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СИСТЕМА ПРОГНОЗУВАННЯ ПОДАТКОВИХ НАДХОДЖЕНЬ В УКРАЇНІ: ТЕОРІЯ ТА РЕАЛІЇ

Бедринець М. Д.

Стаття присвячена проблемі удосконалення системи прогнозування податкових надходжень в Україні. Прогнозування податкових надходжень у бюджетній системі є ключовим інструментом реалізації державної податкової політики. Цей процес являє собою систематичну роботу щодо розрахунку податкових надходжень на майбутнє. Мета податкових прогнозів полягає у визначенні податкових надходжень на певний період часу з урахуванням їх економічно обґрунтованого рівня.

Автором доведено, що ця сфера державного управління та економіко-аналітичної практики вимагає вдосконалення з урахуванням прогресивних напрацювань, які довели свою ефективність у західних країнах. Аналіз помилок прогнозування основних бюджетних податків в Україні було проведено шляхом порівняння прогнозного показника на кінець періоду (з урахуванням змін, що мали місце протягом бюджетного року) з фактичними значеннями.

У статті описано метод прогнозування податкових надходжень. У даній моделі на рівень ПДВ впливають зростання ВВП, курс національної валюти та зростання ПДВ у попередньому періоді. Дохід фізичних осіб залежить від зростання ВВП, динаміки курсу національної валюти та зростання ПДВ, динаміки акцизного податку. Що стосується податку на прибуток підприємств, то на нього впливає зростання національної валюти, зростання ПДВ, тоді як цей показник пов'язаний з ВВП.

Запропонована методика прогнозування податкових надходжень дає більш точні прогнозні дані, ніж офіційно затверджена Методика прогнозування показників надходжень до бюджету, що дає підстави вважати її перспективним інструментом прогнозування, який заслуговує на подальше вивчення та вдосконалення.

Ключові слова: податки, бюджет, прогнозування, моделі, методи, планування.

СИСТЕМА ПРОГНОЗИРОВАНИЯ НАЛОГОВЫХ ПОСТУПЛЕНИЙ В УКРАИНЕ: ТЕОРИЯ И РЕАЛИИ

Бедринец М. Д.

Статья посвящена проблеме совершенствования системы прогнозирования налоговых поступлений в Украину. Прогнозирование налоговых поступлений в бюджетную систему является ключевым инструментом реализации государственной налоговой политики. Этот процесс представляет собой систематическую работу по расчету налоговых поступлений на будущее. Целью налоговых прогнозов является расчет налоговых поступлений на определенный период с учетом их экономически обоснованного уровня.

Автором доказано, что эта сфера государственного управления и экономико-аналитической практики требует совершенствования с учетом прогрессивных наработок, которые доказали свою эффективность в западных странах. Анализ ошибок в прогнозировании основных бюджетных налогов в Украине был проведен путем сравнения прогнозного показателя на конец периода (с учетом изменений, которые были сделаны в течение бюджетного года) с его фактическими значениями.

В статье описана методика прогнозирования налоговых поступлений. В данной модели на уровень НДС влияют рост ВВП, курс национальной валюты и рост НДС в предыдущем периоде. Доходы физических лиц зависят от роста ВВП, динамики курса национальной валюты и роста НДС, от динамики акцизного сбора. Что касается налога на прибыль предприятий, то на него влияет рост национальной валюты, рост НДС, в то время как этот показатель связан с ВВП.

Предложенная методика прогнозирования налоговых поступлений дает более точные прогнозные данные, чем официально утвержденная Методика прогнозирования показателей поступлений в бюджет, что дает основания считать ее перспективным инструментом прогнозирования, который заслуживает дальнейшего изучения и совершенствования.

Ключевые слова: налоги, бюджет, прогнозирование, модели, методы, планирование.

SYSTEM OF FORECASTING OF TAX REVENUES IN UKRAINE: THEORY AND REALITY

Bedrynets M. D.

