

## **CHAPTER 11**

### **FISCAL DECENTRALIZATION**

#### **AS A TRANSFORMATION TREND OF THE SYSTEM**

#### **OF PUBLIC FINANCES IN UKRAINE**

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### **INTRODUCTION**

Overall level of responsibility of the Ukrainian society continues to grow in the process of active implementation of decentralization reform in Ukraine. Ukrainian society actively creates financially sustainable joint territorial communities able to deal with systemic socioeconomic problems that have accumulated, and is directly involved in territory management processes. Today decentralization enables communities to have powers and resources to satisfy current needs of the region.

An updated system of financial support of local budgets contributes to growing motivation for increase of revenues thereof. At the same time current outcomes of fiscal decentralization suggest that local self-government bodies experience a lack of available additional resources for financing self-governing powers and powers delegated by the state, and for improvement of overall regional financial efficiency.

We should mention works of the following foreign scholars, who studied fiscal decentralization issues: R. Barro, R. Boadway, R. Musgrave, W. Oates, Ch. Tiebout, A. Shah and others. An important contribution to creation of the scientific paradigm of fiscal decentralization in the context of transformation of the entire tax system and range of problems concerning regional financial efficiency was made by such scholars as V. L. Andrushchenko, Ye. M. Bogatyriova, T. M. Bogolib, A. O. Danilenko, O. M. Desiatniuk, Yu. B. Ivanov, A. I. Krysovaty, T. V. Koshchuk, I. G. Lukyanenko, I. O. Lunina, I. O. Liuty, V. M. Fedosov, I. Ya. Chugunov, S. I. Yurii and others. In view of fundamental studies by the scholars, it should be noted that the above problems have not been exhaustively studied, and hence, further research in this field is necessary.

### **11.1. Essence of fiscal decentralization in contemporary theory and practice**

Development of democracy and decentralization of the public sector contribute to ever growing attention to this matter all over the world. Starting from the 1980-s, many countries have chosen decentralization as their development path. Nowadays, there is no standard model, because processes and procedures differ in every country and depend on objectives, tasks, organizational structure and implementation mechanisms.

Decentralization is a method for movement of authority and powers from the centre of the controlled system to its periphery and for strengthening political and legal independence of peripheral subsystems: constituent entities of a federation, municipal entities<sup>1</sup>.

In the 1960-s American economist Ch. Tiebout explained the theory of local taxes under decentralization. Ch. Tiebout proceeded from social and psychological motivation of humans, believing that for financial reasons some people would rather stay at home and try to improve their way of living than move somewhere else, while others would change their place of living.

In this sociological study Ch. Tiebout and his followers created a theory of inter-territorial mobility of population combined with the theory of provision of social goods<sup>2</sup>.

Ch. Tiebout further emphasized that fiscal decentralization facilitated intra-regional competition and increasing level of provision of social goods based on the choice made by residents of this or other region – foot voting mechanism.

Relevance of studying Ch. Tiebout's model lies in the fact that it contains features one can use to describe and evaluate activities of local entities, and this way to describe approaches to the problem of optimum allocation of authority and powers and adequate dissemination of financial resources at various levels of country governance.

As any other theory, fiscal decentralization has its features, so when applying it, one should note its advantages and disadvantages. Key advantages of decentralization include, first of all, ability of local self-government bodies to better meet demands of the local population at the local level. Moreover, facilitation of development of competition

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<sup>1</sup> Panejko Ju. (1963) Teoretychni osnovy samovrjaduvannja [Theoretical bases of self-government]. Mjunkshe. (in Ukrainian)

<sup>2</sup> Tiebout C. An Economic theory of fiscal decentralization (1961). NBER, Public Finances, Needs, Sources and Utilization. Princeton (Univ. Press). P. 79-96.

between local self-government bodies (that applies to unitary states; in case of federal states we mean competition between regional and local levels of governance) enables people to choose to deal with administrative units with better level of services.

A substantial contribution to theorization of fiscal decentralization was made by R. Musgrave, who defined the following principles:<sup>3</sup>

- principle of appropriateness (decisions on production of social goods shall be made by those people, who reside in the territory, where payments are made and taxes and duties are managed for the purpose of financing social goods);
- principle of centralized reallocation (changes in allocation shall be made by the central government holding necessary levers for implementation of allocation policy);
- principle of financial equalization (in case of absence of adequate individual allocation policy, central government shall ensure a certain level of equalization between more and less affluent territories);
- principle of national “sought-after” goods (central government may apply special purpose transfers to stimulate provision of certain local social goods, since production of such goods is characterized by spatial external effects, or such goods have specific relevance from the national point of view).

In reality process of decentralization of functions of central and local governments is extremely complicated. It covers such aspects as finance, administration, control, regulation, reporting and accountability, which per se are elements of relationships between various levels of government.

Key objectives of decentralization include improvement of the public sector efficiency and quality of people’s life. Decentralization is viewed as an integral element of problem solving, which is a consequence of growing demands the public agencies face, and the people’s growing expectations of more efficient performance of functions by public institutions.

