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**Research Article** 

### **Budgetary Vat Refund to Agricultural Producers: Analysis of National Tax and Customs Legislation**

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#### ABSTRACT

<sup>1</sup>Institute of Agrarian Economics of UAAS, Ministry of Finance of Ukraine, Ukraine <sup>2</sup>National Scientific Center «Institute of Agrarian Economics», Department of Financial and Credit and tax Policy, Ukraine <sup>3</sup>State Mortgage Institution, Ukraine <sup>4</sup>Khmelnytsky University of Management and Law named after Leonid Yuzkov, Kyiv, Ukraine

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Citation: Lupenko, Y., Andros, S., Lupenko A., & Yarmolenko, Y. (2021). Budgetary vat refund to agricultural producers: Analysis of national tax and customs legislation. *Journal* of *Economy Culture and Society*, 64, 279-296. https://doi.org/10.26650/JECS2021-879534 The purpose of the article is to analyze and assess the budgetary VAT refund to national agricultural producers and develop specific proposals for its improvement, taking into account the provision of a close relationship between tax and customs legislation in agriculture. Conceptual approaches to the essence of budgetary VAT refunds have been systematized. An algorithm for the declared amount of budgetary VAT refunds has been developed. The conditions for exercising the exporter's rights to VAT refunds have been analyzed, and the procedure for confirming the legality of the application of the 0 percent tax rate and tax deductions for tax when exporting agricultural products has been clarified. A methodology has been developed for checking the legality of the application of the 0 percent tax rate and VAT deductions for the export of agricultural products. The mechanism of budgetary VAT refunds to agricultural producers has been improved in order to comply with the objectives of the state economic policy in agriculture.

Keywords: Budget refund, Value added tax, Agricultural producers



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#### 1. Introduction

In Ukraine, large-scale work is being carried out to form an effective taxation system aimed at stimulating competitive production, supporting entrepreneurship and a healthy competitive environment, and encouraging and expanding the country's export potential as well as providing the domestic market with high-quality consumer goods. In Ukraine, the value added tax (VAT), being the cornerstone of the indirect tax system, performs fiscal and regulatory functions and is a significant source of revenue for the state budget. At the supranational level, great importance is attached to VAT as a source of regular financial revenues to the state budget. Ukraine's active participation in international financial turnover predetermines the need to join international conventions and the adoption of international financial and legal obligations. It was the active participation of Ukraine in foreign economic activity and the guidelines for the standards of the European Union that led to the introduction of VAT in our state.

Currently, Ukrainian VAT is largely close to the best international counterparts. However, not all issues of its collection have been resolved. One of the key problems associated with this tax is the VAT refund procedure. The imperfect and non-transparent mechanism of budgetary VAT refunds hinders the development of agricultural entrepreneurship, inhibits the growth of competitiveness of agricultural products in external agricultural markets and slows down the introduction of innovations and investments in the context of a decrease in entrepreneurial employment in rural areas.

The need to develop an effective mechanism for budgetary VAT refunds for agricultural producers is determined by the seasonality of agricultural production, the specifics of the activities of various organizational and legal forms of management in the agricultural sector, the introduction of strict measures to save budget funds in a special period, and constant changes in tax legislation, some of which still remain uncoordinated.

The possibility of VAT refunds is associated with a special exemption provided to exporters - at a tax rate of 0%, which entitles them to a refund. The problem lies in the implementation of this right. The urgency of the problem of VAT refunds on foreign economic transactions is aimed at solving two of its parties. First, it is necessary to simplify the procedure for VAT refunds to facilitate the return of paid VAT amounts by bona fide taxpayers. Problems with VAT refunds, from the point of view of taxpayers, create obstacles to normal trade turnover, hinder the development of economic relations, and restrict freedom of contract and business. Secondly, the legislator must ensure such a procedure for VAT refunds that will prevent abuse in the field of tax refunds by dishonest taxpayers. Since the current situation with its illegal reimbursement from the budget causes tangible harm to the country's economy, the government of the country has developed a number of measures aimed at combating abuse in this area, which has resulted in the complication of the VAT refund procedure (the need for documentary confirmation, conducting a desk audit).

Simplification of the VAT refund procedure leads to the emergence of a criminal tendency to receive VAT refunds from the budget, and its complications lead to the diversion of working capital and financial planning issues. As you can see, the solution to this problem should be carried out by legal means: by eliminating gaps in legislation, adopting legislative measures to prevent unfair financial competition, strengthening control, and law and order in the field of taxation.

Financial support from the state through the mechanism of budgetary VAT refunds should be focused on small and medium-sized agricultural enterprises that are able to use financial support with maximum efficiency, given the existing price disparity in prices for agricultural products and industrial products. Small and medium-sized agricultural enterprises are able to ensure an increase in the competitiveness of their own products in conditions of fierce competition, monop-

olization of land and budgetary resources, and, as a result, strengthen their financial position and ensure further development in conditions of economic and political instability.

The purpose of the article is to analyze and assess the budgetary VAT refund to national agricultural producers and develop specific proposals for its improvement, taking into account the provision of a close relationship between tax and customs legislation in agriculture.

#### 2. Literature review

The choice of the topic of the article is due to insufficient attention on the part of domestic and foreign researchers to the indicated problem. There are many works devoted to the problems of indirect taxation and legal regulation of VAT. However, the problems of VAT refunds to agricultural producers have not yet been comprehensively studied. At the same time, it is worth noting a fairly large range of publications in the legal press on this issue. However, the publications are of a fragmentary nature since the subject of their consideration is only a few moments in the complex mechanism of VAT refunds to agricultural producers.

(Cnossen, 2018) considers it expedient to improve the mechanism of VAT refunds from the budget to reduce the tax burden on agricultural enterprises by setting a ten-day period for tax refunds in periods with increased needs for financial resources and a monthly one - under favorable economic conditions. (James, 2015) notes that the provision of budgetary subsidies and a special tax regime allows agricultural enterprises to receive value added tax refunds and improve their financial condition. It is difficult to agree with this point of view, since the budget refund mechanism is designed to balance the tax credit against tax liabilities. Only after exceeding the latter, farms could receive VAT on special accounts, which was used for production needs, and not for budgetary refunds. (Benzarti, Carloni, Harju, & Kosonen, 2017), for the efficient use of the resource potential, propose to apply decreasing coefficients for VAT refunds to exporters of raw materials.