The article is devoted to the problem of improving the system of forecasting tax revenues in Ukraine. Forecasting tax revenues in the budget system is a key tool for implementing the state tax policy. This process represents a systematic work on the calculation of tax revenues for the future. The purpose of tax forecasts is to identify, for a certain time period, tax revenues, taking into account their economically justified level.

The author proved that this sphere of public administration and economic-analytical practice requires improvement, taking into account progressive developments, which proved their effectiveness in the western countries. The analysis of the forecasting errors of the main budget-generating taxes in Ukraine is carried out by comparing the forecast indicator at the end of the period (taking into account changes that were made during the budget year) with actual values.

The article describes the method of forecasting tax revenues. In the given model the level of VAT is influenced by GDP growth, the national currency rate and the growth of VAT in the previous period. The individuals' income depends on the growth of GDP, the dynamics of the national currency rate and the growth of VAT, on the dynamics of excise tax. As for the corporate income tax, it is influenced by the growth of the national currency, the growth of VAT, while this indicator is related to GDP.

The method of forecasting tax revenues proposed provides more accurate forecast data than the officially approved Method for predicting budget revenues, which gives grounds for considering it as a promising forecasting tool that deserves further study and improvement.

Keywords: taxes, budget, forecasting, models, methods, planning.

JEL Classification: E62, H61, H68, O21

Relevance of research topic. Forecasting tax revenues is a complex and responsible work that requires profound knowledge of the market economy, socio-economic processes, the development of their trends in the future, knowledge of tax and other legislation, development of the forecasting methodology. Only in this case it is possible with a sufficiently high degree of reliability to develop forecasts of tax revenues and to timely approve budgets of all levels.

Formulation of the problem. According to the vast majority of scientists and specialists Grabovetsky B. E., Zaitsev O. V., Grushko V. I., Nakonechna O. S., Chumachenko O. G. in the field of budget planning, forecasting and planning of tax revenues is the main means of ensuring a balanced and effective functioning of the market economy

as a whole. In preparing the forecast of budget indicators, the method of the forecast, the level of its specification and its duration are important. The forecast method should provide an accurate, timely and understandable scenario of future developments that can be effectively used in decision-making.

Currently, in Ukraine, the tax forecasts is carried out in accordance with the methods developed by the Ministry of Finance - methods for forecasting tax revenues, the point of which is that the tax forecasting process is based on the extrapolation of actual values for the planned fiscal year. Despite the fact that nowadays this technique is used in many countries of the world, however, due to the often changing business environment in Ukraine, its use in the planning of budget revenues does not guarantee the receipt of absolutely accurate forecast data [17, 18, 19].

Analysis of recent research and publications. As the survey of economic research and publications V. I. Glukhova, O. V. Zvarych, V. K. Khlivny, G. M. Kotina shows, forecasting of tax revenues needs to be improved, since the vast majority of such forecasts do not differ in necessary precision, which makes it impossible to plan other economic indicators of Ukraine's development.

Setting the task, the purpose of the study. Thus, this article is devoted to the problem of improving the system of forecasting tax revenues in Ukraine.

Presenting the main material. Drawing up of forecasts and plans of tax revenues to the consolidated budget is one of the main elements of the system of state planning and forecasting. The analysis of tax revenues, development trends in the taxation base and its constituent elements, and on this basis, the forecasting of revenues from payments to the budget of a country, region, and local administration for a certain period is the most important task of economic departments and financial authorities at all levels of government. The level of the budget tax collection, calculated during the reporting year, characterizes the degree of precision of forecasting tax revenues.

Thus, forecasting tax revenues in the budget system is a key tool for implementing the state tax policy. This process represents a systematic work on the calculation of tax revenues for the future. The purpose of tax forecasts is to identify, for a certain time period, tax revenues, taking into account their economically justified level.

