INNOVATION
IN MODERN
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BOOK 12.
PART 2

Bagriy M.A., Kaliuha Y.V., Lukashenko A., Pabat V.O., Tykhomyrova Y.B.et al.

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ÜBER DIE AUTOREN / ABOUT THE AUTHORS

1. *Kaliuha Yevheniia Vasylivna,* National University of Life and Environmental Sciences of Ukraine, Doctor of Economic Sciences, Professor - *Chapter 1 (co-authored)*

2. *Pabat Viktor Olekciovux,* National University of Life and Environmental Sciences of Ukraine, doctor of agricultural sciences, Professor - *Chapter 1 (co-authored)*

3. *Krimkova Alexandra Sergeevna,* Mukachevo State University, graduate student, - *Chapter 2*

4. *Manachynska Yuliya,* Chernivtsi Trade and Economics Institute of the State Trade and Economics University, PhD in Economics, docent - *Chapter 3*

5. *Lukashenko Alisa,* University of Salzburg, Doctor of Historical Sciences, docent - *Chapter 4*

6. *Tykhomyrova Yevhenya Borysivna,* Lesya Ukrainka Volyn National University, Doctor of Political Science, Professor - *Chapter 5*

7. *Muliar Volodymyr Illich,* Polis National University, doctor of philosophical science, Professor - *Chapter 6*

8. *Halatsyn Kateryna Oleksandrivna,* National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", PhD in pedagogical sciences, docent - *Chapter 7*

9. *Borys Uliana Zinoviivna,* Kolomyia Pedagogical Proffecional College of the Ivano-Frankivsk Region, PhD in pedagogical sciences, Senior Lecturer - *Chapter 8*

10. *Tkachivska Inna Mykhailivna,* Vasyl Stefanyk Precarpathian National University, PhD in pedagogical sciences, docent - *Chapter 9*

11. *Bagriy Maria Antonivna,* Ivano-Frankivsk Vocational College, doctor of pedagogical sciences, Senior Lecturer - *Chapter 10 (co-authored)*

12. *Skydanchuk Olena Mykhailivna,* Ivano-Frankivsk Vocational College - *Chapter 10 (co-authored)*

13. *Mitina Lubov Sergiivna,* Kharkiv State Academy of Culture, PhD in Philology, docent - *Chapter 11*

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Introduction

Non -accurate assets include tangible, intangible and financial assets of a long - term nature according to paragraph 67 of the IAS 1 «Financial Reporting» [1] states that.

According to paragraph 15, the section «Assessment of the incompatible asset (or liquidation group)» IFRS 5 «Non-precision assets maintained for sale, and terminated activity» [2] stipulates that «an entity evaluates a non-current asset (or liquidation group)». A non -copious asset is classified as retained for sale, at the lower estimates: either at carrying value or at fair value with the deduction of sales costs. Accordingly, clause 17 IFRS 5 stipulates that: «If it is expected that the sale will be carried out longer than a year, the entity must estimate the cost of sale at their present value. Any increase in current sales costs that occur over time should be reflected in the income report as financial costs».

In accordance with item 4, the «General Provisions» of National Accounting Standard 11 «Obligations» [3] determined that:

The current value is the discounted amount of future payments (minus the amount of expected compensation), which is expected to be required to repay the obligation in the course of the ordinary activity of the enterprise.

Pursuant to clause 9, the «General Provisions» NAS 11 «Obligations» [3]: long-term liabilities are shown in the balance sheet at their present value, similarly data are shown in the actuarial balance (actuarial statement on financial condition). The determination of the present value depends on the conditions and type of obligation.

3.1. Methodological aspects of discounted assessment

«Long-term receivables is reflected in the balance sheet at its present value» according to § 2, item 12, section «Recognition and estimation of receivables».

The discount rate is based on the interest rate (before tax deduction) used in transactions with similar assets and liabilities. In the absence of a market rate interest

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[3]**Authors:** *Manachynska Yuliya*

rate interest rate is based on a interest rate on possible loans of the enterprise or calculated by the weighted average cost of capital of the enterprise.

