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ДОСВІД ФОРМУВАННЯ СИСТЕМ БЮДЖЕТНОГО ВИРІВНЮВАННЯ В КРАЇНАХ ОРГАНІЗАЦІЇ ЕКОНОМІЧНОГО СПІВРОБІТНИЦТВА ТА РОЗВИТКУ

Актуальність. Реформування державної регіональної політики та підвищення соціально-економічного рівня розвитку адміністративно-територіальних одиниць потребують всебічного дослідження та вивчення досвіду зарубіжних країн щодо способів формування бюджетних ресурсів і пошуку ефективної моделі бюджетного вирівнювання, що в умовах реформи децентралізації є особливо актуальним.

Мета та завдання. Здійснити аналіз систем бюджетного вирівнювання в країнах Організації економічного співробітництва та розвитку, і обґрунтувати можливість використання зарубіжного досвіду бюджетного вирівнювання в Україні.

Результати. У зарубіжній практиці виділяють декілька основних моделей бюджетного вирівнювання: горизонтального та вертикального вирівнювання доходів або витрат. Для оцінки можливості збору доходів використовується репрезентативна система оподаткування зі стандартним набором податків. Модель вирівнювання витрат у порівнянні з моделлю вирівнювання доходів забезпечує відповідь на питання - чи стала громада спроможною, або наскільки вона наблизилася до цього. Необхідною умовою застосування цієї моделі є наявність стандартів витрат для надання публічних послуг. Модель бюджетного вирівнювання «заповнення розриву» поєднує вирівнювання витрат і доходів у єдиний трансфер, призначений для заповнення розриву між фінансовими потребами та доходами. На практиці дуже рідко зустрічаються країни, які застосовують лише одну з моделей бюджетного вирівнювання. В основному має місце поєднання різних моделей та способів горизонтального та вертикального вирівнювання доходів і витрат. В основі побудови систем бюджетного вирівнювання лежать коекфіцієнти та формули, що використовуються для визначення розміру трансферентів, вирівнювання. Системи, що включають елементи вирівнювання доходів, зазвичай поглинають на стандартизовані набори податків і стандартизовані податкові ставки. Для різних країн були використані різні підходи до визначення стандартизованих витрат на основні ресурси. Системи бюджетного вирівнювання в основному включають різні уточнення, норми необхідності їхнього порівняння та оцінки часто включають до законодавства, що легше в їх основі. Такий аналіз може призвести до розвитку та реформ систем бюджетного вирівнювання. Було виявлено декілька ключових факторів, що обумовлюють реформу систем вирівнювання: зростання або високий рівень нерівності у фіскальних можливостях громад, регіональних доходах або наданні публічних послуг; недостатня фіскальна автономія, нестабільні та непрозоре бюджетне вирівнювання; неадекватні стимули
та відсутність політичного нейтралітету в системі бюджетного вирівнювання. Реформування систем бюджетного вирівнювання в країнах ОЕСР здійснюється за такими напрямами: перехід до систем, що грунтуються на правилах; збільшення фіскальної автономії громад; спрощення формул вирівнювання; спрощення репрезентативної податкової системи; періодичний перегляд формул вирівнювання.

Висновки. Навпроти дуже рідко зустрічаються країни, які застосовують лише одну з моделей бюджетного вирівнювання. В основному має місце поєднання різних моделей та способів горизонтального та вертикального вирівнювання доходів і витрат. В основі побудови систем бюджетного вирівнювання лежать коефіцієнти та формули, що використовуються для визначення розміру трансфертів вирівнювання. Системи вирівнювання доходів покладаються на стандартний набір податків і стандартні податкові ставки. Системи вирівнювання витрат є більш складними, оскільки оцінка витрат часто пов'язана з великою кількістю факторів. Системи бюджетного вирівнювання не є статичними утвореннями, норма необхідності їхнього періодичного аналізу та оцінки часто включена до законодавства, що лежить в їх основі.

