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## RECOGNITION OF CREDIT LOSS RESERVE FOR NON-BANK FINANCIAL INSTITUTIONS: ISSUES OF METHODOLOGY AND PRACTICE

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### Key words:

enterprise, financial instruments, credit losses, segmentation, receivables, default, reserve matrix, depreciation

The article develops methodological recommendations for compliance with International Financial Reporting Standards (IFRS); Regulations on mandatory financial standards and requirements limiting risks on transactions with financial assets of credit unions, approved by the Order of the National Commission for State Regulation of Financial Services Markets dated 19.09.2019 № 1840; Regulations on determining the amount of credit risk by banks of Ukraine for active banking operations, approved Resolution of the National Bank of Ukraine of June 30, 2016 № 351. The requirements of IFRS 9 Financial Instruments (IFRS 9) for determining the amount of change in the fair value of a financial asset related to changes in the credit risk of such an asset are considered. The focus is on the requirements of IFRS, which establish the principle of recognizing the provision for expected credit losses on financial assets. The regulatory requirements for the company to take into account the change in the risk of default since the initial recognition when determining whether the credit risk of a financial instrument has increased significantly. The formula for calculating the reserve for expected credit losses is determined and reflected. Methods of accrual of the provision for credit losses are given. Assets and financial liabilities by quality categories are allocated. Factoring transactions are classified by maturity. The differences between the general and individual assessment of the reserve for expected credit losses are revealed. Some characteristics of credit risk by segmentation of financial instruments are given.

## ВИЗНАННЯ РЕЗЕРВУ ПІД КРЕДИТНІ ЗБИТКИ НЕБАНКІВСЬКИХ ФІНАНСОВИХ УСТАНОВ: ПИТАННЯ МЕТОДИКИ ТА ПРАКТИК

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### Ключові слова:

підприємство, фінансові інструменти, кредитні збитки, сегментація, дебіторська заборгованість, дефолт, матриця резервів, знецінення

В статті розроблено методологічні рекомендації щодо дотримання вимог Міжнародних стандартів фінансової звітності (МСФЗ); Положення про обов'язкові фінансові нормативи та вимоги, що обмежують ризики за операціями з фінансовими активами кредитних спілок, затв. Розпорядження Національної комісії, що здійснює державне регулювання у сфері ринків фінансових послуг від 19.09.2019 р. № 1840; Положення про визначення банками України розміру кредитного ризику за активними банківськими операціями, затв. Постановою Національного банку України від 30.06.2016 р. № 351. Розглянуто вимоги МСФЗ 9 «Фінансові інструменти» (IFRS9) щодо визначення величини зміни справедливої вартості фінансового активу, що відноситься до змін кредитного ризику такого активу. Зосереджено увагу на вимогах МСФЗ, які встановлюють принцип визнання резерву для очікуваних кредитних збитків за фінансовими активами. Розкрито нормативні вимоги до підприємства щодо врахування зміни ризику настання дефолту з моменту первісного визнання при з'ясуванні того, чи зазнав значного зростання кредитний ризик за фінансовим інструментом. Визначена та відображена формула розрахунку резерву під очікувані кредитні збитки. Наведено методи нарахування резерву під кредитні збитки. Виокремлено активи та надані фінансові зобов'язання за категоріями якості. Класифіковано факторингові операції за терміном погашення. Розкрито відмінності між загальною та індивідуальною оцінкою резерву під очікувані кредитні збитки. Наведено окремі характеристики кредитного ризику за сегментацією фінансових інструментів.

**Formulation of the problem**

At the end of each reporting period, the non-bank financial institution (hereinafter referred to as the enterprise) should assess whether there is objective evidence that the usefulness of the financial asset or group of financial assets measured at amortized cost is impaired. Such an annual assessment can lead to many errors on the part of the company, which will further lead to the modification of the independent auditor’s report on financial statements, which is of great importance for senior management and participants of the company. Therefore, the authors propose ways to solve a number of problematic issues that arise in the process of determining the provision for expected credit losses.