In order to prevent the outstripping growth of export supplies of agricultural raw materials, (Besley & Rosen, 1999) proposed to reduce the severity of the problem of budgetary VAT refunds to agricultural exporting enterprises in the form of taxation at a zero VAT rate on exports of not all agricultural products but only products with a high share of added value. When exporting other goods, the VAT exemption regime must be applied. This will mean attributing the tax paid in the price of material resources to production costs and will allow the refusal of VAT refunds to exporters of products with a low share of added value.

We consider it inappropriate to provide advantages in facilitating budgetary refunds for exports at a zero rate only for agricultural products with a high share of added value (for example, for the supply of finished products from grain and live animals, meat and egg products, butter). The introduction of decreasing coefficients in the reimbursement of agricultural raw materials will have no effect since it will only lead to an increase in administrative costs in the reimbursement of the tax and will not help to eliminate the existing imbalances in agriculture.

It should be noted that these changes in the taxation of value added will be resisted by representatives of large agrarian capital, focusing on the export raw material expansion of international commodity markets in the form of supplies of grain, industrial and oilseeds. Secondly, it is necessary to pay attention to this problem in the context of Ukraine's commitments to the European Community. This refers to the entry into force from January 1, 2016 of the Association Agreement between Ukraine and the European Union. Thus, Article 33 of the Agreement states that each party must ensure that it does not apply indirect protection of national goods or taxation of imports or exports for fiscal purposes. According to researchers (Annacondia, 2015; Bettendorf & Cnos-

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sen, 2015; Bocker & Finger, 2016), in the countries of the European Union, for example, in Austria, the fiscal authorities must make a decision on the return of budget funds for VAT within 4 months from the date of receipt of the application. The reimbursement period can be extended to six months when additional information is requested or to eight months when the authorities request additional information after the first request. In England, (Hemming & Kay, 1981; Ecker et al., 2012) set a 4-month deadline for regulatory authorities to decide on reimbursement.

However, the application period in Austria and England must not be more than one calendar year and cover a period of less than three months (except for the remainder of the calendar year, for example, from November to 31 December). Some aspects of the VAT refund procedure in Poland were reviewed by (Myck & Oczkowska, 2015), noting that funds are returned to the VAT payer on time, regardless of the industry. The deadline for the return of applications with VAT is determined in three ways: 25 days - an accelerated period, if all invoices are paid; 60 days is the usual period; 180 days - for those payers who did not have sales transactions.

The deadline for the return of budget funds as reported by the IMF's Fiscal Affairs Department, as noted by (Tait, 1988; Benedek et al., 2015), may be renewed under exceptional conditions: the VAT declaration contains incomplete information; the taxpayer has a very large amount to return; the tax payer was unable to answer the verification questions within a reasonable time; the tax authority suspects that the tax return is inaccurate or the taxpayer is engaging in fraudulent activity that requires an audit. The tax authorities must publicly announce the legal deadline for refunds. (James, 2015; Keen, 2007; Alavuotunki et al., 2019) confirm that the special regime of VAT levying in agriculture for a long time was a significant factor of state support in agriculture in the absence of a mechanism for guaranteed budgetary reimbursement of overpaid tax.

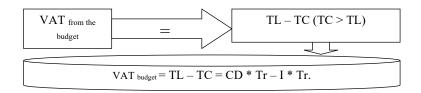
(According to Benedek et al., 2020), exemption from tax of any entity in the supply chain of goods from the manufacturer to the final consumer (except for the sale of goods to final consumers through the retail system) destroys the chain of "tax credit" and, accordingly, affects the mechanism of the budget VAT refund. (Benzarti et al., 2017; Weyl et al., 2013) focus on the fiscal mechanism for protecting national producers, an integral part of which is internal and external protectionism, which is impossible without government intervention. (Gaarder, 2019; Berardi et al., 2016; Kopczuk et al., 2016) proposed the structure of the mechanism, consisting of various fiscal forms, methods, tools, and levers to protect the domestic producer. (Kosonen, 2015; Poterba, 1996; Romer, 2010; Stern, 1987) are opposed to the transfer of foreign mechanisms of budget-ary compensation to the country or the preservation of old domestic mechanisms in new conditions since the borrowing process is not always effective and expedient

#### 3. Methodology and research methods

The methodological basis of the article is a system-dialectical approach to the study of economic processes and phenomena. During the research, the following general and special methods of cognition were used: when disclosing the forms of budgetary compensation - logical generalization, monographic; when considering the stages of formation and methodological approaches to the mechanism of budgetary VAT refunds to agricultural producers - induction, historical, logical generalization; when studying foreign experience and determining the advantages or disadvantages of the Ukrainian mechanism - comparison; in the analysis of fiscal aspects and assessment of the current mechanism of budgetary VAT refund - causation, tabular, analysis and synthesis, methods of grouping, logical generalization; when developing specific recommendations for improving the mechanism of budgetary VAT refund - forecasting, comparison, scientific foresight. Value added tax is an indirect tax, a mandatory payment of national importance with universal rates (0%, 7% and 20%) and tax liabilities of taxpayers to the state. VAT is included in the price of goods and is paid by the buyer to the seller as part of the cost of the purchased goods. The seller transfers the tax to the budget but not in the total amount of tax liabilities but in part of the latter, reduced by the amount of tax paid or payable to suppliers of goods. The amount of value added tax that must be transferred to the budget is determined by each business entity independently based on the results of activities in the reporting (tax) period. For the majority of VAT payers, the tax period is a month, for single tax payers of the III group or entrepreneurs under the general taxation system until July 1, 2020 - a quarter.

In such circumstances, the positive difference  $(VAT_{budget})$  between the amount of the tax liability (TL) and the amount of the tax credit (TC) is subject to payment to the State budget after 1 January 2017 based on the results of the tax period.

If there is a negative difference (TC > TL), this means that in the reporting period, the payer's tax credit exceeds the tax liability. The excess of the tax credit over the liabilities of the VAT payer indicates that in the reporting period, suppliers (sellers) were paid or accrued to pay more VAT than received (or are subject to) from buyers (customers). If there is a negative value, such a payer may be given the right, under certain conditions, to claim for reimbursement from the State budget in full or in part (TC > TL) (Figure 1).