Ключові слова: бюджетне вирівнювання, система, модель, трансферти, стандарти витрат

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EXPERIENCE OF FORMING BUDGET EQUALIZATION SYSTEMS IN THE COUNTRIES OF THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

Topicality. Reforming of the state regional policy and increasing of the socio-economic level of development of administrative-territorial units require comprehensive research and study of the experience of foreign countries regarding the methods of forming budget resources and finding an effective model of budget equalization, which is especially relevant in the context of the decentralization reform.

Aim and tasks. To carry out the analysis of budget equalization systems in the countries of the Organization for economic cooperation and development, and to substantiate the possibility of using foreign experience of budget equalization in Ukraine.

Research results. In foreign practice, several basic models of budget equalization are distinguished: horizontal and vertical equalization of income or expenses. A representative taxation system with a standard set of taxes is used to assess the possibility of revenue collection. The expenses equalization model compared to the income equalization model provides an answer to the question of whether the community has become capable, or how close it has come to it. A necessary condition for the application of this model is the availability of expenses standards for the provision of public services. The "gap-filling" fiscal equalization model combines expenditure and income equalization into a single transfer designed to fill the gap between financial needs and income. In practice, there are very few countries that use...
only one of the budget equalization models. Basically, there is a combination of different models and methods of horizontal and vertical equalization of income and expenses. The basis of the construction of budget equalization systems are the coefficients and formulas used to determine the size of equalization transfers. Systems that include elements of income equalization usually rely on a standard set of taxes and standard tax rates. At the same time, one of the solutions is to use a small set of taxes. Expenses equalization systems are more complex because cost estimation often involves a large number of factors. In some countries, regression-based standardized costing approaches have been used. Budget equalization systems are not static entities, the norm of the need for their periodic analysis and evaluation is often included in the legislation underlying them. Such an analysis can lead to reforms of budget equalization systems. Several key factors motivating the reform of equalization systems were identified: growing or high levels of inequality in the fiscal capabilities of communities, regional incomes or the provision of public services; insufficient fiscal autonomy; unstable and non-transparent budget alignment; inadequate incentives and lack of political neutrality in the budget equalization system. Reform of budget equalization systems in OECD countries is carried out in the following directions: transition to systems based on rules; increasing the fiscal autonomy of communities; simplification of alignment formulas; simplification of the representative tax system; periodic review of alignment formulas.

**Conclusion.** In practice, there are very few countries that use only one of the budget equalization models. Basically, there is a combination of different models and methods of horizontal and vertical equalization of income and expenses. The basis of the construction of budget equalization systems are the coefficients and formulas used to determine the size of equalization transfers. The income equalization system relies on a standard set of taxes and standard tax rates. Cost equalization systems are more complex because cost estimation often involves a large number of factors. Budget equalization systems are not static entities, the norm of the need for their periodic analysis and evaluation is often included in the legislation underlying them.

**Keywords:** budget equalization, system, model, transfers, expenditure standards.

**Problem statement and its connection with important scientific and practical tasks.** As a result of the decentralization reform in Ukraine, the budget equalization system has changed. However, the introduction of the new system is associated with the problems of reducing the financial autonomy of local authorities, the instability of the legislative framework for budget regulation, the risks of budget imbalances, and the violation of social justice in the provision of public services.

**Analysis of recent publications on the problem.** The issue of budget equalization has been investigated in the scientific works of domestic and foreign scientists. The essence of this phenomenon in the countries of the Organization for Economic Cooperation and Development (hereinafter - OECD), its types of models and tools have been considered in the works of I.O. Lunina, I.Z. Storonyanska, L.Ya. Benovska, Y.M. Kazuyuk, A.O. Kozenko, V.V. Pismennyi, N.B. Piontko O. V. Shishka, S. Dougherty and K. Floman, etc. The role and urgency of budget equalization in aspect of regional economic development, is substantiated in the works of B.V. Burkynskyi, V.F. Goryachuk, T.V. Umanets. Also the context of institutional support of investments attraction as a mean of economic ability increase for local communities budgets incomes is considered by scientists of IMPEER of NAS of Ukraine (Burkynskyi, B., et.al., 2014).

