

# Risk-Based Approach in Financial Investments Management

Klimova J.

Kuban State University, Krasnodar, Russia

**Abstract**—The formation of an internal control system for both the company as a whole and for various accounting objects is an actual and necessary process that indicates the level of maturity of the business. The existence of developed organizational measures, methods and procedures allows in a preventive manner to focus management attention on risky areas of business processes and determine activities to optimize the performance of company to achieve its goals and strategy. In these conditions, a risk-oriented approach in accounting becomes a priority for increasing the information openness of business as a part of the company's internal control system. In present work we examine the implementation of risk-based approach in financial investments accounting through the definition of a list of controls to reduce the risks of unreliable information in the financial statements and methodology for calculating the reserve for impairment of financial investments.

**Keywords**—financial investments, risk-oriented approach, internal control system, financial reporting, risk-management.

## I. INTRODUCTION

In the scientific international community the issue of insufficient prognostic function of financial reporting becomes especially acute with the development of the financial market and emergence of new financial instruments in the second half of the XX century. At the present stage the main purpose of information disclosure in financial statements is the possibility of users to estimate the value, time allocation and certainty about future cash flows to the company [7, 11, 12].

The influence of the uncertainty on business necessitates the timely identification and assessment of risks in order to prevent and reduce the possible negative consequences for the financial position of the company and its performance. In this connection, the formation of an internal control system becomes the necessary process, which helps management to focus attention on risky areas of business and optimize activities to achieve the company's goals [16].

An important factor of the company's competitiveness is the ability and ability of management to build a competent and effective policy of risk management. Studies of recent years [17, 18, 19] have noted the increasing role of risk management as an integral part of management functions in the company. Timely identification of risks and the development of a set of measures for preventive exposure make it possible to create a reliable basis for decision-making and planning and improve the management of the company to achieve the objectives of business processes [9, 14]. Despite a significant number of works [2, 4, 5, 15] devoted to the application of risk-based

approach in the activities of companies, the issue of practical implementation of control procedures in the company's business processes remains relevant. The development of elements of the internal control system for accounting objects such as financial investments is becoming more urgent for improving the reliability of financial reporting [1, 3, 6, 10, 13, 20].

The purpose of present research is to suggest recommendations for applying the risk-oriented approach in financial investments accounting as a part of the company's internal control system such as:

- control procedures to minimize the risks of accounting of financial investments;
- methodology for calculating the reserve for impairment of financial investments which have no active market.

Within the framework of the internal control system we have developed a register of control procedures for financial investments transactions (see Table 1). The register includes a list of controls according to security conditions, authorization and responsibilities of staff, contractual work on the acquisition and disposal of investments, correctness of calculating the value of financial investments and the amount of revenue to be received and the completeness of methodological support for the accounting of financial investments.

TABLE I. THE REGISTER OF CONTROL PROCEDURES FOR FINANCIAL INVESTMENTS (FI) TRANSACTIONS

Areas of internal control system	Control procedures
Organization of the process	<ul style="list-style-type: none"> <li>✓ Identifying of the list of persons responsible for making decisions to approve transactions with FI and the way these transactions are being authorized</li> <li>✓ Evaluation of the level of safety storage conditions of FI</li> <li>✓ Assessment of the availability of access and authorization in the accounting information system</li> <li>✓ Analysis of the interaction of financial and accounting staff in making operations with FI (transfer of information on acquisition and sale, receipt of income, changes in the terms of contracts and stakes)</li> </ul>
Contractual work	<ul style="list-style-type: none"> <li>✓ Evaluation of the feasibility of the transaction</li> <li>✓ Checking the sighting of the contract and the act of transfer and acceptance</li> <li>✓ Checking the compliance of the FI details in the contract and the acceptance-transfer certificate</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Verification of the availability of mandatory FI details in accordance with legislation</li> <li>✓ Reconciliation of FI details with the act of transfer and acceptance</li> <li>✓ Checking the correctness of entering the FI details into the accounting system</li> <li>✓ Formation of the receipt / out-of-pocket cash order with indication of the FI requisites</li> <li>✓ Checking the receipt of money for sale/ repayment of FI</li> </ul>
Accounting	<ul style="list-style-type: none"> <li>✓ Checking the completeness of the accounting policy in terms of accounting for FI</li> <li>✓ Analysis of the availability of developed accounting procedures / schemes for the FI accounting</li> <li>✓ Checking the correctness of the registration of the results of the inventory of FI</li> <li>✓ Assessment of the organization of analytical accounting of FI</li> <li>✓ Verification of compliance of FI accounting with the accounting policy requirements, including correctness of methods of FI valuation at reporting date</li> <li>✓ Verification of the correctness of the formation of the initial value, including additional expenses to the acquired FI</li> <li>✓ Checking the correctness and timeliness of calculating the amounts of accruals of income from financial investments in accordance with the terms of the contract / minutes of the meeting of shareholders / participants</li> <li>✓ Verification of the documentary justification of calculations and approvals by the responsible person to make accounting transactions</li> </ul>

The proposed approach to the evaluation of the level of internal control system makes it possible to provide sufficient confidence in the reliability of financial (accounting) report by checking the implementation of controls in risky areas of financial investments accounting. It also helps to organize the work of financial and accounting staff that carry out transactions with investments, taking into account the implementation of control procedures to reduce the risks of reflecting inaccurate information in financial reports.