In Ukraine, tax forecasting has to play and actually plays an active role in developing the tax and budget policy of the state. In this process, the public administration decides on the need to amend the tax legislation, as well as to reduce government spending in cases where the possibility of balancing the budget by tax methods for the planned period is depleted [1].

Given the importance of this area of state planning it makes sense to analyze the current methods of tax forecasting in order to identify the advantages and disadvantages of these methods, after which, after examining this experience, determine the directions of improving the system of forecasting tax revenues in Ukraine, and in practice to demonstrate the capabilities of the most promising methods of tax forecasts.

Considering this problem in the theory, we note that currently forecasting tax revenues in world practice is based on macroeconomic indicators, that is, economic and mathematical methods are used. Applying them, experts proceed from the fact that the present situation can be used to simulate the future development of taxation. The ratios used can be quantitative and qualitative, which allows you to record relationships using equations, inequalities, identities.

The main role in determining the magnitude of taxes coming to the budget is played by economic factors that have an impact on the change in the tax base and the size of the effective tax rate:

- monthly real gross domestic product;
- consumer price index;
- the dynamics of inflation;
- aggregate receivables minus overdue arrears (characterizes the dynamics of settlements between enterprises);
- level of interest rate refinancing of national banks;
- the level of unemployment, wages of workers and employees, incomes of individuals and legal entities.

Thus the data selected this way become the basis for further modeling of tax revenues to the budget.

Researchers indicate that economic and mathematical models can predict not only one, the most probable development of the situation, but also to analyze other alternative situations. This will allow you to choose the most effective behavioral options in the short-term and medium-term perspective. The results obtained on the basis of economic and mathematical models, basically give relatively faithful forecasts for the future, based on the analysis of data of past years. This approach is based on the analysis of tax revenues, macroeconomic indicators, is justified in stable conditions, but may lose accuracy in case of sharp changes in the market situation. For example, in the stable economic development, the monthly and annual estimates of gross domestic product are reconsidered on many occasions, the margins of adjustment are about 25%, so the amount of monthly data may affect the annual forecast. In the current context, the estimation of the gross domestic product is rather conditional, it is possible to make a forecast on the basis of this indicator only with a very wide confidence interval, which allows to maintain the accuracy of data in crisis conditions. It should also be noted that the mechanisms of the interconnection between the tax base, the effective tax rate and inflation for different taxes are different. This may lead to a different degree of impact assessment of individual taxes on inflation processes. As for receivables, due to changes in taxation legislation, it has lost its significance. With a certain increase in aggregate receivables and overdue receivables, its level to the budget increases slightly, which suggests reducing the impact of this factor on forecasting tax revenues [9].

The need to use economic and mathematical methods is dictated by many factors. But the main thing is the ability of the mathematical model to be very accurate on the basis of the interaction of several quantitative factors, which in general affect the system, evaluate the degree of their impact on economic processes, give a forecast, a

certain range of values of the investigated parameter. It is advisable to apply this method in the short and medium-term perspective as long-term forecasting will make it harder to take into account the changes in the model that may occur in the country's economic space.

At the state level of administration, scientists suggest that tax authorities, when analyzing the influence on certain indicators of a group of factors, use a mixed economic and mathematical model that describes the influence of individual factors on general economic performance indicators, and also uses additive, multiple and multiplicative models [10].

This mixed model will allow you to study the impact of a large number of factors on aggregate indicators and thereby achieve greater depth and accuracy of the analysis, which is very important for forecasting by the state tax authorities, who must process a large amount of information, as well as identify development trends and track the rise or fall of the economic results of the country.

In the context of regional forecasting, the use of the integral method of economic analysis is proposed. This method has a number of advantages and is very effective in solving problems of a regional scale, since it allows us to establish a general approach to the solution of models of different types, and regardless of the number of elements included in this model, and also regardless of the form of connection between these elements. This method can be used to analyze the dynamics of tax revenues, the size of the tax base for a certain tax, and also to analyze the change in economic indicators compared with the previous period in a particular region. The integrated method of tax revenue forecasting at the regional level will allow for more substantiated results of calculating the influence of individual factors and minimize the magnitude of the growth of aggregate indicators of the region as a result of their interaction. This does not allow for other methods, since this growth remains high and increases the model error [14].