From the political point of view decentralization shall facilitate planning improvement and more efficient operations of public agencies, enabling to take into account local needs and conditions simultaneously with fulfilment of regional and national objectives.

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<sup>3</sup> Musgrave Richard A. Essays in fiscal federalism (1965). Washington: DC: The Brookings Institution.

In terms of fiscal decentralization forms, one must emphasize the following types thereof:

- deconcentration (quasi-decentralization), which allows for dissemination of a number of functions of the central government in the fiscal field at various levels of social structure, while preserving powers of control and financing. This is a more administrative measure per se, since the right to take final decisions in the field of fiscal policy implementation remains with the central authorities;
- devolution (true decentralization), based on transfer of expenditure powers and sources of financing thereof to the lower levels of the national administration, which ensures fiscal autonomy of regional and local authorities, as well as improvement of transparency and accountability of the process of provision of social goods<sup>4</sup>.

### **11.2. Institutional analysis of fiscal decentralization effects**

System of reasoning for implementation of fiscal decentralization appeared in the early 20<sup>th</sup> century. It is generally based on provisions of the economic theory and includes four key points.

Firstly, decentralization provides for more efficient placement and allocation of resources in the public sector.

Secondly, decentralization facilitates growing accountability of public authorities regarding application of the national budget funds. This point means that under decentralization a link between taxes collected and social goods provided becomes more transparent.

Thirdly, having their own tax base, regional and local authorities must take measures for expansion thereof, i.e. encourage development of local and regional economies. It also facilitates better management of local and regional taxes.

Fourthly, once authorized to manage their budget funds at their own discretion, regional and local authorities are inspired to cut inefficient costs in real economy of the regions<sup>5</sup>.

Fiscal decentralization principles continue to serve as a basis for assessment of local financing systems.

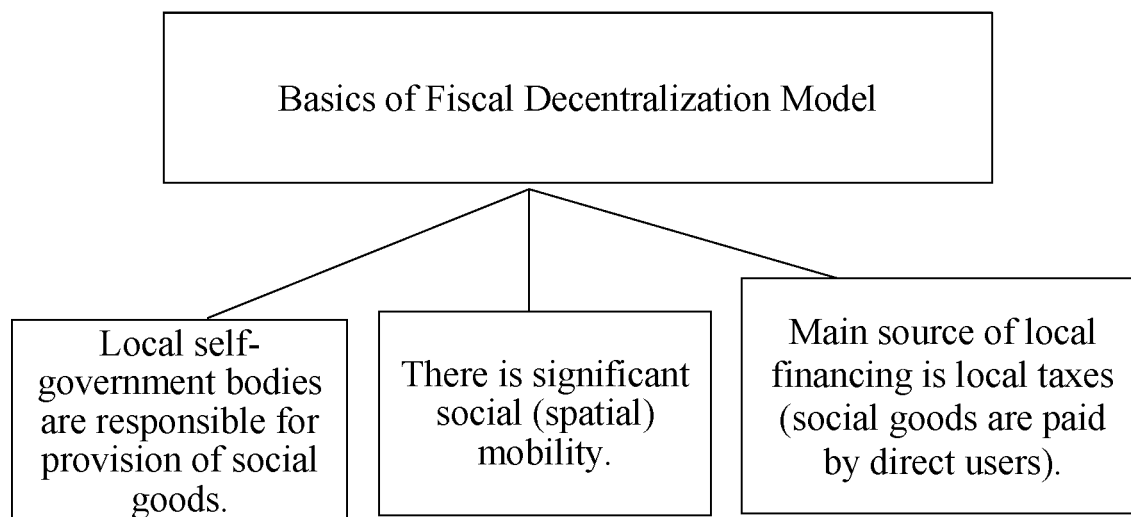
Financial decentralization does not solely depend on allocation of revenues and powers of local authorities to take relevant decisions. Even if those conditions are met, fiscal autonomy of local authorities can be

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<sup>4</sup> Lunina I.O. (2006) Derzhavni finansy ta reformuvannja mizhbjudzhethnykh vidnosyn [Public Finance and Intergovernmental Budget Reform]. Kiev: Institute for Economic Forecasting. (in Ukrainain)

<sup>5</sup> Bondaruk T.Gh. (2013) Miscevi Finansy [Local Finances]. Kiev: Information and analytical agency. (in Ukrainain)

restricted by heavy regulation and control over expenses, financial planning and arrangements for provision of local public goods (Figure 1).



**Figure 1. Basics of Fiscal Decentralization Model**

*Drawn up by the author on the basis of [2; 3; 6]*

Features of Ukrainian contemporary model of arrangement of local governance include creation and operation of local executive authorities not for the purpose of control and supervision as to lawfulness of activities of local self-government bodies (as in West-European countries), but for the purpose of taking over the main scope of powers for management of relevant territories, which complicates division of functions between executive authorities and local self-government bodies. This dilemma can be solved by reforms, which include further decentralization.

