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PECULIARITIES OF APPLICATION OF ISA 540 IN AUDITING ACCOUNTING ESTIMATES

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Abstract: The audit of the evaluation of elements of financial statements in the modern market economy, is of particular importance, while various methods can be used: statistical, mathematical, costly, profitable, etc. At the same time, the auditor often faces uncertainty when evaluating a number of elements of financial statements. When conducting audit procedures, the auditor must take into account and assess the inherent risk, as well as the degree to which the accounting estimation is subject to uncertainty, the choice and application of the method, assumptions and data in calculating the accounting assessment, as well as the point assessment of the management of the audited entity and relevant information for inclusion in the financial statements. Having analyzed the provisions of ISA 540, taking into account the practical material, the author, using the data of a conditional example, concludes that when auditing accounting estimates, it is necessary to use the value of audit risk. The author has also developed a table that establishes the relationship between the results of deviations in accounting and audit estimates and the magnitude of audit risk and, accordingly, considers the response measures.

Key words: audit, accounting estimate, audit risk, management's point estimate, auditor's range.

JEL Classification: M42

Introduction

The modern world economy in its development acquires various features associated with digitalization, the creation of new technologies, and the improvement of working capital. These changes at the macroeconomic level directly affect the microeconomic level, that is, the level of the enterprise. At the microeconomic level, enterprises have many assets that must be reported in the financial statements at fair value or liabilities, for example: the creation of provisions, and this may also apply to the recognition of income, for example: under long-term contracts.

ISA 540 "Auditing Accounting Estimates and Related Disclosures" provides examples of the elements of financial statements to which an accounting estimate is applicable, as shown in Figure 1.

