

OPTIMIZING THE STRUCTURE OF THE EUROPEAN UNION BUDGET EXPENDITURE

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Abstract

The article discusses which policies and to what extent should be financed from the EU budget and/or from the national budgets of the EU member states to satisfy the rationale and efficiency point of view. To answer these questions we discuss the existing approaches and apply the most relevant ones (in particular the theory of fiscal federalism and public sector economics) to examine the current structure of the EU budget expenditures. We conclude that there are few EU policies that would be more efficient if they were more fiscally centralized and there is a policy that should be brought down to national (regional) level.

Keywords: budget, international union, budget expenditures, optimal, structure, member state, EU

JEL Classification: F36, F55, G28

1. Introduction

The question of how the European Union budget should be spent has been a subject of an active discussion since early years of the establishment of the European Communities. Nevertheless, the issue stays important today as well, especially in the light of recent recession in Europe, military, political and civil conflicts in Ukraine and in other parts of the world, immigrant flows, increased terrorist threat inside the EU, the Brexit and some other modern challenges. The EU budgetary system gets criticized for complexity and opacity and the budget expenditures – for significant irrelevance to the EU conventional goals, for inefficient structure, *etc.* The issue of theoretical foundations for optimal structuring of supranational budget expenditures is also interesting from cognitive point of view as the international economic integration and international unions advance. Therefore in this article we aim at examining the structure of the EU budget expenditures and proposing the ways for its optimization based on pure scientific theory with economic theory being the core of the latter.

The theories that are totally or partially related to the question of structuring of budget expenditures include: the theory of fiscal federalism, the political economy of multi-level governance, the public sector economics, the public choice theory, the theory of optimal currency areas, the Tinbergen rule, the principal of functional subsidiarity and others. Thus, our research is based on the works by Tinbergen (1952), Musgrave (1959), Mundell (1961), Buchanan, Tullock (1962), Oats (1972), Persson *et al.* (1996), Connolly (1999), Stiglitz (2000), Boiar (2018) and others.

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The current structure of the EU budget expenditure is widely presented in the documents prepared by the European Commission, the EU annual budgets and legislation in force. Many attempts have been made to explain the interstate distribution of expenditures or the net budgetary balances in the EU and to substantiate the structure of the EU budget expenditures (Carruba, 1997; Mattila, 2006; Figueira, 2008; Danell and Östhol, 2008; Groot and Zonneveld, 2013; Citi, 2015; Zaporozhets *et al.*, 2016; Begg, 2016; Schratzenstaller, 2017 and others). We refer to these works as we proceed with the analysis. However, we have not discovered any works that give clear scientific guidelines for structuring international unions' budget expenditures and apply them to the EU budget. This is how our investigation is different from other available research.

A lot of empirical data on supranational budgeting was obtained from the legislative acts of international unions that are currently in force.¹

2. Optimal Structure of Supranational Budgetary Expenditure: The Theory

The structure of budget expenditures of any international union is formed under the influence of some factors. The driving among them are (Figure 1):

- scientific validity (the conformity to the economic theory principles),
- distribution of powers between supranational and national authorities,
- relevance to the objectives and needs of the international union.

The scientific validity factor is (or at least has to be) pivotal, as in fact, the two other factors and the effectiveness of supranational fiscal spending itself depend upon the validity of scientific theories that they are based on. The most relevant theories with respect to these issues are the theory of fiscal federalism, the political economy of multilevel governance, the public sector economics, the public choice theory, the theory of optimum currency area, the principle of functional subsidiarity and the Tinbergen's rule.

Some of these theories can serve to substantiate aims and objectives of an international union and the distribution of powers between supranational and national governments, whereas the others directly to find out the reasonable (most efficient) directions of supranational budget expenditures. At the same time the objectives and needs of a union determine the division of powers among the union institutions and governments of its member states.

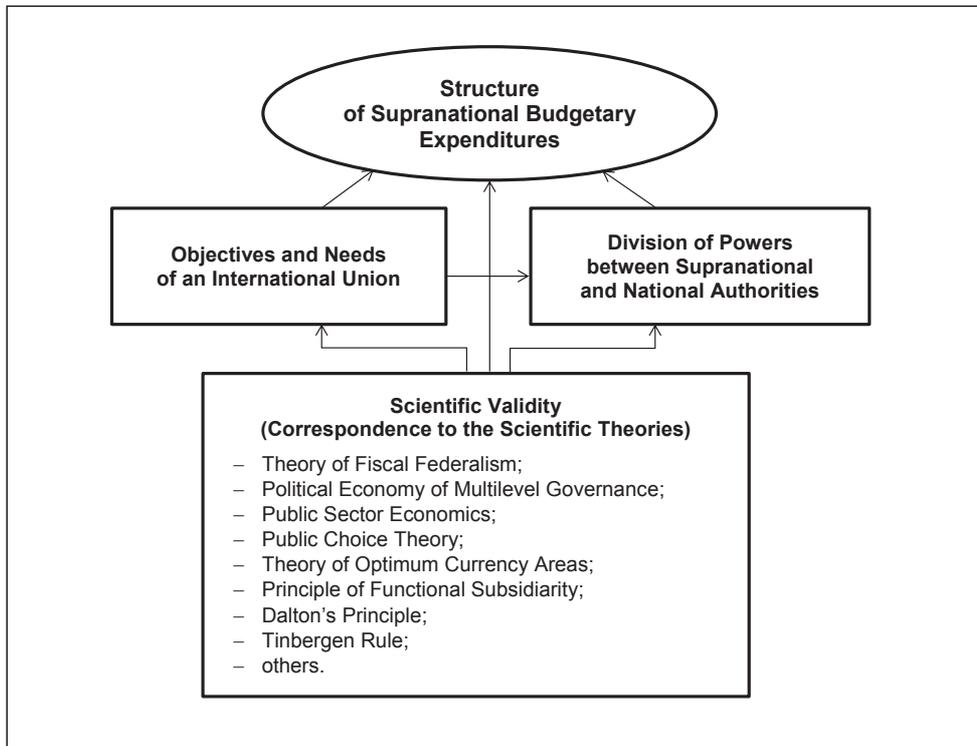
One of the major theories proposing tools for validation of the objectives of an international union and for the division of fiscal powers between supranational and national authorities is the theory of fiscal federalism. It has been worked out by R. Musgrave (1959, 1969) and developed by W. Oates (1972).