In European countries decentralization resulted in reallocation of functions in favour of local self-government bodies: the state delegated its functions to local self-government bodies predominantly for provision of mixed social goods. This necessitated financial reforms for decentralizing not only the functions of the state, but also possibilities for implementation thereof. In the last 20 years a large number of European countries implemented reforms for reallocation of budget resources between various administrative levels<sup>6,7</sup>.

<sup>6</sup> Oates W.E. Searching for Leviathan: An empirical study / W. E. Oates // The American Economic Review. 1985. Vol. 75 (No. 4). P. 748–757.

<sup>7</sup> Boryslavsjka O., Zaverukha I., Zakharchenko E. (2012). Decentralizacija publicnoji vlady: jevropejskij dosvid i perspektivy Ukrajinj [Decentralization of public authority: European experience and prospects of Ukraine]. Retrieved from: <http://despro.org.ua/> (accessed 23 January 2020).

In Ukraine current stage of decentralization commenced in 2015, which was reflected in amendments to the Budget Code and Tax Code of Ukraine. Local governments were granted the right to set their local budgets at their own discretion (regardless of the date when the national budget is passed). List of taxes generating revenues of local budgets was extended by means of 100% fee for administrative services, 100% stamp duty, 10% income tax charged from 212 companies, retail sales tax for excisable goods, real property tax, tax on motor vehicles with large displacement engines, 80% environmental tax (in lieu of 35%) and 25% mining tax<sup>8</sup>.

At the same time local budgets lost a part of their revenues from individual income tax: 15% goes to regional budgets, 60% to budgets of district-equivalent cities, 25% to the national budget. As a result, revenues of the national budget from individual income tax grew by 4.5 times, and revenues of local budgets dropped from 46 to 38 billion hryvnias (UAH), and in revenue structure of local budgets – from 61.5% to 44.5%.

In accordance with implementation procedure of the current stage of decentralization, the first step was to create sustainable territorial communities by determining prospective administrative centres of such communities, and not functions of local self-government bodies.

Amid growing geopolitical tension and slowdown of economic dynamics, number of Ukrainian regions, budgets of which are passed with a deficit, continues to grow, along with a debt load on local budgets of the regions, which contributes to exacerbation of current and prospective problems of socioeconomic development. Continuing military operations on Donbass resulted in actual decentralization of administrative and territorial structure and decentralization of Ukrainian budget system.

Fiscal decentralization strategy in Ukraine must be based on evaluation of existing models of the country's tax and budget systems, rights and duties of local government institutions in the field of management of the country's financial resources; people's readiness to new powers of local authorities; increase of responsibility in the field of generation, allocation and application of financial resources region-wise; efficiency of qualified personnel recruitment in the field

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<sup>8</sup> State Statistics Service of Ukraine. (n.d.). Materialy oficijnogho sajtu Derzhavnoji sluzhby statystyky Ukrajinjy [Materials of the official site of the State Statistics Service of Ukraine]. Retrieved from <http://www.ukrstat.gov.ua/> (in Ukrainian) (accessed 25 January 2020).

of local self-governance, level of qualification of local authorities, which must be able to provide for efficient process of generation, allocation and application of financial resources of the country's regions; level of motivation of regional authorities and local self-government bodies for increase in efficiency of application of economic, tax and budget potential of the region for the purpose of ensuring integrity and overall development of the state, as well as financial autonomy of the regions<sup>9</sup>.

In order to substantiate necessity for decentralization, we must consider all existing points. When studying indirect consequences of fiscal decentralization we shall focus on certain macroeconomic outcomes, which can be affected by fiscal decentralization and which have been identified in publications as potential determinants of poverty and income distribution. We can name some examples, such as economic growth, macroeconomic stability, regional convergence, scope of the public sector and level of institutional development. In so far as fiscal decentralization has a measurable effect on these outcomes, it is expected indirectly that it will also have a measurable effect on poverty and income distribution.

As far as income is concerned, fiscal decentralization may also affect progressivity of taxation system and hence it may change distribution of available income. For instance, local self-government bodies may be financed out of user fees and indirect taxes, which usually are more regressive, or out of real property taxes, which usually are less progressive than taxation system used by central authorities.

### **11.3. Analysis of European experience in implementation of fiscal decentralization**

In the last few decades many countries of the world implemented large-scale reforms aimed at improvement of national administration efficiency.

Fiscal decentralization is the path European countries have taken and are taking now. Their experience should be studied and taken into account when dealing with decentralization of authority in Ukraine.

Success of such decentralization in our country is required both for creation of the modern civilized society and for improvement of

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<sup>9</sup> Misceve samovrjaduvannja v Ukrajini [Local self-government in Ukraine] (electronic source). Retrieved from [http://academy.gov.ua/doc/koment-inter\\_prezident/2014](http://academy.gov.ua/doc/koment-inter_prezident/2014) (in Ukrainian) (accessed 25 January 2020).

the country's competitiveness on the world markets, since Ukraine's current strategic task is to ensure international regional integration of the domestic economy into the world economy on a parity basis in line with its national interests.