## Figure 1: The procedure for determining the negative difference (TC>TL) by credit method, subject to reimbursement under certain conditions<sup>1</sup>

 $^{1}TL = CD^{*}Tr$ , where CD is the cost of delivery of purchased or products; Tr - a tax rate of 20% or 7% (according to the established list of goods, products),

TC = I\*Tr, ge I – the value of inventory or property acquired by the company from suppliers (sellers).

2 Systematized on the basis of Article 200 of the TCU.

The procedure for calculating the amount of tax to be reimbursed from the budget is enshrined in Article 200 of the Tax Code of Ukraine (TCU), taking into account the rules of electronic VAT administration. At the same time, the rules for determining the tax payable and reimbursing (crediting) the balance of the tax credit are not isolated from each other and are indicated in one paragraph of Article 200 of the Tax Code. The article has the following name - «The procedure for determining the amount of tax to be paid (transferred) to the State budget or reimbursed from the State budget (budgetary reimbursement), and the timing of calculations.» We believe that the procedure for paying tax to the budget and the legislative procedure for reimbursing budget funds should be separated from each other and specified in various paragraphs of Article 200 of the TCU.

In the future, the legislators took into account the presence of the taxpayer's obligations to the budget. If the manufacturer has not paid off the debts to the state, then he must show the declared

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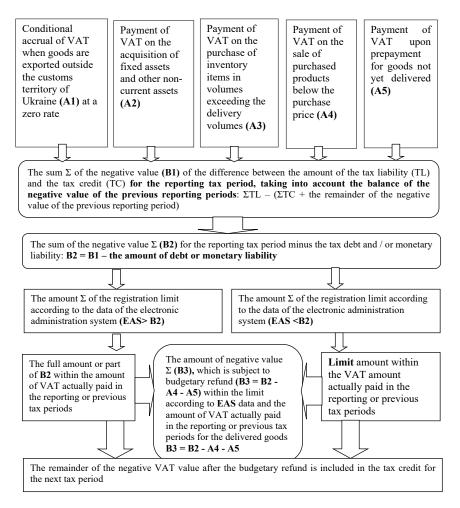
amount of a negative value (tax credit) in the tax declaration to reduce the tax debt (including the deferred tax debt) for VAT that arose for previous periods. Only after that, in the part not exceeding the amount of the registration limit, the payer has the right: to send the unreimbursed tax credit for budgetary refund to his current account; repay monetary obligations for other taxes and fees to the State budget with the amount of unreimbursed but paid credit; and add the balance remaining in the tax credit for the next reporting period. The current procedure for repayment of the negative VAT balance (except for further crediting to the account of VAT payments and other taxes to the budget) does not provide for other options for enterprises.

The reasons for the emergence of a negative value (balance) for VAT, for which the amount of the tax credit exceeds the amount of the tax liability and can later be claimed for reimbursement, are: export of goods outside the customs border of Ukraine, when a zero VAT rate is applied; purchase of fixed assets that are used in the economic activities of the taxpayer; purchase of inventory items in amounts that were not sold in the reporting period, are accounted for in the balances in warehouses and exceed the volume of supplies of goods; sale of goods at prices below the purchase price; and payment of VAT upon advance payment to suppliers for goods not yet delivered. The procedure for sending a negative VAT difference to form an application for reimbursement to agricultural producers in the presence of certain conditions (the difference must be paid and exceed the amount of the registration limit) are shown in Figure 2.

In addition to the imperfect algorithm for the distribution of input VAT with partial payment of VAT by manufacturers, an additional factor that prevented enterprises from declaring budget refunds was the statutory calculation of the share of unreimbursed tax credits in export operations for manufacturers. The loss of the force of Article 209 of the Tax Code of Ukraine (TCU) from January 1, 2017 automatically leveled these factors. This was to improve the receipt of the necessary financial resources by farmers. Since the amount declared for VAT refund is formed within the registration limit on an electronic account, then in the event of a shortage of funds, manufacturers cannot continue to declare funds for refund even if the amount of negative value for VAT that has developed and paid to suppliers is sufficient.

The payer has a problem: to declare a budget VAT refund (then the amount of the registration limit will decrease by the amount of the application and, accordingly, the possible option of a shortage of funds on the electronic account for registering tax invoices without additional replenishment) or refuse to submit an application for VAT refund to the regulatory authorities by sending free funds on an electronic account for registering tax invoices. In this case, the balance of VAT on an electronic account should be kept as a reserve in the event of the need to pay VAT to the budget. At the same time, the manufacturer may face the threat of blocking tax invoices when registering in the Unified Register of Tax Invoices (URTI).

The reason for blocking is the discrepancy between the volume of supplies of goods in the balance of such goods in conditions of exceeding the 50 percent level, that is, when they sell more than they buy. The lack of the remainder of the purchased agricultural raw materials is explained by the fact that the majority of farmers grow and collect, rather than buy. However, by order of the State Tax Service of Ukraine (STSU) dated 03.02.2020 No. 67, which regulates the procedure for blocking according to risk criteria in the conditions of the monitoring system functioning, risk assessment criteria (MSFRAC), exceptions for producers of agricultural products is not provided.



**Figure 2: Algorithm of the declared amount of budgetary refund of value added tax Note:** Developed by the authors.

This deprives agricultural producers from filing applications for refunds during the blocking period and postpones the receipt by the payer of budgetary VAT for an indefinite period. Since the amount of tax subject to budgetary reimbursement is determined only with a negative value of the amount actually paid to suppliers of products in previous reporting periods, in the absence of such payment, the manufacturer loses the legislative right to be able to claim an unreimbursed VAT credit for reimbursement. Special rules exist for crediting an unreimbursed tax credit in the form of crediting against future payments, which is one of the directions of budget refunds.

#### 4. Results

The originality of the study is manifested in the fact that the agriculture of Ukraine is one of the industries subject to active government intervention even in market conditions. This is mani-

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fested in special conditions of taxation, tax benefits and advantages for certain types of taxes, the use of a special tax regime. Agricultural taxation is constantly being reformed, but this does not guarantee its perfection. Instability, complexity and ambiguity of tax and customs legislation, pronounced fiscal nature (while suppressing the role of the regulatory function of taxation), insufficient use of mechanisms of budgetary value added tax refund to agricultural producers in order to stimulate entrepreneurial activity, and expansion of production do not allow the tax system to effectively perform its functions in agriculture. These circumstances necessitate the development of organizational measures to strengthen the incentive function of taxation in agriculture, based on a systematic analysis of the existing mechanisms of tax and customs regulation and the introduction of new mechanisms, taking into account the compliance and consistency of the planned changes of the entire set of institutional factors that determine the specific features of the development of the agro-industrial complex of Ukraine.