There are a few assumptions that must be met in order for the theory of fiscal federalism to be effectively applied³. Firstly, it can be applied to at least two-level hierarchic system

1 We analysed budgetary mechanisms of 23 international unions and presented some results in our earlier works (see Boiar, 2014a, 2014b).

of authorities with strictly divided powers. Secondly, the democratic governance in the political entity should be highly developed as the policy is considered the result of citizens' cooperation. The citizens themselves strive to maximize their utility function. Thirdly, free movement of goods, services, labour and capital should be secured within the regions of the political entity. Fourthly, the division of powers among the levels of authority should be institutionally secured in the long-term period.

Figure 1 | Factors Determining the Structure of International Union's Budget Expenditure



Source: Author

The theory of fiscal federalism can be conditionally divided into two thematic parts – the validation of centralization and singling out the criteria for fiscal decentralization. The second part was named by W. Oates “decentralization theorem”. As sufficient arguments to transfer fiscal powers to the central level one can consider:

- 1) better opportunity to internalize externalities (to adopt positive or negative consequences of societal activities of some public or private entities for third parties),
- 2) economies of scale,
- 3) necessity to maintain the minimum scale of financing.

For example, the externalities of such policies as ecological, environmental, professional training and re-training, redistribution of income can be better internalized if the policies are coordinated from the highest central level of authority.

The centralization of fiscal regulation in such areas as foreign affairs (policy, trade and security), defence and macroeconomic stabilization is justified because of the economies of scale reasons (it improves the effectiveness of supply of corresponding public goods (services) and lowers their production costs) (Ter-Minassian *et al.*, 1997).

The necessity to maintain the minimum scale of financing occurs when the permanent and significant budgetary resources are needed to achieve high-quality policy outcomes (*e.g.* security and defence policies). Usually the authorities of higher (national or supra-national) level can concentrate sufficient resources for these purposes.

On the other hand, fiscal decentralization can create better opportunity to avoid some unwanted internalities and the situation when the regional taxpayers (or the member states in the case of an international union) finance the action that they are not interested in. In the areas where consumers' tastes significantly differ (are heterogeneous) the preference should be given to the decentralized distribution of public goods, not to their unified supply from the central level. It will give more Pareto-efficient outcome for the society on the whole (Oates, 2005).

Tiebout (1956) hypothesis offers another argument in favour of providing heterogeneous public services from the local (regional) level of authority. The hypothesis assumes that consumers of public goods are completely mobile and can choose the local (regional) jurisdiction that offers them the best package of utilities, taxes and regulations. In this institutional structure inefficient provisioning of public services by any of the local administrations entails changes of the domicile by residents of this or that region (the so-called "voting with feet"). As a result, the decentralization creates some competition among different jurisdictions, which "sorts" consumers of public goods into homogenous groups according to their preferences and that leads to the Pareto-efficient solution and overall welfare increase (Majocchi, 2008).

There are also some flaws in the theory of fiscal federalism. They are: the lessened responsibility of central and local governments to the voters (because of the division of powers), the lack of qualified personnel at local level, the increased stimulus for residents to change their region of residence, the weakened vertical of the administrative control and the low infrastructure capacities of the regional communities (Musgrave, 1959; Oates, 1972).

The public choice theory also touches upon the question of fiscal decentralization. From its position the decentralization is viewed as a tool limiting expansive intentions of the authority at different levels. In particular, the competition among local authorities can make the monopolistic central government weaken the control over the economic resources and offer partial or even full alternative to the means of limiting of its taxation powers (Buchanan, Tullock, 1962). In addition, local governments try to provide population with the required goods (services) at the lowest possible price paid by the citizens in the form of taxes.

