

THE CONCEPT OF "TAX GAP" AT THE MICRO LEVEL AND THE SPECIFIC CHARACTERISTICS OF ITS CALCULATION

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Annotation: Article 266 of the current Tax Code defines the conditions for crediting the paid value added tax. As a basis for calculating the value added tax according to this article, the fact that the tax is shown in the invoices or that the tax is paid to the budget in the case of goods being brought (imported) is taken as the main criteria. In practice, due to the fact that the value added tax is generated through electronic invoices and the fact that the payment of value added tax in the customs authorities is shown electronically on personal cards, it has become easier to establish control over the correct crediting of the tax. Nevertheless, there are problems in the implementation of control over whether the tax is actually paid to the budget by the counterparties when purchases are made from the domestic market, and whether it is correctly shown in the reports.

In order to solve this problem in an automated way, it is appropriate to calculate the "VAT tax gap" - value added tax gap or gaps in the value added tax chain, which is used in foreign practice.

In this paper, the concept of VAT tax gap, the author's recommendations on the formula for calculating this coefficient and the calculation algorithm are presented. By automating this algorithm, it will be possible to control the correct crediting of value added tax and provide additional tax revenue to the state budget.

Keywords: Value added tax, VAT tax gap, gap in value chain.

I. Introduction

The value added tax is one of the new forms of taxes that do not have a long history. If we consider that this form of tax was set up and implemented for the first time in the 1960s of the last century, and it currently implemented in more than 170 countries of the world, it clearly shows the importance of this form of tax. There are many studies and researches on VAT. However, the gap in value added tax or the gaps in the value added tax chain, that is, the "tax gap", is one of the areas that has not been fully studied because it is a relatively new concept. In particular, in Uzbekistan, the concept of "tax gap" is not provided for in any normative-legal documents, and no study has been conducted on this theory yet.

The gap in the value-added tax or the gaps in the value-added tax chain, that is, the concept of "tax gap" can be divided into two levels:

- macro level value added tax gap;
- gaps in the value added tax chain at the micro level.

II. Literature Review

Hutton (2017) provides a detailed definition of the macro-level value added tax gap and three approaches to its measurement.

At the macro level, the value added tax gap is the difference between the amount of tax that could be collected if all activities/income/assets in the economy were taxed at the standard tax rate, and the actual taxes paid as measured by on an accrual basis.

There are three main approaches of measuring the value added tax gap at the macro level:

1. **A top-down approach.** The main objective of this approach is the tax loss - defined as the difference between the estimated potential tax revenue and the actual revenue. Estimated potential tax revenue is calculated based on statistical data.
2. **A bottom-up approach.** In this approach, the lost tax revenue is selectively defined by conducting tax audits or other tax control activities on taxpayers.
3. **Econometric analysis.** In this approach, tax losses are calculated based on an econometric model and conclusions are drawn from the model's performance. But this method does not fully reveal the causes of tax losses.

Shakirova et al. (2014) explained that the following factors should be taken into account when calculating the tax gap:

- non-compliance with tax legislation due to mistakes made by taxpayers;
- tax evasion, including the impact of the "shadow" economy;
- tax arrears, etc.

A gap in the micro-level value added tax chain is a loss to the budget as a result of crediting by the reporting enterprise of uncalculated or unpaid value added tax by counterparty enterprises. Now that invoices are fully digitized, it is possible to theoretically calculate this gap factor.

In the research conducted by **Davleshina (2019)**, it was shown that the existence of such a practice in the Russian Federation causes gaps in the value added tax chain:

1. The human factor;
2. Avoiding taxes by using illegal ways of tax evasion or hiding the taxable base;
3. Technical error

Also, in the process of analyzing the tax deduction for VAT, "one-day enterprises" are identified, and such enterprises are divided into types depending on the "level of risk". Four types of risks are formed in tax practice:

- High risk of tax violations. That is, the volume of crediting in enterprises belonging to this category is high. Therefore, there will be no payment to the budget or it will be in a small amount. Also, enterprises of this category do not have fixed assets and employees.
- Medium risk of tax violations. Tax payers of this category are partially not fulfilling their tax obligations and are distinguished by the high amount of VAT crediting and the small amount of payments to the budget.
- Low risk of tax violations. Enterprises belonging to this category are those that are constantly fulfilling their tax obligations, have fixed assets, have employees and are financially active.
- Indeterminate level. The category of such enterprises mainly includes reorganized enterprises with no tax history.

Based on foreign experience, it would be appropriate to develop the possibility of theoretically calculating gaps in the value added tax chain in the Republic of Uzbekistan.

Therefore, in the following chapters of this article, the author developed proposals for the formula of the gap coefficient in the VAT chain and the algorithm for its calculation.

Tax gap coefficient formula.