**Allocation of previously unsolved parts of the general problem.** Budget equalization in OECD countries has been sufficiently researched. However, some aspects of budget equalization require additional study and analysis. This concerns a more thorough consideration of the horizontal equalization of incomes and the vertical equalization of expenses, the development of expenditure standards, and the formation of a representative tax system.

**Formulation of research objectives (problem statement).** To carry out an analysis of budget equalization systems in the countries of the Organization for Economic Cooperation and Development and to substantiate the possibility of using foreign experience of budget equalization in Ukraine.

**An outline of the main results and their justification.** In OECD countries, budget equalization is defined as a system of tools and measures to eliminate budget imbalances by redistributing resources vertically between the links of the budget system and horizontally between administrative-territorial units (hereinafter - ATU) (Pyontko, N., 2015). Its goals are: – ensuring equal access to public services of the population in different ATU; – solving the problem of inconsistency of the budgets' own revenues with the spending powers of local authorities; – reduction of territorial disproportions of development arising as a result of uneven formation of the revenue base of local budgets (Storonyanska, I. & Benovska, L., 2020).

Most authors agree that any budget equalization model is based on the following principles:
– clear separation of powers in the field of spending between different levels of government;
– endowment of each level of power with sources of income sufficient to implement own and delegated powers;
– use of transfers to smooth out vertical and horizontal imbalances of lower budgets in order to ensure a certain standard of public services throughout the country;
– taking into account historical, national and political traditions and features, form of the state system, size of the country and the population.

Implementation of budget equalization in one or another country depends significantly on its state system. Comparing the financial support of the budgets of unitary and federal states, we see a characteristic feature - the presence of budgets of federation members (regions) as an additional level of the budget system. With the presence of such links, a more rational and clear distribution of powers and financial resources is ensured between different authorities than in unitary states, but at the same time, a higher level of responsibility of additional links of the budget system for the socio-economic development of regions is also observed (Pyontko, N., 2015).

In foreign practice, several basic models of budget equalization are distinguished (Sean Dougherty & Kass Forman, 2021):

1. Horizontal equalization of incomes – redistribution of financial resources between Administrative-territorial communities budgets of the same level to reduce disparities between them in incomes;
2. Vertical equalization of expenses – redistribution of financial resources between upper and lower level budgets to reduce disparities between lower level ATUs in expenses;
3. Vertical equalization of incomes – redistribution of financial resources between upper and lower level budgets to reduce disparities between lower level ATUs in income;

Model of horizontal equalization of incomes. It is used to reduce differences in income between ATUs of the same level. Its wide use, to a large extent, is due to the ease of use and the need for a small information base. Its main drawback is that, as a result of its use, we do not get an answer to the question of whether ATU has become capable, or how close it has come to it.

A representative taxation system with a standard set of taxes is used to assess the possibility of revenue collection. For example, in Finland it consists of three taxes (personal income tax, profit tax and property tax). In Ukraine, it consists of one tax at the basic level - personal income tax, and at the regional level from two - personal income tax and corporate profit tax.

In most countries, ATU assistance to the "poor" is limited, that is, there is an upper limit to the total amount of the transfer or a clear formula for its calculation (Table 1). Leveling is deliberately kept below 100% to encourage the development of own-source income.

Evaluating fiscal equalization

The level at which income is withdrawn from the "rich" ATU is the most controversial issue in fiscal policy. A significant withdrawal, which in isolated cases reaches 100% of the excess of the average tax capacity, can reduce the ATU’s efforts to increase their fiscal base A model of vertical cost equalization. It has wide application and is used to redistribute budgetary resources between upper and lower level budgets to reduce disparities between lower level ATUs in spending. Cost equalization is the transfer of financial resources to reduce differences between ATUs in per capita costs for providing a standard set of public services (OECD, 2007).

