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# Improving the Assessment of the Solvency of Authorized Economic Operators in Bulgaria

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Keywords: Authorized Economic Operator, proven financial solvency, financial analysis

<https://doi.org/10.55596/001c.88463>

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In achieving a balance between the ever-increasing requirements on customs administrations regarding the security and safety of international trade on the one hand, and the desire of merchants for easy and quick customs clearance of their goods on the other, so-called ‘simplified customs procedures’ and in particular, Authorized Economic Operator (AEO) status, play an important role. To obtain AEO status, several requirements (criteria) must be fulfilled, including proof of their financial solvency. To date, the Bulgarian customs administration has not developed a single method that allows a more accurate assessment of solvency. This paper presents an analytical method designed to achieve this aim.

## 1. Introduction

Modern European customs administrations strive to reduce customs procedures for economic operators who are honest in their dealings with them. Simplified customs procedures are increasingly being used in the European Union, and one of the ways to access them, with the highest degree of security for customs administrations and with the greatest benefits for companies, is via AEO status. By determining that certain members of the trading community are compliant, that is, ‘low risk’, the administration can focus its attention on those for which the risk has yet to be assessed. The World Customs Organization’s AEO program, which embodies the principles of risk management, encourages administrations to actively identify low-risk members of the international trading community for this reason (Widdowson, 2020). AEO status provides an opportunity for economic operators to access simplified customs procedures and helps to build reliable global supply chains (Antov, 2017).

Considering the importance of AEO status, its policies and procedures should be studied thoroughly with a view to improving their reliability and efficiency. The statutory criteria for providing economic operators with AEO status include: compliance with customs legislation and taxation rules, including zero records of serious criminal offences relating to the economic activity of the applicant; a satisfactory system of managing commercial and, where appropriate, transport records, which allows appropriate customs

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controls; practical standards of competence or professional qualifications directly related to the activity carried out; appropriate security and safety standards and proven financial solvency.

The fulfilment of the first four criteria is assessed through documentary and material checks generally accepted in the field of customs control and should not be considered a challenge for the customs authorities. However, the situation is different with the criterion of proven financial solvency of economic operators because the control mechanisms provided for it go beyond the scope of conventional customs control. In practice, solvency is proved using predominantly financial analysis, which can be regarded as an underused method in customs theory and practice.

## 2. The problem

The proven financial solvency criterion should not be underestimated, bearing in mind that the AEO certificate is issued for a future period, and it must guarantee with a reasonable degree of certainty the solvency of economic operators during the next three-year minimum period set by the legislation. Such decisions should be the result of a detailed study of the solvency of the economic operators, that is, of a thorough and expedient analysis, because the AEO companies can be considered to be a privileged user of simplified customs procedures. These persons receive easier access to customs facilities and preferential treatment in the execution of procedures under customs control throughout the territory of the European Union, and not only in the member state in which they have settled or are certified as an AEO.

According to the provisions of Art. 38 of the Union Customs Code<sup>1</sup>, companies applying for AEO status and those already certified should meet certain criteria for honesty and security in their relations with customs authorities throughout the EU, including the criterion of proven financial solvency. To prove the financial solvency of economic operators, the European Commission (EC) recommends that customs authorities consider two key financial indicators:<sup>2</sup>

- Net short-term asset value. This indicator is calculated by subtracting the short-term liabilities of the economic operator from the short-term assets.
- Net asset value. It is calculated by subtracting the total liabilities from the total assets owned by a given economic operator.

The two main indicators recommended by the EC, however, do not sufficiently prove the solvency of the AEOs. The grounds for this statement are as follows:

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<sup>1</sup> Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code, OJ L 269 (10 10, 2013).

<sup>2</sup> TAXUD/B2/047/2011 – Rev.6. Authorised Economic Operator Guidelines. European Commission, Directorate-General Taxation and Customs Union. Brussels, 11 March 2016, p. 44.