Rate of interest used in transactions with similar assets determining the discount rate at the market. If the company regularly, constantly using loans from financial and banking institutions, for discount rate only for such or similar loans it is possible to take interest rate at which such loans are received by an enterprise. The level of market rates during a certain period is also evidenced by the statistics of banks published on the official website of the National Bank of Ukraine.

If the market rate is problematic to determine the interest rate, you can take a interest rate on possible loans that a particular enterprise can receive.

The risk rate can be used as a risk rate of return on domestic bonds, interest rate on investments or bank deposits for a similar period and on similar conditions, (tabl. 1, 2).

Table 1 - Discount rate of National Bank for 2021 [4]

Period	% annual	Monetary policy decision
2021 рік		
10.12	9,0	Decision
22.10	8,5	Decision
10.09	8,5	Decision
23.07	8,0	Decision
18.06	7,5	Decision
16.04	7,5	Decision
05.03	6,5	Decision
22.01	6,0	Decision

Table 2 - The discount rate of National Bank of Ukraine for 1992 – 2021 [5]

Period	NBU discount rate	The weighted average rate for all tools
1	2	3
1992	80,0	…
1993	240,0	68,50
1994	252,0	124,90
1995	110,0	82,10
1996	40,0	51,80
1997	35,0	25,20
1998	60,0	52,70
1999	45,0	44,00
2000	27,0	29,60
2001	12,5	20,20

Period	NBU discount rate	The weighted average rate for all tools
1	2	3
2002	7,0	9,20
2003	7,0	8,00
2004	9,0	16,10
2005	9,5	14,70
2006	8,5	11,50
2007	8,4	10,10
2008	12,0	15,30
2009	10,3	16,70
2010	7,8	11,62
2011	7,8	12,39
2012	7,6	8,13
2013	6,5	7,15
2014	14,0	15,57
2015	22,0	25,22
2016	14,0	17,36
2017	14,5	15,92
2018	18,0	19,22
2019	13,5	18,35
2020	6,0	7,89
January	11,0	12,91
February	11,0	11,96
March	10,0	11,41
April	8,0	8,50
May	8,0	8,00
June	6,0	6,36
July	6,0	6,00
August	6,0	6,00
September	6,0	6,21
October	6,0	**6,21**
November	6,0	6,09
December	6,0	6,08
2021		
January	6,0	6,14
February	6,0	6,18
March	6,5	6,74
April	7,5	6,74

Period	NBU discount rate	The weighted average rate for all tools
1	2	3
May	7,5	7,84
June	7,5	7,50
July	8,0	7,75
August	8,0	9,13
September	8,5	9,75
October	8,5	9,50
November	8,5	9,50
December	9,0	**9,92**

3.2. Valuation based on the weighted average cost of capital

Instead of a rate on possible loans, you can take a bet, calculated by the weighted average value of capital. Such a rate shows the average profitability that the owners (investors) of the enterprise are expected by investing in it.

The cost of capital is recommended to calculate on the basis of the use of the so-called model of weighted average cost of capital (*Weighted Average Cost of Capital = WACC*) at the international practice of financial activity [6]:

$$WACC = Eq_c \frac{CA}{C} + (1-S)Eq_{bc} \frac{BC}{C}, \tag{1}$$

Where: *WACC* – expected rate of equity value;

Eq_{bc} – expected rate of cost attracted and borrowed capital;

Eq_{cc} – total capital;   *C* – the amount of equity;

AC – the amount of attracted and borrowed capital;

BC – income tax rate.

The discount rate may differ from the rate that the company has taken as a basis for calculation, to the size of risks. Types, the amount of risks in each case is different and is determined taking into account the size of the enterprise, the structure of its capital, the market of activity, the availability of competition, the level of profitability

and the predictability of profit. The risks inherent in business in 2020-2022 are, in particular, the risk associated with the impact of the SOVID-19 and martial law. In order to consider all these factors, the enterprise must constantly make financial payments and have relevant information.