As the main assumptions for the theory of fiscal federalism are met in the case of the EU, this is the primer theory applied with respect to this international union. As an example the works by Alesina *et al.* (2005), Buti, Nava (2003) can be considered. They argue that the EU budget should be used to create public goods with large economies of scale (defence, security, aid for developing countries) or those that absorb positive externalities (*e.g.* research and innovation, development of transport infrastructure). On the other hand, the national or the regional authorities should get more powers in the areas where the heterogeneity of preferences dominates over the economies of scale.

The theory of fiscal federalism has experienced today significant transformations. The new modified theory is called a new theory of fiscal federalism or political economy of multilevel governance. Its developers (Persson *et al.*, 1996) have discovered several additional criteria, consideration of which can justify the transfer of certain powers to the authority level that is not optimal from the standpoint of the classical theory of fiscal federalism. These are, in particular, the cost of adoption of the decision (the cost of decision-making is usually different for different levels of authority) and the cost that must be spent to eliminate disutility created by some policy action (the situation typical for large heterogeneous communities).

The proponents of this theory admit the possibility of some public goods to be provided not from the optimal level of authority if a compensation to the people who lose from this political decision is paid and if a cumulative positive effect is achieved.

Division of powers criteria stated in the theories of fiscal federalism gave an impetus to the development of the functional subsidiarity principle. Its application includes carrying out the test that allows determining the feasibility of centralization for a particular policy. The scientific validation for this test is provided in the works by Ederveen *et al.* (2006).

It should be noted that the EU law also provides for the application of the subsidiarity principle, which, however, is quite limited in use, compared to the principle of functional subsidiarity. It is applied in the EU only in cases where its powers are not exclusive and only the final outcome of the action (not efficiency) is taken into account (Figueira, 2008b). Principles of conferral and proportionality enshrined in Article 5 of TEU also limit the application of the subsidiarity principle (Institute for Economic Research, 2008).

The theory of public sector economics also offers some arguments for the transfer of certain powers to the supranational authority, despite the fact that this theory was developed to analyse the activities of national governments. From its perspective a sufficient reason for a regulator's intervention (including fiscal one) in a specific economic sector is the need to correct market failures or to ensure some social justice (equality). Such intervention gives an opportunity to create public goods that are beyond the interests of regular companies and to correct the disproportions that occur because of purely rational (selfish) behaviour of companies in a competitive market. In this way the total social welfare is maximized.

An original approach to the division of fiscal competences among supranational and national authorities in the EU was proposed by Figueira (2008a). The approach is multidisciplinary in its construction and is based on the test covering the basic provisions of the four theories: the public sector economics, the theory of fiscal federalism, the political science

and the concept of subsidiarity. During this test the fiscal centralization of a particular policy area is considered appropriate if correspondence to each of the theories takes place.

The approach in which goals and objectives of an international union are the primer determinant of its budget expenditures is called the practical-pragmatic approach. Such goals and objectives are usually laid down in the corresponding founding treaty (treaties) (Begg, 2000) and the combination of the common policies directly defines the scope and the structure of central budget allocations. Hence, they stimulate the development of the adequate revenue side of the budget, principles and mechanisms of the use of budgetary resources and the division of powers among different levels of authority.

As a continuation of the practical-pragmatic approach one can consider the principle of “one tool for one goal”, also known as the “Tinbergen rule”. It states that at least one political instrument should be aimed at achieving one specific policy objective (Tinbergen, 1952). According to this principle the budget of an international union should be directed towards one target or divided into parts, each of them pursues a specific objective. The structure of supranational budget expenditures can also be reasoned by the objectives of an international union from the perspectives of the theories generally referred to as the theories of institutionalism.

If international union achieves one of the highest forms of integration – the monetary union, one of its tasks should be the formation of a mechanism for the automatic fiscal transfers from supranational budget to the regions which have been adversely affected by their participation in the union (negative effects usually come from the free movement of capital and workers and from price equalization within the union). This statement is one of the postulates of the theory of optimum currency areas, developed by Mundell (1961) and his followers. This theory was the basic one to give grounds for the establishment of the European Monetary Union which has left a clear imprint in the structure of the EU budget expenditures.

It should be noted that the current economic processes (including the economic integration and the budgeting) are highly socialized and politicized which leads to the inefficient general outcome from the economic theory point of view. Therefore, ideally any transformation in the budgetary system of any level must be validated by the economic theory. With this respect two of the above-mentioned theories are of a particular interest – the theory of fiscal federalism (in its classical and neoclassical interpretations) and the public sector economics. Their application to the modelling of supranational budget expenditures will maximize the economic efficiency of the financed policies and therefore will increase the economic welfare on the whole (that is it will yield the Pareto-efficient result).

However, one should admit that a scientific theory must be the basis not only of the structure of supranational budget expenditures itself but also for two other underlying factors of their structuring: objectives and needs of an international union and the division of powers between supranational and national authorities (see Figure 1). Regarding the first of them, answers to the key questions can be found in both of the just mentioned theories; regarding the second factor, the theory of fiscal federalism is the most appropriate tool.

Therefore, the structure of supranational budget expenditures can be considered as the optimal one only in the case when it is formed in the optimal environment; that is, when objectives and needs of an international union and the division of powers in it are scientifically based. If it is not the case, we can talk only about the possibility of achieving a kind of sub-optimal or second best state on the structure of the budget expenditures. It means that to achieve a maximum effect of the budgetary system reform in an international union, which has been designed merely or primarily from political perspective, it should be performed together (in package) with amendments to the constitutional treaty of the union.