- Regarding the first indicator, the positive net worth of short-term assets (the difference between short-term assets and short-term liabilities of the company) only proves the presence of working capital. However, it is entirely possible that even with an increase in working capital during the three consecutive years laid down by the legislation, there may be difficulties in payments. Thus, for example, low-liquidity short-term assets (inventories and overdue receivables) may represent a relatively predominant portion of short-term assets.
- Regarding the second indicator, positive net worth of assets, defined as the difference between the total assets and the total liabilities, only indicates the presence of equity ( $E > 0$ ). However, there is such ready-to-use information in the balance sheet and in practice, there is no need to calculate it additionally. Moreover, the equity may be a positive value, but the company may have in practice lost its economic independence (the relative share of all liabilities may be many times greater than the equity share).

A specific economic operator may meet the recommendations of the EC on both main absolute indicators, but despite this, its solvency may not be proven. Similar comparisons based only on absolute indicators are made in financial analysis, but they are significantly more in number (Mihaylov et al., 2013) and are used only for the most general (initial) assessment of the financial position of the companies. In some of these comparisons, the equity is compared with non-current (long-term) assets and total liabilities, after which key balance sheet ratios are analysed — basic ratios are calculated, which by their nature are relative indicators. Even if the financial position of the company is assessed through six ‘conditions for financial sustainability’ based on absolute indicators, these conditions are considered ‘extremely insufficient’ (Todorov, 2014, pp. 215–219). Therefore, the two main absolute indicators recommended by the EC can be defined as a general assessment of the solvency of economic operators. However, the general assessment should be supplemented (extended) with an analysis of relative indicators, which should be part of a future methodology for analysing the solvency of economic operators.

Therefore, the two main absolute indicators recommended by the EC cannot be regarded as sufficient conditions (guarantees) for future repayment of the obligations of economic operators, including the obligations to the customs administration. They must instead be regarded as the beginning of a more detailed study aimed at proving the past and future solvency of a specific economic operator. The current requirements within the proven financial solvency criterion can be characterised as highly underestimated, due to which the risk of unjustified AEO certification is quite real. The prevailing approach for proving solvency testifies to an underestimation of this criterion in AEO certification. The customs administration granting the AEO certificate should guarantee to the public with a much higher degree of certainty that the

economic operator is solvent not only at the date of granting the certificate, but also in the foreseeable future (the next three-year period for which the AEO certificate is valid). The need for a more substantiated proof of solvency is also caused by the fact that the AEO certificate enhances the image of the economic operator.

Studying the positive net worth of short-term assets and total assets does not provide a definitive answer to the question: did the economic operator have solvency problems during the past period for which it had AEO certification? Moreover, using these two absolute indicators does not give an answer to the much more important question — will the economic operator be solvent during the next three-year certification period? By developing a suitable methodology for solvency analysis, not only can these questions be answered, but also the reasons for changes in solvency can be highlighted. When developing the methodology for analysing economic operators' solvency, a comprehensive approach focused on the use of a system of relative indicators in three directions should be applied:

- First direction: forming an integral indicator of economic operators' solvency. The analysis in this direction provides the opportunity to obtain a clearer picture of the solvency of a specific economic operator during the past certification period.
- Second direction: calculating an integral indicator which determines the probability of economic operators' bankruptcy. Such calculation is necessary to increase the degree of certainty regarding the operation of the company during the next certification period.
- Third direction: studying the specific indicators used in the formation of the two integral indicators.

An advantage of the proposed two integral indicators is that they represent a generalised expression of several specific financial indicators, which reduces the likelihood that the results of the analysis will be influenced by manipulation of the financial statements (Todorov, 2014). Studying the specific indicators contributes to the characterisation of solvency and the probability of bankruptcy from different points of view.

### **3. Forming an integral solvency indicator**

As regards the first direction (forming an integral indicator of economic operators' solvency), the suitable methods are ones for preparing complex assessments. Their advantage is in the possibility of carrying out a comparative analysis by multiple indicators, differing in the metrics used and in the way of interpretation with the same direction of change. This group includes: the taxonomic method; the method of sums; the method of geometric mean; the method of coefficients and the method of distances (Bakanov & Sheremet, 1995). The comparisons can be made based on absolute and relative indicators, but significantly greater weight is given to comparisons made using relative indicators (Kovalev & Volkova, 2002).

