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BALANCE BUDGETING OF AGRIBUSINESS ENTERPRISES

Approaches to defining the essence of budgeting and budgets classification are generalized, the importance of the budget balance for agribusiness enterprises is characterized. The peculiarities of drawing up balance budgets at agribusiness enterprises, methods of determining budget indicators, the relationship of budgets with management balance sheet items, which will effectively organize balance budgeting and coordinate balance indicators to manage the financial condition of the enterprise are analyzed.

Keywords: budget, balance budgeting, agribusiness enterprise.

Background. Budgeting is the process of budgeting and control over their implementation, and quite often the concept of budget is identified with the budget, and budgeting with planning. Budgeting should be considered more systematically as the formation of an indicators vision of the state and the enterprise development for the future, in relation to available resources, taking into account the strengths and weaknesses, external and internal factors, risks, necessary measures. At the same time, balance budgeting plays a key role in achieving the desired financial condition and compliance of all other types of budgets.

In the general interpretation balance budgeting (BB) is considered as the coordination of the need for resources with the sources of their receiving, financing. However, this approach is too simplistic. Using the right organization, budgeting may be one of the effective tools for developing and implementing financial and economic strategy of the enterprise. So BB may ensure quality planning of changes in the enterprise assets, especially for those that as a result of biological transformations that bring agricultural products and multiply existing biological assets. BB also allows to plan the need to upgrade fixed assets, make capital investments and identify sources of funding. The balance budget coordinates the calculations for all other types of budget and provides information on the growth sources of assets and profits. All this can help improve the agribusiness management of enterprises and help them raise the industry to a new level, which emphasizes the relevance and practical importance of the chosen research topic.

Analysis of the last researches and publications. Essence of budgeting and its value for enterprises was examined by different scientists-economists that were offered own interpretations and approach to budgeting. Budgeting performs the important duty of present charges optimization and directions of use of the received incomes for improvement of financially-economic activity of enterprise in current and future periods (O. Moshkovska, S. Luchyk, Y. Manachynska, M. Kuzub) [1]. The budget of an agribusiness enterprise is an estimate of revenues (income), costs and profits associated with the production of agricultural products (A. Reza, S. Shim, S. Kim, S. Ahn, S. Won, C. Ra) [2].

The information that contained in the budgets of enterprises is used by farmers, professionals of financial services, financial institutions, government agencies and other decision-makers in the food industry (J. Harper, S. Cornelisse, L. Kime, J. Hyde) [3]. Budgeting as a management mechanism contains elements of planning, analysis, accounting and control of the enterprise (O. Moshkovskaya) [4].

Corporate budgeting is studied in combination with flexible project management (C. Ploder, T. Dilger, R. Bernsteiner) [5]. The managerial essence of budgeting is expressed mainly in cost indicators and benchmarks, time horizon of planning, interaction of resources and control, functions of planning of operations, coordination of activity of divisions, information, stimulating, modeling, control and estimation (V. Zinchenko) [6].

Drawing up a balance sheet budget requires the use of various valuation techniques that significantly affect the nature of the presentation of information. Authors O. Moshkovska, O. Prokopova, N. Nikolenko and others [7] propose a methodology for selecting the optimal types of valuation for different objects of accounting depending on the static or dynamic concept of balance sheets, and identify the main cost-oriented approaches to estimating balance sheet indicators, in particular, cover the use of actuarial accounting in management. The development of budgeting is associated with the use of a balanced system of indexes (O. Shpyrko) [8], which is especially important for agribusiness enterprises, where such characteristics as ecofriendliness of products, quality, customer commitment play an important role.

O. Strelchenko defines budgeting as an integral part of forming and making management decisions for an agricultural enterprise, which will contribute to the implementation of sustainable development concept. The advantage is given to flexible budgeting based on a modeling mechanism for rapid response to changes in the volume of the production portfolio and possible risks [9]. However, these development proposals relate to the budget of costs for agricultural production, balance budgeting it is not exposed practically.