| Country   | Withdrawal of income from the "rich" ATU | Transfers to the "poor" ATU |
|-----------|----------------------------------------|-----------------------------|
| Finland   | 40% for municipalities with tax revenues above 90% of the average tax capacity | 90% of the amount necessary for municipalities to reach the level of 90% of average tax opportunities |
| Norway    | 100% for municipalities with tax revenues above 134% of the average tax capacity | 90% of the amount required for municipalities to reach the level of 110% of the average tax capacity |
| Sweden    | 85% for municipalities with tax revenues above 115% of the average tax capacity | 95% of the amount necessary for municipalities to reach the level of average tax capabilities |
| Poland    | 20% for communes with tax revenues above 150% of the average tax capacity | 80% of the amount necessary for municipalities to reach the level of 92% of average tax opportunities |
| Ukraine   | 50% for communities with tax revenues above 110% of the average tax capacity | 80% of the amount necessary for communities to reach the level of 90% of average tax opportunities |

Source: Pyontko N. (2015), Business Inform. No. 9. - P. 43-54.; Sean Dougherty and Kass Forman (2021)
An important advantage of this model is that as a result of its use, we get an answer to the question of whether the ATU has become capable, or how close it has come to it. Moreover, the main goal of this model is to ensure equal access to public services, as opposed to simple income equalization. A necessary condition for the application of the model of vertical equalization of costs is the availability of cost standards for the provision of public services.

Cost standards for the provision of public services

OECD countries have been successful in setting cost standards for individual services – such as the cost of educating one student in primary school or the cost of building one kilometer of road. A more complex analysis is based on cost functions. It involves relating value to a number of determinants using a large amount of data. Denmark and Norway use about 15 socio-economic indicators to assess spending needs. Switzerland - 4 geographic indicators and 6 indicators of socio-economic needs, the Netherlands - 24 indicators to assess needs. Sweden uses a complex system consisting of 13 different spending models covering different government functions. The Australian system operates with more than 40 indicators, while the Korean system has around 50, which is still fewer than the United Kingdom. The French equalization system consists of 13 different models covering different government functions. The Australian system operates with more than 40 indicators, while the Korean system has around 50, which is still fewer than the United Kingdom. The French equalization system consists of seven programs with dozens of indicators (OECD, 2014). Italy has adopted a sophisticated cost measurement system that uses regression models to relate the volume of services provided to a standard cost of service. Naturally, such approaches are based on the availability of large and high-quality data. Latvia, Lithuania, Norway and Switzerland occupy an intermediate position with simpler cost equalization schemes based on a few key indicators.

Historical cost is a simpler means of estimating costs for public services, although countries are gradually abandoning it because it does not reflect true spending needs. Italy and Spain, for example, have moved from historical costing to standard costing in recent years. Finally, cost equalization can be based on actual costs, although this approach tempts ATUs to overspend and has become largely obsolete in OECD countries.

Along with the above-mentioned models of budget equalization, one more model of budget equalization should also be distinguished - "filling the gap", which combines the equalization of expenses and incomes into a single transfer designed to fill the gap between the standards of financial needs and the standards of incomes. It is important to note that the model is based on cost standards, and not on actual income and expenses, to avoid the temptation to overspend (Sean Dougherty & Kass Forman, 2021).

In practice, there are very few countries that use only one of the budget equalization models. Such an exception is Lithuania, which has a system of purely horizontal income equalization (Sean Dougherty & Kass Forman, 2021). Basically, there is a combination of different models and methods of horizontal and vertical equalization of income and expenses.

The basis of the construction of budget equalization systems are the coefficients and formulas used to determine the size of equalization transfers. Systems that include elements of income equalization usually rely on a standard set of taxes and standard tax rates. At the same time, one of the solutions is to use a small set of taxes. In Canada, the 2007 equalization reform reduced the set of 34 taxes to 5. This simplified the system and made equalization more politically neutral. In Germany, the equalization system is based on 4 general taxes, and in Ukraine, as a result of the 2014 reform, income equalization is carried out for communities on the basis of one tax (personal income tax) and for regions on the basis of two taxes (personal income tax and income tax). Table 2 shows the taxes used to determine equalizing transfers in OECD countries.