Analysis of studies shows that fiscal decentralization in the countries with a multilevel system of state structure means granting powers to local authorities for imposing and collecting taxes into budget, undertaking expenditures on the basis of decisions made at the local level, and existence of several levels of administrative production of social goods and services is explained by difference in size of the regions.

In order to analyze successful tax decentralization, we shall study data on levels of local self-governance in European federal and unitary states – members of the Organization for Economic Cooperation and Development (OECD). Federations among the European states – OECD members are as follows: Austria, Belgium, Germany, and Switzerland. Highly decentralized countries like Spain and Great Britain shall be analyzed together with federations. Group of unitary states consists of the Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Sweden and Turkey. Iceland is not included due to lack of data (Tables 1, 2).

When analyzing tax decentralization, one should not forget about high variability of tax mechanisms at the local level. Tax revenues of the local self-governance differ in terms of tax autonomy, i.e. ability to influence taxation parameters. That is why even in countries with identical tax decentralization (TD) coefficient tax autonomy may be different. Ratio of tax autonomy of local self-government bodies in federations is higher than in unitary states, though this difference is not statistically relevant.

Tables 1 and 2 show tax decentralization (TD) coefficients up to the level of local self-governance in the European states – OECD members 2017, as well as correlation between taxation by local authorities and GDP. Variability is indeed very high, starting from the Czech Republic with the lowest level (TD = 1.06%) and up to Sweden with the highest level (TD = 36.93%). Mean decentralization coefficient is much higher in unitary states (TD = 10.6%, or 6.5% GDP), than in federal European states – OECD members (TD = 7.68%, or 2.54% GDP).



Table 1

**Tax Decentralization (TD) Coefficient in Unitary States, 2017**

Unitary states	Total revenues of the national budget, EUR millions	Revenues of local budgets, EUR millions	Share of tax revenues in revenues of local budgets, %	GDP, EUR millions	Share of revenues of local budgets in GDP, %
Sweden	1,940,035	716,469	36.93	5,380,000	13.31
Denmark	995,058	263,690	26.49	3,249,000	8.11
Finland	97,014	22,781	23.48	251,900	9.04
Italy	727,718	111,024	15.25	19,350,000	0.57
France	1,066,035	141,511	13.27	25,830,000	0.54
Estonia	7,785	70	0.89	25,920,000	2.70
Poland	671,916	86,219	12.83	524,510	16.43
Norway	1,263,230	198,551	15.71	398,830	49.78
Slovenia	15,589	1,461	9.37	4,877,000	0.02
Turkey	772,857	73,490	9.50	8,511,000	0.86
Portugal	67,012	4,817	7.18	2,176,000	0.22
Hungary	14,398,768	845,081	5.86	13,910,000	6.07
Greece	70,003	1,692	2.41	200,290	0.84
Luxembourg	21,405	863	4.03	6,240,000	0.01
Ireland	67,465	1,398	2.07	333,700	0.41
Netherlands	285,620	8,487	2.972	88,262	9.61
Slovakia	27,960	542	1.93	95,770	0.56
Czech Republic	1,760,400	18,806	1.06	2,157,000	0.87
Mean value			10.62		6.51

*Drawn up by the author on the basis of data at <https://stats.oecd.org/>*

Table 2

**Tax Decentralization (TD) Coefficient in Federal States, 2017**

Federal states	Total revenues of the national budget, EUR millions	Revenues of local budgets, EUR millions	Share of tax revenues in revenues of local budgets, %	GDP, EUR millions	Share of revenues of local budgets in GDP, %
Austria	149,208	4,517	3.03	416,600	1.08
Belgium	186,323.00	9,352	5.02	1,311,000	0.71
Germany	1,230,455	105,430	8.57	4,029,140	2.86
Spain	394,861	36,821	9.33	1,311,000	2.80
Switzerland	183,979	29,185	0.16	678,900	4.29
Mean value			5.22		2.35

*Drawn up by the author on the basis of data at: <https://stats.oecd.org/>*

Since we focus only on local self-governance, disregarding the state level in federations, the explanation is that levels of local self-governance in unitary states serve a purpose similar to that of state level governments in federations, especially in small European federations.

International experience shows that the most successful models of regional development include on a mandatory basis a fairly high level of financial autonomy of local authorities, which enables them to plan their own development strategies at their own discretion adjusting these strategies with the level of budget funds necessary for implementation thereof, thus improving their feasibility and implementation quality. The so-called “own” revenues of regional and local budgets are a key factor in fiscal decentralization, since they provide for interrelationship between tax revenues and production of social goods<sup>10</sup>.

European practice in the field of financial support for local self-governance confirms the fact that there are no all-embracing models and algorithm for dealing with matters of decentralization of powers, property and sources of local self-governance financing.

