Modeling of the functional dependence of VAT tax liabilities on input VAT for the enterprises

Tetiana Bulakh, Yuliia Rusina, Alla Koval, Olena Lytvyn, Olena Budiakova

Abstract— Enterprise input tax function introduced. The formulation of the problem is characterized by the fact that the average rate of tax liabilities from the budgeting of input VAT is inversely proportional to the non-received tax liabilities at the set tax threshold of the investigated enterprise with the coefficient of proportionality, which corrects the share of input VAT on the output of VAT level of economic activity of the enterprise. The problem is described by a nonlinear differential equation whose solution looks like a logistic curve. A study of the marginal value of the tax function, which depends on the marginal value of sales in production, which in turn depends not only on production capacity but also market demand. The coefficient of elasticity of the function of tax liabilities from budgeting of input VAT is calculated. The inequality solved for the elastic process of the VAT taxation function in the form of an elasticity interval, which is determined analytically and numerically for each enterprise and determines the limits of VAT budgeting costs. After statistically determining the parameters for the selected enterprises, an analytical expression of the VAT tax function from the input VAT was found, and a numerical solution of the inequalities of the enterprises' elasticities was found. As a result of the simulation l for the surveyed enterprises, it is proposed to increase the input VAT costs for entering the lower limit of the allowed input VAT interval.

Index Terms— Tax credit, accounting, marginal tax liability, elasticity, market share, production capacity, costs.

1 INTRODUCTION

VALUE added tax is an indirect tax, which is included in the price of goods (works, services) and is paid by the buyer, but its accounting and transfer to the state budget is carried out by the seller (tax agent). Local name of the tax Value-added tax (VAT) in Ukraine: Podatok na dodanu vartist (PDV). Date introduced 1 January 1992. Administered by State Fiscal Service of Ukraine (http://www.sfs.gov.ua). VAT rates: Standard 20%; Reduced 7%; Other - Zero rate and exempt. VAT number format Tax identification number (TIN): 12, 10 or 9 digits, depending on type of entity. VAT return periods: monthly (quarterly for certain groups of taxpayers). In general, supplies of goods and services, where the place of supply is within the customs territory of Ukraine, are considered taxable by Ukrainian VAT.

VAT accounting rules depend on how they are taxed in accordance with the Tax Code of Ukraine, on the basis of which the Instruction on accounting of value added tax approved by the Ministry of Finance dated 01.07.1997 № 141 (hereinafter - Instruction № 141). For accounting, VAT is a key document.

With regard to input VAT, the tax credit is formed by the operations of: purchase or production of goods and services; acquisition of fixed assets; receiving taxable services from a non-resident; import of non-current assets to the customs territory of Ukraine under operating or financial leasing contracts; importation of goods and / or non-current assets into the customs territory of Ukraine (clause 198.1 of the Tax Code of Ukraine).

In general, accounting for input VAT depends on which event was the first: they debited funds or received goods or services (Clause 198.2 of the Tax Code of Ukraine). The main factor in input VAT transactions is the fact of registration of the tax invoice in the Unified Register of Tax Invoices (ERPN). After all, without this tax credit will not be.

In the case of importation of goods, the tax credit shall be incurred on the date of payment of VAT on tax liabilities, and for transactions in the supply of services by a non-resident - on the date on which the payer made the tax invoice, subject to its registration with the ERPN.

With respect to tax obligations, the seller supplying the goods or services charges VAT tax liabilities (paragraph 185.1 of the Tax Code of Ukraine). In the general case, the tax due date is the first of the following dates: receipt of funds from the buyer / customer; shipment of goods (clause 187.1 of the Tax Code of Ukraine). In the case of supply of goods or services, it is necessary to focus on the lower threshold for calculating the VAT tax base: the cost of purchasing the goods (services); the usual price of self-made goods (services); the residual value of fixed assets (paragraph 88.1 of the Tax Code of Ukraine).