Many countries use an approach that limits equalization to below 100%. This is implemented using smoothing coefficients, which set limits on the degree of smoothing. For example, Belgium compensates regions for 80% of the gap between actual per capita income and average per capita income. In Lithuania, this indicator is equal to 90%, and in Ukraine, 80% of the difference is compensated up to 90% of the average level of income per person. On the contrary, other countries, for example, Japan and Australia, strive for full alignment in relation to spending needs (Sean Dougherty & Kass Forman, 2021).
Table 2. Taxes taken into account when calculating income equalization transfers

| Country   | Income / payroll taxes | Corporate taxes | Consumption taxes | Property taxes | Other taxes | Natural resources |
|-----------|------------------------|------------------|------------------|---------------|-------------|------------------|
| Australia | ✓                      |                  |                  |               |             |                  |
| Brazil    |                        |                  |                  |               |             |                  |
| Japan     | ✓                      | ✓                | ✓                |               |             |                  |
| Italy     | ✓                      |                  |                  |               |             |                  |
| Ireland   |                        |                  |                  |               | ✓           |                  |
| India     |                        |                  |                  |               |             |                  |
| Germany   | ✓                      |                  |                  |               |             |                  |
| Estonia   |                        |                  |                  |               | ✓           |                  |
| Lithuania |                        |                  |                  |               |             |                  |
| Canada    | ✓                      |                  |                  |               |             |                  |
| Netherlands |                    |                  |                  |               |             |                  |
| Sweden    | ✓                      |                  |                  |               |             |                  |
| Switzerland |                   |                  |                  |               |             |                  |
| Norway    | ✓                      |                  |                  |               |             |                  |

Source: Sean Dougherty and Kass Forman (2021) Evaluating fiscal equalization

As for reverse transfers, in Norway the entire amount exceeding the level of 134% of the average tax capacity of communities is withdrawn, in Sweden 85% in case of exceeding the level of 115% of average tax revenues, and in Ukraine 50% of the level of exceeding the level of 110% of the average tax capacity. Cost equalization systems are more complex, as cost estimation is often associated with a large number of factors (Table 3).

Table 3. Factors taken into account when calculating cost equalization transfers

| Country   | Cost factors                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Australia | Main areas of public service provision (education, health care, social protection, etc.); demographic and geographic factors (indigenous status, remoteness, socio-economic status, age, etc.), public sector wage costs, others factors (net acquisition of non-financial assets, scale of service provision, cross-border costs) |
| Brazil    | Education: Public Kindergarten, Contract Kindergarten, Preschool, Urban Elementary School, Rural Elementary School, Urban High School, Rural High School, Vocational Education, Special Education, Indigenous Education, Youth and Adult Education. Medical transfers: historical value parameters, epidemiological situation, problems of creating a system of medical supervision. |
| Japan     | Income and expenditure standards are calculated for each municipality. Then transfers fill the gap.                                          |
| Italy     | General administrative, management and control functions; local police; education (additional services); roads and public transport; land management and planning; general social services. |
| India     | Area of territory and forest cover.                                                                                                       |
| Lithuania | Length of local roads and streets; the area of the municipal territory; the number of the population of retirement age; the number of children aged 7 to 17; the number of children aged 0 to 6 years; built-up area of the municipal territory; other factors. |
| Netherlands | 85 cost factors ranging from low-income households and welfare recipients to residential areas and shoreline length.                |
| Sweden    | Provision of services such as pre-school, compulsory schooling, care for the elderly, health care and various expenses (wages, heating, etc.). For each model, a standard cost is calculated for each municipal / county council based on various factors. |
For example, in Australia, various factors are taken into account: from the length of roads to the number of pensioners. In some countries, regression-based standardized costing approaches have been used.

Budget equalization systems are not static entities, the norm of the need for their periodic analysis and evaluation is often included in the legislation underlying them. Such an analysis can lead to reforms of budget equalization systems. Japan revises its alignment system annually, while Canada, Australia, and India follow a system of five-year revisions (Sean Dougherty & Kass Forman, 2021; Common wealth Grants Commission, 2015).