One should note a number of important stages of decentralization in European countries:

- Expansion of financial base of local budgets was a mandatory priority. This was done through significant expansion and codification of tax sources for financing local municipalities and methods for accumulation thereof in budgets of local self-government bodies. Various approaches were used for distribution of taxes between levels of the budget system, including: a) clear distribution of specific taxes by government levels (state and local) and assignment thereof to specific levels of the budget system (one tax – one budget principle); b) distribution of tax rates by assigning a certain part of the tax to every level within one tax rate (principle of assignment of quotas); c) inclusion of local charges into national (federal or regional) taxes;

- High value was placed on optimization of inter-budgetary relations both between budgets of various levels, and between budgets of the same level. Efficient measure in this case was elimination of the system of horizontal (budgets of the same level) financial equalization. Solution of those issues was left in hands of the countries’ central

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<sup>10</sup> Pro vnesennja zmin do Podatkovogho kodeksu Ukrainy ta dejakykh zakonodavchykh aktiv Ukrainy shhodo podatkovoji reformy [On Amendments to the Tax Code of Ukraine and Certain Legislative Acts of Ukraine on Tax Reform] (electronic source). Retrieved from <http://zakon3.rada.gov.ua/laws/show/71-19> (in Ukrainian) (accessed 25 January 2020).

authorities. Moreover, such practice as departure from delegated powers was widely applied (for instance in Finland);

– Special attention was given to maintaining budget discipline as one of the basic prerequisites for stability and sufficiency of financial resources at the local and national levels. This required more efficient interaction between public authorities (tax and customs services, social funds, etc.) and improvement of coordination between regulatory authorities. Independence of local authorities when using financial flows at their level became an important incentive for local governments to seek sources for budget revenues and to solve socioeconomic tasks of their communities<sup>11</sup>.

At the same time European countries have a varying level of financial independence of local self-governance. Some countries maintain a high level of dependence of local budgets from central budget subsidies (for instance, in Spain up to 40% of revenues are financed out of national budget subsidies). Today a pressing issue for European countries is to reduce differentiation between levels of financial support of local budgets<sup>12</sup>.

It should be noted that positive effects of fiscal decentralization reveal themselves only amid economically homogeneous environment, which entails a fairly high level of GDP production per capita subject to adequate development of institutional environment. In this case transfer of expenditure and revenue powers to the lower levels of budget system enables to create a multiplication effect of economic growth and to improve quality of people's life. If decentralization is implemented amid weak budget capacity and significant external and internal regional differentiation, it leads to conflict of interests of budgets of various levels and neutralizes its positive effects.

#### **11.4. Impact of fiscal decentralization on socioeconomic development of Ukrainian regions**

As a multifactor and multicomponent phenomenon of contemporary inter-budgetary relations, fiscal decentralization requires an adequate evaluation, enabling to take into account special features of instrumental components of implementation thereof and to ensure extensive possibilities for further comparative analysis.

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<sup>11</sup> Dzherela dokhodiv miscevykh bjudzhetiv [Sources of local budget revenues] (electronic source). Retrieved from <http://decentralization.gov.ua/news/7476> (in Ukrainian) (accessed 25 January 2020).

<sup>12</sup> Struktura vydatkiv miscevykh bjudzhetiv [Structure of local budget expenditures] (electronic source). Retrieved from <http://www.treasury.gov.ua/main/uk/> (in Ukrainian) (accessed 25 January 2020).

There are two main approaches to evaluation of fiscal decentralization: qualitative and quantitative. Measuring decentralization degrees using a qualitative scale enables us to estimate, in which cases decentralization has a weaker or a stronger effect on comparable objects; and in these circumstances objects for comparison may be different countries or one and the same country at various levels of its development.

Quantitative approach is based on use of statistical parameters. However, application of quantitative estimates inevitably simplifies the picture and may create a false impression regarding realistic estimate of the degree of decentralization of public functions. Therefore, both approaches should be applied for evaluation of decentralization.

Comprehensive analysis was developed and suggested by E. I. Andreieva and N. V. Golovanov. It entails application of the following evaluation methods: quantitative evaluation of decentralization of expenditures, qualitative evaluation of the degree of decentralization of expenditure powers, quantitative evaluation of the degree of decentralization of revenues, qualitative evaluation of the degree of decentralization of revenues<sup>13</sup>.

When evaluating degree of decentralization of expenditures, one should take into account that possibility to spend does not always include the right to dispose of such funds. If expenditures of the lower levels are strictly governed by the law adopted at the higher level of authority, subordinate authorities will not have actual independence even amid strong decentralization.

Moreover, scope of expenditures of lower budgets depends on the scope of special purpose transfers, assignment of which manifests decentralization of expenditures, but may not mean decentralization of powers, if spending is subject to strict control. Hypothetically, we can evaluate the degree of decentralization of expenditures on the basis of analysis of laws and regulations governing division of powers between public authorities.