Instruction No. 141 does not specify what costs to write off the amount of excess of the minimum base over the contract value. When goods, services, non-current assets are purchased or manufactured, the full amount of VAT should immediately be included in the tax credit. However, if such acquisition is not related to the economic activity of the payer or the goods, services and fixed assets purchased with VAT are not planned to be used in non-economic activities or in non-VAT

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transactions, it is obligatory to calculate contingent VAT liabilities (Clause 198.5 of the Tax Code of Ukraine). Contingent tax liabilities are determined by the goods, services, non-current assets acquired for use in: non-taxable transactions - at the date of acquisition; taxable transactions, but began to be used in non-taxable transactions - at the date of their actual use, as specified in the primary documents.

In general, the input VAT is a tax credit. If such goods, services, non-current assets are used in part for taxable transactions and partly for non-taxable ones, VAT tax credits should be charged. In addition, the size of the share must correspond to the share of the use of such goods, services, non-current assets in non-taxable transactions. As a result of the year, the VAT payer recalculates the tax, which results in the calculation (reduction) of tax liabilities on the basis of the calculation of the adjustment registered in the Unified Register of Tax Invoices (paragraph 199.4). Today, the urgent problem is to ensure the effective functioning of the tax system, which creates the necessary flow of tax payments to the country's budget, which determines the implementation of domestic and foreign policy of the state, as well as financing social activities. Value added tax is a nationwide tax that provides cash to the state budget. Therefore, at the current stage of economic development there is a need to reform the tax system, which will determine changes in the tax legislation.

2 LITERATURE REVIEW

The issues of accounting and reporting on value added tax have received much attention in the economic scientific literature. The nature of VAT and its role in filling the budget, and the characteristics of VAT in tax and financial accounting systems are considered in [1,7,11]. Article [1] proposes the author's approach to determining the nature of value added tax. The authors note the importance of primary documents for displaying tax credit amounts and liabilities, and schematically show the sequence of the primary summation of VAT payments.

The author in his scientific work [2] substantiates the need to find ways to improve VAT reporting in the accounting system and proposes directions for improving VAT accounting at enterprises in Ukraine.

In [3] it is emphasized that it is better to use the method for VAT accounting when the moment of recognition of tax credit and tax liabilities is the date of actual realization of inventory. The author proposes to amend the Tax Code of Ukraine to abolish the method of "first event" in the calculation of VAT. value, which depends on the form of accounting and organization of accounting of the enterprise [5]. Determination of the essence of value added tax and prospects of its development in the field of improvement of accounting policies and enterprises in the field of VAT accounting is considered in scientific work [4]. The procedure for improving the accounting display of payments with the value added tax budget and the main trends of accounting for value added tax calculations are considered in [6]. The problems of institutional development in the field of administration of value added tax at the present stage are devoted to work [7, 8]. Features of taking into account the joint costs of enterprises, which facilitates the tax burden are considered in scientific work [9]. Features of the consideration of variable costs for the formation of marginal profit of the enterprise in terms of reengineering are presented in [10]. The features of accounting and reporting on value added tax in the context of legislative innovations and problems of tax policy development and taxation in Ukraine are considered in [12]. Similar problems in Germany are devoted to work [13, 14] On updated criteria similar to the requirements previously imposed on applicants for automatic compensation, and the speed of VAT refunds will depend on the controlling bodies, noted in scientific work [15].

3 THEORETICAL BASIS

3.1 Designation of variables

Let us denote the input tax function by $R(x_{\text{VAT}})$. From an economic point of view, the speed of tax liabilities from budgeting input VAT $R'(x_{\text{VAT}})$ is of interest.

When studying the velocity of this function it is necessary to consider its average value, ie. the average speed determined by the formula $\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})}$.

The task analysis requires the study of the marginal value of the tax liability function, which depends on the marginal value of sales at production $R_{\lim}$, which in turn depends not only on production capacity but also on market demand (a necessary study of the market share of the enterprise in the field of market relations).