Changes in the taxation of VAT on farmers due to the termination of the special levy regime after January 1, 2017 necessitate its further study. Forms of illegal VAT refunds are associated with the use of such a scheme by enterprises: a scheme for VAT refunds from the budget when carrying out transactions for the sale of goods at prices lower than the cost of purchase and carrying out export transactions, at artificially inflated prices using an official manufacturer in the chain. The negative experience of using this scheme was taken into account by amending Article 188 of the TCU on January 1, 2015.

Today, the tax base of business transactions for the supply of purchased goods cannot be lower than the purchase price of such goods. With regard to operations for the supply of actually manufactured products, the usual prices are applied when determining the tax base. In the case of deliveries of fixed assets, the book (residual) value of the latter is used for the first day of the operation period (except for goods, prices for which are subject to state regulation).

The negative experience of using such schemes was adopted by some large agricultural companies, which began to be created after the entry into force of the Law of Ukraine No. 3528-15. It is not uncommon for monopolists - exporters of agricultural products, who claim amounts to be reimbursed and associated with other controlled related processing and trade sectors, due to manipulation of transfer prices- "transfer" part of their VAT-obligations to controlled agricultural enterprises. In the absence of legislative regulation of individual business operations, there is a risk of withdrawal from the budget in the form of budget compensation by enterprises in the real sector of the economy. As a result of this, the State Fiscal Service of Ukraine (SFSU) presented in 2015 the relevant schemes for business entities in order to prevent the use of a dubious tax credit in the activities of taxpayers.

An interesting proposal by (Hutorov et al., 2018) on the introduction of control over the processing of enterprises depends on the results of comparing data on the volumes of declared income from the sale of grown products with the amount of available land, the amount of salaries paid to employees and the amount of agricultural machinery. (Lupenko and Zhuk, 2018) propose the distribution of manufacturers into 8 categories: conscientious, "fictitious" with the volumes of likely overstated product sales exceeding UAH 5 million; "Unscrupulous", "affiliated", "undefined" (without the availability of land), "fictitious" producers with overstated volumes of up to UAH 5 million, "shadow" (sell their own products for cash), and "really operating" producers.

According to (Bocker and Finger, 2016), the minimization process is affected by the presence of eleven ways of evading payment and obtaining an illegal right to a tax refund from the budget (cash transactions, falsified invoices, falsification of accounting records, incorrect qualification of

the type of transactions, pseudo-export of goods, phantom firms, barter transactions, export by affiliated enterprises, change in the nature of the transaction, use of subcontractors, abuse of tax officials). (Cnossen, 2018) emphasized that enterprises - producers of agricultural goods, not acting as direct exporters of their own production- do not pay VAT accrued on the selling price of their own products, leaving it at their disposal for the development of the material and technical base. There is an indirect subsidization of the development needs of enterprises from the state budget. Not being eligible for a refund of the tax credit, the manufacturing enterprise loses incentives to carry out direct export supplies since as a result of such operations, additional funds in the form of VAT are not received. An intermediary exporter, on the other hand, is interested in purchasing products with a significant amount of VAT, which he claims for reimbursement from the state budget. The state budget must refund the amount of tax actually paid by the preliminary payers.

Agriculture is a vulnerable sector of the economy due to the seasonality of production and high dependence on the weather. The existing mechanism for non-refund of VAT to agricultural producers does not take into account the seasonality factor. Agricultural producers are more in need of financial resources in the first half of the year based on the results of seasonal work and not in the second half of the year, after the harvest takes place and the products are sold. Agricultural enterprises need to reimburse the negative tax credit as soon as possible on special VAT returns when the agricultural producer is most in need of resources.

This legalized method of non-payment of VAT had its supporters. Supporters argued that the positive value of VAT from agricultural activities is not paid to the budget, so there can be no question of refunding the tax credit under a special tax regime. In 2017, after the termination of the special VAT regime (subparagraph 4, paragraph 2 of Section XIX «Final Provisions» of the TCU) for agricultural producers, such arguments cannot be justified. The term "exporter-intermediary", in our opinion, is not acceptable from the standpoint of the norms of commercial law since the «intermediary» carries out operations under intermediary agreements (commissions, orders and agency agreements), which do not provide for the transfer of ownership of the goods supplied by the manufacturer. Therefore, an exporter of agricultural products, when carrying out operations under such contracts with producers, does not have the right to budgetary refunds.

In accordance with the legislation, we consider it necessary to apply the term "exporter who is not a manufacturer of purchased agricultural products" or "trading company - exporter" for transactions in contracts for the sale of agricultural products.

According to the Ministry of Finance of Ukraine (MFU), which made public its position in 2017, with advance payment for goods, the taxpayer has the right to a tax credit, the excess of which over tax liabilities gives the payer the right to claim a budgetary refund of this tax without receiving the goods. The tax service, whose opinion is decisive for taxpayers, prior to the publication of the position of the MFU believed that the applicant should not only pay for the goods but also receive them and only then declare an unreimbursed loan before returning from the state budget. After the appearance of the letter from the MFU, the fiscal authority changed its position (Letter from the SFSU 05/17/2018. No. 17093/6 / 99-99-15-01-01-15).

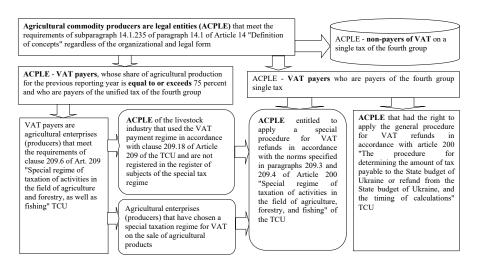
By the above-mentioned document, the MFU introduces a new legal norm in the TCU. The document is considered advisory until the MFU publishes the Generalizing tax advice provided for by law (clause 52.6 of Article 52 of the TCU).

By 2017, compared with the general procedure for determining the amounts to be reimbursed, there were peculiarities in determining the negative balance of the tax credit for agricultural producers under a special regime. The special regime was supposed to calculate it according to the

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rules specified in paragraph 209.3 of Article 209: the amount of VAT paid (accrued) by an agricultural enterprise is credited to the tax credit for the next reporting period. Therefore, an agricultural enterprise has the right to a budgetary refund of the tax accrued to suppliers of goods, only on the condition of the export of actually produced goods for export.

