ACCOUNTING OF EXCHANGE RATE DIFFERENCES ON TRANSACTIONS WITH FOREIGN CURRENCY LOANS

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ABSTRACT

The study is devoted to the study of the theoretical and methodological foundations of accounting for exchange rate differences on operations with foreign currency loans. The authors examined the nature of exchange rate differences, the mechanism for calculating and reflecting exchange differences, which standards govern the accounting for exchange differences on transactions with foreign currency loans. The most valuable part of the study is its empirical part, namely: the nuances of accounting for exchange rate differences are shown using the example of an economic entity on real data of changes in the exchange rate from February 11, 2019, to January 11, 2020. The subject
of further research will be the effect of exchange rate differences on the object of income tax.

**Key words:** Accounting, Accounting Provision (Standard), Exchange Rate Difference, Foreign Currency Loans, National Bank of Ukraine


1. **INTRODUCTION**

In the economic activity of business entities, there are situations when it can not do without a loan in foreign currency (Yesin, 2012; Kholod, 2015; Kwilinski, 2019; Sadchenko, 2020.). Sometimes a foreign currency loan is more profitable. One of the main principles of accounting and financial reporting, defined by the Law "On Accounting and Financial Reporting in Ukraine", is the principle of a single monetary measure, following the requirements of the Law, the only monetary measure to reflect transactions in accounting and reporting is the currency of Ukraine. In foreign currency at initial recognition are reflected in the reporting currency by converting the amount in a foreign currency using the exchange rate on the date of the transaction (date of recognition of assets, liabilities, equity, income and expenses). Constant fluctuations in the exchange rate require the recalculation of balance sheet items (Statement of financial position) at the reporting date and lead to exchange rate differences.

Various aspects of the definition and reflection in the accounting of currency transactions, including exchange rate differences, their impact on the financial results of the enterprise are covered in the publications of scientists and practitioners (Yilmaz, 2010; Lawal, 2016; Do, 2017; Novak, 2017; Bae, 2019; Kim, 2019; Alibhai, 2020; Vidahazy, 2020); however, these issues do not lose their relevance and require in-depth study.

2. **THEORETICAL ASPECTS OF ACCOUNTING OF EXCHANGE RATE DIFFERENCE**

The term "exchange rate difference" is interpreted in paragraph 4 Accounting Provision (Standard) 21 "The Effect of Changes in Foreign Exchange Rates". It means the difference between estimates of the same number of units of foreign currency at different exchange rates [3].

Currency difference calculation rules:

1. Exchange differences are determined only by monetary balance sheet items. That is, if it is, for example, a debt that will be repaid in foreign currency, the exchange difference will need to be determined at the maturity date.

2. To calculate the exchange rate difference is used only the NBU rate.

The definition of exchange rate differences prescribed in AP(S) 21 refers to "different exchange rates". At the same time, in the same AP(S) 21 it is clearly stated: the exchange rate is the NBU exchange rate of the Ukrainian monetary unit (hryvnia, UAH) to the monetary unit of another country. Therefore, to calculate exchange rate differences, only the NBU rate is used.

This rule is fundamental, because when reflecting operations in foreign currency, you may encounter different types of exchange rates: the bank's commercial rate, cross-rate, Interbank foreign exchange market rate, etc. Therefore, when calculating the exchange rate difference, remember: you need to take only the NBU rate.
Exchange differences are determined at each balance sheet date and the date of the business transaction.

This rule directly establishes clause 8 AP(S) 21: the exchange rate differences for monetary items in foreign currency are determined on the balance sheet date and also on the date of the business transaction [3].

Balance Date. The balance sheet date is the date on which the balance sheet is drawn up. As a rule, the balance sheet date is the end of the last day of the reporting period (Clause 3 AP(S) 6 "Correction of Errors and Changes in Financial Statements") [5].

The reporting period for the preparation of financial statements is a calendar year. Along with this, the interim financial statements are prepared based on the results of the first quarter, the first half of the year, nine months. Besides, in accordance with the accounting policy of the enterprise, financial statements may be prepared for other periods (part 1 of article 13 of the Law on accounting).