In the EU countries, the budgeting process of agribusiness enterprises is devoted a lot of attention. F. Filippis, R. Henke, L. Salvatici and R. Sardone assert that budgeting is one of the effective means of overcoming the problems related to reform of the Common Agricultural Policy (*the Common Agricultural Policy reform*) [10]. However, this study very superficially highlights the role of balance budgeting for a particular agricultural enterprise.

For agricultural enterprises, the introduction of budgeting has got a number of features, including land as the main limiting factor, seasonality of production, dependence on climatic conditions, the presence of biological assets. Current challenges for budgeting the financial performance of economic systems related to the global COVID-19 pandemic. According to research (G. Grossi, A. Ho, P. Joyce) [11], budgeting of balance indicators in 2020–2021 at the macro and micro levels has changed significantly due to the impact of the negative effects of the pandemic, which must be taken into account and search the methods of their softening and removal in the future.

Agribusiness enterprises need support from the state and non-governmental organizations, loans, compensation for losses, tax holidays and relief from tax pressure. For example, it was in the Netherlands in spring 2020, when in the conditions of pandemic, the state provided support to the enterprises that grow seedlings and not able to realize their products, in order to avoid bankruptcy and decline of this industry. Thus, agribusiness enterprises play an important role in meeting the needs of the population with quality products, while they need effective management methods that will help in the forming of development targets and their achievement through balance budgeting.

The aim of the article is to determine the features of balance budgeting for agribusiness enterprises, systematization of budget types on the basis of different classification features, substantiation of the budgets relationship with the articles of the management balance of agro-industrial enterprises.

Materials and methods. The methodological basis of the study is general and special methods of cognition: to determine the nature and systematization of the budgets classification – comparison, grouping, abstraction and generalization; in establishing the relationship of budgets with balance sheet items – analysis, synthesis, induction, comparison, abstract-logical and systematic approaches.

Results. Agribusiness enterprises operate in specific conditions, which are characterized by seasonality and cyclical production, significant risks and dependence on weather conditions, fluctuations in yield, the difficulty of initial recognition of biological assets and evaluation of agricultural products that based on professional judgment in determining fair value. All this significantly complicates the process of balance budgeting for agribusiness enterprises and requires the development of an adapted approach in accordance with the specifics of their work and clear understanding of the relationship between budget indicators.

The main tasks of budgeting at the enterprise are planning key performance indicators for a certain period, cost optimization, finding ways to maximize profits, coordination and concordance of structural subdivisions activity, business areas. Another important task is communication between departments, agencies, managers and executors, subordinates. Budgeting strengthens the motivation to achieve goals. Budgeting is a tool for monitoring and evaluating the effectiveness of activities, identifying resource needs.

BB is important because it allows to plan and evaluate the future development of the company in terms of growth of the book value of assets in relation to profits. This takes into account the indicators that are assessed of the balance sheet basis: the composition of resources, the efficiency of their use and the liabilities structure to control financial stability and the level of the enterprise solvency.

The budgeting process as a relatively new technology of planning, accounting and control is insufficiently formalized. In view of this, business leaders refuse to implement this management technology, without knowledge of its specific characteristics, scope, objectives and possible benefits of use. Analysis of practical information shows that in Ukraine there are only medium and most successful large agribusinesses that carry out budgeting, but they are mostly limited to the budget of revenues and expenditures, less often – the payment calendar, and very rarely – the balance sheet and adjusting functional budgets [4].

The goals of implementing an internal budgeting system depend on the company. Thus, for fast-growing enterprises it is control over accounts payable and receivable, maintaining the liquidity of assets; for enterprises with diversified agribusiness it is profitability control of certain areas of activity, business processes, distribution optimization of available resources. For holding companies or companies that are related parties and have a divisional structure, budgeting makes it possible to assess the effectiveness of the transfer pricing system. However, for most companies the main purpose of implementing a budgeting system is to ensure "financial transparency", the ability to control, predict indicators [4].

Balance budgeting connects and reconciles almost all types of enterprise budgets, so it is necessary to consider their classification. Systematization of types of budgets on the basis of various classification features is presented in *Table 1*.