In our view, the principle of subsidiarity enshrined in the EU Treaties is designed to ‘sub-optimize’ the structure of the EU’s budget expenditures. This principle should be interpreted as an instrument to correct along the way the discrepancies that occurred between the politically accepted and scientifically justified objectives and powers of the EU at the time when they were decided upon. The interdisciplinary approach suggested by Figueira (2008a, 2008b) can also be viewed as an attempt to find suboptimal decision as for the structure of the EU budget expenditures.

3. Fiscal Centralization in the EU

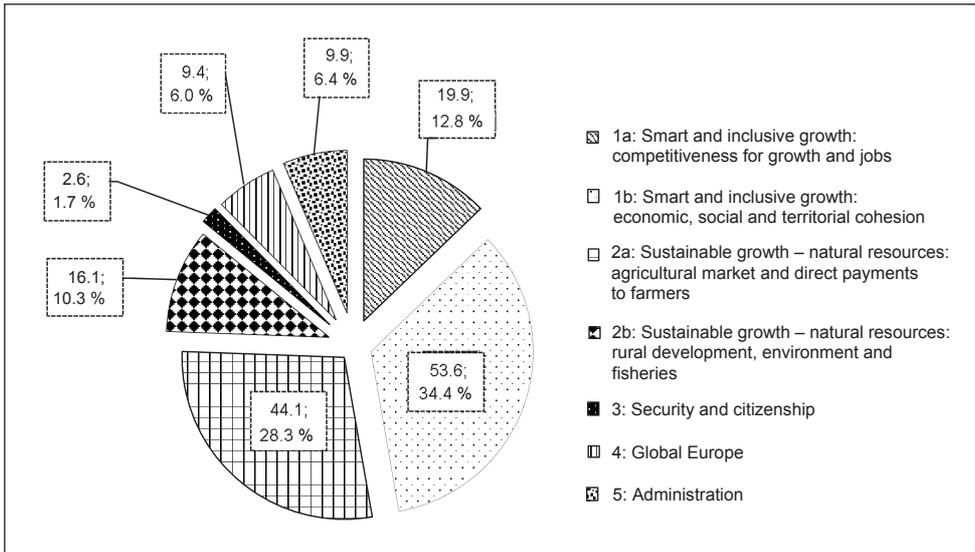
One of the major reasons for the critics of the EU budget today is its expenditures, which do not correspond to the needs and objectives of the Union. Such areas as agriculture, regional (cohesion) policy and foreign relations account for a major share of the EU budget expenditures but at the same time, they are not of key priorities of the European integration (see Article 3 of the TFEU).

This situation became the result of the process when historically the EU’s budget served rather as a subject of negotiations and bargaining among the member states than a tool of the integration itself. Therefore, programmes established over the course of decades arise from some *ad-hoc* adjustments and not from comprehensive scientific analysis of the expedience to finance them from the supranational level.

In any case the current EU budget expenditures can be globally divided into five categories according to the EU Financial Framework for the years 2014–2020 (Figure 2).

The first category of expenditure “Smart and Inclusive Growth” includes innovation and research, transport, energy, information and communication, education, customs and tax, cohesion, industry, employment, monetary, competition, internal market, economic and social policies. Cohesion Fund, Connecting Europe Facility, Horizon 2020, Erasmus+, Employment and Social Innovation are the weightiest for the EU budget programmes covered by this category. Category “Sustainable Growth: Natural Resources” includes agriculture, rural, environment, fisheries and maritime policies, when the “Security and Citizenship” category deals with policies in the sectors of migration, security and justice, public health, consumer protection, culture, tourism and civil protection. “Global Europe” instruments are directed to provide financing for the block of foreign and security policy (CFSP), cooperation with developing countries, humanitarian aid and major aspects of common commercial policy. “Administration” traditionally covers wages, salaries and pensions for EU employees, renting, utility and communication, office supplies, translation and other running operational costs.

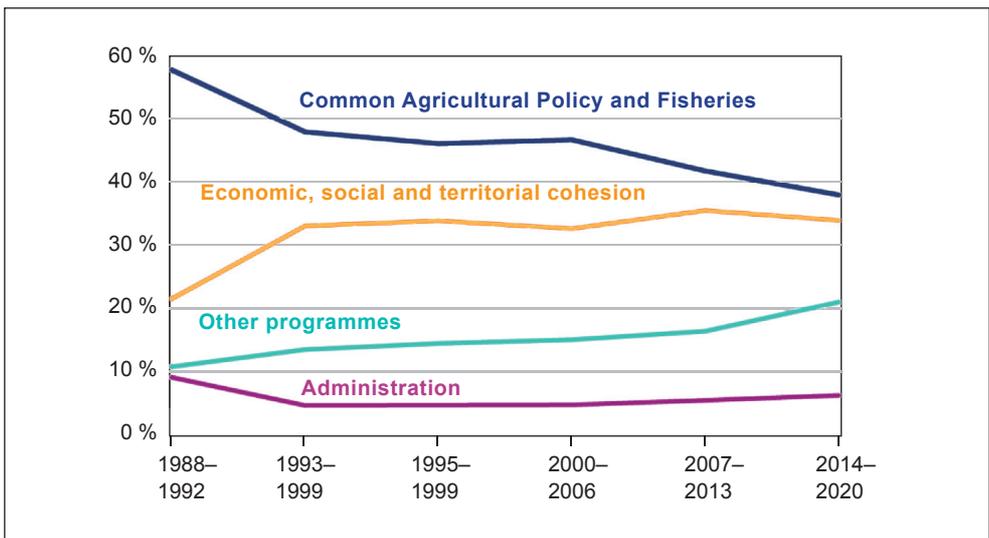
Figure 2 | Structure of the EU Budget Expenditure in 2017 (EUR billion, current prices)



