms of scientific knowledge, reflecting different approaches to state's role in economics and social life [10, p. 18–21]. The approach to the role of state is closely related to approach to taxation. Those who represent individualistic approach emphasize the importance of individual, the pursuit of private benefit, and undermine the role of state and other collective structures. Representatives of holistic view, in contrast to individualists, emphasize the importance of state and its institutions in social life and significance of functions of the state for the proper economic processes and welfare of society.

It is necessary to highlight the fact, that it would be difficult to find the representatives of purely individualistic and purely holistic approach among modern (nowadays) economists – it is not being denied the need of the state, nevertheless, there is no consensus on the extent to which government should intervene in economy and social life, the what should be a scope of state functions, and, accordingly, the rate of taxation.

No agreement exists on the nature of taxes and the goals and functions of taxation. Although the main functions of taxation are fiscal (or revenue raising), redistributive and regulational, there are authors who include the fourth – political responsibility function [6]. It is stated, that taxes strengthen political responsibility in the way that government put taxes on citizens, and citizens demand political responsibility for government's actions in exchange. This function of taxation, in addition to revenue raising, redistribution and regulation makes so called "4R" model (revenue, redistribution, regulation, responsibility) [6]. The fiscal function represents economic, redistribution function – social role, and regulation function reveals both economic and social roles of taxation. Scientists and practitioners representing individualistic approach state that tax system must be formed for revenue raising rather regulational purposes in order to avoid distortions of competition [17]. Meanwhile, proponents of increased role of state believe that any effective, social oriented economy cannot exist without state regulation; the expansion of functions of state is emphasized in order to make economy more social equitable and avoid high income differentiation. It is important to mention, that market mechanism alone is not able to cope with problems of unemployment and rising poverty.

Each tax system is formed and taxation is carried out through certain instrumentation of taxation, consisting of general tax elements and methods of tax collection and tax setting. There is again no consensus on the most suitable object of taxation. Income can be defined as the sum of consumption and any changes in net worth [16]. This definition highlights three possible bases of taxation – income, consumption and wealth. In order to raise necessary tax revenues, government can choose one of these bases or combination of them. Taxation of income is criticized as leading to decrease of consumption and saving [7], as well as causing double taxation. However, it is stated that income tax (especially progressive) is important regulational tool for reaching justice, redistributing income in favor of the poorest citizens [10]. Wealth taxes are criticized as having negative impact on the country's economic activity, as determines capital withdrawal from the country and discourages foreign investors [11]. In addition, income collected by wealth tax is relatively low in many countries, when administration costs of this tax are high. Finally, opponents argue that wealth tax is not fair, because wealth itself does not raise any income to its owner [8]. Taxation of consumption is criticized as violating

the principle of equity, because person's ability to pay tax is not estimated [14], so poor people shoulder relatively higher tax burden in comparison to wealthy people. On the other hand, consumption taxes (especially value added tax – VAT) are highly efficient, what makes that VAT is considered to be one of the most perspective tax [17].

The problem of choosing tariffs (rates) of taxes (proportional, progressive, regressive) is also important when forming national tax system. The social injustice of regressive tax rates is recognized by most of scientists. On the other hand, there are widely discussed about proportional and progressive tax rates and their appropriateness; the proponents of free market are in favor of proportional, and those, who are seeking social justice argue for progressive tax rates.

Choosing between direct and indirect taxes is one of the oldest problems of tax policy. A. B. Atkinson has formulated the main difference between direct and indirect taxes, which says that when imposing direct taxation, individual characteristics of taxpayers can be taken into account and evaluated, while individual taxes levy on transactions, disregarding the concrete situation of buyer and seller [2]. Due to these characteristics direct taxes have an important role for social justice; incentives and exemption of direct taxes enable to avoid regressivity of taxation. This supposes that direct taxes, in contrast to indirect taxes, can be used as effective tool for revenue adjustment and social justice. Indirect taxes have no impact on behavior of taxpayers and comply with the principle of economic effectiveness.

### *2. Principles of taxation and characterizing indicators of these principles*

Tax system's compliance with the principle of justice (equity) is usually evaluated by income distribution in the country; taking into account that income can be taxed directly, income distribution indicator enables to assess equity of taxation most accurately [12]. Tax system is considered to be fair if the degree of injustice, after deduction of tax, is lower than degree of injustice before tax deduction. In order to evaluate injustice quantitatively Gini coefficient, involving distribution of income in all layers of society, is calculated [1].

In order to assess the effectiveness of taxation, a comparative analysis (comparing the progress in efficiency with results of previous year) can be performed, as well as regression analysis (explaining the changes of phenomena depending on the changes of its elements), data envelopment analysis (estimates efficiency as relationship between multiple inputs and multiple outputs) [4].

The elasticity of taxation can be evaluated as the ratio of changes of tax revenue and base of taxation. In practice this indicator is usually calculated taking the mean of growth of GDP instead of the change of the base of taxation. If the indicator of elasticity for separate taxes is needed, econometrical log-log method should be used.