In the absence of legislative methods to determine the estimated cost of unquoted financial investments, we have developed a methodology that regulates the procedure for calculating the reserve for impairment of financial investments such as shares, loans granted to other organizations, financial bills and deposit accounts. The methodology formalizes the initial data and the algorithm for determining the amount of the reserve for impairment of financial investments (see Fig. 1).

The scope of the developed methodology applies to the process of calculating the amount of reserve for impairment for financial investments which have no active market, when the fact of impairment of financial investments is confirmed. The estimated cost of financial investments is determined in accordance with the procedure described in Table 2.

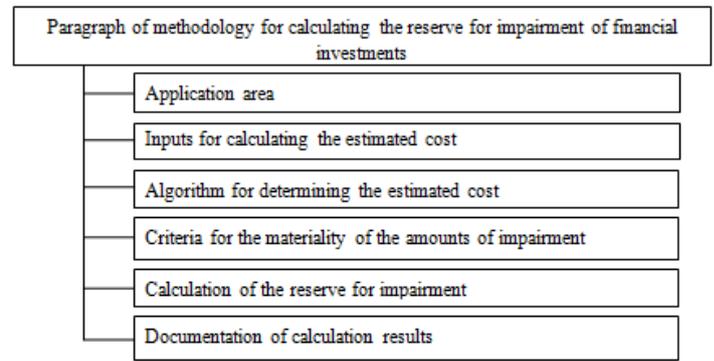


Fig. 1. The structure of methodology for calculating the reserve for impairment of financial investments.

TABLE II. INPUTS AND ALGORITHM FOR CALCULATING THE ESTIMATED COST OF FINANCIAL INVESTMENTS

Type of financial investments (FI)	Inputs for calculation	Calculation formula
Shares	<ul style="list-style-type: none"> <li>• Net asset value — NAV</li> <li>• Quantity of units of the investment fund according to the register of holders of investment units at the reporting date (n)</li> </ul>	$UV = \frac{NAV}{n}$ <p>where UV – unit value NAV – net asset value n – quantity of units of the investment fund</p>
Stock	<ul style="list-style-type: none"> <li>• Net asset value — NAV</li> <li>• The share of participation in the authorized capital of the company-issuer shares (share - S)</li> </ul>	$SV = NAV \times S$ <p>where SV – share value NAV – net asset value S – share of participation in the authorized capital</p>
Loans, financial bills of another organization, deposits in credit institutions	<ul style="list-style-type: none"> <li>• Current net asset value of the organization - the borrower at reporting date — CNAV</li> <li>• Previous net asset value of the organization - the borrower for the last reporting date before the provision of borrowed funds — PNAV</li> </ul> <p>Principal amount — PA</p>	$LV = PA \times \frac{CNAV}{PNAV}$ <p>where LV – loan value PA – principal amount CNAV – Current net asset value of the organization - the borrower at reporting date PNAV – Previous net asset value of the organization - the borrower for the last reporting date before the provision of borrowed funds</p>
Others types of FI	<ul style="list-style-type: none"> <li>• Cash flow projections for financial assets in the forecast period</li> <li>• Current market rate of return</li> </ul>	$P = \sum_{i=1}^n D \times \frac{1}{(1+r)^i}$ <p>where P — discounted cash flow D — the amount of cash flows expected to be received from a financial investment in each of the forecast periods; r — current market rate of return n — number of the forecast period (from one to five)</p>

The proposed methodology helps to justify the value of financial investments in financial statements according to the use of observable data on the value of the net assets of the investee company.

For the purposes of calculating the amount of the reserve, the decrease in the value of financial investments is recognized as significant if it leads to a change of at least 10% of the balance sheet item, whose specific weight in the balance sheet currency is at least 5%.

In accordance with the methodology, the results of determining the amount of provision for impairment of financial investments ought to be documented. The responsible employee of the company submits to the accounting department a signed calculation and a note describing the results of the impairment test. In order of consistent application the methodology for calculating the reserve for impairment of financial investments is subject to be fixed in the accounting policy of the company.

The formalization of the procedure for calculating the reserve for impairment reduces the risks of distorting accounting data by regulating the procedures for assessing financial investments, documenting the results of the calculation and fixing the responsibilities of employees.

## II. CONCLUSION

The application of the suggested tools of the risk-oriented approach in financial investments accounting helps to identify and report in a timely manner the value of the impact of risks on accounting objects according to application of the following approaches:

— maximum use of relevant observable inputs and minimum - unobservable inputs for evaluation purposes;

— disclosure in the financial statements of relevant information for the evaluation by interested users of the value, timing and certainty of future cash flows associated with the investment;

— detailed disclosure of information about judgments, assumptions and subjective assessments that occurred in the preparation of reports;

— establishing the relationship between the accounting and reporting system and the information provided by the risk management system.

The application of proposed recommendations will increase the reliability of information provided in financial statements for interested users.

The practical significance of present research is the development of tools of the risk-oriented approach in the accounting of financial investments to improve the methodology for accounting for financial investments.

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