In turn, NAP(S) 1 "General requirements for financial reporting" in paragraph 1 of p. II clarifies that the balance sheet is compiled at the end of the last day of the reporting period [6]. Enterprises compiling financial statements and consolidated financial statements for AP(S), prepare interim financial statements covering the corresponding period (1 quarter, first half, nine months), cumulatively from the beginning of the reporting year in the balance sheet and statement of financial results.

Date of a business transaction. Such a date is the date the transaction was actually performed in foreign currency (repayment of a monetary item, etc.).

Exchange rate differences are calculated using the following formula:

$$ ERD = A_{bt} \times (K_2 - K_1) $$

where $ERD$ – the sum of exchange rate differences, UAH;
$A_{bt}$ – the amount of a business transaction (monetary item), UAH;
$K_1$ – NBU rate at the date of occurrence of the monetary item or balance sheet date (depending on which event occurred later), UAH;
$K_2$ – NBU exchange rate on the date the exchange rate difference is determined (on the balance sheet date or on the settlement date), UAH.

### 3. METHODOLOGICAL ASPECTS OF ACCOUNTING OF EXCHANGE RATE DIFFERENCE

Accounting for loans is regulated by several Accounting Provisions (Standards) of Ukraine:

- AP(S) 11 "Liabilities" in terms of accounting for debt on loans and interest payments [1];
- AP(S) 16 "Expenses" (paragraph 27) in terms of reflecting the cost of paying interest on the loan [2];
- AP(S) 31 "Financial costs" in terms of interest capitalization, if the loan was used to create a qualifying asset [4].

Also, accounting for exchange rate differences arising from transactions with foreign currency loans is regulated by AP(S) 21 "Impact of changes in exchange rates" [3].

Debt on loan is recognized if its valuation can be reliably determined and future economic benefits are probable (paragraph 5 AP(S) 11). The basis for recognition is a loan agreement, the
terms of which establish additional criteria that are posted on the account and reflected in the reporting of the loan transaction:
1) type of loan – long-term or short-term;
2) type of creditor – a bank or other business entity.

According to paragraph 11 AP(S) 11 short-term bank loans are classified as current debt. In Fig. 1 shows sub-accounts for current liabilities on foreign currency loans.

<table>
<thead>
<tr>
<th>Accounting sub-accounts to reflect debt in foreign currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>for short-term loans</td>
</tr>
<tr>
<td>602 &quot;Short-term bank loans in foreign currency&quot;</td>
</tr>
<tr>
<td>To reflect the debt on the bank loan in foreign currency, if the loan repayment period does not exceed 12 months from the balance sheet date.</td>
</tr>
<tr>
<td>685 &quot;Settlements with other creditors&quot;</td>
</tr>
<tr>
<td>To reflect the loan debt (except for bank loans) in foreign currency, if the loan repayment period does not exceed 12 months from the balance sheet date.</td>
</tr>
<tr>
<td>for long-term loans</td>
</tr>
<tr>
<td>502 &quot;Long-term bank loans in foreign currency&quot;</td>
</tr>
<tr>
<td>To reflect the debt on loan in foreign currency, if its maturity exceeds 12 months from the balance sheet date.</td>
</tr>
<tr>
<td>506 &quot;Other long-term loans in foreign currency&quot;</td>
</tr>
<tr>
<td>To reflect the debt, on loan (except for bank loans) in foreign currency, if its maturity exceeds 12 months from the balance sheet date.</td>
</tr>
<tr>
<td>612 &quot;Current debt on long-term liabilities in foreign currency&quot;</td>
</tr>
<tr>
<td>To reflect the part of a long-term loan (bank or other lenders) that is repayable within 12 months from the balance sheet date.</td>
</tr>
</tbody>
</table>

**Figure 1** Sub-accounts of accounting to reflect debt on short-term and long-term loans in foreign currency

When reflecting on the accounting of long-term loans should take into account the provisions of p. 7-9 P (S) BU 11. Separate, it is about cases when a long-term loan agreement violates the borrower. Thus, a long-term obligation under a loan agreement (if the agreement provides for repayment of the obligation at the request of the creditor (lender) in case of violation of certain conditions related to the financial condition of the borrower), the terms of which are violated, if:

- the lender agreed not to demand repayment of liabilities due to violations prior to the approval of the financial statements;
- no further breaches of the loan agreement are expected within 12 months from the date.