Source: Calculated by author based on the data provided in: European Commission (2017).

These categories remain significantly unchanged as we track the EU financial frameworks since late 1980s (Figure 3). As the role of cohesion and other EU policies increases the agriculture-related policies lose their weight in the common EU budget.

Figure 3 | Development of the EU Budget Expenditure by Broad Categories



Source: European Commission, 2018.

As to the optimality of the EU's budget expenditures the researchers are divided in their visions. Begg (2000) argues that the cornerstone of the Union's budget should be formed by the activities (policies) that create economies of scale and improve the adoption of external effects (internalize the externalities). The researcher singles out foreign policy, research, trans-European networks, large-scale environmental problems and security as the key areas of supranational regulation in the EU. By contrast, policies that do not allow satisfying heterogeneous social preferences and the policies aimed at the redistribution of resources including common agricultural policy and even the rural development policy should be excluded from the EU's budget.

The developers of the extended test for subsidiarity² based on their methodology conclude that the EU budget expenditures should be focused on the global warming, energy, innovation and common foreign and security policies (Institute for Economic Research, 2008).

Having applied interdisciplinary approach, Figueira (2008b) contends that the bulk of the common EU budget should be spent on the research and education and the convergence of regions (cohesion) policies. The remaining part of the budget should be used to finance internal market and transportation policies as well as the security policy.

Nicolaides, Talsma (2005) consider that cohesion, competitiveness and foreign policies should be further reinforced in the EU budget. They also are convinced that the financial capabilities and needs of the EU member states should become the guiding determinants of the size of their financial liabilities and eligibilities.

Considering the EU ambitious goals of its economic growth Danell, Östhol (2008) propose to minimize the objectives covered by the EU budget. In their opinion four kinds of financial commitments to stimulate economic growth should be present in the future EU budget:

- 1) institutional development (internal market, monitoring, border control and security, *etc.*);
- 2) integration and mobility (trans-European networks, informational policies and audio-visual sector, *etc.*);
- 3) education and development (research including high-tech, lifelong learning, *etc.*);
- 4) commercialization (establishment of business centres, techno-parks, *etc.*).

According to the economic theory the economic efficiency³ can be achieved if transfer of powers to the higher level of authority yields at least one of the effects:

- 1) the economies of scale;
- 2) the better internalization of externalities;
- 3) the minimum efficient scale of financing is achieved;
- 4) the market failures are better corrected;
- 5) the quality of the public good is improved. If the effects occur it is often referred to as the creation of the European added value (European Commission, 2008).

2 See Section 2.

3 The concept of economic efficiency is viewed as the highest possible return with the lowest input of budget resources.

Table 1 | Efficiency of Centralization of the EU Budget Expenditures by Categories

Number	Areas of Policy and Budget expenditures	Effect of Centralization					
		Economies of Scale	Better Internalization of Externalities	Minimum Efficient Scale	Correction of Market Failures	Public Good Quality Improvement	General Conclusion
1	2	3	4	5	6	7	8
1	Customs Union	+	+	=	=	=	+
2	Competition Rules	+	+	=	+	+	+
3	Monetary Policy	+	+	+	+	+	+
4	Conservation of Marine Biological Resources	+	+	=	+	+	+
5	Common Commercial Policy	+	+	=	=	=	+
6	Internal Market	+	+	=	+	+	+
7	Social Policy	=	[+]	=	[+]	[-]	[+]
8	Cohesion	=	[+]	[+]	[+]	[-]	[+]
9	Agriculture:						
	Direct Aid for Farmers	=	=	=	=	=	-
	Market Interventions	+	+	+	+	=	+
	Rural Development	=	[+]	=	[+]	[-]	[+]
10	Fisheries (excluding Conservation of Marine Biological Resources)	+	[+]	=	+	=	[+]
11	Environment	+	[+]	[+]	=	[+]	[+]
12	Consumer Protection	=	=	=	[+]	[+]	[+]
13	Transport	+	[+]	[+]	[+]	[+]	[+]
14	Trans-European Networks	+	[+]	[+]	[+]	[+]	[+]
15	Energy	+	[+]	[+]	[+]	[+]	[+]
16	Area of Freedom, Security and Justice	+	[+]	+	=	[+]	[+]
17	Public Health	+	[+]	[+]	[+]	[+]	[+]
18	Research, Technological Development and Space	+	+	[+]	[+]	[+]	[+]
19	Cooperation with Developing Countries, Humanitarian Aid	+	+	+	=	+	+
20	Economic Policy	+	[+]	[+]	+	+	[+]
21	Employment	+	+	=	+	+	+
22	Industry	+	[+]	=	=	[+]	[+]
23	Culture	+	[+]	=	[+]	[+]	[+]
24	Tourism	=	[+]	=	=	[+]	[+]
25	Education, Training, Youth and Sports	+	[+]	=	[+]	[+]	[+]
26	Civil Protection	+	[+]	[-]	+	[+]	[+]
27	Administrative Cooperation	+	=	=	=	+	+
28	Foreign and Security Policy (CFSP)	+	+	+	=	+	+
29	Defence	+	+	+	+	+	+
30	Direct Taxes	=	=	=	=	=	-
31	Social Protection	=	=	=	[+]	=	-