Table 1
Enterprises budgets classification on various features

Classification features	Budgets types	Brief description
By approach (forming method)	Flexible	Depending on the amount of costs and planned financial results in accordance with changes in the volume of enterprise activity or the influence of factors and risks. The flexible budget indicates the value of variable costs per unit of output and the increase of mixed costs per unit of activity growth. Creating flexible budgets is advisable when to plan relevant costs
	Fixed	Does not change due to changes in business activity of the enterprise. Such budgets are mainly used for fixed costs of the enterprise, the value of which remains unchanged or conditionally unchanged with increasing or decreasing activity. Fixed budgets are appropriate for partially regulated costs, such as R&D costs, advertising and administrative costs
By method of formation	"Bottom up" approach	Provides collection and filtering of budget information from executors to lower-level managers and further to the company's management. Such budgets are characterized by aggregation of indicators, and the higher the level of management, the more aggregated (generalized) the budget will be

End of the Table 1

Classification features	Budgets types	Brief description
By method of formation	"Top to bottom" approach	Requires from the company's management to understand the basic rules and the ability to form a realistic budget (forecast) for a certain period. "Top-down" budgeting ensures consistency of budgets of individual units and allows to set benchmarks for income, expenses, profits, to assess the effectiveness of responsibility centers
According to the term for which the budget is drawn up	Long-term	The "forecasting horizon" is from one to three years, with a more strategic budgeting period of 5–10 years
	Medium-term	It consists of a period of from six months to year
	Short-term	It consists of a period – a quarter and a shorter period
	On a certain date	Balance sheet draws up at the according to forecast reporting date
By content (purpose)	Marketing budget	Within the budget of marketing the financial planning of marketing activity is carried out. This budget is actually a connecting link between various plans of the management, first of all between marketing and the production plan
	Financial budget	Financial planning is carried out within the financial budget. Planned performance indicators of the enterprise in value terms are measured according to generally accepted standards and classifications in accordance with the accounting documentation
By method of taking into account the influence of statistical factors on the enterprise activities	Static budgets	The indicators depend on the production volume, we may say that if they change, it is mainly under the influence of changes in prices, rather than the level of enterprise business activity
	Dynamic budgets	Compiled taking into account changes in all costs based on the time factor, under the influence of prices for fixed resources. Costs are planned depending on any basic parameter. Most often, this parameter is the volume of production and sales of the enterprise
Depending on the method	Zero-base-budget	Used for start-ups, development and opening of new markets, products, activities
	Budget from achieved	Method of budgeting based on extrapolation (or incremental method) of previous sufficiently successful indicators for future periods in case of stability of external and internal environment
	Alternative budgets	Additional budgets or general budget with ahead development scenarios to anticipate possible alternatives and choose the most advantageous option
Depending on the budget object	Revenue and expenditure budget	Financial results budget by types of income and elements of expenses, with details by divisions, types of products, directions of activity
	Cash flow budget	Cash flow budget or budget in the form of a planned statement of cash flows in terms of operating, investing and financing activities for the relevant periods with the addition in the form of a payment calendar
	Balance budget	Budget in the form of a balance sheet, a form of financial statements – balance sheet, statement of financial position on the planned dates, usually for each month for relevant year, which agrees on data for all types of budgets. This budget is also a financial budget, which evaluates the level of solvency and financial stability of the enterprise

Source: updated on the basis of processing [4; 6; 10; 12; 13].

In Ukraine, agribusiness enterprises prefer flexible, medium-term budgets, set on the principle of "top down", as well as static budgets, which are formed from the achieved (see *Table 1*) and take into account mostly changes in prices for agricultural products and fuels and lubricants.

Research shows that in many Ukrainian holding companies that are engaged in agro-industrial production, the budget regulation replaces the order, which is incorrect, as the regulation is a document in which the budgeting process can be described more clearly, in detail and consistently. For example, for agribusiness enterprises it is advisable to approve regulations that would contain sections:

- goals, objectives and principles of budgeting;
- description of responsibility centers;

- budget period and schedule;
- analysis of performance indicators and their adjustment, system of motivation and responsibility.