The taxonomic method is one of the most frequently used methods for preparing complex assessments. For the purposes of this paper, it is used to assess the financial solvency of Aurubis Bulgaria PLC. It is necessary to emphasise that the main point is not to analyse the current state of the company, but to present a methodology for assessing the solvency of AEOs. Therefore, actual data for a period of four consecutive calendar years, which are not specifically stated, are used. The analytical procedures are carried out in the following order:

**Stage 1.** A matrix  $X$  is created, in which  $n$  years<sup>3</sup> participate with  $m$  indicators. When forming the integral solvency indicator, it is necessary to include specific relative indicators that reflect the main aspects of the financial position:

- total liquidity ratio ( $TLR$ ), calculated as the ratio of current assets to current liabilities
- solvency ratio ( $SR$ ), which is the ratio of equity to liabilities
- interest coverage ratio ( $ICR$ ), giving an idea of the company's ability to pay interest expenses from the amount of gross profit (ratio of gross profit to interest expenses)
- current asset turnover ratio ( $TR$ ), calculated as the ratio of net sales to current assets
- return on equity ( $ROE$ ), which is a percentage ratio of net income to equity.

The values of the given relative indicators are obtained after processing the data in absolute terms from [Table 1](#) and are presented in matrix  $X$  in [Table 2](#), in which the five indicators are calculated for each of the four years.

**Stage 2.** Matrix  $X$  is replaced by matrix  $H$ . The members of the  $H$  matrix are found as the difference between the level of each indicator (for each year) of the  $X$  matrix and the average value of the corresponding indicator ( $\bar{x}$ ) is referred to the mean square deviation of the corresponding indicator ( $\sigma$ ). The mean values and mean square deviations of the indicators are calculated in [Table 2](#), and the new matrix  $H$  is differentiated in [Table 3](#).

**Stage 3.** [Table 3](#) presents a combination of data for a benchmark year (ideal state of solvency) — the optimal results of the company are selected for each specific indicator. In contrast to the ideal state, the most unfavourable levels of the indicators are arranged and a state of solvency, which is at a maximum distance from the benchmark, is distinguished. In the presence of such a

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<sup>3</sup> In the original version of the taxonomic method, matrix  $X$  is compiled by selecting  $n$  number of companies, which are compared according to  $m$  indicators. This is because the method is mostly used when rating the financial state of several companies or when comparing the results of homogeneous objects within a specific company. The present study compares four consecutive years: XXX1 – the year preceding the first audit of Aurubis Bulgaria PLC for the purpose of AEO certification; XXX4 – the year preceding the second audit of the economic operator and the two intermediate years (XXX2 and XXX3).

Table 1. Input information using data from the Republic of Bulgaria Registry Agency (n.d.)

Indicators (million EUR)	Symbols	Years			
		XXX1	XXX2	XXX3	XXX4
Current assets	CA	537.671	431.200	431.957	514.373
Current liabilities	CL	278.080	164.867	200.801	282.142
Total assets	A	752.459	648.317	633.669	706.540
Liabilities	L	358.427	178.884	211.191	293.443
Equity	E	394.032	469.432	422.478	413.097
Earnings before interest and taxes	EBIT	198.154	109.789	23.706	87.340
Net earnings	NE	115.693	102.816	19.382	61.138
Retained earnings	RE	244.537	317.378	266.708	267.892
Sales revenue	SRev	2,388.720	2,207.674	2,272.074	2,112.555
Interest expenses	IE	5.597	4.318	3.857	0.520

Table 2. Values of the specific indicators included in forming the integral solvency indicator

Indicators	Matrix X					
	Years				$\bar{x}$	$\sigma$
	XXX1	XXX2	XXX3	XXX4		
TLR	1.93	2.62	2.15	1.82	2.13	0.30
SR	1.10	2.62	2.00	1.41	1.78	0.58
ICR	35.40	25.43	6.15	167.97	58.74	63.94
TR	4.44	5.12	5.26	4.11	4.73	0.48
ROE	29.36	21.90	4.59	14.80	17.66	9.14