**Analysis of recent research and publications**

The works of many scientists, in particular, I.V. Zholner [1], L.M. Kindratskaya [2], O.E. Kuzminskaya [3], O.V. Nebyltsova, R.S. Korshikova, L.I. Lukyanenko, V.V. Khodzitskaya [4]. At the same time, approaches to the classification and measurement of assets require a priority focus on compliance with International Financial Reporting Standards (IFRS) and a qualitative restructuring of existing procedures and procedures for assessing the impairment of financial assets.

Aspects of non-bank financial institutions as financial intermediaries are reflected in the works of foreign scholars – A. Akelrof, F. Allen, T. Beck, J. Hurley, R. Goldsmith, W. Diamond, K. Jalan, G. Gabbart [5].

A significant contribution to the study of the formation and regulation of the non-banking financial sector has been made by domestic scientists: V.D. Bazilevich [6], O.I. Baranovsky [7], V.I. Vikhlevschuk, S.V. Naumenkova, O.O. Gamankova [8], S.S. Osadec, A.L. Samoilovsky, O.O. Slyusarenko, B.M. Furman, O.Y. Shevtsova [9] and other scientists. However, quite often auditors during the audit of financial statements document existing errors and inconsistencies in the amount of the accrued reserve

for expected credit losses, which are governed by the requirements of IFRS9 [10].

**Formulation of goals**

The purpose of the article is to provide guidelines for determining the methods and features of calculating the provision for credit losses of non-bank financial institutions that do not contradict the requirements of applicable regulations and apply a general and simplified approach to estimating expected credit losses.

**Presentation of the main material of the research**

The International Accounting Standards Board has provided two approaches to estimating expected credit losses: general and simplified. In accordance with the requirements of IFRS9, an entity determines the amount of change in the fair value of a financial asset that relates to changes in the credit risk of the following asset:

- as the magnitude of the change in its fair value, which is not related to changes in market conditions that cause an increase in market risk. That is, the entity shall estimate the difference between the credit risk at the balance sheet date and at the date of its initial recognition (general method);
- using an alternative (simplified) method, which, in the company’s discretion, more accurately represents the amount of change in the fair value of the liability related to changes in its credit risk.

The stage of impairment is determined based on how significantly the level of credit risk on a financial asset has changed as of the reporting date compared to the initial level of credit risk on it. Assignment of a financial asset to one stage or another determines the procedure for estimating the amount of expected credit losses and the amount of interest income required to be recognized for each such financial asset [9].

Recognition of loss provisions for expected credit losses on financial assets in accordance with the requirements of IFRS9 (Fig. 1).

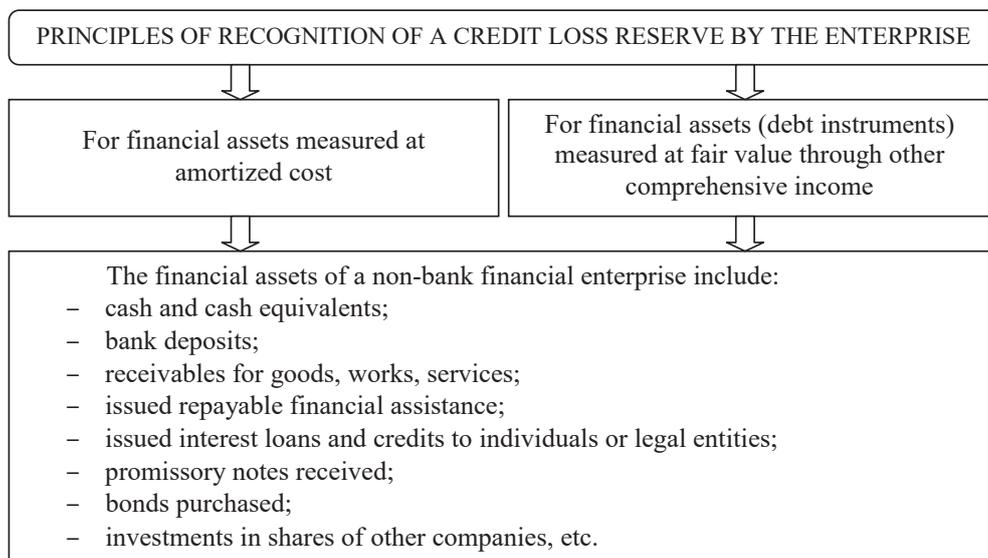


Fig. 1 – Principles of recognition by a non-banking financial institution of a provision for expected credit losses

The standard introduces basic simplified assumptions:  
 – if the number of overdue days exceeded 30 days – there was a «significant increase in credit risk» (on the loan);

– if the number of days in arrears exceeds 90 days – there is «objective evidence of impairment».