The introduction of budgeting optimizes the management decision-making process as it minimizes costs, analyzes not only the achieved results, but also deviations from the planned indicators and their causes. If the description of the financial model is small in volume, it can be placed in the "Regulations of the budgeting system", which should define [4; 14]: *budget period*, or horizon of budget planning (the term for which the budget is drawn up), and the planning step (periodicity with which the horizon of budget planning is formed within the planning horizon – quarter, month); *terms (schedule)* and *procedure* for development, approval, submission, consolidation and approval of budgets of different levels:

- goals and objectives of the budget management system;
- identification of financial responsibility centers and construction of the company financial structure;
- development of the enterprise budget model, namely types of budgets for the centers of financial reporting. The regulations should reflect the logic of the relationship between budgets, as well as the methodology for building top-level budgets;
- list of responsible persons, procedure for budget analysis.

Indicators of budgets for the centers of financial responsibility for agribusiness enterprises should be formed in terms of: *revenue center* (sales, marketing, logistics – account 70), *costs* (procurement, production units, crop production, animal husbandry, processing of agricultural products – account 23, 26, 27, 91), *profit* (by divisions, types and areas of activity – account 79), *investments* (by types and objects of investment – account 15, 44).

The balance model is the most progressive method of budgeting. The idea of the balance model of budgets is based on the method of accounting, balance generalization of data on the relevant accounts. Changes in the budget are in kind, changes in the budget of cash flows reflect the turnover and balance of cash accounts, funds in bank accounts, other funds and their equivalents. The budget of revenues and expenditures is based on data on the turnover of accounts of income by type, and expenditure by elements. It is important to understand the effect of the double-entry method, which underlies the relationship between all types of enterprise budgets and the systematic approach to its compilation. For example, the employee budget is closely linked to the expenditure budget and the cash flow budget. The sales budget is related to the revenue budget, the settlement budget (receivables) and the cash flow budget (cash flows).

Construction task to *the model on the principle of double entry* is to compare each of the budgets with another, balancing budget. Visually, this construction can be represented as follows: a table with a set of budgets horizontally and vertically, and at the intersection there are paired relationships between budgets at the posting level: the debit turnover of one budget is reflected in the credit turnover of another, and vice versa [4; 9; 14].

As a result of structuring budgets on a balance sheet basis, managers of large companies receive a management tool according to the profile of their activities: departments engaged in production activities have got production costs budget, financial services have got financial investment budget, corporate governance departments have got balance sheet budget and capital movement budget, etc. [4]. Complex business activities become transparent and more manageable, and the procedure for compiling the most important final report is management balance sheet. It is quite simple and unambiguous: accumulated by the end of the period balances on the functional budget will form the relevant balance sheet items (*Table 2*).

The balance sheet is compiled in the form of a balance sheet (in the literature is quite common concept of balance sheet is used) – the first form of financial reporting. It shows aggregated data and reconciles information on the budget of revenues, expenditures, cash flows and other detailed budgets (for example, availability budget and stocks movement, availability budget and use of biological assets, agricultural production, budget of capital investments, etc.) [11; 13].

Table 2

Relationship between budgets and agribusiness balance sheet items

Functional budget	Balance type	Management balance sheet item
Budget for agricultural production	Debit	Agricultural production (crop, livestock), agricultural products (Asset)
Budget of purchases of raw material and supplies		Stocks of raw materials (Asset)
Budget of acquisition(growing) of current biological assets		Cost of current biological assets (Asset)
Budget of acquisition(growing) of long-term biological assets		Cost of long-term biological assets, capital investments (Asset)
Budget calculations with customers		Accounts receivable of buyers, consumers, customers (Asset)
Budget calculations with suppliers	Credit	Accounts payable to suppliers (Liabilities)
Budget calculations with staff and costs of social activities		Accounts payable to employees and the single social contribution (Liabilities)
Budget of income from the sale of agricultural products		Profit from operating activities (Liabilities)

Source: updated on the basis [1; 4; 8].

It should be noted that the balance model of budgets and its internal relationships is somewhat more complex than the "classical" budgeting scheme (as, probably, any more perfect system compared with historical predecessors). However, it has advantages and the necessary elements aimed at effective management of complex business activities, especially in large agro-industrial companies of the holding type, which must have a number of developed to the implemented budgets.