Below is the formula for calculating the coefficient of the gap in the value added tax chain. The economic essence of this coefficient is that the tax sum calculated using the determined coefficient it will be possible to make corrections. The coefficient is between one and zero, and by multiplying the credited tax amount by this coefficient, the tax amount to be corrected would be determined.

$$TG_a = 1 - \frac{(\sum_{t=1}^n INP_t^{VAT} * Share_a^{INP} * Report_t^{VAT}) * (1 - \frac{Debt_t^{VAT}}{\sum_{t=1}^n FP_t^{VAT}}) * Cond_t^{Not\ Fraud} + \dots + (\sum_{t=1}^n INP_t^{VAT} * Share_a^{INP} * Report_t^{VAT}) * (1 - \frac{Debt_t^{VAT}}{\sum_{t=1}^n FP_t^{VAT}}) * Cond_t^{Not\ Fraud}}{(\sum_{t=1}^n INP_t^{VAT} + \sum_{t=1}^n INP_t^{VAT} + \dots + \sum_{t=1}^n INP_t^{VAT}) * Share_a^{INP}}$$

Here:

TG_a - The tax gap coefficient of company "a".

INP_n^{VAT} - The amount of VAT credited from the nth counterparty of company "a".

$Share_a^{INP}$ - The share of credit in all input VAT of company "a". $(\sum_{t=1}^{10} 010th\ row\ of\ VAT\ report) / 010^{th}\ row\ of\ 3^{rd}\ Annex\ of\ VAT\ report)$

$DEBT_n^{VAT}$ - The VAT debt of the nth counterparty of company "a".

FP_n^{VAT} - The VAT for payment of the nth counterparty of company "a". If $DEBT_n^{VAT} > FP_n^{VAT}$ then, $DEBT_n^{VAT} = FP_n^{VAT}$.

$Report_n^{VAT}$ - The submission of VAT report by the nth counterparty of company "a". If the VAT report submitted by the nth counterparty, it would be equal to 1, otherwise- 0.

$Cond_n^{Not\ Fraud}$ - Whether the nth counterparty of company "a" is not "suspicious". If the nth counterparty is not "suspicious", it would be equal to 1, otherwise to 0.

III. Algorithm for identifying gaps in the VAT chain at the company level.

Example: "a" - enterprise has "n" counterparties. A total of "s" the amount was credited from these enterprises for "p" period. The total VAT tax gap coefficient is calculated on the basis of the formula given in Part III for company "a", and this indicator is used to determine the total incorrectly credited VAT amount. In order to identify which enterprise was the reason for tax gap we will use following algorithm:

For the 1st counterparty:

(a) $\sum_{t=1}^p INP_1^{VAT} = \sum_{t=1}^p INP_{1\ correct}^{VAT} + \sum_{t=1}^p INP_{1\ incorrect}^{VAT}$

(b) $\sum_{t=1}^p INP_{1\ incorrect}^{VAT} = \sum_{t=1}^p INP_1^{VAT} * (1 - Report_1^{VAT} * (1 - \frac{Debt_1^{VAT}}{\sum_{t=1}^p FP_1^{VAT}}) * Cond_1^{Not\ Fraud}) * Share_a^{INP}$

$Share_a^{INP}$

(c) $\sum_{t=1}^p INP_{1\ correct}^{VAT} = \sum_{t=1}^p INP_1^{VAT} - \sum_{t=1}^p INP_{1\ incorrect}^{VAT}$

Here:

INP_1^{VAT} – The amount of VAT credited from the 1st counterparty of company "a".

$INP_{correct}^{VAT}$ – The amount of VAT correctly credited from the 1st counterparty of company "a".

$INP_{incorrect}^{VAT}$ – The amount of VAT incorrectly credited from the 1st counterparty of company "a".

$Share_a^{INP}$ – The share of credit in all input VAT of company "a". ($\sum_{t=1}^{12}$ 010th row of VAT report / 010th row of 3rd Annex of VAT report)

$DEBT_1^{VAT}$ – The VAT debt of the 1st counterparty of company "a".

FP_1^{VAT} – The VAT for payment of the 1st counterparty of company "a". If $DEBT_n^{VAT} > FP_n^{VAT}$ then, $DEBT_n^{VAT} = FP_n^{VAT}$.

$Report_1^{VAT}$ – The submission of VAT report by the 1st counterparty of company "a". If the VAT report submitted by the 1st counterparty, it would be equal to 1, otherwise– 0.

$Cond_1^{NotFraud}$ – Whether the 1st counterparty of company "a" is not "suspicious". If the 1st counterparty is not "suspicious", it would be equal to 1, otherwise to 0.