Consideration is given to the relative deviation of the value of the tax liability $R_{\lim} - R(x_{\text{VAT}})$ threshold from the variable tax liability relative to the tax liability limit $R_{\lim}$, i.e. relative deviation $\frac{R_{\lim} - R(x_{\text{VAT}})}{R_{\lim}}$ (or by divisively dividing: $1 - \frac{R(x_{\text{VAT}})}{R_{\lim}} > 0$ hence $0 < \frac{R(x_{\text{VAT}})}{R_{\lim}} < 1$) - can be interpreted as unaccounted tax liabilities with the taxation threshold of the enterprise under investigation. Note that this value is dimensionless:

$$\frac{R_{\lim} - R(x_{\text{VAT}})}{R_{\lim}} = \left[\frac{\text{UAH} - \text{UAH}}{\text{UAH}} = 1 \right] \qquad (1)$$

The level of business activity of enterprise K. is considered. This corrects for the unrealized level of sales that the enterprise could receive in the event of approaching the limit $R_{\lim}$.

Note that it is possible to define the economic content of a derivative as the rate of change of an economic process, for example, if the average increase in the cost per unit of production is defined as $\frac{\Delta y}{\Delta x}$, where Δy - the increase in production costs, and Δx - the increase in production. Then the derivative $y' = \lim_{\Delta x \to 0} \left(\frac{\Delta y}{\Delta x} \right)$ expresses, for example, the marginal cost of production.

To study the function of tax liabilities from budgeting input VAT, considering its rate of change as an economic function, the average increase in tax liabilities per unit of input VAT is defined as $\frac{\Delta R}{\Delta x_{VAT}}$, where ΔR - the increase in tax liabilities of the enterprise, and Δx_{VAT} - the increase in input VAT of the enterprise .

Then the derivative $R' = \lim_{\Delta x_{VAT} \to 0} \left(\frac{\Delta R}{\Delta x_{VAT}} \right)$ expresses the marginal cost of the enterprise's tax liabilities or the rate of change in relation to the enterprise's VAT budget.

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3.2 Formulation of the problem

The formulation of the problem is characterized by the fact that the average rate of tax liabilities from the budgeting of input VAT $\left(\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})} \right)$ is inversely proportional (with the coefficient of proportionality G) to the unpaid tax liabilities at the set tax threshold of the investigated enterprise with the ratio of proportionality $G = \frac{b}{K}$ to the proportionality ratio for 1000 UAH. Implementation b, depending on the level of economic activity of the enterprise K.

Therefore, the first-order differential equation describing the economic process of VAT budget formation by business entities is

$$\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})} = \frac{1}{G} \frac{R_{\lim} - R(x_{\text{VAT}})}{R_{\lim}}, \quad (2)$$

$$R(0) = R_0, \; G = \frac{b}{K}. \quad (3)$$

where $R = R(x_{\text{VAT}})$ is the input tax function x_{VAT};

$\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})}$ - the average rate of the tax function from the input VAT budgeting;

$R_{\lim}$ - limit value of the function of tax liabilities (VAT on sales of products (sales)), provided that the tax credit is fully calculated;

$R(0) = R_0$ - Initial conditions: tax obligations on the initial level of product sales after payment of the tax liabilities that appear before the beginning of the input VAT process;

G - coefficient of inverse proportionality;

b - the share of input VAT per 1000 UAH. implementation;

K - the level of economic activity of the enterprise

Equation (2) gives the form of a first-order nonlinear differential equation (Bernoulli equation):

$$\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})} = \frac{1}{G}\left(1 - \frac{R(x_{\text{VAT}})}{R_{\lim}}\right) \Rightarrow$$

$$R'(x_{\text{VAT}}) = \frac{1}{G} \cdot R(x_{\text{VAT}}) - \frac{R^2(x_{\text{VAT}})}{G \cdot R_{\lim}}.$$

or, reduced to the following form

$$R'(x_{\text{VAT}}) - \frac{1}{G} \cdot R(x_{\text{VAT}}) = -\frac{1}{G \cdot R_{\lim}} \cdot R(x_{\text{VAT}})^2, \quad (4)$$

$$R(0) = R_0.$$

4 Results

To solve this equation, divide the left and right parts of equation (4) by $R(x_{\text{VAT}})^2 \neq 0$, we obtain the Bernoulli equation:

$$-\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})^2} + \frac{1}{G} \cdot \frac{1}{R(x_{\text{VAT}})} = \frac{1}{G \cdot R_{\lim}}. \quad (5)$$