Disadvantages of using economic and mathematical methods can be leveled and thus increase the quality and accuracy of tax planning and forecasting. For this purpose, the use of statistical methods of tax forecasting is recommended. The use of time series or trends, that is, the sequence of values of a given index, linked to certain dates or intervals of time, allows, based on analysis, to associate the dependence of changes in the values of this parameter over time. The formation of simple linear dependencies will allow to obtain forecasts of the considered parameter and range of possible values. The main requirement of using this method as reliable is a rather large amount of data on the previous values of the indicator (minimum 10-15 values). It should be taken into consideration that the accuracy of the forecast also depends on the duration of the period of time for which the analysis and construction of the time series will take place. The presence of cyclical fluctuations caused by various changes in the economy, makes use of complex statistical forecasting methods, which involve a more detailed analysis of time series. The most effective and often used methods include: the least-square method, which allows to create a function of the dependence of the parameter on time and determine the value at the right moment; the method of exponential smoothing. This method is necessary, in the opinion of the authors, to apply in the evaluation and analysis of linear dependencies of time series describing the amount of tax revenues for each tax. This will allow tax authorities of the local government to forecast not only the magnitude of certain indicators based on the trend line, but also satisfy the basic principle of this method - minimizing the sum of squares error model. Like most statistical methods, when forecasting tax revenues in municipal formations, the moving average method can be used. When used, it is assumed that in the next period, the forecast figure will be equal to the average value calculated for a certain period of time. Such calculations allow forecasting the main types of tax revenues in the budget, taking the hypothesis of linear economic growth [14].

The application of the extrapolation and the trend method is effective in the short-term perspective and in the regional context, as planning is based on the results of the analysis of the implementation of current tax liabilities and the forecast of the macroeconomic situation in the regions, which, of course, is related to the assessment of tax revenues by the end of the current period (month, half-year, year), and which is conducted on the basis of comparable factual data. For the use of time series and other methods of extrapolation by tax authorities at the state level, it is necessary to analyze all the advantages and disadvantages of such an application, since apart from the simplicity of calculations and the ability to quantify the trend of certain indicators, these models can not forecast qualitative changes, and forecast is complicated by a limited horizon of information.

In conditions of instability and uneven development of regions and municipalities associated with problems of the size of subsidies and direct transfer of tax deductions to the state budget, it is advisable to use non-economic, but combined methods of tax forecasting: Analyze not macroeconomic, but microeconomic indicators and processes, because working with a large amount of data, the reliability and accuracy of the output indicators will be higher, since the macroeconomic impact and the final error across the forecast will decrease.

The approximate value of tax revenues for the future period can be obtained by summing up the tax receipts and the amount of arrears for the reporting period for each taxpayer [13]. The authors propose to use for the analysis and forecast of tax revenues not aggregate value of taxes received, but individual values for each type.

Such an approach will allow an assessment of the budget's filling-up, to identify the problems of the tax system. It can be concluded that, taking into account the direct effects affecting the tax base, as well as the tax structure, the methods of moving average, the method of least squares will be difficult to apply at the state level, since they do not allow the possibility of taking into account the influence of various exogenous factors on the magnitude of revenues and dynamics key indicators. This will make it difficult to solve the main task of tax forecasting and planning - to ensure accuracy. However, the shift in the dynamics of time series related to the change in legislation or with some other major changes in the system can be taken into account in the model with the help of a special reception - accounting for a dummy variable. This in turn should improve the effect of the application of this method at the regional level.