In order to optimize the recognition of expected credit losses on debt financial assets and interest income on them, regardless of category (at amortized cost or at fair value with recognition of revaluation results in other comprehensive income), are divided into 3 stages of impairment (credit risk levels) (Fig. 2).

If there is objective evidence that there is an impairment loss on financial assets measured at amortized cost, the amount of the loss is measured as the difference between the asset’s carrying amount and the present value of estimated future cash flows (except for future credit losses that were not incurred), discounted at the original effective interest rate of the financial asset (that is, the effective interest rate calculated at initial recognition). The carrying amount of the asset should be reduced directly or through the use of a provisioning account. The amount of the loss should be recognized in profit or loss.

If an entity determines that there is no objective evidence of impairment for a separately assessed financial asset (whether significant), it includes the asset in a group of financial assets with similar credit risk characteristics and evaluates them for impairment overall. Assets separately assessed for impairment for which an impairment loss is recognized or continues to be recognized are not included in the aggregate assessment of impairment.

If in the next period the amount of impairment loss decreases (for example, improvement of the debtor’s credit rating), the previously recognized impairment loss must be applied to the method of «red reversal» (either directly or by adjusting the reserve account). A reversal shall not result in the carrying amount of the financial asset exceeding the amount that the amortized cost would have been if the impairment loss had not been recognized at the reversal date. The amount of the reversal should be recognized in profit or loss.

As at each reporting date, an entity assesses whether credit risk on a financial instrument has increased significantly since initial recognition. In performing such an assessment, the entity uses instead of changing the amount of expected credit losses to change the risk of default during the expected life of the financial instrument.