In order to assess the simplicity of tax administration the costs for both tax payers and tax administrating institutions should be calculated. Taking into account that costs of tax payers are usually indirect and difficult to assess quantitatively, the indicator calculated as the ratio of expenditures for collecting tax and revenues raised from this tax. Some authors suggest calculating tax gap as a ratio between nominal tax rate (imposed by the law) and effective tax rate (ratio of actually paid sum of tax and base of taxation) [15].

### *3. Comparative analysis: taxation principles in the member states of the EU*

The fairness of tax system can be evaluated on the basis of the size of tax burden [3]. Since the indirect and hidden tax burden are difficult to measure, in this article tax systems are compared based on direct tax burden calculated as a ratio of

raised tax revenues and GDP. Tax burden indicator estimated in that way reflects the proportion of GDP which is redistributed through national budget.

The EU is considered to be the area of strong public sector and high taxes – the ratio of tax revenues and GDB averaged 36,8 % in year 2009.

The tax burden in all countries under the study exceeds the theoretical (growth maximizing) size. However, we can notice significant differences between countries. Scandinavian countries (Denmark, Sweden, Finland) have the highest average tax burdens in the EU, as well as Western European countries (Belgium, France, Austria, Germany). Compared with average of EU-27, tax burden is relatively low in the Baltic countries (Lithuania, Latvia, Estonia) as well as in other post-communistic states (Poland, Romania, Slovakia). The tax burden in 15 EU countries was below the average of EU-27 in 2009. These differences are largely dependent on the tax policy in the state, scope of provision of public goods and other.

In order to concretize the expression of justice of taxation in the countries under the study, income distribution in different layers of society must be taken into account. For this purpose Gini coefficient can be used. This indicator partly enables to identify the impact of taxation on distribution of disposable income of tax payers. Value of Gini coefficient varies in the range [0;1], lower value corresponds to less pronounced income inequality. It is considered, that the value over 0,3 represents significant irregularities in income distribution [3]. The value of Gini coefficient exceeds 30 % in 11 countries of the EU. As a

result, an average (EU-27) Gini coefficient value is 29,5 %. Large inequality in income distribution exists in the Baltic countries, Romania, Bulgaria, Portugal, Spain, Italy, Greece, as well as Poland, and the United Kingdom. It is possible to notice that in most cases the inequality of income is lower in the countries where tax burden exceeds EU-27 average (Denmark, Sweden, Belgium, Finland, Austria, Hungary, France, Netherlands, Luxembourg, Slovenia). Furthermore, the relationship between larger proportion of direct taxes in tax system and lower inequality of income is seen in Denmark, Finland, Belgium, Luxembourg and Netherlands; theoretical assumption that direct taxes make tax system more fair is confirmed.

However, this assumption was not proved in Italy, Spain, the United Kingdom, where direct taxes are dominant but inequality of income exceeds the EU average. In summary, the lowest inequality of income exists in the Scandinavian and Western European countries, where proportion of direct taxes is higher than proportion of indirect taxes and revenues are raised not only by consumption taxes, but in a significant amount by taxation of labor and capital.

The efficiency of tax system is considered as the capability of tax system to ensure an adequate amount of tax revenues, necessary to cover expenditures of government. In order to compare the tax systems of the EU countries the ratio of standard (legislative) and effective rates of VAT was calculated. More closer is the value of this indicator to 1, more efficient taxation by VAT is.

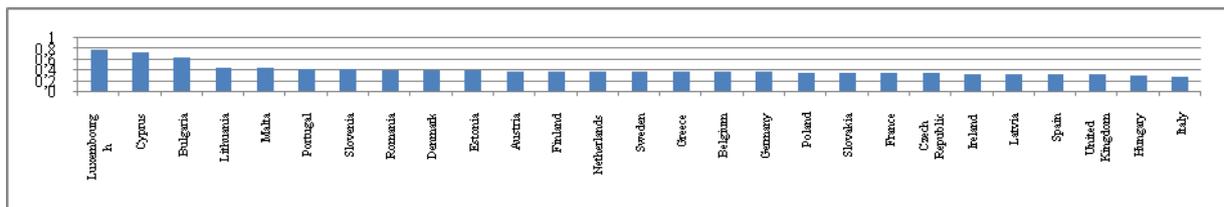


Figure 1. The ratio of effective and standard rates of VAT in the member stated of the EU, 2008

Source: compiled on the basis of statistical data of Eurostat.

According to results of research, in the EU taxation by VAT is the most efficient (the most – in Luxembourg, Cyprus, Bulgaria, the least – in the United Kingdom, Hungary, Italy).

The simplicity of tax administration can be evaluated as the number of taxes legalized and collected in the country. In order to reach simplicity of tax administration, the number of taxes legalized and collected should be minimized. Tax administration is simpler and cheaper when based on small number of taxes with broad bases of taxation. The member states of the EU apply from 10 (Estonia) to 63 (Denmark) different taxes. EU-27 average is 24 different taxes. The biggest number of taxes is collected in the Scandinavian countries, as well as in some Western European countries (France, the United Kingdom, Italy, Belgium) which shows the complexity of tax systems in these countries. The smallest number of taxes is legalized in the Baltic countries, as well as in some Southern European countries (Portugal, Greece, Bulgaria). However, it must be admitted that in some cases the complexity of tax system can be useful (the Scandinavian countries' case), especially this complexity is effective and enables to collect more tax revenue without increasing tax rates and imposing new taxes.