Note: Arbitrary signs and symbols: (+) – conspicuous positive effect; (=) – minor or absent effect; [+] – positive effect existing in the case when the principles of subsidiarity and/ or proportionality are followed.

Source: The data in the table are consequent of the analysis provided by the author in this section.

To see if the EU policies comply with the centralization criteria mentioned above we list the policies as they are indicated in articles 2–6 of the TFEU. There are 29 of them (Column 2, Table 1). We complement the list with the direct taxes and social protection policies where the EU has no direct powers.

According to the TFEU the first five areas are in exclusive competence of the EU. It means that only the EU institutions are empowered to adopt legally binding acts in these spheres. The exclusive EU competences as for the customs policy, the monetary policy, the conservation of marine biological resources and the common commercial policy are justified by the theory of fiscal federalism as they provide the economies of scale, ensure better internalization of the externalities, *etc.* The competition policy is aimed at the correction of the common market failures and hence falls within the exclusive EU competence according to the theory of public sector economics.

Other EU policies are carried out *via* the division of competences between supranational and national authorities or by the EU's support, coordination or supplementation of the actions of the member states⁴. The scope of the EU's powers in these policy areas is determined according to the principles of subsidiarity and proportionality⁵. From this perspective the supranational financing is primarily given to the trans-European initiatives (economic and social convergence, infrastructure projects, information networks, labour, capital, goods and services mobility, large-scale environmental projects, *etc.*) as they can be more efficiently realized from the EU level and, thus, their centralization is scientifically justified.

Economies of scale can occur in the areas where administrative and regulatory process is very time-consuming and labour-intensive and the most realized activities are of large-scale dimension. The majority of policy areas mentioned in Table 1 satisfy these conditions. However, the presence of this effect can be notable only if corresponding powers are exclusively transferred to the supranational level. If this is not the case and the policies are carried out jointly the economies of scale can be decreased by the duplication of functions of the authorities at various levels, by the expansion of the administrative staff, *etc.*

In the EU the most visible effect of the economies of scale is typical for such areas as the internal market, transport, energy, trans-European networks, CFSP, defence, area of freedom, security and justice (Institute for Economic Research, 2008).

If the consequences of a particular policy have clear transnational effect, the supranational level of its coordination is the most appropriate one as the created positive or negative *externalities* can be better dealt with (*internalized*). For example, the consequences of social policy revealed in the improved working conditions, transformed views and values of people, higher inclusion of people into political and economic life and others create significant externalities for many countries thanks to high mobility of people in the EU. Thus, the organization of this policy from supranational level will be more effective than from national level of the EU member states. The same can be said about policies in the areas of education, culture, the area of freedom, security and justice and some others.

4 See article 2 (2–5) of the TFEU.

5 See article 5 of the TEU.

However, the situation cannot be generalized for all components of these policies because there is a significant heterogeneity of preferences in these areas and only the compliance of the principles of subsidiarity and proportionality can yield the highest effect on the whole.

The policy centralization in the area of freedom, security and justice (external borders, visas, free movement of people, security, migration, *etc.*) creates the opportunity both for getting the economies of scale and for the effective avoidance of negative externalities that would occur if the area were separately regulated by the EU member states (Institute for Economic Research, 2008). The issue of some interstate heterogeneity of preferences in this area is resolved by the application of subsidiarity principle – the planning and coordination of the actions are made locally but the financing and the general regulation are provided from the EU level. Moreover, policies in this sector are complementary to the internal market policy and this is another important justification for their supranational status.

The same conclusion can be made towards the policy areas of agricultural market intervention, fisheries, cohesion, environment, transport, energy, trans-European networks, public health, industry, culture, tourism, civil protection, education and sport. Income support, consumer protection, administrative cooperation, direct taxes and social protection are the policy areas where the important externalities are not usually created (see Table 1). This is the reason why attribution of these policies to the supranational level will not increase their effectiveness by better adoption of externalities.

The minimum efficient scale of financing problem can appear when the high-quality public good cannot be provided from a certain level of authority because of the insufficient resources available. In the case of an international union the situation can appear with some costly policies that small countries alone cannot afford.