Balance budget supplementing of agribusiness with important analytical indicators to assess the capitalization of assets, assets, liquidity and solvency, financial stability will allow more comprehensive and reasonable approach to the process of developing balance budget indicators and assess their implementation, the consequences for the financial condition.

Thus, balance budgeting has a number of advantages. It allows to coordinate the system of budgets planned indicators of different levels and functional tasks; promotes coordination and interaction between participants in business processes, managers and executors; forms an understanding of targets, tasks and stages of their achievement; allows to compare the results achieved with the desired, to establish the causes of the detected deviations. In addition, it provides an improvement in the motivational component, more efficient use of resources and well-thought-out financing of needs, as well as the accumulation of experience in building and implementing previous budgets.

Conclusion. Budgeting is an important tool for effective management of any activity, as it helps to plan the expected results of management, formalize goals and prescribe ways to achieve them. The balance budget coordinates and complements the budgets of revenues and expenditures together with the budget of cash flows, which allows comprehensive planning of financial and economic activities and effectively monitor their implementation to achieve the desired level of economic development and prosperity.

Peculiarities of BB for agribusiness enterprises are related with the forecast estimates complexity, especially in achieving the desired indicators of financial condition and assets capitalization, as it is difficult to predict the fair value of future harvests, which are affected by numerous factors, take into account significant risks and weather yield, seasonality and cyclical production processes, the complexity of the initial recognition of biological assets and valuation of agricultural products.

Balance budgeting in agribusiness is implemented on the principle of indicators consolidation for biological assets, other current and non-current assets, current liabilities, other liabilities and collateral, components of equity. BB combines the functions of accounting, analysis and control. However, with the right organization, it can also perform a motivating function, if you provide appropriate levels of remuneration for achieving the goals of the enterprise and departments. Balance budgeting allows to effectively forecast and manage financial condition, solvency, financial stability, resources, book value and capital structure in search of the necessary sources of funding, which have got a great importance for agribusiness.

REFERENCES

1. Fomina, O., Moshkovska, O., Luchyk, S., Manachynska, Y. & Kuzub, M. (2020). Managing the agricultural enterprises' valuation: actuarial approach. *Problems and Perspectives in Management*. Vol. 18 (1). (pp. 289-301). DOI: 10.21511/ppm.18(1).2020.25 [in English].
2. Reza, A., Shim, S., Kim, S., Ahn, S., Won, S. & Ra, C. (2020). Rational budgeting approach as a nutrient management tool for mixed crop-swine farms in Korea. *Anim Biosci. Environment and Management. Asian-Australasian Journal of Animal Sciences (AJAS)*. Vol. 33(9). (pp. 1520-1532). DOI: 10.5713/ajas.19.0640 [in English].

3. Harper, J. K., Cornelisse, S., Kime, L. F. & Hyde, J. (2019). Budgeting for Agricultural Decision Making. *Penn State Extension*. Updeated March 29. Retrieved from <https://extension.psu.edu/budgeting-for-agricultural-decision-making> [in English].
4. Moshkovska, O. A. (2013). Management accounting at milk processing enterprises. Doctor's thesis. Kyiv: Kyiv National Trade and Economic University [in Ukrainian].
5. Ploder, C., Dilger, T. & Bernsteiner, R. (2020). A framework to combine corporate budgeting with agile project management. *Paper presented at the CEUR Workshop Proceedings*. Vol. 2581. (pp. 19-23) [in English].
6. Zinchenko, V. A. (2013). Strategic management competitive activity of enterprises on the foreign markets (on the example of tractor Agricultural engineer). *Doctor's thesis*. Kharkov [in Ukrainian].
7. Fomina, O., Moshkovska, O., Prokopova, O., Nikolenko, N. & Slomchynska, S. (2018). Methodological approaches to investment property valuation. *Investment Management and Financial Innovations*. Vol. 4 (15). (pp. 367-381) [in English].
8. Semenova, S. M. & Shpyrko, O. M. (2014). Balanced system of indicators in the formation of accounting and analytical support for enterprise management. *International scientific and practical Congress "Lawyers and Economists"*. The Scientific Association of Economists and Lawyers "Fundacio", December, 5th. (pp. 11-17), Zagreb, Croatia [in English].
9. Strelchenko, O. V. (2020). Budgeting as a component of the formation of management decisions for agricultural enterprise. *Ekonomika APK*. Vol. 7. (pp. 94). DOI: 10.32317/2221-1055.202007094 [in Ukrainian].
10. Filippis, F. De, Henke, R., Salvatici, L. & Sardone, R. (2013). Agricultural expenditure in the European Union budget: a graphical analysis. *European Review of Agricultural Economics*. Vol. 40. Issue 4. (pp. 659-683). DOI: 10.1093/erae/jbt004 [in English].
11. Grossi, G., Ho, A.T. & Joyce, P.G. (2020). Budgetary responses to a global pandemic: international experiences and lessons for a sustainable future, *Journal of Public Budgeting, Accounting & Financial Management*. Vol. 32. 5. (pp. 737-744). DOI: 10.1108/JPBAFM-12-2020-189 [in English].
12. Semenova, S. M. (2020). Balance sheet repair to improve enterprise financial status. *Review of transport economics and management*. Vol. 3(19). (pp. 164-176). DOI: 10.15802/rtem.v0i3(19).210758 [in English].
13. Mazaraki, A. A. & Fomina, O. V. (2016). Management accounting tools. *Economic Journal – XXI*. Vol. 6. (pp. 48-51) [in Ukrainian].
14. Mamchur, R. M. (2008). Budgeting in the system of financial management of agricultural enterprises. *Doctor's thesis*. Kyiv [in Ukrainian].