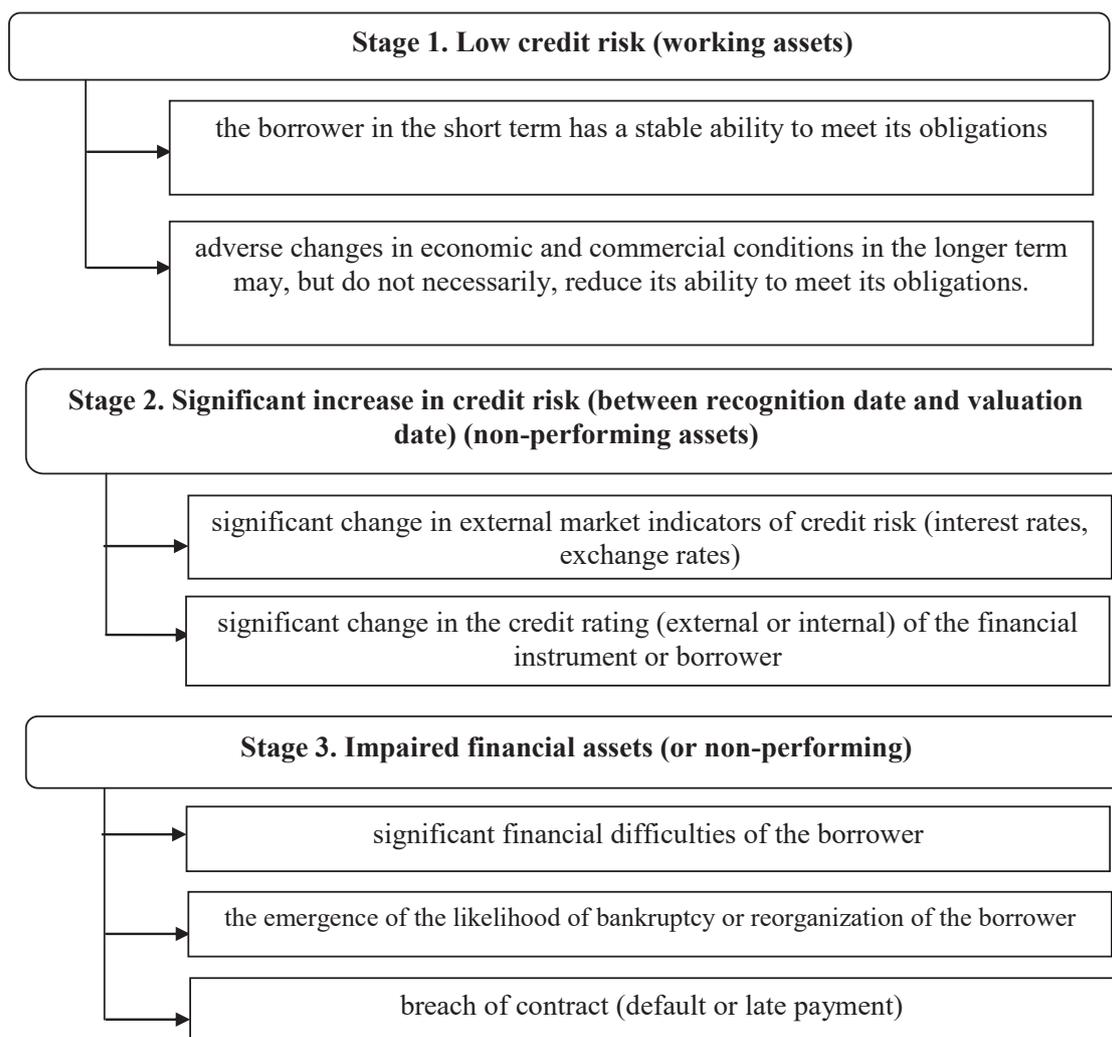


Fig. 2 – Stages of the life cycle of a debt financial asset

To perform this assessment, the entity compares the risk of default on the financial instrument as at the reporting date with the risk of default on the financial instrument as at the date of initial recognition, and takes into account the confirmed information and indicates a significant increase in credit risk. the moment of initial recognition.

IFRS9 that in determining whether credit risk on a financial instrument has increased significantly, an entity should consider changes in the risk of default from the date of initial recognition.

When determining default to determine the risk of default, an enterprise should use a default definition that matches the definition used for internal credit risk management for the financial instrument and, if appropriate, considers qualitative indicators (financial conditions). However, there is a rebuttable assumption that the default occurs no later than the financial asset is overdue for 90 days if the company does not have reasonably necessary and corroborating information, which proves the feasibility of applying the criterion with a longer delay. The definition of default used for these purposes is applied consistently to all financial instruments, unless information becomes available indicating the appropriateness of applying another definition of default for a particular financial instrument [10, p. B5.5.37].

The default definition used for these purposes should be applied consistently to all financial instruments unless information becomes available demonstrating that another default definition is more appropriate for a particular financial instrument [10, p. B5.5.37].

Examples of defaults:

- incomplete payment under the contract;
- overdue payment under the contract;
- refusal or inability to pay interest;
- failure to provide documents stipulated by the contract;
- violation of financial covenants (support conditions);
- reduction of the sufficient level of collateral, guarantees, insurance;
- reduction of economic indicators (sufficiency of equity of the legal entity, reduction of receivables, etc.) [4].

When it comes to actual valuation under the general approach, an entity shall measure the ECL of a financial instrument to reflect the valuation principles set out in IFRS9. They dictate that the estimate of expected credit losses should reflect: an unbiased and probable amount; which is determined by estimating the range of possible results; temporary value of money; as well as substantiated and confirmatory information about past events, current conditions and forecasts of future economic conditions, available at the reporting date without excessive costs or effort [10, p. 5.5.17].

When assessing ECL, an enterprise does not have to consider all possible projected scenarios. However, the risk or probability of credit loss should be taken into account, reflecting the possibility of credit loss and the possibility that credit loss will not occur, even if the possibility of credit loss is insignificant [10, p.5.5.18].

It is also worth noting that the results of credit loss scenarios are not necessarily linear. In other words, an

increase in unemployment by 1% may have a more negative impact than a positive effect caused by a decrease in unemployment by 1% [6].