The procedure for determining the amount of tax to be reimbursed from the budget to agricultural producers under the special VAT taxation regime was regulated by paragraph 209.4 of Article 209 of the Tax Code of Ukraine. Agricultural producers had to, in accordance with Order No. 21 (as amended before January 1, 2017), first display export operations and the amount of the unpaid VAT tax credit in the corresponding lines of a special tax return, for which no calculations are made with the budget. After exporting their own manufactured products outside Ukraine, manufacturers had the opportunity to declare for reimbursement to the current account a formed tax credit for VAT within the limit determined by the formula in the ESA. The unrecovered balance of the tax credit based on the accounting statement was displayed by agricultural producers in 2017 in the general declaration, according to which settlements with the budget are made, by transferring it from a special declaration. The scheme for determining producers who were eligible for budget reimbursement under a special VAT regime is shown in Figure 3.



# Figure 3: Scheme for determining producers who were eligible for budget reimbursement under a special VAT regime

Note: Developed by the authors.

However, the supervisory authority did not propose an algorithm for determining the share of unrecovered tax credit in export operations and its documentary support in the form of an accounting statement. This is one of the reasons for the reluctance to declare by agricultural producers to refund VAT from the State Budget (SB) under a special regime.

The supervisory authority has its own view on the procedures for crediting the amount of negative value, which is subject to budget reimbursement in payment of monetary obligations or repayment of tax debt from other payments paid to the State budget. According to the latter, these operations can be carried out by payers only after the introduction of the software.

The EAS of VAT is organized at the central level by the STSU (Kiev). At the same level, there is an automatic calculation of the registration amount required for an agricultural enterprise in order to declare a negative paid balance on the tax credit for refund.

Despite the legislative regulation of this issue, from January 1, 2016, such a form of compensation as crediting a negative value towards the payment of monetary obligations or repayment of tax debt from other payments paid to the SB was not applied by payers due to the fact that the software was not put into operation at the level of the State Fiscal Service of Ukraine (SFSU). Some enterprises are forced to prove the need to apply such an enrollment procedure in court. This does not contribute to the establishment of partnerships and leads to the aggravation of conflict situations. This is relevant today, after the Law of Ukraine No. 909-VIII updated the right for payers to choose such a method of compensating for a paid negative value as crediting the declared budget refund to repay other payments to the SB.

In the future, the SFS slightly revised its vision of the possibility of crediting the paid unreimbursed tax credit against other payments to the budget, with the support of the MFU. In the opinion of the fiscal authority, upon applications from taxpayers, the SFS bodies enroll the amounts of budgetary VAT refunds in payment of monetary obligations or repayment of tax debt only for payments that go completely to the SB (for example, rent for the use of subsoil for oil or gas production). As for other national payments (such as corporate income tax, personal income tax, which are distributed in various proportions to the state and local budgets), it is impossible to credit the amounts of budgetary VAT refunds against the latter since the provisions of the TCU do not provide for such an order.

The need to separate the concepts of compensation and crediting the declared budget compensation against other payments to the budget was noted under the conditions of the Law No. 168/97. It is different to receive money from the budget and credit a negative value to other own obligations to the latter since it does not provide for the receipt of funds. It was believed that in the presence of a negative balance of the tax credit, the latter should first be used to reduce the previous and current VAT debt. Only then should the unused portion be returned to the manufacturer to the current bank account.

This issue becomes especially important after the entry into force of the VAT EAS. Since the payment of VAT liabilities in advance to meet the proven indicators by the supervisory authority is impossible, which took place before the commissioning of the EAS, according to the cards from the personal account code 14060100, «Value added tax on goods produced in Ukraine» cannot be different overpayments than the unreimbursed balance on VAT or erroneously (excessively) paid amounts on the electronic account for transfer of obligations. If the farmer has a balance of unreimbursed VAT on the current VAT account, the budget debt will not be reduced by the amount of accrued penalties (for example, for late registration of tax invoices in the Unified Register) and will be considered taxpayer tax debt until he: declares part of the negative value in the declaration of the current period as an amount to repay the VAT tax debt, or the payer will not pay the fines in cash.

Consider the position of the chief administrator in the electronic accounting system (EAS) for VAT – the STSU. Business entities are VAT payers: the amount that must be declared for reimbursement in tax reporting is determined based on the results of economic activity separately for each reporting period without a cumulative total (excluding the balance of a negative value that remained unpaid from previous periods).

The TCU and the Procedure for completing a tax return<sup>1</sup> do not provide for approaches to the order of accounting for the remainder of the negative value of previous tax periods when paying off tax liabilities of the current period and the procedure for detailing these amounts by periods of occurrence in annexes - decryptions to tax reporting. There is no generalizing tax advice of the

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MFU on this issue although the SFSU issued in 2018 several individual tax clarifications, which are opposite in content. This caused discontent among taxpayers and experts. We use the indicators of the declarations of the conditional enterprise for calculations (Table 1).

Table 1: Detailed calculation of the formation of a negative value of a conventional
agricultural producer by periods of occurrence, UAH

		Periods of the last year				Periods of the current year	
line declarations		September	October	November	Decemer	January	February
line 9 (total TL)		2000	4000	2500	5000	8000	-
line 10.1 (TC current)		12000	3000	1000	6000	3500	-
line 16.1 (TC p	revious						
periods)		-	10000	9000	7500	8500	4000
line 17= line 10 + line 16.1		12000	13000	10000	13500	12000	4000
line $19 = \text{line } 9 - \text{line } 17$		10000	9000	7500	8500	4000	4000
line 21= line 19- reimbursed		10000	9000	7500	8500	4000	-
		September	October	November	Decemer	January	February
	September	10000	-	-	-	10000	∑=10000
	_						(4000-3000)=1000 -
	October	9000	-	-	-	9000	10000
							(2500-1000)=1500
Traditional	November	7500	-	-	-	7500	- 9000
approach							(5000-6000)=1000
	Decemer	7500	-	-	1000	8500	+7500
							(8500-3500)=4500
	January	3000	-	-	1000	4000	-8500
	February	3000	-	-	1000	4000	-
	September	10000	-	-	-	10000	
Chronology method							(4000-10000)=6000 +
	October	6000	3000	-	-	9000	3000 = 9000
							(2500-9000)=3500+
	November	3500	3000	1000	-	7500	3000 +1000 = 7500
							(5000-7500)=1500+
	Decemer	0	1500	1000	6000	8500	+1000+6000 = 8500
							(8000-8500)=500 +
	January	-	-	-	500	3500	3500 = 4000
	February	-	-	-	500	3500	0
Combined	September	10000	-	-	-	10000	
approach =							(4000-10000)=6000 +
Chronology	October	6000	3000	-	-	9000	3000 = 9000
method							(2500-9000)=3500+
(October,	November	3500	3000	1000	-	7500	3000 + 1000 = 7500
November)	_						(5000-6000)=1000
+ Traditional	Decemer	3500	3000	1000	1000	8500	+ 7500
method						1000	(8500-3500-
(December +	January	3500	500	-	-	4000	500)=4500 - 8500
January)	February	3500	500	-	-	4000	0