Decentralization of expenditures enables to differentiate provision of services in view of preferences of local residents. At the same time differentiation of the tax load may give rise to the problem of transfer prices, tax competition between territories and other undesirable effects.

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<sup>13</sup> Структура податкових надходжень до місцевих бюджетів [Structure of tax revenues to local budgets] (electronic source). Retrieved from <http://cost.ua/budget/revenue/> (in Ukrainian) (accessed 25 January 2020).

One of the parameters of decentralization of revenues is a share of revenues of regional and local budgets in revenues of the country's consolidated budget.

We can also evaluate the degree of independence of regional budgets on the basis of the share of own revenues of regional authorities in the structure of revenues of appropriate budgets: the higher the share of own revenues in the structure of regional budgets is, the higher the level of decentralization is.

When considering qualitative evaluation techniques, we should distinguish between six groups of the main components:

- powers of territorial authorities (scope of powers, method for determining powers and allocation thereof, institutional structure);
- finance (evaluation of the nature of own revenues, determining a pattern for regulation of the scope of transfers, quantitative evaluation of such parameter as share of own revenues in the budget, correlation between special and general purpose transfers, share of transfers in revenues, means for elimination of budget deficit, scope of statutory expenditures);
- public authorities (procedures and manner for creation of structure and composition);
- control (determining types of control, control authorities, forms of responsibility);
- evaluation of lobbying possibilities (in the form of participation in activities of higher level authorities, development of individual political career and local resources, forms and degree of impact by pressure groups – associations and unions of local authorities);
- practices of application of standards and use of possibilities<sup>14</sup>.

These techniques unveil to a fairly full extent opportunities and limitations of local authorities in allocation of resources assigned to them. However, in our opinion, when evaluating degree of decentralization one should also take into account participation of local authorities in the process of decision making on any issues, establishment of local authorities and other factors, not specified in the above techniques.

Local authorities are able to create conditions that would contribute to economic growth of the regions. It is in power of local authorities to utilize all necessary tools for bringing in investments, development of

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<sup>14</sup> Balynsjka Ju.I. (2014) Osoblyvosti rehionalnykh proghram vykorystannja vidnovljuvanykh dzherel energhiji [Features of regional renewable energy programs]. *Regional economy*, vol. 1, pp. 74–78. (in Ukrainain)

entrepreneurship, small and medium-scale businesses, and to facilitate creation of new jobs and growth of self-employment level. By solving these problems we can improve wellbeing of local residents, guarantees for replenishment of local budgets, rate of increase in revenues to the national budget, and hence – growth of the country's wellbeing in general.

Problem of financial support of local budgets must be solved through revitalization of economic and commercial activities of local authorities for the purpose of increase in the share of own and assigned sources of revenues in local budgets and decrease in the share of transfers, as well as overall growing in number of the regions, which do not need significant transfers from the national budget.

Advantage of fiscal decentralization is facilitation of growing financial potential of the regions, investments and entrepreneurship, which in the end will ensure economic growth of certain territories.

Transfer of powers and resources for implementation thereof to the local level enables to ensure maximum efficient implementation of the functions of the state, improvement of inter-budgetary relations, proper control of the budget process and cash flows, increasing citizen activism and accountability to the community, better satisfaction of the community's needs on the basis of the delegated right of the local authorities to determine forms of provision of social services.

According to the law and regional prospective plans of territory formation joint communities receive the following significant preferences in terms of financial support and resources: 60% of individual income tax, direct inter-budgetary relations with the national budget, national government grants, participation in financial equalization, advanced list of social transfers, full expenditure powers, access to local external loans, powers in the field of architectural and civil engineering control, right to provide all administrative services directly through their own institutions, powers to establish public order agencies. Furthermore, joint communities receive national financial support out of assets of the State Fund of Regional Development in the form of grants from the national budget for creation of infrastructure in accordance with the plan of socioeconomic development of the community.

Significant differentiation of local budgets is determined based on the territory, infrastructure development, scope of reforms implemented, which is reflected on increase in essential deviations in allocation of tax

potential country-wise, differences in the structure of needs in budget financing, their budget position.

In order to improve efficiency of operation of budget systems, generation of local budget revenues must be based on the fiscal equivalence principle, according to which consumers of local social goods shall bear appropriate costs and finance provision of such goods out of taxes paid by them. Such approach means that tax load is not exported outside the territorial community, and differences in taxation levels determine benefits community residents receive from local social goods and services. Their “net financial benefit” will depend on taxation level and on availability of local social goods and services in the region (administrative area) where they live.

### **11.5. Prospects of fiscal decentralization development: modelling of indicative parameters**

Ukrainian budget system today is characterized by a fairly high degree of centralization of budget resources, which indicates accumulation of basic powers at the level of central authorities, underdevelopment of local self-governance and instability of its financial system – local budgets.

However, practice of planning, control and analysis of execution of budgets of all levels highlights the fact that tax potential of the regions directly affects generation of revenues of local budgets, cost of services provided by regional executive authorities in view of varying nature of administrative areas, need in funds channelled for maintenance of social and cultural facilities and support of vulnerable social groups.