The comparison analysis of the tax systems of the member states of the EU has shown that in most cases the inequality of income is lower in the countries where tax burden exceeds the EU average, the proportion of direct taxes is bigger than indirect taxes, tax revenues are raised

not only by consumption but also by labor and capital taxation. In the EU the most efficient taxation is reached by VAT while potential of corporate income tax is not properly exhausted. Even though the tax systems of Scandinavian countries are considered to be complex (high number of taxes collected), tax administration in these countries is effective (the ratio of tax revenue and expenditures for tax collection is the lowest in the EU).

Moreover, the comparative analysis shows that in order to perform fully inclusive and comprehensive analysis of tax systems of the member states of the EU, and rank tax systems according to their equity, efficiency and simplicity of administration, complex aggregate indicator of all calculated results is necessary.

**Conclusion**

1. Acceptable level of tax burden depends on the approach to the extent to which government should intervene in economy and social life, a scope of state functions, structure of society, consciousness of citizens and other conditions. In order to change negative society attitude towards taxes, raising public awareness of tax rights and obligations, civil liability is necessary.

2. Individual characteristics of national tax systems are closely related to the level of country's development, income structure, objectives and priorities of economic policy. The selection of tax rates and types of taxes depends on the policy of government.

3. The comparison analysis of the tax systems of the member states of the EU has shown that in most cases the inequality of income is lower in the countries where tax burden exceeds the EU average, the proportion of direct taxes is bigger than indirect taxes, tax revenues are raised not only by consumption but also by labor and capital taxation.

4. The complexity of tax system can be tolerated in case it enables effective collection of tax revenue. The tax systems of Scandinavian countries are considered to be complex (high number of taxes collected), tax administration in these countries is effective (the ratio of tax revenue and expenditures for tax collection is the lowest in the EU).

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#### ПОДАТКОВІ СИСТЕМИ ДЕРЖАВ-ЧЛЕНІВ ЄВРОПЕЙСЬКОГО СОЮЗУ

Стаття містить аналіз податкових систем держав-членів Європейського Союзу. Незважаючи на численні ініціативи податкової гармонізації в ЄС, у національних податкових системах все ще є деякі відмінності. Для оцінки цих відмінностей проводиться порівняльний аналіз цих систем оподаткування.

Ключові слова: системи оподаткування, податкова справедливість, податкове адміністрування.

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#### НАЛОГОВЫЕ СИСТЕМЫ ГОСУДАРСТВ-ЧЛЕНОВ ЕВРОПЕЙСКОГО СОЮЗА

Данная статья содержит анализ налоговых систем государств-членов Европейского Союза. Несмотря на многочисленные инициативы налоговой гармонизации в ЕС, национальные налоговые системы все еще имеют некоторые различия. Для оценки этих различий проводится сравнительный анализ систем налогообложения.

Ключевые слова: системы налогообложения, налоговая справедливость, налоговая эффективность, налоговое администрирование.

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#### ФІНАНСОВИЙ ПОТЕНЦІАЛ ЗЛИТТІВ І ПОГЛИНАНЬ У ПРОЦЕСАХ РЕСТРУКТУРИЗАЦІЇ КОРПОРАТИВНИХ СТРУКТУР

Досліджено основні концептуальні засади фінансового потенціалу процесів злиття та поглинання як чинників зовнішнього зростання корпорацій, узагальнено існуючі підходи до поняття "реструктуризація" та визначено необхідні складові здатності корпорації до поглинання.

Ключові слова: фінансовий потенціал, злиття, поглинання, корпорація, реструктуризація, синергетичний ефект.

Після фінансово-економічної кризи процеси реструктуризації в національній економіці активізуються з новою силою. Проте кризова ситуація в світовій економіці змінила підходи до вибору мотивів злиттів та поглинання корпорацій, адже суб'єкти господарювання були змушені переоцінити перспективи розвитку об'єднаних корпоративних структур. Основними стратегічними цілями реструктуризаційних процесів стало формування фінансового потенціалу корпорацій, яке реалізується перш за все через зростання їх ринкової капіталізації. Для забезпечення довгострокових перспектив розвитку корпорацій їх ринкова капіталізація виступає мотивом

фінансового потенціалу злиттів і поглинань, а також індикатором процесів їх еволюційного розвитку.

Питання визначення сутності понять "злиття", "поглинання" та "реструктуризація" не є новими у фінансовій теорії. Вони змістовно розглянуті в світовій теоретичній, практичній науці та представлені працями таких вчених, як: І. Ансофф, П. Гохан, Д. Деламфіліс, Ф. Рід, С. Фостер, Л. Сіроуер, Дж. Стіглер та інші. У вітчизняній науковій думці проблемі злиття та поглинання корпорацій присвячено праці наступних дослідників: В. Геєця, М. Гулідова, С. Іщенко, Р. Мельникова, О. Молотнікова, О. Тивончука та ін.