Tax forecasts can and should be carried out with the help of modern statistical methods and analysis of time series – adaptive methods. They are used for a wide range of tasks that do not require a large amount of information, proceed from the intensive analysis of data contained within a separate time series, which, in combination with the simplicity of mathematical formulation and clarity, will be very useful in improving the economic and mathematical models, the accuracy of their predictions in changing conditions and also in conditions of uncertainty.

The difference between adaptive models from other prognostic models is that they reflect the current properties of the series and can continuously take into account the evolution of the dynamic characteristics of the processes under study. The purpose of adaptive methods is to construct self-regulating economic and mathematical models that can reflect the changing conditions in time, assuming the information value of different members of the time sequence and give accurate estimates of future values of this series [4].

Adaptive forecasting methods are diverse. These include the Theil-Wage's Additive Model of Seasonality, which can be used to forecast tax revenues at the state level. For example, in determining the amount of tax and non-tax revenues, as well as production volumes for the forecast of GDP dynamics, as the dependence of the country's economy on many internal and external factors should be reflected in the model, taking into account the seasonality, cyclicity and uncertainty of growth, as well as the amounts of deductions to the budgets of the respective levels, which the additive model allows to model and analyze. It will use and transform the exponential trend into a linear, and multiplicative seasonality into an additive, which will make it possible to construct a model without complex calculations, and most importantly, with greater accuracy of the forecast [21].

Statistical methods of planning and forecasting as the basis for assessing the level of tax revenues can use the following information: the receipt of specific taxes and fees for previous periods of time; amounts of arrears for tax payments; analysis of the tax base; structure of taxpayers; the value of interest rates.

Since the structure of tax revenues in Ukraine as a whole, as well as in the regions is characterized by a high percentage of indirect taxes (more than 60%), the forecasting of revenues by such classification groups as indirect and direct taxes becomes very important. This task is to be solved by using one-factor or multifactor models that allow assessing the dependence of the resulting indicator (for example, the level of tax and non-tax revenues) on the state and regional and local levels on the dynamics of one or more factors.

The use of statistical methods by taxation authorities at different levels, in addition to positive aspects, has some disadvantages that need to be taken into account when choosing one or another method of planning or forecasting. The listed methods do not always consider the factors of the change in the indicator, only the tendency to change its quantitative values is examined, without analyzing the reasons for which specific changes took place. Therefore, depending on the time, they have an artificial character, not reflecting the actual patterns of system change. As experience shows, the application of statistical methods, extrapolation methods gives effect to the short-term forecasting stage (up to one year) [4].

It should be noted that, according to scientists, there are currently no optimal methodological approaches to forecasting tax revenues, and this problem needs further research, and the methods themselves need improvements [15].

Turning to the practice of forecasting, we should note that in Ukraine, according to art. 21 of the Budget Code [2]. The Ministry of Finance, with the participation of the Ministry of Economic Development and Trade, the National Bank, as well as the main spending units of the state budget, makes the forecast of the State Budget for the next two budget periods following the plan. Forecasting is in line with the Ministry of Finance's methodology for forecasting tax revenues [11, 12].

These techniques are aimed at validity of forecast revenues through the implementation of forecasting on the basis of simulation models, which use direct influence factors on the revenues. The analysis of the forecasting errors of the main budget-generating taxes is carried out by comparing the forecast indicator at the end of the period (taking into account changes that were made during the budget year) with actual values. The difference between the forecast at the beginning and the end of the period on average is: for VAT - 7%, excise tax - 3%, personal income tax - 5%, and corporate income tax - 4% [1].

As shown in Figure 1, the deviations in forecasting VAT revenues in 2005-2017, which indicate the imperfection of this forecast and, in general, the need to improve existing approaches of forecasting (Fig. 1).