One can name reasons of low efficiency of the current local self-governance system, the main reason being non-agreement of certain regulations of the Ukrainian Constitution between themselves and ambiguousness of certain legal notions. 80% of powers of local self-governance are identical with powers of the state administration. Definition “district and regional budgets made out of assets of the national budget” undermines existence of executive bodies of district (regional) councils, because disposal of the national assets is a domain of executive authorities, and not of local self-government bodies<sup>15</sup>.

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<sup>15</sup> Lazur S. P. (2013) Systemnyj pidkhid do strukturyzaciji podatkovoji systemy rynkovogho typu [Systematic approach to structuring a market-type tax system]. Efektyvna ekonomika (electronic journal), vol. 1. Retrieved from [http://nbuv.gov.ua/UJRN/efek\\_2013\\_1\\_31](http://nbuv.gov.ua/UJRN/efek_2013_1_31) (in Ukrainain) (accessed 29 January 2020).

Budget decentralization shall facilitate efficient implementation of result-oriented budgeting at the local level, development of the system of horizontal budget equalization at the level of administrative areas, system of parameters for evaluation and quality of finance management at the local level with simultaneous strengthening of public financial control over financial and commercial activities of local authorities.

When creating a model, we should take into account complexity of the subject of study. That is why at the initial stage of analysis we will focus only on one component of fiscal decentralization: correlation between revenues and expenditures of the national level budgets.

We used the following standard regression model in our study:

$$S_{it} = \beta X_{it} + \delta_t + u_i + \varepsilon_{it} (1)$$

where  $S_{it}$  is a decentralization value in the period  $t$  in the region  $i$ ;

$X$  corresponds to explaining variables used in this regression;

$\delta_t$  – dummy variable of a year or a period (temporary fixed effect);

$\beta$  – estimated coefficient;

$u_i$  and  $\varepsilon_{it}$  – two components of residuals showing effect specific for the country or the region, respectively.

In the course of our study we analyzed joint territorial communities in 24 regions of Ukraine with a breakdown into 4 explaining variables, namely:

- own revenues per resident (correlation between the scope of own revenues and number of residents in the given joint territorial community);
- distance from the region's administrative centre;
- level of subsidy-dependence of the budgets (correlation between the scope of basic or reverse subsidy and total revenues of the joint territorial community, less grants from the national budget);
- relative share of administrative expenses in financial resources of the joint territorial community (relative share of administrative expenses of local self-government bodies in total own revenues of the general fund).

They are essential for the model. There is no heteroscedasticity in the model (Table 3).

So, based on modelling results we have come to the conclusion that the leading positions are held by 10 joint territorial communities in Ukraine: Slobozhanske (Dnipropetrovsk Region), Verbky (Dnipropetrovsk Region), Bogdanivka (Dnipropetrovsk Region), Shakhove (Donetsk Region), Rozsosha (Khmelnysky Region), Globyne, Novooleksandrivka (Dnipropetrovsk Region), Orativ



(Vinnytsia Region), Galytsynove (Mykolaiv Region), Shyshaky (Poltava Region).

Table 3

**Verification Values of the Model of Indicative Parameters  
of Fiscal Decentralization**

	<i>Coefficient</i>	<i>Statistical error</i>	<i>t-statistics</i>	<i>P-value</i>	
const	−1,531.60	2,507.51	−0.6108	0.5680	
x	−14.2293	5.44011	−2.616	0.0473	
c	515.643	173.829	2.966	0.0313	
b	−36,064.3	9,942.01	−3.627	0.0151	
n	1.68975	0.330542	5.112	0.0037	

Mean dependent variable	10,235.43		Statistical deviation of the dependent variable	4,920.128
Sum of squared residuals	21,718,274		Statistical error of the model	2,084.144
R-square	0.900315			

*Drawn up and calculated by the author*

Based on statistical data, we have developed a correlation matrix for establishing interrelationship between values of growth of own revenues per resident and distance from the administrative centre of the region, capital expenditures from budgets per person, number of community members, relative share of administrative expenses and level of subsidy-dependence of the budgets (Table 4).

Here we can see direct dependence between the scope of capital expenditures and own revenues of joint territorial communities, i.e. the larger capital expenditures are, the larger the relative share of own revenues is, and inverse dependence between the population size and distance from the centre.

Therefore, we can conclude that we have introduced the term of interaction between regressors to explain differences in effects of fiscal decentralization region-wise.

For some regions we find a positive and statistically relevant effect of decentralization on the share of regional capital expenditures. Results show that degree of fiscal decentralization is growing, and we witness increase in national and local expenditures.