The calculation of the provision for expected credit losses should be carried out according to formula 1 [2]:

$$ECL = EAD * PD * LGD * D, \quad (1)$$

where ECL (expected credit losses) – the present value of all amounts of cash shortages in the event of default during a certain period of validity of the financial asset (expected credit losses); EAD (exposure at default) – the amount of debt at the reporting date, subject to the risk of impairment; PD (probability of default) – probability of default; LGD (loss given default) – expected level of losses in case of default; D (discount) – discount rate; PD and LGD can be represented as a single factor LF (loss factor).

Then the general formula takes the form:

$$ECL = EAD * LF * D. \quad (2)$$

Modeling of expected loans on receivables can be carried out using the principles and approaches similarly described for the loan portfolio:

1. Deciding to conduct modeling on a collective or individual basis. However, it is important to remember that for collective modeling, receivables must be segmented into homogeneous segments.

2. Deciding on the criteria for recognizing receivables as default.

3. Determining the period for which the simulation of expected losses will be carried out.

4. Application of the general formula for estimating reserve payments (V) for modeling the expected credit funds for receivables, according to the formula:

$$V = EAD * PD * LGD * D. \quad (3)$$

The company can use a «simplified» approach to determining the risk of credit loss, given that the main segment of the activity is to provide loans (short-term) to individuals at their own expense [3].

If we consider PD in the context of trade receivables, the requirements of IFRS9 to track a significant increase in credit risk (SICR) in the process of distinguishing between the expected 12-month ECL and the ECL for the entire term is extremely difficult. This is due to the fact that trade receivables usually remain outstanding for a short period of time, and therefore it is impractical to try to find a SICR for it. For example, the typical terms of trade receivables lending can be 30 days. The application of the «general approach» requires the enterprise to determine the trade receivables under which the SICR has arisen since tax recognition. On this basis, it will conduct a separate assessment for 12-month ECLs and full-term ECLs, as described above in the «general approach». It depends on the general principles of evaluation, the «general approach» will not lead to excellent results for the 12-month ECL and the ECL for the entire period. This is due to the fact that the loan term is only 30 days. This is the need for simplification. It is impractical and ineffective to require an enterprise to take a general approach to short-term receivables.

Therefore, IFRS9 allows an entity to apply a «simplified approach» to trade receivables, contractual assets and lease

receivables. The simplified approach allows companies to recognize full-time ECLs for all of these assets without having to define a SICR. However, not all trade receivables, contractual assets or lease receivables are short-term. That is, for long-term receivables, the difference between the 12-month ECL and the ECL for the entire term is significant. In such situations, the recognition of the ECL for the full term may lead to an increase in the estimated allowance for losses and more significant impairment losses compared to the ECL for 12 months. This approach is used to eliminate situations where the full-term use of the ECL for an asset that has not experienced an increase in credit risk will result in an excessive provision for expected credit losses compared to the 12-month ECL.

For trade receivables and contractual assets that do not contain a significant component of financing, it is necessary to recognize the provision for ECL for the entire period (ie the company should always apply a «simplified approach» and stipulate this in the accounting policy).

For other trade receivables, other contractual assets and lease receivables, you can choose an accounting policy that will be applied separately to each type of asset (but it must apply to all assets of a certain type) [1].

Scope of the simplified approach: trade receivables, lease receivables, contractual assets that do not contain a significant component of financing.

The main characteristics of the simplified approach include: does not require tracking changes in credit risk; expected credit losses can be modeled for the entire life of the financial asset (Table 1).

The «simplified approach» using the matrix of estimated reserves is used for short-term trade receivables, for example for debtors with 30-day maturities, the definition of promising economic scenarios is not appropriate, whereas, during a period of credit risk exposure, a significant change in economic conditions is usually unlikely, and the increase in credit losses of previous years may be an appropriate basis for assessing the ECL.

The Provision Matrix, or simply the Provision Matrix, is nothing more than the application of appropriate levels (ratios) of losses to outstanding trade receivables (that is, the analysis of receivables by maturity). For example, an enterprise may apply different loss ratios, depending on the period of delay in repayment of receivables. Given the diversity of its customer base, an enterprise may use appropriate groupings for debtors if its past credit loss experience shows significantly different loss patterns for different categories of customers.