Several key factors motivating reform of alignment systems were identified:
- a growing or high level of inequality in the fiscal capacity of the ATU, regional revenues or the provision of public services (the main function of the equalization system is to correct inequalities that would otherwise prevent equal access to public services);
- insufficient fiscal autonomy (untargeted transfers can provide local authorities with greater fiscal autonomy);
- unstable and non-transparent budget equalization (formulas underlying systems of equalization or other transfers may not ensure predictability of incomes and, accordingly, the impossibility of budget planning);
- inadequate incentives and lack of political neutrality in the budget equalization system (sometimes they are criticized for the fact that they allow underestimating the tax capabilities of the ATU or hinder economic growth).

Cost equalization problems have been highlighted in studies of budget equalization systems in France and Japan. As a result, it was recommended that indicators of the need for spending be separated from actual spending in order to increase political neutrality. This may include the use of cost standards. It was recommended that the equalization formulas be simplified to achieve greater transparency in Sweden, Italy and Japan. It was also recommended that cost-equalization formulas take into account changing demographics (for example, in Switzerland and Sweden). Equalization must be carefully considered to ensure that it does not increase inequality or undermine the fiscal autonomy of the ATU. Recommendations for reforming budget equalization systems in OECD countries are presented in Table 4.

In some cases, studies have shown that equalization systems fail to achieve their goals and, therefore, may increase disparities or undermine the fiscal autonomy of the ATU. For example, in France, 97.5% of municipalities received at least one type of vertical transfer in 2018 (OECD, 2019), which indicates that the scope of the system has gone beyond the traditional scope of equalization and included other types of transfers. Furthermore, the use of lump sum payments based on past tax collection capacity may perpetuate inequality. In response, the use of horizontal alignment was improved (Blöchliger, H. & C. Charbit, C., 2008). Similarly, in Austria, the use of targeted support for poorer regions was recommended simultaneously with the introduction of horizontal equalization. In the interest of increasing fiscal autonomy in Austria, it has been suggested that the ATU be allowed to retain more of its own source revenue, as Sweden and Japan have done. In practice, large-scale reforms are aimed at strengthening financial autonomy and stability at the subnational level through the adoption of rules-based equalization systems. Table 5 shows the main results of the main studies and reforms of alignment systems. In general, the reforms focus on defining a clear set of rules to increase clarity and predictability.

The case of Italy is an illustration of a comprehensive equalization reform that includes many of the elements seen in other countries. Introduced in 2011, the equalization system emerged as a result of the wider fiscal federalism reform of 2009 and included a set of measures aimed at removing the opacity that had arisen in local government finances. To avoid perverse incentives, the system uses specific cost standards, not past costs, for cost requirements. Similarly, the use of a formula-based system was aimed at increasing transparency from the perspective of local authorities. On the contrary, the former
system of transfers was usually agreed between the levels of power based on historical costs rather than objective distribution criteria (OECD, 2012).

Transition to rule-based systems. As in Italy, equalization reforms in other countries have tended towards rule-based systems with fewer discretionary elements, meaning that allocations are based on well-articulated formulas and set criteria. Compared to special negotiations between the government and local authorities, this can provide predictability for the ATU (Expert Panel on Equalization and Territorial Formula Financing, 2006). The Swiss reform is aimed at guaranteeing a certain level of equalization to the cantons, with funding determined by a formula rather than on a periodic basis (Weber, W. 2019). Similarly, recent reviews of Australian and Canadian equalization systems have emphasized the importance of rule-based systems (Expert Panel on Equalization and Territorial Formula Financing, 2006; Australian Government, 2012). However, such rule-based approaches may be accompanied by a reduction in the influence of ministries that were previously responsible for promoting their political agenda through the provision of subsidies to local authorities. This was the case in Japan, where fears were expressed that the reduction of targeted transfers in favor of local tax would reduce the ability of ministries to achieve policy goals (OECD, 2016).