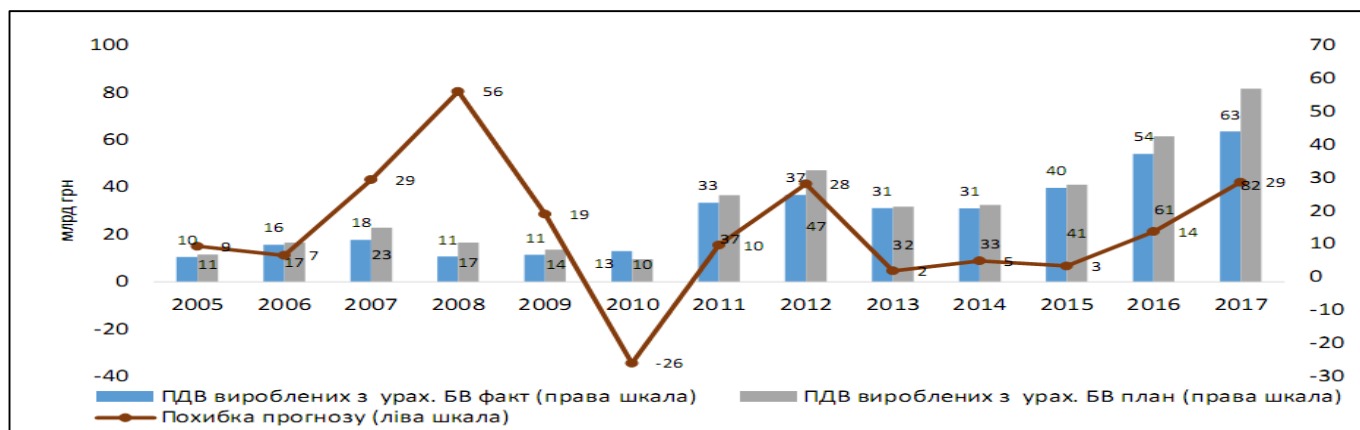


Fig. 1. Deviations in forecasting VAT revenues in 2005-2017 [1].

It should be noted that the methods used in foreign practice of forecasting give much higher results in terms of accuracy of the forecast. In Western modern economic forecasting practice, new approaches of forecasting, so-called «expert methods», are based on defined interconnections between different economic indicators, in particular, these approaches are used to forecast tax revenues. At the same time, the analysis of articles on this problem proves the promise of this approach, which in practice is implemented with the use of elementary graphic models that show the correlation and reciprocal influence of various economic indicators, which in one way or another affect the dynamics of tax revenues, and then obtained as a result of the logical actions the analyst «interconnection» is transformed into a mathematical form, which is based on the index method of determining the economic dynamics and tax revenues [20].

In order to determine the prospects of this approach in practice, we conducted an experiment in which we tried to forecast the dynamics of the three taxes for the medium-term period, by aiming at the data from tax revenues to the budget of Ukraine in 2005-2018.

The period from 2005 to 2011 was chosen as the base, on the basis of the data of this period, using the method of express forecasting, we calculated the tax revenues to the budget in 2012-2018, the obtained data were compared with the actual results obtained. The table shows the data for further calculations (Table 1).

Table 1. Dynamics of tax revenues in 2005 - 2011 (UAH million) (compiled from the data [16])

Taxes	Years							
	2005	2006	2007	2008	2009	2010	2011	Growth (times)
VAT collection	47 110	65 438	78 252	126491	119134	126988	172873	3.66
Individual income tax	17 325	22 791	34782	45 896	44485	51 029	60 225	3.47
Corporate income tax	23 464	26 172	34 407	47 857	33 048	40 359	55097	2.34

As a basis for further research, we draw up a graphic model that explains the impact of economic indicators on tax revenues (Fig. 2).