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Фоміна О., Семенова С. Балансове бюджетування підприємств агробізнесу.

Постановка проблеми. У практичній діяльності бюджетування розглядають як процес планування та складання кошторисів. Балансове бюджетування дає змогу узгоджувати потреби в ресурсах з джерелами їх фінансуванням, а при правильній організації може виступати ефективним інструментом розробки і впровадження фінансово-економічної стратегії підприємства. Балансове бюджетування може забезпечити якісне планування змін в активах, які приносять сільськогосподарську продукцію та примножують наявні біологічні активи, оптимізацію складу пасивів для досягнення цільових значень показників фінансового стану підприємства.

Аналіз останніх досліджень і публікацій показав, що тема бюджетування є актуальною, проте важливість і особливості саме балансового бюджетування для підприємств агробізнесу висвітлені недостатньо.

Метою статті є визначення особливостей балансового бюджетування, виділення класифікаційних ознак та обґрунтування взаємозв'язку бюджетів зі статтями управлінського балансу агропромислових підприємств.

Матеріали та методи. Методологічною основою дослідження є загальнонаукові методи пізнання: аналіз, синтез, індукція, дедукція, порівняння, абстрактно-логічний і системний підходи.

Результати дослідження. Для агропідприємств балансове бюджетування має ряд особливостей, серед яких: земля як основний обмежуючий фактор, сезонність виробництва, залежність від природно-кліматичних умов, врахування ризиків, складність первісного визнання біологічних активів і сільськогосподарської продукції, яка базується на застосуванні професійного судження у визначеній справедливої вартості. Серед шести основних класифікаційних ознак балансового бюджетування безпосередньо виділяють ознаку за об'єктом складання бюджету. У свою чергу балансові бюджети можуть поділятись залежно від строків складання, принципів побудови, підходів, методики, цільовим призначенням. Балансовий бюджет визначає статичні показники на відповідну дату, узгоджує між собою розрахунки по всіх інших видах бюджетів і надає інформацію про джерела зростання вартості активів та прибутків.

Висновки. Балансове бюджетування на підприємствах агробізнесу реалізується за принципом консолідації показників по біологічних активах, інших оборотних та необоротних активах, поточних зобов'язаннях, інших зобов'язаннях і забезпеченнях, складових власного капіталу. Балансове бюджетування поєднує функції обліку, аналізу та контролю. Балансове бюджетування дає змогу ефективно прогнозувати й управляти біологічними активами, ресурсами, балансовою вартістю та структурою капіталу, фінансовим станом загалом у пошуку необхідних джерел фінансування, що має велике значення для підприємств агробізнесу.

Ключові слова: бюджет, балансове бюджетування, підприємство агробізнесу.