Expansion of fiscal autonomy of the ATU. The aim of the Italian reform to strengthen local fiscal autonomy can be seen in reviews of reforming equalization systems in other countries. For example, the 2008 reform in Switzerland was aimed at strengthening local financial autonomy by reducing the use of targeted transfers in favor of non-targeted transfers (Administration fédérale des finances, 2012). In Ireland, it has been recommended that local authorities be allowed to keep 100% of the property tax revenues they receive at the local level (Thornhill, D., 2015; Department of Finance, 2019). This would increase local fiscal autonomy but eliminate the horizontal component of the equalization system, which is financed by a 20 percent share of local government revenues from property taxes. Therefore, it must be replaced by vertical transfers. Conversely, the Swiss equalization reform included a renewed horizontal component of income equalization, accounting for two-thirds to four-fifths of the vertical component. Finally, the Swedish fiscal equalization reform of 2014 was aimed at allowing municipalities to retain more revenue from their own sources in favor of encouraging local economic development. However, this change was canceled two years later (Table 4).

### Table 4.

| Country  | Year | Cost equalization should reflect structural cost figures, not past or current costs | Make the alignment formula more transparent or simpler | Adjust the equalization formula to account for the aging population | Allow ATU to keep more of its own income | Improve targeting of equalization / provide special support to poor regions | Increase horizontal alignment |
|---------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|----------------------------------|-----------------------------|
| France  | 2019 | ✓                                                                                 | ✓                                                   | ✓                                                               | ✓                                      | ✓                                | ✓                           |
| Switzerland | 2019 | ✓                                                                                 |                                                     |                                                                  |                                        |                                  |                             |
| Sweden  | 2010 | ✓                                                                                 | ✓                                                   | ✓                                                               | ✓                                      |                                  |                             |
| Italy   | 2009 | ✓                                                                                 |                                                     |                                                                  |                                        |                                  |                             |
| Austria | 2005 | ✓                                                                                 |                                                     |                                                                  |                                        |                                  | ✓                           |
| Japan   | 2005 | ✓                                                                                 |                                                     |                                                                  |                                        |                                  | ✓                           |

Source: Sean Dougherty and Kass Forman (2021) Evaluating fiscal equalization
Simplification of alignment formulas. Reforms of existing equalization systems tend to increase transparency and relevance by simplifying and updating formulas. The high level of complexity associated with some alignment systems and the formulas underlying them has sometimes motivated simplification efforts. In Luxembourg, the main result of the 2017 equalization reform was the merging of the two former transfers into a single transfer and the transition to a single set of criteria. This led to a reduction in inequality after equalization, as the new criteria were more equalizing and more widely applied to means transferred to the local level (Laurent, E., 2018). Similarly, simplicity was one of the goals of the strict reforms in Japan to use one large transfer instead of a large number of smaller targeted transfers (OECD, 2016).

Simplification of the representative tax system (RPS). Canada’s experience in simplifying its RPS is instructive when it comes to finding a compromise between an accurate definition of real financial capability and the excessive complexity created by trying to measure all potential sources of income. In 2007, Canada’s RPS underwent a significant simplification. If earlier the assessment of the financial capacity of the province was carried out on the basis of thirty-three sources of income, then after 2007 on the basis of five sources of income (personal income tax, corporate income tax, sales tax, property tax and 50% of revenues from natural resources). In addition, the estimation of hypothetical incomes of each province is based on average tax rates (Feehan, J., 2014). (Table 5).

Table 5.

| Country   | Year | The results | Expanding fiscal autonomy | Implement rule-based systems | Updates and simplifications |
|-----------|------|-------------|---------------------------|-----------------------------|----------------------------|
| Australia | 2015 | ✓           |                           |                             |                            |
| Canada    | 2007 | ✓           | ✓                         | ✓                           | ✓                          |
| Ireland   | 2015 | ✓           |                           |                             |                            |
| Italy     | 2009 | ✓           | ✓                         | ✓                           | ✓                          |
| Japan     | 2002 | ✓           | ✓                         |                             |                            |
| Japan     | 2005 | ✓           | ✓                         | ✓                           | ✓                          |
| Luxembourg| 2017 | ✓           |                           |                             |                            |
| Switzerland| 2008 | ✓           |                           |                             |                            |
| Sweden    | 2014 | ✓           |                           |                             |                            |

Source: Forman, K., S. Dougherty and H. Blochliger (2020). “Synthesising good practices in fiscal federalism: Key recommendations from 15 years of country surveys”, OECD Economic Policy Papers, No. 28, OECD Publishing, Paris, https://dx.doi.org/10.1787/899e0319-en.