We use the following substitution used for the Bernoulli equation:

$$\frac{1}{R(x_{\text{VAT}})} = U, -\frac{R'(x_{\text{VAT}})}{R(x_{\text{VAT}})^2} = U'. \quad (6)$$

Substituting the chosen substitute (6) into the differential equation (3), we obtain the first order differential equation of the following form:

$$U' + \frac{1}{G} \cdot U = \frac{1}{G \cdot R_{\lim}}. \quad (7)$$

We have the solution of equation (7) using the formula (8):

$$U = -e^{-\frac{1}{G} \cdot x_{\text{VAT}}} \cdot \left(-\frac{1}{R_{\lim}} \cdot e^{\frac{1}{G} \cdot x_{\text{VAT}}} + C \right) \quad (9)$$

Given the initial conditions $R(0) = R_0$ for the desired function, we find

$$R(x_{\text{VAT}}) = \frac{R_{\lim}}{1 + \frac{R_{\lim} - R_0}{R_0} e^{-\frac{x_{\text{VAT}}}{G}}}. \quad (10)$$

So, to investigate the function obtained in the form (10), we calculate the first derivative of the tax function from the input VAT budgeting:

$$R'(x_{VAT}) = -R_{\lim} \left(1 + \frac{R_{\lim} - R_0}{R_0} e^{-\frac{x_{VAT}}{G}} \right)^{-2} \cdot \left(-\frac{R_{\lim} - R_0}{R_0 G} e^{-\frac{x_{VAT}}{G}} \right); \quad (11)$$

Let's calculate the second derivative of the tax function of input VAT budgeting

$$R''(x_{VAT}) = \frac{R_{\lim} \cdot \frac{R_{\lim} - R_0}{R_0} \cdot e^{-\frac{x_{VAT}}{G}}}{G^2} \cdot \frac{\left(\frac{R_{\lim} - R_0}{R_0} \cdot e^{-\frac{x_{VAT}}{G}} - 1 \right)}{\left(1 + \frac{R_{\lim} - R_0}{R_0} \cdot e^{-\frac{x_{VAT}}{G}} \right)^3}. \quad (12)$$

And $R = R_{\lim}$ it is a horizontal asymptote of the curve of functional dependence of tax liabilities on the budgeting of input VAT.

Find the coordinates of the inflection point of the studied function of tax liabilities from the budgeting of input VAT (Fig. 1).

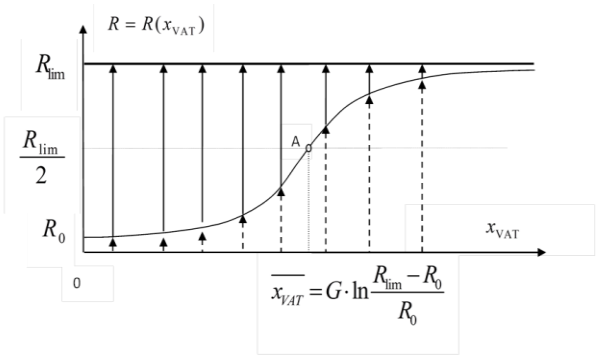

Fig. 1. Input VAT taxation curve

Therefore, the solution of differential equation (2) has the form of a logistic curve, which is shown in Fig. 1 is the functional dependency curve of tax liabilities on input VAT budgeting. In Fig. 1, dotted vertical arrows indicate the amount of tax liabilities, and solid vertical arrows indicate the amount of unused tax liability, or their unaccounted volume.