\*Note. According to the accounting data of an agricultural producer, the tax credit for the winter period (December and January) is unpaid.

Note: Developed by the authors.

1 The procedure for filling out and submitting tax returns for VAT approved by Order of the MFU No. 21 dated 28.01.2016. In the previous normative documents on filling out and submitting tax returns for VAT (Orders of the State Tax Administration of Ukraine No. 41 dated 01/25/2011, the Ministry of Income and Duties dated 11/13/2013 No. 678, MFU Orders No. 1492 dated November 25, 2011 and September 23, 2014 No. 966) also there is no procedure for detailing the occurrence and distribution of the negative value amounts (NVA) that were claimed for compensation. In connection with the assignment of NVA in accordance with Order of the MFU No. 21 dated January 28, 2016 to the tax credit of the current period (in the previous approved forms of declarations, the balance of NVA of previous periods was accounted for separately from tax liabilities and tax credit of the current period). This problem requires a solution.

We analyzed two approaches to the distribution of negative tax values (traditional and chronological method) in tax reporting. Suppose that in the sixth reporting month (February) the payer did not carry out economic activities and declared a negative value in the amount of UAH 4000 to the supervisory authority for compensation. According to the tax reporting of the payer, it was established that the formed tax credit in December last year and in January this year is unpaid in the presence of accounts payable to suppliers. Therefore, it cannot be claimed according to legal requirements for reimbursement.

Let's summarize the indices of the decryption of the negative value (line 21 of the declaration) for six months, which can be claimed for reimbursement using one of three methods (traditional, chronology, and combined) and group the data in table. 2. The specified methods cannot always satisfy the enterprises since the sum of the remainder of the negative value is declared for reimbursement, provided that the applicant has settled with the suppliers for inventory items. Therefore, the largest debt to suppliers arises in the current periods. Working with permanent counterparties, the taxpayer - the buyer is interested in deferring payments or in partial payment in the absence of sufficient working capital at the time of receipt of claims from suppliers for payment in the current period.

It is more profitable to declare for reimbursement to the agrarian a paid tax credit formed in previous periods when the harvest took place (combined approach) in order to receive funds from the budget and pay off suppliers for current or future supplies during the off-season. The method of chronology proposed by the SFSU in letters dated 22.07.2016 No. 24830/7 / 99-99-15-03-02-17 and No. 15908/6 / 99-99-15-03-02-02, provides for the declaration of amounts (NVA) in recent periods (December and January), when the agrarian has the main amount of accounts payable to suppliers for the supplied inventory in case of insufficient or lack of funds for payment. Therefore, there is no reason to declare the amount to be reimbursed to the supervisory authority without paying the counterparty. If the applicant-VAT payer has enough funds and he works at the request of counterparties for prepayment, then it is more profitable for the latter to use the honology method of the paid tax credit, which is declared for refund.

According to Table 2, it was established that the unrecovered tax credit (line 21 January = line 16 February) in the amount of UAH 4000 (negative value of VAT) was formed: according to the traditional method in the amount of 3000 UAH in September and 1000 UAH as a tax credit (negative value) in December last year; according to the chronological method, in the amount of UAH 500 from December last year and UAH 3500 the balance of the tax credit in January of the current year; according to the combined approach, the negative value consists of the sum of UAH 3500 in September and UAH 500 in October last year. Therefore, an agricultural producer will be able to declare a budgetary refund only in the amount of UAH 3,000 if the traditional approach is applied and the entire amount of UAH 4,000 is applied in the context of the introduction of the combined method. According to the chronological method, the entire amount of UAH 4000 is unpaid and cannot be claimed for reimbursement.

The authors have improved the mechanism of budgetary VAT refunds for producers, which allows regulating at the level of VAT payers, tax and customs services, financial authorities of the state, and the system of budgetary VAT refunds for agricultural producers (Figure 4).

The provisions of the article on the elimination of obstacles for agricultural producers to declare the amount of the paid negative value for VAT will become an effective regulator for attracting an additional reserve of financial resources to the strategic sector of the Ukrainian economy - the agro-industrial complex.

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N⁰	Period (month of the year)	Traditional approach (not regulated in paragraphs 200.1- 200.4 of Article 200 of the TCU)	Chronology method (according to SFSU letters dated 22.07.2016 №№ 24830/7 / 99-99-15-03-02- 17 and № 15908/6 / 99-99- 15-03-03-02-02)	Combined method $(\sum 3 = (I + II + III) - Chronology$ method $\sum 4$ and $\sum 5 - III$ Traditional approach)
1	September	10000	10000	10000
	$\sum_{I} = (I)$	10000	10000	10000
	September	9000	6000	6000
2	October	0	3000	3000
	$\sum 2=(I+II)$	9000	9000	9000
3	September	7500	3500	3500
	October	0	3000	3000
	November	0	1000	1000
	$\sum 3=(I+II+III)$	7500	7500	7500
	September	7500	0	3500
	October	0	1500	3000
	November	0	1000	1000
	December	1000	6000	1000
	$\Sigma 4 = (I + II + III + IV)$	8500	8500	8500
5	September	3000	0	0
	October	0	0	2000
	November	0	0	1000
	December	1000	500	1000
	January	0	3500	0
	∑5= (I+II+III+IV+V)	4000	4000	4000
6	September	3000	0	3500
	October	0	0	500
	November	0	0	0
	December	1000	500	0
	January	0	3500	0
	February	0	0	0
	$\sum 6 = (I + II + III + IV + V + VI)$	4000	4000	4000
	$\sum$ subject to reimbursement	3000	0	4000

 Table 2: Generalized indicators of the sums of negative value declared by the conventional agricultural producer for reimbursement

\*Note: the traditional approach and the chronological method are systematized by source (Bettendorf & Cnossen, 2015) combined - calculations and suggestions of the authors.