Periodic review of alignment formulas. Complex cost equalization formulas, which depend on dozens or hundreds of factors of interregional cost inequality, require the support of systems for collecting and processing large volumes of data. This data requires constant updating to remain relevant. In the Netherlands, this is solved by means of periodic reports, which check every year whether the amounts actually spent by the municipalities correspond to the amounts they should have spent for the stated purposes (de Joode, G., 2017). In Sweden, a recent review of equalization systems showed that some criteria that are no longer relevant continued to be taken into account when calculating the costs of municipalities. As a result, it was recommended that the equalization formula be adjusted to better account for geographic and
demographic data.

Australia’s equalization methodology is updated annually and revised every five years. It follows four key principles at the state level: an accurate reflection of what states collectively do; political neutrality; practicality; modernity. For example, this may involve modifying indices that measure remoteness. On the revenue side, this could include a phased increase in resource-related tax collection capacity to ensure that states that experience increases in resource-based revenues experience a reasonable reduction in the GST share (Sean Dougherty & Kass Forman, 2021).

Conclusions and perspectives of further research. Implementation of budgetary equalization depends to a large extent on the state system in the country, historical, national and political traditions and features, the size of the country and the population. The cost equalization model, in comparison with the income equalization model, is significantly more in line with the goals of budget equalization - ensuring equal access to public services of the population in different ATUs and solving the problem of inconsistency of the budgets’ own revenues with the ATU’s spending powers. A necessary condition for the effective use of the cost equalization model is the availability of cost standards for public services. In practice, there are very few countries that use only one of the budget equalization models. Basically, it is a combination of different models and methods of horizontal and vertical equalization of income and expenses. Over the past decades, the budget equalization models of many countries have undergone permanent modification with increased attention to expenditure equalization.

Direct borrowing of foreign budget equalization experience is impossible due to the many individual characteristics of countries. However, there are some general principles and specific mechanisms for equalizing territorial development that can be adapted and used effectively in different countries. Budget equalization models in foreign countries differ depending on the level of fiscal decentralization, the ability of local self-government bodies to provide independent financial support, the type of government, the specifics and development of economies, the depth and scale of disparities in territorial development, the separation of powers and financial resources between central and local authorities. Scandinavian countries, Germany, France, Switzerland, etc. implemented the best practice of successful implementation of budget equalization. The leveling that ensures the sustainable development of both individual administrative and territorial units and the country as a whole is effective; provides opportunities, incentives and creates the necessary conditions for the autonomous search of financial resources by local self-government bodies.

The basis of the construction of budget equalization systems are the coefficients and formulas used to determine the size of equalization transfers. Systems that include elements of income equalization usually rely on a standard set of taxes and standard tax rates. Many countries use an approach that limits equalization below 100%. Cost equalization systems are more complex than income equalization because cost estimation often involves a large number of factors. In some countries, regression-based standardized costing approaches have been used.

Budget equalization systems are not static entities, the norm of the need for their periodic analysis and evaluation is often included in the legislation underlying them. Several key factors motivating reform of alignment systems were identified:

– a growing or high level of inequality in the fiscal capabilities of the ATU, regional revenues or the provision of public services;
– insufficient fiscal autonomy;
– unstable and non-transparent budget alignment;
– inadequate incentives and lack of political neutrality in the budget equalization system.

The reform of budget equalization systems in OECD countries is carried out in the following directions:

– transition to rule-based systems;
– increasing the fiscal autonomy of the ATU;
– simplification of alignment formulas;
– simplification of the representative tax system;
– periodic review of alignment formulas.

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