We calculate the coefficient of elasticity of the function of tax liabilities from the budgeting of input VAT (13) by the formula

$$k_{elast} = \frac{x_{\text{VAT}} \cdot R'(x_{\text{VAT}})}{R(x_{\text{VAT}})}. \quad (13)$$

Theoretically, if $|k_{elast}| < 1$, that is, one percent change in the input VAT budgeting leads to less than one percent change in tax liabilities, then the invoice tax function is inelastic. On the other hand, if $|k_{elast}| > 1$, meaning a one percent change in the inbound VAT rate leads to a tax change of more than one percent, and the inbound tax liability functions are considered to be flexible.

When solving inequalities $|k_{elast}| > 1$ there are limits and elasticity intervals that will be consistent with rational VAT budgeting when planning it. So, finally we get the coefficient of elasticity

$$k_{elast} = \frac{R_{\lim} - R_0}{R_0} \cdot \frac{1}{G} \cdot \frac{x_{\text{VAT}}}{e^{\frac{x_{VAT}}{G}} \left(1 + \frac{R_{\lim} - R_0}{R_0} e^{-\frac{x_{VAT}}{G}}\right)^2} \quad (14)$$

Solving the inequality $|k_{elast}| > 1$, we obtain the inequality for the elastic process of the tax function of the VAT budgeting in the form:

$$\frac{R_{\lim} - R_0}{R_0} \cdot \frac{1}{G} \cdot x_{\text{VAT}} - \frac{R_{\lim} - R_0}{R_0} > e^{\frac{x_{VAT}}{G}}. \quad (15)$$

Therefore, after the final statistical determination of the parameters $R_{\lim}, R_0, G$, inequality (15) must be solved numerically. The graphical representation of the function on the right side of the inequality (15) is a straight line (shaded area under the straight line) and on the right side an exponential function (shaded area above the curve). The area of their intersection has the shape of a hole, which is determined by the points of intersection (Fig. 2).

The abscesses of the intersection points x_{VAT_1}, x_{VAT_2} will determine the elasticity interval $(x_{VAT_1};\ x_{VAT_2})$ of the tax function of VAT budgeting (Fig. 2).

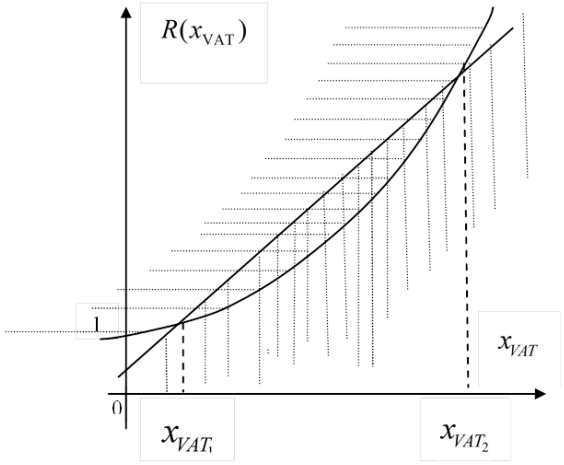

Fig. 2. Graphic solution of the inequality of elasticity of the function of tax liabilities from VAT budgeting

This elasticity interval will be called the interval of possible costs (rational costs) of input VAT, which is important to take into account when planning input VAT costs at an enterprise in order to optimally predict the impact of VAT on the economic activity of business entities. Thus, the inequality for the elastic process of the function of VAT tax liabilities in the form of elasticity interval is solved, which is determined analytically and numerically for each enterprise and determines the limits of VAT budgeting costs (Fig. 3). To do this, we impose two figures in Fig. 1 and Fig. 1 to their compatibility and first determine the elasticity interval and then apply it to the functional dependence curve, as shown in Fig. 3.