In addition, under paragraph 10 of AP(S) 11, long-term liabilities, which accrue interest, are reflected in the balance sheet at present value. That is, you must discount such liabilities at the balance sheet date using the effective interest rate. Please note: only long-term debt needs...
to be translated at present value, and therefore, the part of the long-term loan that is translated into current liabilities does not need to be discounted. Separate sub-accounts are allocated for the accounting of long-term foreign currency loans (Fig. 2).

![Figure 2](image-url)

**Figure 2** Accounting accounts are provided to reflect interest on loans in foreign currency

The following accounts are provided for reflection in the accounting of exchange rate differences: 714 "Income from operating exchange difference"; 744 "Income from non-operating exchange rate differences"; 945 "Losses from operating exchange differences"; 974 "Losses from non-operating exchange rate differences". Thus, accounts 744 "Income from non-operating exchange differences" and 974 "Losses from non-operating exchange differences" reflect exchange differences that arise during both financial and investment activities. When compiling the Statement of financial results (f. №2), these amounts are reflected in the items "Other income" and "Other expenses".

Exchange rate differences reflect, depending on the result of such a calculation and the type of operation:

- if the NBU rate has increased, \(K_2 > K_1\), then this result:
  - for accounts payable: 945 “Expenses from operating exchange rate differences” or 974 “Losses from non-operating exchange rate differences”;
  - for receivables: 714 "Income from operating exchange rate differences" or 744 "Income from non-operating exchange rate differences”;

- if the NBU rate has decreased, \(K_2 < K_1\), then this result:
  - for accounts payable: include in income (to subaccount 714 or 744);
  - for receivables: write off to expenses (to subaccount 945 or 974).
The peculiarity of credit operations is that arrears on short-term and long-term loans and arrears of interest on the loan are always monetary items; therefore, they are transferred to the balance sheet date. Applying these provisions, we can formulate the following rules (Fig. 3).

**Figure 3** The procedure for calculating exchange rate differences in export transactions

The reflection in the accounting of exchange rate differences depends on the purpose of the loan: if the loan is related to operating activities, the income (expenses) from exchange rate differences are recorded on sub-accounts 714 "Income from operating exchange differences" and sub-account 945 "Losses from operating exchange rate differences". In other cases, income (expenses) from exchange rate differences are recorded on sub-accounts 744 "Income from non-operating exchange differences" and 974 "Losses from non-operating exchange differences". Also, exchange differences arising on receivables or liabilities from the calculation of business unit outside Ukraine, the repayment of which is not planned and is not likely in the near future to be included in other additional capital (sub-account 423 "Accumulated exchange rate differences").

To solve problems in the organization of accounting for foreign exchange transactions is advisable to use appropriate software products that will allow the company's accounting to automate the process of accounting for foreign exchange transactions.

### 3. EXPERIMENTAL PROCEDURES

Consider the example the rules of accounting for exchange rate differences on transactions related to loans in foreign currency.

The Individual entrepreneur (group 3) entered into a loan agreement with a non-resident, and on February 11, 2019, received $120,000 for a period of 11 months at a rate of 12% per annum. Interest under the terms of the contract is accrued on the last day of each month and paid at the end of the contract. On January 11, 2020, interest was paid for the entire period of loan use, and the full loan amount was repaid.

We reflect in the accounting of transactions related to the loan in foreign currency (Table 1).