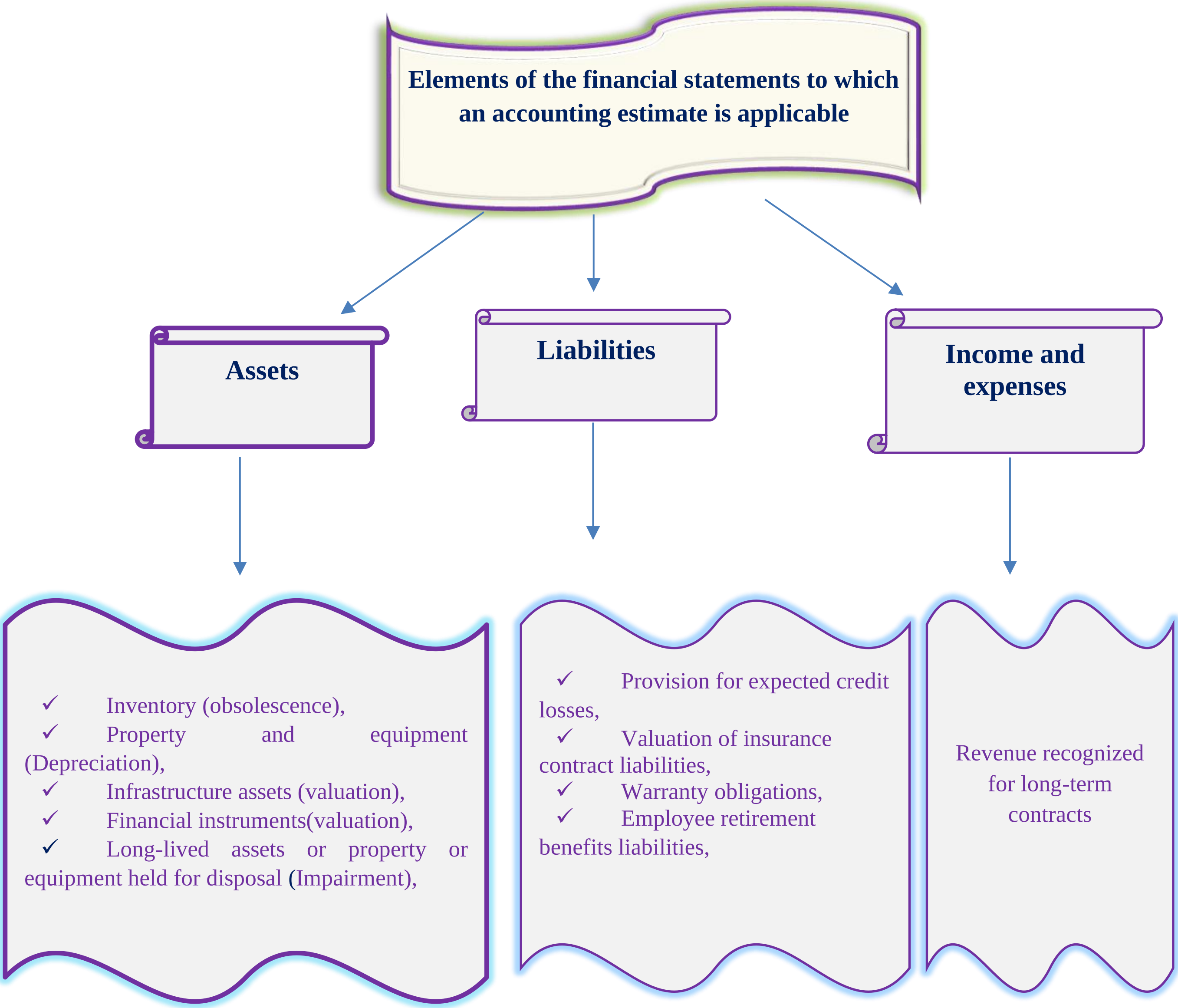

Figure 1. Elements of financial statements to which an accounting estimate applies
Source: developed by the author based on ISA 540

Thus, these items of financial statements may not be amenable to an accurate assessment, only their approximate estimation is possible, such items of financial statements are referred to as "estimated values". The nature and reliability of the information that the company's management can use to justify the estimated value vary significantly, which affects the degree of uncertainty associated with the estimated values. The degree of uncertainty of the assessment, in turn, affects the risks of material misstatement of the estimated values, including their sensitivity to unintentional or intentional bias of the management of the audited entity.

ISA 540 ”Auditing Accounting Estimates and Related Disclosures” defines ”accounting estimate – a monetary amount for which the measurement, in accordance with the requirements of the applicable financial reporting framework, is subject to estimation uncertainty”. (ISA540, 2021). While ”auditor's point estimate or auditor's range is an amount, or range of amounts, respectively, developed by the auditor in evaluating management's point estimate”. (ISA540, 2021). The purposes of calculating the estimated values may vary depending on the specifics of the applied concept of preparing financial statements and the specific item of financial statements. Some estimated values are calculated in order to predict the result (outcome) of one or more operations, events or conditions that make it necessary to calculate the estimated value. The purpose of calculating other estimates, including many estimates of fair value, is different, namely, determining the value of the current transaction or financial statement item, taking into

account the conditions that existed at the measurement date, such as the estimated market value of a particular type of assets or liabilities

Analysis of the provisions of the ISA 540 "Auditing Accounting Estimates and Related Disclosures"

The purpose of the audit of financial statements in terms of compliance with the provisions of ISA 540 "Auditing Accounting Estimates and Related Disclosures" is to obtain sufficient appropriate audit evidence that:

✓ *the estimated values (accounting estimate), including fair value estimates, recognized or disclosed in the financial statements are justified;*
✓ *appropriate disclosures in the financial statements are sufficient in the context of the applicable financial reporting framework.*

The difference between the actual result of the estimated value and the amount that was initially recognized or disclosed in the financial statements does not necessarily constitute a misstatement of the financial statements.

The auditor is required to receive written statements from management and, if appropriate, from persons responsible for corporate governance, in which they would express their opinion on the validity of significant assumptions used in the calculation of estimates.

The standard requires the auditor to conduct procedures to confirm accounting estimates.

To perform the procedures, the auditor must establish:

○ what are the requirements of the applicable financial reporting framework that are important for the estimated values, including the appropriate disclosure of information;
○ how does management identify transactions, events and conditions that may lead to the need to recognize estimates in the financial statements or disclose information about them in the financial statements;
○ how does management calculate the estimated values, as well as what data information they are based on, including:
▪ *what is the method, including, if applicable, the model used in calculating the estimated value,*
▪ *what are the significant controls;*
▪ *did the management involve an expert;*
▪ *what are the assumptions on the basis of which the estimated values were calculated;*
▪ *whether there has been or should have been a change compared to the previous period in the methods used to calculate the estimated values; if so, for what reason;*
▪ *has management assessed the impact of valuation uncertainty; if so, how it was done.*

Testing of management's calculation of the accounting estimate may, for example, include:

- ➢ testing the accuracy, completeness and significance of the data from which the estimates are derived and the correctness of the estimates derived using such data and management's assumptions;
- ➢ an examination of the source, significance and reliability of external data or information, including data or information obtained from external experts whom management has engaged to assist in the calculation of estimates;
- ➢ recalculation of the estimated value and study of information about it in order to verify its internal consistency;
- ➢ examining processes for reviewing and approving estimates by management.