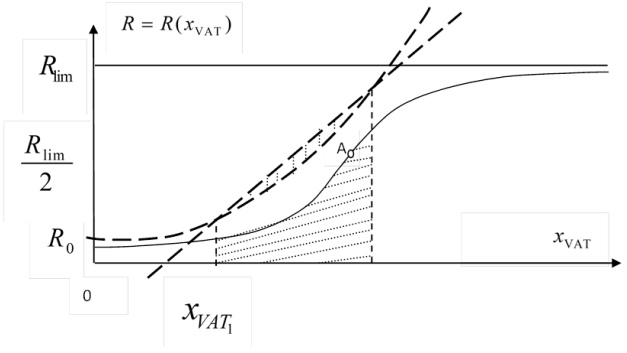

Fig. 3. Picture of the tax elasticity area of VAT budgeting

Determine the maximum possible level of tax liability for the selected companies House Building Combine 4 (E1) and Kovalska

Industrial and Construction Group (E2). Let us analyze the potential indicators of production, export, import, VAT of liabilities for the production of enterprises for 2014-2018.

$$П = 0{,}16667 \cdot (B + I - E), \quad (16)$$

where $П$ - the VAT of obligations on production of the enterprises in Ukraine;

B - volume of production (in terms of production of the studied enterprise);

I - total import of products;

E - total export of products.

Note that the formula (3.31) uses a factor of 0.16667. This is due to the fact that the VAT liability (20%) is one sixth of the sales volume of the enterprise. Hence, 1/6 = 0.1 (66). To increase the accuracy of the calculations, we take the accuracy of the fifth decimal place. Note that the demand for products still depends on the market share of the enterprise in the field of market relations with similar in production enterprises. On the other hand, since this level of tax liability is the maximum for the enterprise, it is necessary to consider the capacity of the enterprise to produce the maximum level of production. Potential market shares of the surveyed enterprises in the total output of the industry are presented in Table 1 on the basis of marketing research materials.

TABLE 1
DYNAMICS OF REAL AND POTENTIAL MARKET SHARES OF ENTERPRISES IN THE VAT STRUCTURE

Enter-prises	2014		2015		2016		2017		2018		Pave-rage
	Real	Pot	Real	Pot	Real	Pot	Real	Pot	Real	Pot	
E1	0,03	0,04	0,032	0,04	0,035	0,04	0,033	0,04	0,035	0,04	0,04
E2	0,04	0,05	0,039	0,05	0,042	0,05	0,044	0,05	0,047	0,05	0,05

Table 3.10 uses the following notation: Real - real, Pot - potential, Paverage - the average annual potential market share.

The calculation of the coefficient W that takes into account the maximum production capacity (taken per unit) is presented in Table 2.

TABLE 2
COEFFICIENTS OF MAXIMUM PRODUCTION CAPACITY

Enterprises	The coefficient of real power (Kreal)	Maximum power	$W = \frac{1}{Kreal}$	W* Paverage
E1	0,5	1	2	0,08
E2	0,4	1	2,5	0,125

Then the maximum level of tax liabilities of the enterprise is determined by the formula:

$$R_{\lim} = П \cdot W \cdot P, \quad (17)$$

where $R_{\lim}$ is the average annual tax level for 2014-2018;

$П$ - VAT obligations of the enterprise products;

P - the average annual potential market share of the enterprise;

W - coefficient that takes into account the maximum production capacity (capacity that allows the release of the maximum).

Table 3 presents the results of calculations of annual average tax levels of enterprises.

In order to determine the marginal level of tax liabilities of the enterprise on average for the month for the period 2014-2018, we divide monthly the marginal level of tax liabilities in proportion to the statistics of the tax liabilities of the enterprise for 60 months (2014-2018).), then the monthly average value of the enterprise tax liability limit is determined $R_{\lim}$: 76845 (thousand UAH) for E1 and 271649 (thousand UAH) for E2.

After the statistical determination of the parameters R_0, G for the selected enterprises, an analytical expression of the VAT tax function from the input VAT for E1 and E2 was found and the numerical solution of the inequalities of the elasticities of the enterprises E1 and E2 was found. In Table 3 finding the probability that the VAT time series values fall into the elasticity interval.