In cases where historical loss ratios are used as input, these losses need to be properly verified to confirm the completeness and accuracy of key parameters, including the credit risk characteristics used (for example, repayment

dates) [8]. If the results are significant, a separate provision matrix based on general credit risk characteristics should be applied to the relevant receivables groups. An entity should examine historical credit loss ratios to determine whether there are significant differences in loss patterns for different customer segments.

Examples of criteria that can be used to group assets include geographical region, product type, customer credit rating, collateral or trade credit insurance, and customer type (for example, wholesale or retail) [10, p. B5.5.35].

Adjustment of historical loss ratios for use in ECL forecasting – to determine whether credit losses have occurred in the past in economic conditions similar to those expected to exist during the period of exposure of the risk debt portfolio [7].

It is important to consider whether the general approach to the portfolio is justified and whether past loss ratios have been calculated and properly adjusted for expected future changes in portfolio status and losses based on information available at the reporting date.

When determining the allowance for impairment it is necessary to take into account the following issues:

- expected losses within 12 months and during the term of use of assets;
- for financial instruments for which credit risk has not increased significantly or has increased significantly since initial recognition;
- is a shortfall during the life of the assets in the event of default within 12 months after the reporting date (or a shorter period if the expected useful life of the financial instrument is less than 12 months), weighted by the probability of default;
- the expected credit loss that arises as a result of all possible events of default during the expected life of the financial instrument.

To calculate the reserve for expected credit losses, the company, first, needs to group financial assets by type and group of impairment.

Overall assessment – a combination of the principle of homogeneity of credit risk to model the expected credit losses and distribution of loans:

- it is often almost impossible to reassess the risk for each financial instrument included in a homogeneous portfolio;
- the process of risk management for homogeneous loans is usually also carried out on an aggregate basis;
- financial assets can and should be valued on a collective basis in the absence of information for valuation on an individual basis.

Individual valuation – atypical instruments that cannot be attributed to any homogeneous portfolios (for example, a large atypical loan to a corporate borrower).

Table 1 – Application of approaches to the characteristics of financial assets

| <b>Simplified approach</b>  |   |
|---|---|
| Trade receivables and contractual assets that do not contain a significant component of financing | A "simplified" approach is always used                                    |
| Trade receivables, which contain a significant component of financing                             | Choice of accounting policy (between "simplified" and "general" approach) |
| Contractual assets that contain a significant component of financing                              |   |
| Rental receivables  |   |

An enterprise may group financial assets on the basis of general characteristics of credit risk by maturity, date of initial recognition, credit risk ratings, type of counterparty, geographical location of the borrower [5].

The entity should perform analytical procedures on a regular basis to ensure that instruments that are assessed collectively continue to have similar credit risk characteristics:

- it is possible to resegment the portfolio in case of changes in credit characteristics over time;
- the credit risk of financial instruments included in the portfolio must be uniform both at the reporting date and throughout the period of validity of financial instruments;
- segmentation can be performed not only on the basis of the probability of default (PD), but also, for example, on the basis of the level of penalties (Recovery Rates), the level of losses in case of default (LGD);
- sub-portfolio divisions should be made taking into account the amount of available statistical information – if the amount of available statistics is limited, then excessive small segmentation can lead to distorted estimates.

## Conclusions

Thus, taking into account the above information, we can conclude that there are two approaches to the formation of the provision for credit losses: «general» and «simplified». Under the «general» approach, the amount of expected credit losses is determined based on the current credit quality of the asset and changes in the level of expected credit risk compared to the date of initial recognition. IFRS9 allows companies to apply a «simplified» approach to trade receivables, contractual assets and lease receivables. The «simplified» approach allows the recognition of expected credit losses over the term of all these assets without the need to determine a significant increase in credit risk (SICR). «General» and «individual» estimates of the grouping of financial assets by types and groups of impairment are also taken into account. When estimating the provision for expected credit losses, the company must also take into account the economic situation in the country, and determine the appropriate additional forecast ratio. That is, the application of a non-banking financial institution «simplified» approach using the matrix of valuation reserves today is more appropriate.

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