As a general rule, the balance is compiled as of March 31, June 30, September 30 (for interim financial reporting) and December 31 (for annual). Thus, exchange rate differences should be determined at the NBU rate, which was in effect as of March 31, 30.06, September 30, December 31. However, the authors set as their task to show the reflection in the accounting of operations related to credit in foreign currency, therefore, for greater clarity, without overloading accounting entries, an economic entity was selected that compiled financial statements once a year and determined exchange differences on the balance sheet date – 31.12.

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*http://www.iaeme.com/IJARET/index.asp* 396  
editor@iaeme.com
Table 1 Reflection in the accounting of operations connected with the credit in foreign currency

<table>
<thead>
<tr>
<th>Contents of business transaction</th>
<th>Date</th>
<th>Dt</th>
<th>Ct</th>
<th>Amount, dollars</th>
<th>NBU exchange rate (UAH to USD) [7]</th>
<th>Amount, UAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Received a loan from a bank in the amount of 120,000 dollars</td>
<td>11.02.2019</td>
<td>312</td>
<td>685</td>
<td>120000,00</td>
<td>26,9000</td>
<td>3228000,00</td>
</tr>
<tr>
<td>2. Accrued interest on the loan for February 2019</td>
<td>28.02.2019</td>
<td>951</td>
<td>684</td>
<td>745,16</td>
<td>26,9928</td>
<td>20113,95</td>
</tr>
<tr>
<td>3. Accrued interest on the loan for March 2019</td>
<td>30.03.2019</td>
<td>951</td>
<td>684</td>
<td>1100,00</td>
<td>27,2488</td>
<td>29973,68</td>
</tr>
<tr>
<td>4. Accrued exchange rate difference on interest on the debt (27.2488-26.9928) * 745.16</td>
<td>30.03.2019</td>
<td>945</td>
<td>684</td>
<td>–</td>
<td>27,2488</td>
<td>190,76</td>
</tr>
<tr>
<td>5. Accrued interest on the loan for April-November 2019 in the same manner as transactions 3 and 4.</td>
<td>30.11.2019</td>
<td>951</td>
<td>684</td>
<td>10567.86</td>
<td>24,0356</td>
<td>254004,86</td>
</tr>
<tr>
<td>9. Accrued interest on the loan for January 2020</td>
<td>11.01.2020</td>
<td>951</td>
<td>684</td>
<td>354,84</td>
<td>23,9677</td>
<td>8504,70</td>
</tr>
<tr>
<td>10. Accrued exchange rate difference on debt on interest (23.9677-23.6862) * 354,84</td>
<td>11.01.2020</td>
<td>945</td>
<td>685</td>
<td>–</td>
<td>23,9677</td>
<td>99,89</td>
</tr>
<tr>
<td>11. Interest paid on loan for the entire period</td>
<td>11.01.2020</td>
<td>684</td>
<td>312</td>
<td>12100,00</td>
<td>23,9677</td>
<td>290009,17</td>
</tr>
<tr>
<td>12. Accrued exchange rate difference on debt on loan (23.9677-23.6862) * 120000</td>
<td>11.01.2020</td>
<td>945</td>
<td>685</td>
<td>–</td>
<td>23,9677</td>
<td>33780,00</td>
</tr>
<tr>
<td>13. Repaid loan</td>
<td>11.01.2020</td>
<td>685</td>
<td>312</td>
<td>120000,00</td>
<td>23,9677</td>
<td>2876124,00</td>
</tr>
</tbody>
</table>

4. CONCLUSIONS

To summarize the study, we can draw the following conclusions: exchange difference – the difference between the estimates of the same number of units of foreign currency at different exchange rates.

There are certain rules for calculating exchange differences, the most important of them:
1. Exchange differences are determined only by monetary balance sheet items;
2. To calculate the exchange rate difference is used only the NBU rate;
3. Exchange differences are determined at each balance sheet date and the date of the business transaction.

Accounting for exchange rate differences in accounting and tax accounting is not the same and has its characteristics. So, for example, exchange rate differences reflected in accounting may not be reflected in tax accounting at all. Thus, the subject of further research will be the effect of exchange rate differences on the object of income tax.
REFERENCES