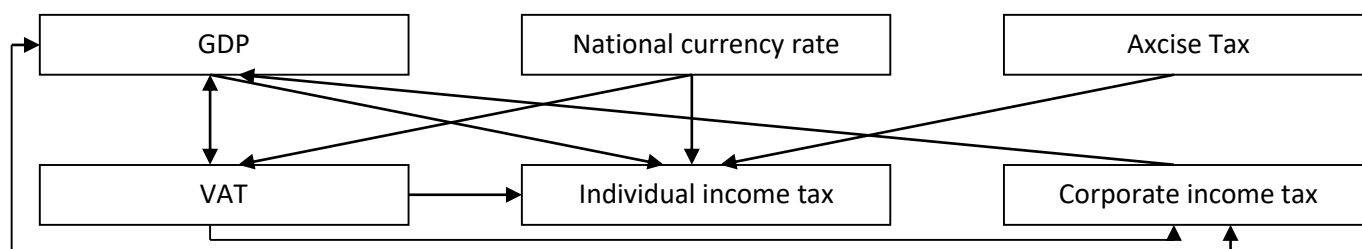


Fig. 2. Graphic model of influence of economic indicators on tax revenues and tax revenues on indicators of economic dynamism (compiled by the author))

In this model, level of VAT is influenced by GDP growth, the national currency rate and the growth of VAT in the previous period. Also, according to this model, individuals' income depends on the growth of GDP, the dynamics of the national currency rate and the growth of VAT, on the dynamics of excise tax. As for the corporate income tax, it is influenced by the growth of the national currency rate, the growth of VAT, while this indicator is related to GDP.

For further analysis we calculate the growth rates of the indicators selected for analysis, as well as the rates of tax revenues (Table 2).

Table 2. The rates of growth of economic indicators, and the rates of tax revenues (compiled from the data [5, 16])

	GDP (million UAH)	GDP growth index to the previous year	Dollar exchange rate	Index of growth of the national currency rate to USD to the previous year	VAT growth index to the previous year	Index of growth of personal income tax to the previous year	Excise (million UAH)	Index of excise tax increase to the previous year	Index of growth of PPP to the previous year
2005	457325	–	5,12	–	–	–	7 945	–	–
2006	565018	1.23	5,05	0.98	1.38	1.31	8 608	1.08	1.11
2007	751106	1.61	5,05	1.06	1.19	1.52	10568	1.22	1.31
2008	990819	1.31	5,44	1.43	1.61	1.31	12783	1.20	1.39
2009	947042	0.95	7,79	1.01	0.94	0.96	21624	1.69	0.69
2010	1120585	1.19	7,93	1.02	1.05	1.14	28316	1.30	1.22
2011	1349178	1.19	7,95	0.96	1.36	1.18	33919	1.19	1.36
Average growth rate of the index		1.24	–	1.07	1.25	1.23	–	1.28	1.18

ФІНАНСИ, ГРОШОВИЙ ОБІГ, КРЕДИТ

The resulting indices are the basis for further calculations. According to this model, the growth rate of VAT in the medium-term (Igvat) is calculated according to the formula (compiled from the data [20]):

$$Igvat = (Agpdgi + Aigncr + Avatgi) / n + Aigncr$$

where

Agpdgi - average GDP growth index;

Aigncr - average index of growth of the national currency rate;

Avatgi - average VAT growth index;

n - number of indexes examined.

$$Igvat = (1.24 + 1.07 + 1.25) / 3 + 1.07 = 2.25$$

Then, in 2018, the forecast value of the Fvvat will be:

$$Fvvat = 172873 \text{ million UAH} \times 2.25 = 388964.25 \text{ million UAH}$$

The calculation of the forecast value of the personal income tax is also made on the basis of the growth rate of the tax on personal income, Rgtpi, which is calculated as follows (compiled from the data [20]):

$$Rgtpi = Aipig + Agret + Aipiti / n + Aipiti + Agret$$

$$Rgtpi = (1.24 + 1.07 + 1.23) / 3 + 1.23 + 1.28 = 3.69$$

$$Rgtpi = 60 \text{ 225 млн. руб.} \times 3.69 = 222230.25 \text{ million UAH}$$

The forecast value of corporate profit tax is modeled in a special way, considering that this indicator is largely linked to the GDP indicator; the corresponding coefficient (Cvcpt) is calculated according to the formula (compiled from the data [20]):

$$Cvcpt = ((Agrcpt + AgrGDP + AgrVAT) / n) \times (Agrcpt + AgrGDP)$$

where

Agrcpt - the average growth rate of corporate profit tax;

$$Cvcpt = ((1.24 + 1.07 + 1.18) / 3) \times (1.18 + 1.24) = 1.69$$

$$Cvcpt = 55 \text{ 097 million UAH.} \times 1.69 = 93312.2$$

Compare the data obtained with the actual growth rates of the studied taxes in years (Table 3).