If such policies are aimed at the supply of standardized public good (macroeconomic regulation, market interventions, foreign policy, freedom, security and justice, and defence), their organization and financing should be done from the supranational level. If there are significant diversions in the expected outcomes of the public good (the cases of cohesion policy, environmental protection, large-scale transport and energy projects, *etc.*), financing should be centralized but the action should be undertaken according to the principle of subsidiarity.

Clearly, full or partial centralization aimed at achieving the minimum efficient scale of financing in the case of an international union brings more benefits to small members. However, general positive effect is also available. “Galileo”, “Marco Polo”, “ITER”, Trans-European Energy and Transport Networks are the examples of highly expensive EU projects, which would not be affordable by most of the EU member states alone.

The public sector economics justifies the EU fiscal intervention only in the case of the EU common *market failures correction* actions (for example, promoting labour mobility or removing barriers to trade in goods or services) or the action directed at the achievement of equality objectives (for example, the cohesion policy aimed at the economic and social convergence of the EU regions) (Figueira, 2008b).

The scope of supranational powers as for the policies aimed at the correction of the common market failures should be decided upon according to the level of homogeneity of the public preferences. If they are homogeneous, full fiscal and administrative

centralization is more appropriate. In the EU it is the case of competition and monetary policies, conservation of marine biological resources, common market in general, fisheries, employment, defence and civil protection. If the preferences are heterogeneous, the partial centralization (administration and financing from the supranational level based on the principles of subsidiarity and proportionality, or simple coordination from the supranational level) generates larger effect. In the EU these are policies in the areas of cohesion, rural development, transport, energy, culture, *etc.*

The customs union, the foreign policy and the commercial policy, direct aid for farmers, environment, area of freedom, security and justice are the policies that do not pursue the market failures correction objectives (see Table 1).

The transfer of fiscal powers from national to supranational level will *improve the quality of a public good* if an international union can secure wider opportunities, better guaranties and/or directly improve living and working conditions for its residents. In the EU it is proper for all policies directly related to the working and living conditions of the wide public but only if based upon the principles of subsidiarity and proportionality. The prerequisites for this are created by the concentration of minimum financial resources needed for the provision of high-quality public goods in many areas and for the expansion of social, economic and political opportunities of the EU citizens and companies with the creation of the ‘ever closer Union’.

According to the analysis we can divide the EU policy areas into three groups. The presence of some positive effects from fiscal centralization and absence of negative ones substantiates the centralization for the corresponding policy area (marking “+”). The marking “[+]” denotes the areas where there are clear restrictions as for the centralization and it can be undertaken only partially following the principles of subsidiarity and proportionality. The areas where the centralization is not efficient are marked with “-” (see the last column of Table 1).

4. Conclusion

From the perspective of fiscal federalism and public sector economics theories the list of five policies where the EU has exclusive competences (customs, monetary, competition, commercial and conservation of marine biological resources) has to be complemented by the policies in the areas of internal market (general issues), employment, agricultural market interventions, administrative cooperation, foreign relations, security and defence.

The most distinctive policies where fiscal centralization (even in compliance with the principles of subsidiarity and proportionality) is not efficient because of the significant heterogeneity of preferences and actual absence of the supra-nationally added value are the direct aid for farmers, direct taxes and social protection. However, the direct aid for farmers is an explicit article of the current EU budget expenditures and consumes considerable financial resources. We can explain it only by political reasons.

In other policy areas it would be appropriate to keep the situation where fiscal regulatory powers are shared between national and supranational levels of authority according to the principles of subsidiarity and proportionality.