The discount rate is one of the monetary instruments by which the National Bank of Ukraine establishes for banks and other entities of the monetary market a landmark about the value of the raised and placed funds for the relevant period. The discount rate is the basic interest rate on other interest rates of the National Bank of Ukraine.

The discount rate is used by the National Bank of Ukraine simultaneously as a means of implementing monetary policy and the landmark for money. The discount rate dynamics characterizes the main directions of changes in monetary regulation.

At the date of recognition of a long-term liability (long -term receivables), it should be estimated at the present (discounted) cost, and then the difference (discount) depreciate throughout the term of debt repayment (which is actually traced from the National accounting standard 12 «Financial Instruments» [7]. However, the justification of these conclusions is not perfect.

After all, the terms of depreciated cost, an effective interest rate, an effective rate of interest rate from the national position of accounting standard of NAS 12 «Financial Investments» [7], which have nothing to do with financial obligations.

It is safer to adhere to a «traditional» approach – that is, at the date of recognition of the debt, it is estimated at the present (discounted) value, and then during the entire «contractual» term of debt repayment to charge the depreciation of the discount. The present value is determined by the formula:

$$PV = \frac{FV}{(1+i)^n},$$ (2)

where: PV – present (current) cost;

FV – the future cost;

i – discount rate (average annual refinancing rate of the NBU);

n – number of periods before the date of repayment or term (number of periods) - the time period of existence of debt and corresponding cash flows.

The average annual discount rate of refinancing the National Bank of Ukraine (NBU) is considered frequent. The average annual rate is calculated by the NBU as a

result of the year.

PJSC «Agrofirm «Provesin» (Lviv) received a loan 15.10.20XX for 3 years in the amount of 8 034 045,00 UAH. It is necessary to calculate its present value on 15.10.20XX (using discount rate on 15.10.20XX) and depreciation of the discount for each period. To simplify the depreciation of the discount, we will only be introduced over a year (although those who report it quarterly, the calculation will have to be made quarterly). Disconsimenting rate – 9.92% (Table 3).

$$PV (15.10.2020) = 8\ 034\ 045,00 : (1 + 0,0992)^{1095\ 365} = 8\ 034\ 045,00/1,328098111 =$$
$$= 8\ 034\ 045,00\ UAH$$

Table 3 - Balance value PJSC «Agrofirm «Provesin» (Lviv) [12]

Date	Balance value at the beginning of the period	%	Balance value at the end of the period	Date
15.10.20XX	8 034 045,00	168 714,95 (8 034 045,00 x 2,01 %*)	8 202 759,95	31.12.2020
* $((1 + 0,2\ 0,092)^{77\ 365} - 1) \times 100 = (1,020153443 - 1) \times 100 = 2,01.$				
01.01.20XX	8 202 759,95	813 713,79 (8 202 759,95*9,92%)	9 016 473,73	31.12.2021

In this case, in the Actuarial balance (Actuarial report on financial condition) long-term debt (row. 5047) will be 9 016 473,73 UAH.

Conclusions

The level and nature of the discount rate changes depends on the trends of the country's economic development, macroeconomic and budgetary processes, the state of the financial market, etc. The discount rate should be maintained at a positive level regarding the forecast level of inflation, which is determined by the Cabinet of Ministers of Ukraine for the respective year and is taken into account when drafting the state budget. The discount rate is the lowest rate among interest rates at which the National Bank of Ukraine can maintain the liquidity of banks. The size of the discount rate is approved by the decision of the board National Bank of Ukraine.

Discount is the process of bringing future cash flows to the present value. That is, the method of bringing the future value of cash to their value in the current period.

The current value is the discounted cost of future payments with money.

At the same time, the NAS contain the definition of the present value, but the discount procedure does not specify.

Therefore, according to National Accounting Standard 11 «Obligation»[3] and 10 «Receivables» [10] for each Balance sheet date (throughout the loan), the parties must estimate long-term liabilities/receivables at present value.

Moreover, the market rate of interest should be applied at the Balance sheet date and to take into account the remaining period. The difference between the estimates of the present value on the current and previous balance sheet date should be written off for expenses/income. The discount period is selected at its discretion. And it can be a year, quarter, month or even a day.