When performing procedures, the auditor produces an audit point estimate or range of estimates, which is the amount or range of values that are calculated on the basis of audit evidence for use in the analysis of management's point estimate.

Conditional example. The auditor conducts an audit of the financial statements of the company "Alfa" for the reporting year, the main activity of the company is operating leasing, the company's balance sheet asset reflects investment property, which, according to the accounting policies, is reflected at fair market value as of the reporting date at cost of 10,000,000 lei.

According to the Law on Evaluation Activities of the Republic of Moldova No. 989 Article 6. ”Evaluation methods”: (LawEvaluation, 2002) when determining the value of valuation objects, the following methods are used:

a) a method of comparative analysis of sales based on a comparison of the valuation object with objects sold or offered for sale having similar characteristics;

b) a revenue method based on the determination of future income and expenses associated with the use of the valuation object;

c) a cost-based method based on determining the cost of creating an object similar to the object of evaluation, or the cost of replacing the object being evaluated.

The auditor estimated by the method of comparative analysis of sales that such a building was sold for 9,200,000 lei,

The revenue method for example: the annual accrued rent (hire) is 950,000 lei, the rate on bank loans is 10%, respectively, the market value of the building is 950,000/0.1 =9 500,000 lei.

The cost method (in this case, it is necessary to make estimates, which are made by construction economists) is, say, 8,500,000 lei.

Data on the valuation of the property by various methods are presented in the table below.

Table 1 Data on the evaluation of the object by various methods

indicators	**method of comparative analysis of sales**			**cost-based method**			**revenue method**		
	Accounting estimate, lei	Auditor's estimate, lei	Absolute deviation, lei	Accounting estimate, lei	Auditor's estimate, lei	Absolute deviation, lei	Accounting estimate, lei	Auditor's estimate, lei	Absolute deviation, lei
Real estate valuation	9 000 000	9200000	200 000	10 000 000	9500 000	500 000	8 200 000	8 500 000	300 000

Source: compiled by the author based on data from a conditional example

Thus, analyzing the data obtained, we can state the following:

1) according to the method of comparative sales analysis, the auditor's estimate in relative terms differs from the accounting estimate by 102.22%,
2) according to the cost method, the auditor's assessment in relative terms differs from the accounting assessment by 95%,
3) according to the revenue method, the auditor's estimate in relative terms differs from the accounting estimate by 103.7%.

Therefore, analyzing this assessment by various methods, we can state that the deviations between the estimation of the auditor and the accountant did not exceed 5%. In accounting, the fair value of the object amounted to 10,000,000 lei, while the auditor estimated this object at 9,500,000 lei, thus, at the level of information disclosure in the financial statements, the deviations amounted to 5%.

When deciding on the confirmation of an accounting estimate, according to the author, it is necessary to take into account the level of audit risk that the auditor has established for the audit of the relevant financial statements. Suppose, taking into account the data of the conditional example, the auditor has set the audit risk at the level:

a) 10%,
b) 2%.

In case a), when the relative deviation of the audit estimate (5%) is less than the established audit risk, according to the author, the auditor has every reason to confirm the accounting estimate. In case b) the audit risk (2%) is less than the relative deviation (5%) in this case, according to the author, the auditor should conduct additional procedures to confirm the accounting assessment.

It should be noted that ISA 315 "Identifying and Assessing the Risks of Material Misstatement" (ISA315, 2021) also requires estimation of the risk of control when assessing the risks of material misstatement at the level of statements. When estimating the risk of control, the auditor takes into account whether further audit procedures involve testing the effectiveness of controls. If the auditor does not plan to verify the operational effectiveness of controls or does not intend to rely on their effectiveness, then the audit assessment of control risk is such that the estimation of the risk of material misstatement coincides with the assessment of inherent risk.