Table 4

**Dependency Matrix of Indicative Parameters  
of Fiscal Decentralization**

**Correlation coefficients, survey 1–10 5% critical values (two-sided) = 0.6319**

Distance from centre (x)	Population size (q)	Own revenues (r)	Level of subsidy- dependence of budgets (t)	Capital expenditures (n)	
1.0000	0.4547	-0.1083	-0.2684	-0.0474	x
	1.0000	0.1637	0.0813	-0.1050	q
		1.0000	-0.4378	0.7329	r
			1.0000	-0.0653	t
				1.0000	n

*Drawn up and calculated by the author*

One can make some suggestions for dealing with the above problems of fiscal decentralization. Firstly, it is necessary to improve the existing tax system in order to enable and to authorize local authorities to create budget using their own sources for the purpose of improving their independence in generation of the necessary scope of assets. Afterwards, it is necessary to change the mechanism for provision of centralized national support to the regions for the purpose of creation of environment for activation of all development levers. It is also feasible to provide incentives to territories that spread economic growth tendencies and facilitate growth of the neighbouring regions.

## CONCLUSIONS

Based on results of the study of theoretical and practical aspects of implementation of fiscal decentralization and impact thereof on financial efficiency of regional development in Ukraine, we can make the following conclusions.

We have identified the meaning of fiscal decentralization in contemporary theory and practice as a process of transfer of expenditure powers and sources of financing thereof to the lower levels of the national administration, which ensures fiscal autonomy of regional and local authorities, as well as improvement of transparency and accountability of the process of provision of social goods. We

have also identified principles of implementation and main types of fiscal decentralization.

In the course of institutional analysis of fiscal decentralization effects we have distinguished direct effects (economic growth and price stability, regional economic convergence, institutional development) and indirect effects (population mobility, structure of expenditures, tax expenses, employment).

Foreign experience in implementation of fiscal decentralization has been analyzed in terms of federal and unitary states – OECD members on the basis of calculation of tax decentralization coefficient, which has enabled us to substantiate the statement that the most successful models of regional development include on a mandatory basis a fairly high level of financial autonomy of local authorities, which enables them to plan their own development strategies at their own discretion adjusting these strategies with the level of budget funds necessary for implementation thereof, thus improving their feasibility and implementation quality. The so-called “own” revenues of regional and local budgets are a key factor in fiscal decentralization, since they provide for interrelationship between tax revenues and production of social goods.

On the basis of generalized methodological approaches to evaluation of fiscal decentralization, we have analyzed dynamics of fiscal decentralization parameters in Ukraine in 2015-2017, namely: dynamics of the relative share of revenues of local budgets in Ukraine, which was characterized by tendency for increase in the share of transfers starting from 2010: from 53% in 2010 to 59% in 2015, and, respectively, tendency for decrease in the relative share of own revenues; shares of local budget revenues in the structure of revenues of the Ukrainian consolidated national budget (decentralization coefficient in terms of revenues), and have identified a variety of trends for the time period analyzed.

Evaluation of financial efficiency of Ukrainian regions as a result of fiscal decentralization has enabled us to conclude that there is a relative tendency for growth of local budget revenues (less inter-budgetary transfers) with a clear trend in increase of transfers per se, which proves that local budgets depend on the Ukrainian national budget and confirms that it is necessary to focus the country's budget policy on fiscal decentralization policy in the long run.

When studying prospects of development of fiscal decentralization as a factor of development of Ukrainian regions, we

have performed modelling of indicative parameters of fiscal decentralization by creating a regressive model with a breakdown into 4 explaining variables, namely; own revenues per resident, distance from the region's administrative centre, level of subsidy-dependence of the budgets of joint territorial communities, relative share of administrative expenses in financial resources of joint territorial communities. Based on modelling results, we have identified direct dependence between the scope of capital expenditures and own revenues of joint territorial communities, and inverse dependence between the population size and distance from the region's administrative centre.

We have suggested solutions for fiscal decentralization problems in Ukraine identified in the course of the study, namely: necessity to create local budgets using own sources of revenues, improvement of their level of independence and non-use of subsidies, optimization of the mechanism for provision of the national support to the regions, provision of incentives to territories for the purpose of dynamic economic growth.

### **SUMMARY**

The article deals the processes of active implementation of the decentralization reform in Ukraine, increasing the overall level of responsibility of Ukrainian society, which actively creates financially viable integrated territorial communities, capable of solving accumulated systemic socio-economic problems, and directly participates in the processes of territorial governance. Decentralization is today an opportunity for communities to have the authority and resources to meet the current needs of the region. The purpose of this study is to summarize the theoretical foundations and to improve practical approaches to fiscal decentralization in the context of the transformation of the public finance system in Ukraine. Accordingly, the following research objectives have been identified and solved: the essence of fiscal decentralization in modern financial science and practice is revealed; conducted institutional analysis of the effects of fiscal decentralization; foreign experience of fiscal decentralization implementation efficiency is analysed; methodological approaches to the estimation of fiscal decentralization and dynamics of its parameters are presented; using the methods of economic and mathematical modelling the influence of fiscal decentralization on the socio-economic development of the regions of Ukraine is determined.

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