Table 3. Converted values of the specific indicators

Indicators	Matrix H					
	Years				Maximum	Benchmark
	XXX1	XXX2	XXX3	XXX4		
TLR	-0.65	1.60	0.07	-1.01	-1.01	1.60
SR	-1.17	1.44	0.37	-0.64	-1.17	1.44
ICR	-0.36	-0.52	-0.82	1.71	-0.82	1.71
TR	-0.61	0.82	1.11	-1.32	-1.32	1.11
ROE	1.28	0.46	-1.43	-0.31	-1.43	1.28

condition, the distance to the most unfavourable combination of indicators characterising the solvency of the studied economic operator can be calculated. On this basis, a distance scale is developed, through which more complete information on the solvency of the economic operator is obtained.

**Stage 4.** Additional calculations are performed using the method of least squares. In [Table 4](#) for each of the indicators the squared differences between their converted values by years and the converted values of the benchmark year are calculated. The same is done in relation to the year with the maximum remoteness from the benchmark. The sums of these differences (distances) give

Table 4. Distances of the converted values of the specific indicators to the converted values of the benchmark year

Indicators	Years				Maximum
	XXX1	XXX2	XXX3	XXX4	
<i>TLR</i>	5.04	0.00	2.34	6.81	6.81
<i>SR</i>	6.82	0.00	1.14	4.34	6.82
<i>ICR</i>	4.30	4.97	6.41	0.00	6.41
<i>TR</i>	2.96	0.09	0.00	5.89	5.89
<i>ROE</i>	0.00	0.67	7.35	2.54	7.35
<i>Sum of distances</i>	19.12	5.72	17.24	19.57	33.27

an idea of the remoteness of solvency for each year from the solvency of the benchmark year. The solvency of the economic operator is the highest during the year with the minimum sum of distances to the benchmark year.

**Stage 5.** Developing a scale of distances from the benchmark solvency. Depending on the sums of the distances of each year from the benchmark year and their positioning on the scale, the corresponding assessments in terms of solvency are drawn up. The offered scale is five-level — with two positive, one neutral and two negative intervals. Each year can receive one of five possible assessments. The assessment is favourable (very good or good) in the first two intervals, where the degree of remoteness tends to the minimum (zero). An average assessment is obtained at a moderate remoteness from the ideal state. The assessment is unfavourable (low or very low) in the last two intervals, characterised by the maximum remoteness from the benchmark year.

The scale of distances is developed in the following order:

- determining the initial point on the scale: it is always zero (this is predetermined by the minimum probability of a year existing with optimal levels of all indicators)
- setting the end point on the scale: it matches the sum of the distances of the year with the maximum remoteness from the benchmark year ( $D_{Max}=33.27$ )
- calculating the size of the scale interval ( $I$ ): it is obtained by referring the sum of distances from the benchmark year to the year with the maximum distance from the benchmark to the number of intervals:

$$I = \frac{D_{Max}}{5} = \frac{33.27}{5} = 6.65$$

- intermediate points positioning ( $Ip$ ) on the scale:

$$\begin{aligned} Ip_1 &= I = 6.65 \\ Ip_2 &= 2 \times I = 2 \times 6.65 = 13.31 \\ Ip_3 &= 3 \times I = 3 \times 6.65 = 19.96 \\ Ip_4 &= 4 \times I = 4 \times 6.65 = 26.62 \end{aligned}$$