The auditor, based on the audit procedures performed and the audit evidence obtained, should evaluate whether the accounting estimates and related disclosures are fair in the context of the applicable financial reporting principles or are misrepresented. At the same time, reasonable assurance in the context of the applicable financial reporting system means that the relevant financial reporting requirements have been properly applied, including the following : (AtaGlanceISA540, 2018)

• *an accounting estimate, including the choice of method, assumptions, and the facts and circumstances of the entity;*
• *management evaluations; and*
• *disclosure of information about an accounting estimate, including disclosure of information about how the accounting estimate was developed, as well as the extent and sources of uncertainty in the estimates.*

In estimating inherent risk, in identifying the risks of material misstatement associated with an accounting estimate and related assertion-level disclosures, including separately evaluating inherent risk and assertion-level control risk, the auditor should consider the following:

❖ the extent to which an accounting estimate is subject to estimation uncertainty;
❖ complexity, subjectivity or other inherent risk factors that affect:
✓ *the methods, assumptions, given in the preparation of an accounting estimate, taking into account their choice and particular application,*
✓ *a point estimate of management and related information for inclusion in the financial statements.*

It should be noted that often when auditing accounting estimates, uncertainty arises. Estimation uncertainty is the impact on an estimate and related disclosures of insufficient calculation accuracy. The auditor is required to determine whether, in his professional judgment, any of the estimates with a high degree of uncertainty would give rise to significant risks. In this case, it is necessary to analyze the need to involve an expert.

One of the methods that management can use is sensitivity analysis. This method may involve determining how the monetary value of the estimated value changes when using different assumptions. Due to the fact that different market participants apply different assumptions, changes are possible even for the estimated values determined at fair value. Based on the results of the sensitivity analysis, it is possible to prepare a number of scenarios of results – "pessimistic" and "optimistic", sometimes referred to as "the range of results calculated by management".

The auditor should determine whether there is a possible management bias in the calculation of estimates, indicators that indicate a possible management bias in the calculation of accounting estimates are:

○ *changes in the accounting estimate or the method of its calculation based on management's subjective opinion of a change in circumstances;*

○ *the entity's use of its own assumptions in measuring fair value, even though those assumptions are inconsistent with observable assumptions by market participants;*

○ *selecting or making significant assumptions that result in a point estimate that is beneficial to management.*

Due to the many difficulties in auditing accounting estimates, the International Auditing and Assurance Standards Board (IAASB) has introduced At a Glance ISA 540 and Related Conforming and Consequential Amendments.

At the same time, ISA 540 "Audit of Estimated Values, including fair value measurement, and related disclosures" establishes: (AtaGlanceISA540, 2018)

➢ *the necessity to study the factors of inherent risk,*

➢ *improved risk assessment procedures related to understanding the company and its internal control system,*

➢ *assessment of the inherent risk and control risk for accounting estimates*

➢ *requirements based on the purpose of the work, through methods (especially when complex modeling is used), data and assumptions, to conduct audit procedures to eliminate the risk of material errors*

➢ *introduction of "deferred requirements" upon receipt of confirmatory and contradictory evidence during the audit of accounting estimates,*

➢ *the need to obtain audit evidence, if additional disclosures are required,*

➢ *the inclusion of issues related to accounting estimates with persons responsible for corporate governance.*

Considering the inherent risk factors associated with the risk of control, it can be stated that the following indicators should be taken into account:

✓ *estimated uncertainty (lack of clarity in measuring accounting estimates),*

✓ *complexity (the inherent complexity of accounting estimates, in cases where a lot of data and assumptions are required),*

✓ *subjectivity of the management of the audited enterprise.*

An important point in the audit of accounting estimates is the improved risk assessment procedures associated with understanding the enterprise and its internal control system:

1) the auditor should familiarize himself with those operations, including economic ones, that the company carries out for the occurrence or change of accounting estimates,

2) what are the requirements for the presentation and disclosure of accounting estimates in financial statements,

3) provisions of normative and legislative acts in terms of accounting estimates,

4) a list of accounting estimates that, according to the auditor's assumption, should be reflected in the financial statements.

To understand the internal control system, it is necessary to identify: what procedures are established by the management of the enterprise for the application of accounting estimates, the need to involve experts, how the internal control system identifies and prevents the risks of incorrect accounting estimates, the information system of the enterprise, the methods used in accounting estimates, management control methods, whether special knowledge and requirements for personnel are needed when applying accounting estimates.

Examining the requirements based on the purpose of auditing, through methods (especially when complex modeling is used), data and assumptions, to conduct audit procedures in order to eliminate the risk of material errors, the auditor should conduct audit procedures if the substantive tests individually did not provide sufficient evidence for management's assumptions. At the same time, the auditor checks the established accounting valuation methods, the validity of their changes, how management takes into account the uncertainty in the accounting valuation, checking mathematical calculations, especially if they are made with errors, in the case of complex modeling.