### 5. Discussion

The TCU states that a budgetary refund is a refund, but the payer's right to receive a budget refund is made dependent on the confirmation of the legality of the amount of budget refund based on the results of the payer's audit. At the same time, the results of such an audit to reduce budgetary reimbursement are often appealed by payers and are recognized as illegal by court decisions. Then, the tax authority is obliged to return to the payer the amount of the negative value of VAT not based on the results of the audit but on the basis of a court decision. The norm on confirming the legality of budget refunds only based on the results of an audit by tax authorities is not final. The right to confirm the legality of the budgetary refund depends on the results of court decisions, which should be indicated in the TCU when determining the content of «budgetary refund». This is important for agricultural producers since they are the ones who come under the special attention of the regulatory authorities during inspections on VAT refunds. This is due to the fact that from July 1, 2015 to January 1, 2017, the tax authorities were prohibited from conducting documentary on-

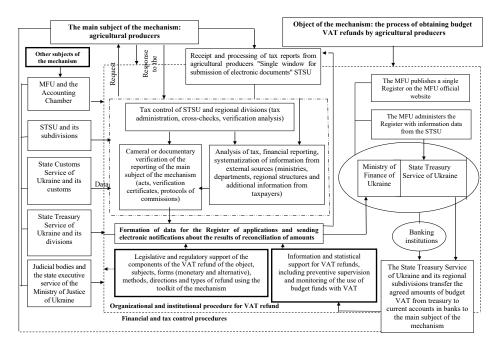


Figure 4: Mechanism of budget VAT refund to agricultural producers

Note: Developed by the authors.

site inspections of payers on the reliability of the declared budget VAT refund, except for the cases specified in paragraph 200.11 of Article 200 of the TCU. One of such cases is the supply of any product by agricultural producers who used a special VAT regime until 2017.

From February 1, 2016, legislators canceled automatic VAT refunds and changed the very procedure for its implementation through the formation of two equivalent registers. At the same time, no changes were made to Article 14 «Definition of concepts» on the essence of budgetary compensation, which led to confusion in the interpretation of the concept.

From January 1, 2017, after the amendments were made to the TCU, the corresponding legislative conflict on the automatic procedure in the wording of the budget compensation was eliminated. Now the budgetary VAT refund (subparagraph 14.1.18 of paragraph 14.1 of Article 14 of the TCU) is considered as a refund of a negative tax value on the basis of confirmation of the legality of the submitted claim by the tax authority and only after the latter checks the taxpayer.

There is a need for legislative regulation of the issue of criminal proceedings regarding business entities that do not relate to the declared amount by the payer to be reimbursed. There are frequent cases when, at the request of investigative structures, the fiscal or treasury authorities detain VAT refunds to payers, despite the fact that open criminal cases are not related to the declared amounts of taxpayers to be refunded.

The dependence of the determination of budgetary reimbursement on the results of audits established in the TCU should not take into account the results of the latter, which are appealed in court or appeal by both the taxpayer and the fiscal authority as well as the results of which criminal proceedings are initiated and a pre-trial investigation is conducted. Only after the completion

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of the cases and compliance with certain legislative procedures, the VAT amounts declared for reimbursement are subject to return from the budget. These procedures should be specified in subparagraph 14.1.18 of paragraph 14.1 of Article 14 of the TCU when interpreting the essence of the term «budgetary refund».

#### 6. Conclusions

Identified problems in the system of budgetary VAT refund are as such: tax audits and their consequences; refusal to register tax invoices; pressure from law enforcement agencies in criminal proceedings; and actual refusal of budgetary VAT refund without legal justification by the fiscal authorities.

The purpose of budget compensation as a mechanism should be a coordinated functional system of transparent and effective management decisions for timely receipt of budget compensation by agricultural producers for the purpose of state support and protection, regulation of the agricultural market, and stimulating consumer demand for products of a national producer.

An algorithm for the declared amount of budgetary VAT refunds in terms of electronic administration is proposed, which takes into account the factors that prevent agricultural producers from applying for budget refunds (unresolved approaches to tax calculations with a negative tax value).

The use of a combined approach to determining the paid tax credit is beneficial for producers. This makes it possible to claim for the refund of VAT generated in previous periods when the harvest took place in order to receive funds from the budget and pay off suppliers for current or future supplies during the off-season.

The regulatory framework for budgetary VAT refunds was improved, and attention was drawn to the lack of regulation at the legislative level of the procedure for paying VAT in advance payments to suppliers for goods not yet delivered and to the limited crediting of declared VAT amounts to repay future payments, which is one of the directions of budget refunds.

It was proposed, under the conditions of the TCU, to introduce a differentiated period of inspections depending on the categories of farming in the countryside: an accelerated procedure for small-scale agricultural producers and farms with the establishment of a deadline for filing applications (7 days - for a cameral inspection, 20 days - subject to an on-site inspection and 30 days - with a documentary field check). The proposed approach to determining the timing of inspections of VAT refunds, depending on various organizational and legal categories of business, will contribute to the efficiency of the general mechanism and accelerate the receipt of the necessary funds for product manufacturers in the shortest possible time.