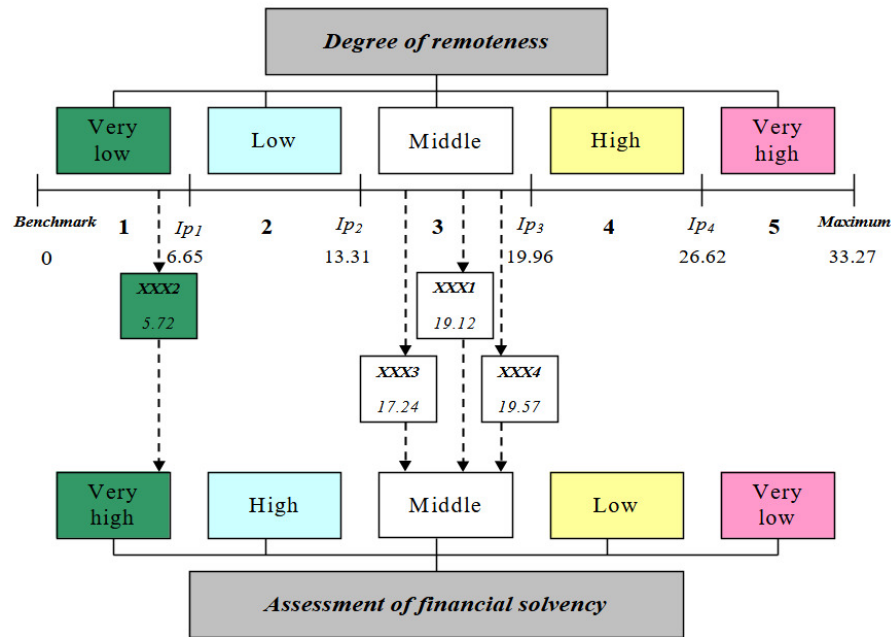


Figure 1. Scale of distances from the benchmark solvency

The developed scale, the solvency positions over the four years and the corresponding assessments for each of the scale intervals are presented in [Figure 1](#).

When comparing the sums of distances, some conclusions are drawn regarding the change in the solvency of the economic operator. In year XXX2, the company’s solvency is the highest (compared to the other three years). It is positioned in interval 1 of the scale with a sum of distances of 5.72 units. The year concerned is the only one falling in this interval (from 0 to 6.65 units), which is characterised by a very low degree of remoteness from the benchmark year and, accordingly, with a very good assessment. Solvency in the remaining years varies in interval 3, bounded by intermediate points 2 and 3 ( $Ip_2 = 13.31$  and  $Ip_3 = 19.96$ ). The solvency of the economic operator is the lowest in year XXX4 (compared to the other three years) — the sum of the distances (19.57) is the most remote from the benchmark solvency. The absence of values in the last two intervals of the scale, in which it would receive an unfavourable assessment, is considered a positive side in the analysis of the economic operator’s solvency.

#### 4. Calculating an integral indicator which determines the probability of bankruptcy

The second direction of the analysis (calculating an integral indicator, which determines the probability of economic operators’ bankruptcy) is used to study the possibility of problem-free operation of the company during the next period of AEO certification. The Z-score model of Professor Edward Altman is suitable for this purpose. It was created in 1968 and updated in 2004 by the team of Professor Steven Skiena. Although this model is not designed specifically for the Bulgarian situation, it is reliable in forecasting bankruptcy



Table 5. Application of the Z-score model

Indicators	Values of indicators by years				Weights	Weighted values of indicators by years			
	XXX1	XXX2	XXX3	XXX4		XXX1	XXX2	XXX3	XXX4
	0.34	0.41	0.36	0.33	1.200	0.41	0.49	0.44	0.39
	0.32	0.49	0.42	0.38	1.400	0.45	0.69	0.59	0.53
	0.26	0.17	0.04	0.12	3.300	0.87	0.56	0.12	0.41
	1.10	2.62	2.00	1.41	0.600	0.66	1.57	1.20	0.84
	3.17	3.41	3.59	2.99	0.999	3.17	3.40	3.58	2.99
Integral indicator Z						5.57	6.71	5.93	5.16

up to 80 per cent. It should be emphasised that the risk of bankruptcy always exists and there is no absolute guarantee for the future solvency of the economic operator. The model can complement (Todorov, 2014) the analysis of the economic operator's solvency in the first direction and increase the degree of certainty when performing certification. In addition, the period for which the forecast is prepared using the Z-score model coincides with the certification period of the economic operators, three years. The Z-score model has the following form:

$$Z = X_1 \times 1.2 + X_2 \times 1.4 + X_3 \times 3.3 + X_4 \times 0.6 + X_5 \times 0.999$$

Where:

$X_1$ : ratio between net working capital (CA-CL) and total assets (liquidity indicator)

$X_2$ : ratio between retained earnings and total assets (self-financing indicator)

$X_3$ : ratio between earnings before interest and taxes and total assets (profitability indicator)

$X_4$ : ratio between equity and liabilities (indebtedness indicator)

$X_5$ : ratio between sales revenue and total assets (turnover indicator).