The introduction of "deferred requirements" upon receipt of confirmatory and contradictory evidence during the audit of accounting estimates is necessary if the auditor cannot obtain sufficient evidence on the accounting assessment or receives at the same time different evidence: confirmatory and contradictory, then in this case, the provisions of ISA 705

"Modifcations to the Opinion in the Independent Auditor's Report" should be applied when drawing up an audit opinion. If the auditor finds that the accounting assumptions are erroneous, then he must act in accordance with the provisions of ISA 450 "Evaluation of misstatements identified during the audit".

The need to obtain audit evidence, if additional disclosures are required, obliges the auditor to conduct audit procedures (including an audit sample concerning elements and disclosures in the financial statements, for elements requiring accounting estimates).

Mandatory inclusion of issues related to accounting estimates with persons responsible for corporate governance it is necessary to include questions on accounting estimates in terms of uncertainty with the management of the audited entity or the owners (Board of Directors, etc.), the standard also provides that certain jurisdictions require the auditor to inform state regulators about uncertainties in accounting estimates.

It should be noted that when verifying the correctness of an accounting assessment, the auditor requests written submissions from the head of the audited entity or from persons with managerial authority on whether the data used in accounting estimates and disclosures are appropriate to ensure the correct assessment or disclosure of information in accordance with applicable financial reporting principles. In case of great uncertainty, the auditor should obtain information about specific accounting estimates, including in relation to the methods used, assumptions or data.

It should be emphasized that ISA 260" Communication with Those Charged with Governance" and ISA 265" Communicating Deficiencies in Internal Control to Those Charged with Governance and Management" provide that the auditor should discuss issues with management, including significant qualitative aspects of the entity's accounting practices and significant deficiencies in the internal control system.

Thus, the auditor is obliged to inform the management of the audited entity of the complex issues of accounting estimates, and the risks of material misstatements that lead to uncertainty of estimates or subjectivity and other risk factors inherent in accounting estimates and disclosures in financial statements.

In the Republic of Moldova, regulations do not oblige to disclose information about the uncertainty of the audited entity's estimates to public authorities, but this practice exists in a number of countries and, accordingly, the auditor is obliged to report such data to regulatory authorities or prudential supervision authorities.

When conducting an audit of accounting estimates, the auditor is required to document the calculations and conclusions in such estimates. In addition, the auditor is obliged to include in the audit documentation:

- ✓ in terms of accounting estimates, how the internal control system of the audited enterprise works,
- ✓ audit procedures and their correlation with the assessed risks of material misstatements at the level of statements of the management of the audited entity;
- ✓ calculations and estimates of the auditor in cases where the management of the audited entity has not taken steps to eliminate uncertainty in accounting estimates;
- ✓ the possibility of management bias related to accounting estimates.

Conclusion

As a result of uncertainty, which is primarily characteristic of entrepreneurial activity, some items of financial statements cannot be accurately calculated, but can only be estimated. Consideration should be given to the fact that the valuation process involves judgments based on current information at the time of reporting.

At the same time, the essence of devaluing assets is that some assets, after the expiration of time, move from assets that bring an influx of economic benefits to the category of inefficient assets. This happens when the costs of maintaining such assets are higher than the income from their use.

When checking the estimated values, the main mission of the auditor is to express an opinion on the reliability of the information, the reasonable application and adequacy of the reflection of information about the estimated values.

Qualified application of estimated values in financial statements will allow, reduce the risk of losses on the part of the organization and significantly reduce the risk of material misstatements in the audit.

Analyzing the provisions of ISA 540 "Auditing Accounting Estimates and Related Disclosures", the author offers the following table of compliance with audit risk, audit of estimated values, and also suggests appropriate measures and audit procedures.

Table 2 The relationship between the level of audit risk, the process of auditing accounting estimates and the range of audit procedures

Level of audit risk	Audit of accounting estimates	Audit procedures
Low to 40%	If the level of audit risk is within the calculated deviations between the audit and accounting estimates, the auditor confirms the accounting assessment	Standard audit procedures according to ISA 540
Medium 40% to 60%	If the level of audit risk is less than the detected deviations, then additional confirmations are require	Additional audit procedures, the need to involve an expert
High above 60%	If the level of audit risk is high and deviations are significant, then it is necessary to carry out additional procedures and consider the situation with the expression of a modified audit opinion	Additional audit procedures, the need to involve an expert, apply the provisions of ISA 705

Sorce: compiled by the author

Analyzing the data reflected in Table 2, the author comes to the conclusion that the audit of accounting estimates should take into account the level of audit risk in the complex: the inherent risk, the risk of control and the risk of non-detection.

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