Table 3. The dynamics of the studied taxes in 2012-2018 is compiled according to the data (million UAH) (compiled from the data [16])

Taxes	Years							Growth(times)
	2012	2013	2014	2015	2016	2017	2018	
VAT	184786	181717	189241	246 858	329911	434041	384300	2.07
Personal income tax	68092	72151	75203	99 983	138 782	185686	227642	3.34
Corporate income tax	55793	54994	40201	39 053	60 223	73397	90 999	1.63

As we see the differences between the actual results of taxation are insignificant, in order to be assured we make the corresponding table (Table 4).

Table 4. Actual and forecasted tax results in 2012-2018

Taxes	2018 actual (mill.UAH.)	2018 forecast (mill.UAH.)	Deviations absolutely (mill.UAH.)	Deviations actual/ forecast (%)	Deviations in the methodology for forecasting budget revenues (%)
VAT	384300.0	388964.25	4664.25	1.2	7.0
Personal income tax	227 642	222230.25	5411.75	2.4	5.0
Corporate income tax	90 999	93312.2	2313.2	2.5	4.0186 633,2

Therefore, the accuracy of this forecast is much higher than the accuracy when applying the officially approved methodology for forecasting budget revenues, which gives grounds for considering it as a promising tool for forecasting, which deserves further study and improvement.

Conclusions according to the article. Thus, we can conclude that the above methodology provides a more accurate forecast of tax revenues than the methodology currently used in Ukraine. Accordingly, this approach has the right to exist, although, certainly, the methodical apparatus itself of this methodology should be improved, and the results obtained through its custody should be further verified, in particular, these results should be checked with inclusion in the model of additional factors influencing the dynamics of tax revenues.

At the same time, it is already possible to state the prospect of this approach as one of the options for forecasting tax revenues to the state budget of Ukraine in the medium-term period.

The given methodology can be taken into account in the process of improving existing approaches to forecasting tax revenues, which certainly need improvement from the point of view of the need to increase the level of accuracy of tax forecasts.

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ПРОГНОСТИЧНІ МОДЕЛІ ФІНАНСОВОГО РЕГУЛЮВАННЯ БЮДЖЕТІВ ТЕРИТОРІАЛЬНИХ ГРОМАД

**Горошкова Л. А.,
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Хлобистов Є. В.,
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Актуальність теми дослідження. У сучасних умовах децентралізації особливої актуальності набуває проблема розбудови ефективної системи управління фінансами територіальних громад.

Постановка проблеми. Однією з основних проблем процесу децентралізації є створення умов для забезпечення фінансової стійкості та самодостатності територіальних громад.

Аналіз останніх досліджень і публікацій. Сучасними аспектами вирішення проблем розвитку територіальних громад та місцевого самоврядування займаються такі вчені, як Павлюк А. П., Олійник Д. І., Баталов О. А., Дацко О. І., Муркович Л. Л., Молодожен Ю. Б. та ін. [1-4]. Результати власних досліджень проблеми наведені в [5-11].

Виділення недосліджених частин загальної проблеми. Не дивлячись на зміни до Бюджетного та Податкового кодексів, існують механізми, що стримують розвиток об'єднаних територіальних громад і створюють загрозу їх фінансовій спроможності. Одним з таких механізмів є базова та реверсна дотація. Їх вплив на фінансовий стан ОТГ потребує окремого аналізу і дослідження.