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for the the nth counterparty:

$$(d) \quad \sum_{t=1}^p INP_n^{VAT} = \sum_{t=1}^p INP_{n_{correct}}^{VAT} + \sum_{t=1}^p INP_{n_{incorrect}}^{VAT}$$

$$(e) \quad \sum_{t=1}^p INP_{n_{incorrect}}^{VAT} = \sum_{t=1}^p INP_n^{VAT} * (1 - Report_n^{VAT} * (1 - \frac{Debt_n^{VAT}}{\sum_{t=1}^p FP_n^{VAT}}) * Cond_n^{NotFraud}) *$$

$Share_a^{INP}$

$$(f) \quad \sum_{t=1}^p INP_{n_{correct}}^{VAT} = \sum_{t=1}^p INP_n^{VAT} - \sum_{t=1}^p INP_{n_{incorrect}}^{VAT}$$

Here:

INP_n^{VAT} – The amount of VAT credited from the nth counterparty of company "a".

$INP_{n_{correct}}^{VAT}$ – The amount of VAT correctly credited from the nth counterparty of company "a".

$INP_{n_{incorrect}}^{VAT}$ – The amount of VAT incorrectly credited from the nth counterparty of company "a".

$Share_a^{INP}$ – The share of credit in all input VAT of company "a". ($\sum_{t=1}^{12}$ 010th row of VAT report / 010th row of 3rd Annex of VAT report)

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$Report_n^{VAT}$ – The submission of VAT report by the nth counterparty of company "a". If the VAT report submitted by the nth counterparty, it would be equal to 1, otherwise– 0.

$Cond_n^{NotFraud}$ – Whether the nth counterparty of company "a" is not "suspicious". If the nth counterparty is not "suspicious", it would be equal to 1, otherwise to 0.

IV. **Problems and suggestions for the practical implication of the coefficient "Tax gap".**

Article 266 of the current Tax Code determines the procedure for crediting of paid value added tax. In accordance with this article, the taxpayer shall have the right to decrease the total amount of tax which is calculated in accordance with Article 265 of this Code, by crediting the amount of tax paid (payable) for the goods (services) which were actually received, provided that the following conditions are satisfied simultaneously:

1) the goods (services) are used in the performance of the taxpayer's activities with respect to the production and (or) sale of goods (services), the sales turnover of which is subject to taxation, including at a zero rate;

2) for the goods (services) received, the taxpayer has received an invoice or other document which is submitted by the supplier, in which the tax amount is separately highlighted, and the supplier of the goods (service) is registered as a taxpayer;

3) in case of carriage (import) of goods, the tax has been paid to the budget;

4) in the cases provided for by Articles 255 and 256 of this Code, the tax has been paid to the budget;

5) where the export of goods taxed at a zero rate, there is a bank statement which confirms payment by a foreign buyer (payer) for the exported goods.

Also, in part 12 of Article 266, the tax authorities shall have the right to rescind or adjust the credit where there is evidence that the right to credit arose as a result of an false or sham transaction for the purchase of goods (services).

In the proposed formula, the main conditions for tax crediting are as follows:

- A report on the tax being credited has been submitted by the counterparty;
- The recorded tax has been paid to the budget;
- That the counterparty of the tax amount to be taken into account is not a "suspicious" enterprise.

Although there is a similarity between the legislation and the conditions of the above formula, a number of amendments should be made to the legislation in order to use the formula in practice.

First of all, it is established that one of the sufficient conditions is when the tax payer for the goods (services) received according to the law receives an invoice or other document that separately specifies the amount of tax provided by the supplier, and the supplier of the goods

(services) is registered as a tax payer. But the non-submission of the report by the counterparty means that the value-added tax specified in the submitted invoice has not been reported or paid. This, in turn, leads to a decrease in budget revenue or a gap in the chain as a result of crediting the amount of tax that has not actually been paid. For this reason, it would be expedient to specify as a condition the submission of a report by the invoiced enterprises to the law.

Secondly, the state of tax payment to the budget is defined in Article 266 of the Tax Code only in 3 cases:

- when the tax is paid to the budget in the case of imported goods;
- In accordance with Article 255 of the Tax Code, when goods (services) are sold by foreign persons, tax is paid to the budget by tax agents;
- In accordance with Article 256 of the Tax Code, when tax agents pay tax to the budget when transactions with state property are carried out.

However, in other cases, the tax indicated in the invoices by the counterparties leads to a gaps in the value added tax chain, since the customers have the right to set off even if the tax is not actually paid to the budget. Therefore, it is necessary to include the condition that the tax has been paid to the budget in all cases.

Thirdly, in part 12 of Article 266, if there is evidence that the right to account was created as a result of a fraudulent or fraudulent transaction for the receipt of goods (services), tax authorities have the right to cancel or correct the account, but how to correct it? There is no procedure for its implementation. For this reason, in accordance with Article 14 of the Tax Code, when the court deems the transaction to be a fake transaction (made for the purpose of deception), according to Article 14 of the Tax Code, it is necessary to specify in Article 266 that the value added tax separately specified in the invoice issued by this taxpayer will not be credited.

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