TABLE 3
ANALYTICAL FUNCTION EXPRESSION, INEQUALITY OF ELASTICITY, THE PROBABILITY THAT THE VAT TIME SERIES VALUES FALL INTO THE ELASTICITY INTERVAL FOR ENTERPRISES E1, E2

Enter-prise	Analytical function expression	Inequality of elasticity [solution] The probability that the VAT time series values fall into the elasticity interval {P}
E1	$R = \frac{76485}{1 + 8{,}373 e^{-\frac{x_{VAT}}{0{,}461}}}$, $\frac{R}{76485} = \frac{1}{1 + 8{,}373 e^{-\frac{x_{VAT}}{0{,}461}}}$. $\overline{R} = \frac{1}{1 + 8{,}373 \cdot e^{-\overline{x_{VAT}}}}$	$8{,}373 \cdot \frac{1}{0{,}461} \cdot (\overline{x_{\text{VAT}}} - 1) > e^{\frac{x_{VAT}}{0{,}461}}$. $x_{VAT} \in (0.610357; \quad 1.31063)$ the length of the interval 0,7001 {P=0,10385/0,7001=0,1483359}
E2	$R = \frac{271649}{1 + 6{,}317 e^{-\frac{x_{VAT}}{0{,}421}}} \Rightarrow$ $\frac{R}{271649} = \frac{1}{1 + 6{,}317 e^{-\frac{x_{VAT}}{0{,}421}}}$ $\Rightarrow$ $R = \frac{1}{1 + 6{,}317 \cdot e^{-x_{VAT}}}$	$6{,}317 \cdot \frac{1}{0{,}421} \cdot (x_{\text{VAT}} - 1) > e^{\frac{x_{VAT}}{0{,}421}}$. $[x_{VAT} \in (0.27421; \quad 0.71457)]$ the length of the interval 0,319 {P=0,319/0,4404=0,72434}

As can be seen from Table. The 3 discrete values with the coordinates of the smoothed VAT time series and the input VAT for the two enterprises partially fall within the admissible input VAT range (14.83% (E1); 72.43% (E2)). Thus, E1 input VAT costs were not effective. Therefore, it is necessary to increase the input VAT costs for entering the lower limit of the allowed input VAT interval.

4 DISCUSSION

Research into the impact of business value added tax is not always straightforward. Significantly reducing the effect of the use of VAT in Ukraine are some of the shortcomings in the value added tax administration system, as well as systemic problems with the tax refund. Therefore, the issue of eliminating the risks of the impact of value added tax on the enterprise is urgent. Analysis of the functioning of value added tax shows that it has a significant impact on the activity of business entities through pricing of goods, works, and services; immobilization of funds to pay the specified tax. This has a negative effect on their solvency. The questions of economic and mathematical modeling are caused by the complexity of managing the formation of VAT and its planning at the enterprise. Therefore, studies of the models of management of VAT formation in taxpayers and economic and mathematical modeling of the dependence of tax liabilities on the specified tax on the amount of input VAT deserve special attention.

5 CONCLUSIONS

The functional dependence of the tax liabilities of the enterprise on the input VAT was carried out using statistical and analytical methods, which made it possible to find a reasonable allowable interval of input VAT in the context of improvement of VAT planning. So. The method of input VAT planning is presented, which will improve the efficiency of business management of business entities and create conditions for the legal functioning of the real economy and a favorable tax climate. This will allow effective management of the formation of VAT in enterprises, as well as finding optimal solutions for the harmonization of relations between the state and VAT payers, reducing negative trends in financial relations at the macro and micro levels. Therefore, the functions of the dependence of tax liabilities on input VAT for each enterprise are modeled in order to increase the efficiency of VAT formation at enterprises and to establish (for each enterprise) VAT planning boundaries. This is necessary for efficient management of a modern enterprise, for which the tasks related to optimization of VAT payment terms and their formation are set out.

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