With a value of the integral indicator  $Z < 0.91$ , the economic operator is at risk of bankruptcy within two to three years. Good financial health is observed at  $Z > 2.07$ . To increase the degree of certainty when assessing financial solvency, combinations of analytical models can also be used to determine the probability of bankruptcy, since over 130 models of this type are known in financial analysis (Kostova, 2019). For example, in another study by the author (Kulchev, 2021), a good interaction is established between a version of Professor Altman's Z-score model and one of the models of the Polish Academy of Sciences (Parkitna & Blaszczyk, 2012). [Table 5](#) presents the results of the use of the Z-score with the data of Aurubis Bulgaria PLC. In the last year (XXX4) the value of the integral indicator Z has the lowest value (5.16). However, this value is above the recommended value, 2.07 units, that is, bankruptcy of the economic operator is not expected within the next three-year period for which it is AEO certified.

Table 6. System of specific indicators used in the formation of the two integral indicators

Models	Recommended values	XXX1	XXX4	Dynamics	Assessment
<i>Specific indicators used in forming the integral indicator of the economic operator's solvency during the past certification period</i>					
$TLR = \frac{CA}{CL}$	1.0 - 3.0	1.93	1.82	-0.11	-
$SR = \frac{E}{L}$	> 1.0	1.10	1.41	+0.31	+
$ICR = \frac{EBIT}{IE}$	> 1.5	35.4	167.97	+132.56	+
$ROE = \frac{NE}{E} \times 100$	In dynamics	29.36	14.8	-14.56	-
$TR = \frac{SRev}{CA}$	In dynamics	4.44	4.11	-0.34	-
<i>Specific indicators used in forming the integral indicator, which determines the probability of the economic operator's bankruptcy during the next certification period</i>					
$X_1 = \frac{CA - CL}{A}$	In dynamics	0.34	0.32	-0.02	-
$X_2 = \frac{RE}{A}$	In dynamics	0.32	0.38	+0.05	+
$X_3 = \frac{EBIT}{A}$	In dynamics	0.26	0.12	-0.14	-
$X_4 = \frac{E}{L}$	> 1.0	1.10	1.41	+0.31	+
$X_5 = \frac{SRev}{A}$	In dynamics	3.17	2.99	-0.18	-

## 5. Studying the specific indicators used in the formation of the integral indicators

A more detailed characterisation of the solvency during the past certification period and the probability of bankruptcy of the economic operators is carried out in the analysis in the third direction (studying the specific indicators used in the formation of the two integral indicators). Six of the nine<sup>4</sup> specific indicators calculated in [Table 6](#) are characterised by unfavourable dynamics in year XXX4 compared to year XXX1. These changes, which refer to indicators with recommended values, are not beyond the established norms. Thus, for example, the *TLR* drops by 0.11 points (from 1.93 to 1.82) but is within the recommended values, from 1.0 to 3.0. This decline is the result of the increased value of current liabilities in year XXX4 (compared to year XXX1) with the parallel reduction of current assets.

The  $SR > 1.0$  and the  $ICR > 1.5$  are also within the recommended values. In addition, the *SR* increases by 0.31 points, and the *ICR* is not only characterised by favourable dynamics, but also repeatedly exceeds the recommended value. This is an indicator of the economic operator's ability to smoothly repay the interest on its obligations through the realised profit.

<sup>4</sup> The values of solvency ratio and of  $X_4$  coincide -  $SR = X_4 = \frac{E}{L}$

The *ROE* and the current assets turnover are lower in year XXX4 compared to year XXX1. The reasons for the decreased profitability should be sought in the simultaneous decline of net earnings and equity growth. The reduced current assets turnover is due to the outpacing rate of decrease in net revenue from product sales ( $88.44\% = 2,112.555 \text{ million } \text{€} / 2,388.720 \text{ million } \text{€} \times 100$ ) compared to the rate of decrease in current assets ( $95.67\% = 514.373 \text{ million } \text{€} / 537.671 \text{ million } \text{€} \times 100$ ). It is also necessary to point out that the values of four of the five specific indicators used in the formation of the integral solvency indicator in year XXX4 are below the average values for the past certification period of the economic operator (see [Table 2](#)). Only the *ICR* in year XXX4 exceeds the average value for the period.