References

- Alesina, A., Ignazio, A., Federico, E. (2005). International Unions. *The American Economic Review*, 95(3), 602–615, <https://doi.org/10.1257/0002828054201279>
- Begg, I. (2000). Reshaping the EU Budget: Yet Another Missed Opportunity? *European Urban and Regional Studies*, 7(1), 51–62, <https://doi.org/10.1177/096977640000700104>
- Begg, I. (2016). The EU Budget and UK Contribution. *National Institute Economic Review*, 236(1), 39–47, <https://doi.org/10.1177/002795011623600106>
- Boiar, A. O. (2014). Revenue-Generating Schemes for International Unions. *Journal of Economic Integration*, 29(3), 407–429, <https://doi.org/10.11130/jei.2014.29.3.407>
- Boiar, A. O. (2014). *Transformation of the EU Budgetary Model under Global Financial Turbulence*. Lutsk: Vezha-Druk. ISBN 978-617-7181-64-3.
- Boiar, A. O., Shmatkovska, T. O., Stashchuk O. V. (2018). Towards the Theory of Supranational Finance. *Cogent Business & Management*, 5(1), <https://doi.org/10.1080/23311975.2018.1482594>
- Buchanan, J. M., Tullock, G. (1962). *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Ann Arbor, MI: University of Michigan Press. ISBN 10:0472061003.
- Buti, M., Nava, M. (2003). *Towards a European Budgetary System*. European University Institute. Florence Working Paper No 2003/08.
- Carruba, C. J. (1997). Net Financial Transfers in the EU: Who Gets What and Why? *Journal of Politics*, 59(2), 469–496, <https://doi.org/10.2307/2998173>
- Citi, M. (2015). EU Budget Politics: Explaining Stability and Change in Spending Allocations. *European Union Politics*, 16(2), 260–280, <https://doi.org/10.1177/1465116515569551>
- Connolly, S., Munro, A. (1999). *Economics of the Public Sector*. Essex (England): Pearson Education Limited. ISBN 978-0130966414.
- Danell, T. (2008). *The EU Long-Term Budget: Reform and New Priorities*. Östersund: ITPS, Swedish Institute For Growth Policy Studies.
- Danell, T., Östhol, A. (2008). *The EU Long-Term Budget: Reform and New Priorities*. Report to the Swedish Ministry of Finance. ITPS, Swedish Institute For Growth Policy Studies. Östersund.
- Ederveen, S., Gelauf, G., Pelkmans, J. (2006). *Assessing Subsidiarity*. CPB Document, No 133. ISBN 90-5833-299-3.
- European Commission (2018). *A New, Modern Multiannual Financial Framework for a European Union that Delivers Efficiency on its Priorities Post-2020*. COM(2018) 98 final.
- European Commission (2008). *Internal Charter for the Evaluation Function in DG ECFIN*. Available at: http://ec.europa.eu/economy_finance/publications/pages/publication13113_en.pdf
- European Commission (2017). *Multiannual Financial Framework Adjusted for 2018*. Available at: http://ec.europa.eu/budget/mff/figures/index_en.cfm
- Figueira, F. (2008a). *A Better Budget for Europe: Economically Efficient, Politically Realistic*. Swedish Institute for European Policy Studies (European Policy Analysis), April, Issue 2-2008.
- Figueira, F. (2008b). *How to Reform the EU Budget? A Multidisciplinary Approach*. Utrecht School of Economics. Discussion Paper Series No 7.
- Groot, L., Zonneveld, E. (2013). EU Budget Contributions and Expenditures: A Lorenz Curve Approach. *Journal of Common Market Studies*, 51(4), 649–666, <https://doi.org/10.1111/jcms.12013>

- Institute for Economic Research (2008). *A Study on EU Spending*. Final Report. ECORYS Nederland BV, Netherlands Bureau for Economic Policy Analysis (CPB). Rotterdam.
- Majocchi, A. (2008). *Theories of Fiscal Federalism and the European Experience*. Società italiana di economia pubblica. Working Paper No. 608.
- Mattila, M. (2006). Fiscal Transfers and Redistribution in the EU: Do Smaller Member States Get More than Their Share? *Journal of European Public Policy*, 13(1), 34–51, <https://doi.org/10.1080/13501760500380726>
- Mundell, R. A. (1961). A Theory of Optimum Currency Areas. *American Economic Review*, 51(4), 657–665.
- Musgrave, R. (1959). *The Theory of Public Finance: a Study in Public Economy*. New York: McGraw Hill. ASIN: B0006AVID2.
- Musgrave, R. A. (1969). Theories of Fiscal Federalism. *Public Finance*, 24(4), 521–532.
- Nicolaides, Ph., Talsma, F. (2005). Financing the EU: Options for Reform. *EIPAScope*, 2, 27–34.
- Oates, W. E. (1972). *Fiscal Federalism*. New York: Harcourt Brace & Jovanovich. ISBN 978-0155274525.
- Oates, W. E. (2005). Toward a Second-Generation Theory of Fiscal Federalism. *International Tax and Public Finance*, 12(4), 349–373, <https://doi.org/10.1007/s10797-005-1619-9>
- Persson, T., Roland, G., Tabellini, G. (1996). *The Theory of Fiscal Federalism: What Does It Mean for Europe?* IGER. Working Paper No. 101.
- Schatzenstaller, M. (2017). *The Brexit as Opportunity for a Sustainability-Oriented Reform of the EU Budget*. ÖGfE Policy Brief 09a'2017. ISSN 2305-2635.
- Stiglitz, J. (2000). *Economics of the Public Sector*. New York: W. W. Norton & Co. ISBN 978-0393966510.
- Tabellini, G. (2003). Principles of Policymaking in the EU: an Economic Perspective. *CES Ifo Economic Studies*, 49(1), 75–102, <https://doi.org/10.1093/cesifo/49.1.75>
- Ter-Minassian, T. et al. (1997). *Fiscal Federalism in Theory and Practice*. Teresa Ter-Minassian, Editor. Washington: International Monetary Fund. ISBN 1-55775-663-5.
- Tiebout, C. (1956). A Pure Theory of Local Expenditures. *Journal of Political Economy*, 64(5), 416–424, <https://doi.org/10.1086/257839>
- Tinbergen, J. (1952). *On the Theory of Economic Policy*. Amsterdam: North-Holland Pub. Co. ISBN 978-0-7204-3130-8.
- Wildavsky, A. (1961). Political Implications of Budgetary Reform. *Public Administration Review*, 21(4), 183–190, <https://doi.org/10.2307/973628>
- Zaporozhets, V., García-Valiñas, M., Kurz, S. (2016). Key Drivers of EU Budget Allocation: Does Power Matter? *European Journal of Political Economy*, 43(C), 57–70, <https://doi.org/10.1016/j.ejpolco.2016.02.004>