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#### References

- Law of Ukraine On amendments to the tax code of Ukraine and certain legislative acts of Ukraine concerning ensuring balance of budgetary revenues in 2016 dated 24.12.2015 No. 909-VIII.
- Law of Ukraine On value added tax dated 03.04.1997 No. 168/97-BP. Retrieved from https://zakon.rada.gov.ua/laws/ show/168/97-%D0%B2%D1%80/ed19970403#Text
- Law of Ukraine On holding companies in Ukraine dated 15.03.2006 No. 34, Article 291. Verkhovna Rada of Ukraine. Retrieved from https://zakon.rada.gov.ua/laws/show/3528-15#Text
- Tax Code of Ukraine dated 02.12.2010 No. 2755-VI. Verkhovna Rada of Ukraine. Retrieved from http://search. ligazakon.ua/l\_doc2.nsf/link1/ed\_2011\_12\_14/an/9786/T102755.html
- *Order* On approval of forms and the procedure for completing and submitting tax reports on value added tax dated 28.01.2016 No. 21. Ministry of Finance of Ukraine. Retrieved from https://zakon.rada.gov.ua/laws/show/z0159-16#Text
- Letter of the Fiscal Service of Ukraine On the consideration of the proposals of the agroforum dated 17.05.2018 No. 17093/6 / 99-99-15-01-01-15. Retrieved from http://document.ua/pro-vrahuvannja-propozicii-agroforumu-doc348571.html
- On approval of the *List of commodity codes in accordance with the Ukrainian classification of goods for foreign economic activity*, which are used to determine the compliance of tax invoices / adjustment calculations with the riskiness criteria of the transaction. Order of the state tax service of Ukraine dated 03.02.2020 No. 67. Retrieved from https://tax.gov.ua/baneryi/zupinennya-reestratsii-pn/408738.html
- The association agreement between Ukraine, on the one hand, and the European Union, the European atomic energy community and their member states, on the other, dated 21.03.2014. *Document 984\_011*. Retrieved from https://zakon.rada.gov.ua/laws/show/984\_011#Text
- Annacondia, F. (2015). VAT registration thresholds in Europe. *International VAT Monitor*, *26*(6). Retrieved from https://www.ibfd.org/sites/ibfd.org/files/content/pdf/ivm\_2015\_06\_int\_1.pdf
- Alavuotunki, K., Haapanen, M. & Pirttilä J. (2019). The effects of the value-added tax on revenue and inequality. *The Journal of Development Studies*, 55(4), 490–508, DOI: 10.1080/00220388.2017.1400015
- Benedek, D., Mooij, R.A., Keen, M., & Wingender, P. (2020). Varieties of VAT pass through. *International Tax and Public Finance*, Springer; International institute of public finance, 27(4), 890–930. DOI: 10.1007/s10797-019-09566-5
- Benedek, D., Mooij, R.A., Keen, M., & Wingender, P. (2015). Estimating VAT pass through. Working Paper WP/15/214, Fiscal affairs department, International Monetary Fund.
- Benzarti, Y., Carloni, D., Harju, J., & Kosonen, T. (2017). What goes up may not come down: asymmetric incidence of value-added taxes. NBER Working Papers 23849, National bureau of economic research, Inc.
- Berardi, N., Sevestre, P., Tépaut, M., & Vigneron, A. (2016). The impact of a 'soda tax' on prices: evidence from french micro data. *Applied Economics, Taylor & Francis Journals*, 48(41), 3976–3994. DOI: 10.1080/00036846.2016.1150946
- Besley, T. J., & Rosen, H. S. (1999). Sales taxes and prices: an empirical analysis. *National Tax Journal*, 52(2), 157–78.
- Bettendorf, L., & Cnossen, S. (2015). The long shadow of the European VAT, exemplified by the dutch experience. *FinanzArchiv Public Finance Analysis*, 71(1), 118–139. DOI: 10.1628/001522115X14180276055734
- Bird, R., & Gendron, P. P. (2007). The VAT in developing and transitional countries. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511619366
- Böcker, T., & Finger, R. (2016). European pesticide tax schemes in comparison: an analysis of experiences and developments. Sustainability, MDPI. Open Access Journal, 8(4), 1–22.
- Cnossen, S. (2018). VAT and agriculture: lessons from Europe. *Int Tax Public Finance*, 25(2), 1–33. DOI: 10.1007/s10797-017-9453-4
- Ecker, T., Lang, M., & Lejeune, I. (Eds.). (2012). The future of indirect taxation: recent trends in VAT and GST systems around the world. *Kluwer Law International*: the Netherlands, Sydney law school research paper 12/40, 21–96.
- Gaarder, I. (2019). Incidence and distributional effects of value added taxes. Economic Journal, Royal Economic Society, 129(618), 853-876. https://doi.org/10.1111/ecoj.12576

Journal of Economy Culture and Society

- James, K. (2015). An introduction to the good VAT. In *The Rise of the Value-Added Tax* (Cambridge tax law series, 17-80). Cambridge: Cambridge University Press. doi:10.1017/CBO9781107358522.004
- Keen, M. (2007). VAT attacks!. Int Tax Public Finance, 14, 365-381 https://doi.org/10.1007/s10797-007-9037-9
- Kopczuk, W., Marion, J., Muehlegger, E., & Slemrod, J. (2016). Does tax-collection invariance hold? Evasion and the pass-through of state diesel taxes. *American Economic Journal: Economic Policy*, 8(2), 251–86. DOI: 10.1257/pol.20140271
- Kosonen, T. (2015). More and cheaper haircuts after VAT cut? On the efficiency and incidence of service sector consumption taxes. *Journal of Public Economics*, Elsevier, 131(C), 87–100. DOI: 10.1016/j.jpubeco.2015.09.006
- Hutorov A. O., Lupenko Y. O., Yermolenko O. A., Dorokhov O. V. (2018). Strategic management of the agrarian sector of economy based on the analysis of value chains. Bulletin of the Transilvania University of Braşov, Series II: Forestry, wood industry. *Agricult Ural Food Engineering*, 11(60), 2, 101–114.
- Lupenko I., Zhuk V. (2018) Land market and a village-keeping model of the agrarian system of Ukraine. In the common agricultural policy of the European Union the present and the future, Non-EU member states point of view (27-37), ed. M. Wigier, A. Kowalski, Series *Monographs of multi-annual programme*, 74.1, IAFE-NRI, Warsaw. DOI: 10.30858/pw/9788376587448.2
- Poterba, J. M. (1996). Retail price reactions to changes in state and local sales taxes. *National Tax Journal, National Tax Association, 49*(2), 165–176.
- Romer, C. D., & Romer, D. H. (2010). The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks. *American Economic Review*, 100(3), 763–801. DOI: 10.1257/aer.100.3.763
- Stern, N. H. (1987). The effects of taxation, price control and government contracts in oligopoly and monopolistic competition. *Journal of Public Economics*, Elsevier, *32*(2), 133–158.
- Weyl, E. Glen, & Fabinger, M. (2013). Pass-through as an economic tool: principles of incidence under imperfect competition. *Journal of Political Economy*, 121(3). http://dx.doi.org/10.2139/ssrn.1324426