An analogous research approach can be applied to the specific indicators used in the formation of the integral indicator, which determines the probability of an economic operator's bankruptcy during the next certification period. An advantage of this direction of the analysis is the highlighting of the specific indicators that have led to the deterioration of the economic operator's solvency. Summarising the results of the three directions analysed; the following conclusions can be drawn.

First, the solvency of Aurubis Bulgaria PLC deteriorated in the period between the two audits conducted for the purpose of its AEO certification. The observed deterioration of the solvency during the past certification period is not beyond the permissible limits (in none of the four studied years did the values of the integral solvency indicator fall into the last two intervals of the scale of the distances from the benchmark solvency, in which it would receive low or very low assessment).

Second, the payments of the economic operator during the next three-year period of AEO certification are not at risk (bankruptcy of the economic operator is not expected — the value of the integral indicator *Z*, which is used to determine the probability of bankruptcy, in year XXX4 is 5.16 with the recommended value above 2.07 units).

Third, an increase in solvency should be sought as regards current assets liquidity, turnover and *ROE*. In the case studied, these directions for improving solvency should not be accepted as restrictions for AEO certification.

## 6. Conclusion

In conclusion, to a certain extent the issues discussed are manifested not only on a national but also on a pan-European scale, as the AEO status of an economic operator is recognised by all EU member states. This, in turn, is related to the development and implementation of corrective measures, first by the Directorate-General of the Taxation and Customs Union of the EC (from the AEO group) and then by the customs administrations of the individual member states. The objective of the Revised Kyoto Convention (RKC) is to simplify and harmonise customs procedures. This objective has already been met and is working well in many areas that are regulated by the Convention (Wolffgang et al., 2020). At the same time, a comprehensive review of the RKC

is needed for modern and efficient customs procedures, including the status of AEO, the criteria for its granting and the evaluation of the performance of AEOs.

Since solvency is a multi-faceted object of study, it should not be assessed by customs administrations through two absolute indicators alone, which necessitates the use of an extended system of indicators. Despite the variety of indicators for studying financial solvency, it is possible to configure a system of indicators, the use of which will allow customs authorities to prove with a higher degree of certainty the fulfilment of the considered criterion when granting AEO status. The present study proposes a system of relative indicators, which includes the calculation of indicators for liquidity, self-financing, profitability, indebtedness and turnover. The system of relative indicators enables a more complete characterisation and assessment of the solvency of economic operators. This system, in accordance with the complex approach intrinsic to financial analysis, is implemented in three mutually complementary directions — formation of an integral solvency indicator, calculation of an integral indicator that determines the probability of bankruptcy and analysis of the specific indicators used in the previous two directions. The overall approach contributes to making a reasoned conclusion regarding the fulfilment of the proven financial solvency criterion by the economic operators.

As a result of the study, a method for analysing the solvency of economic operators is proposed, which includes the following stages:

- I:** providing the necessary information and its pre-analytical processing
- II:** generally assessing the solvency of economic operators through the two main absolute financial indicators recommended by the EC
- III:** forming an integral indicator of solvency of economic operators during the past certification period
- IV:** calculating an integral indicator, which determines the probability of bankruptcy of economic operators
- V:** studying the specific indicators used in the formation of the integral indicators
- VI:** drawing up a conclusion on the solvency of economic operators.

The proposed method will contribute to increasing the efficiency of customs control regarding the proven financial solvency criterion of the AEOs, while at the same time allowing the complete automation of the process through the development of specialised software. In this way, on the one hand, any problems with the qualifications of customs officials in the field of financial analysis are solved, and on the other, the possibilities of mistakes when applying the criterion and incorrect decisions regarding the granting of the status would be reduced to an objective minimum.

Submitted: June 26, 2023 AEDT, Accepted: August 28, 2023 AEDT



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