

Accounting of Valuation and Depreciation of Goods in Retail Trade

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Abstract: *In the market economy conditions, the book value of stocks including goods intended for sale is formed depending on the supply-and-demand situation. The selling price of goods is set by a trading company in such a way so as to cover its costs and make a certain profit. We have developed a method for the formation of selling prices for goods in retail trade companies and for the establishment of appropriate retail mark up at a minimum level of profitability. This paper also presents an accounting scheme for retail price movements per each accounting date when the goods become depreciated, taking into account the requirements of 2013/34/EU Directive and other international and national accounting standards.*

Keywords: *accounting, depreciation, selling price, retail markup, profitability*

Introduction

The origin and development of accounting started from the appearance and practical application of the double entry described in 1494 by the famous Italian mathematician Luca Pacioli in his "Treatise on accounts and records" on the basis of domestic and foreign trade, and subsequently with the origin of other type's human activity.

Trading processes are closely interconnected with the activities of any economic agent. Therefore, the practical importance of accounting for commodity operations, as well as its theoretical understanding and development, is necessary for every accountant, since many organizations, enterprises and companies not only trade ones, but also belonging to other industries, are engaged in the purchase and sale of goods in bulk and retail.

The state of the commodity mass in money value, its movement and the value of turnover significantly affect financial performance indicators in volume and quality terms, such as turnover, returns on investment, profitability, labor intensity, labor productivity, etc. In this regard, this paper examines the problems of pricing, price changes and the depreciation of goods in trade.

1. The Pricing and the Cost Reflection

The problem of pricing and cost reflection of the movement of goods in both wholesale and retail trade is one of the main problems in the accounting system, and in the economy as a whole.

Under conditions of price liberalization and free market trade, the purchase and sale prices of the same goods can change over the course of a month or even a week, so the formation of new retail prices, taking into account supply and demand, creates many difficult situations in current accounting.

In addition, national accounting standards, as well as international standards, require that at the end of the reporting period inventories should be valued at the lowest value between their carrying value and net realizable value.

In view of this, we consider it expedient to improve the efficiency and simplification of pricing calculations, and at the same time, the effectiveness of the methodology of maneuverability of retail prices in the interests of the buyer and seller in the process of demand analysis, product advertising, accounting and control.

2. The Calculation of Prices

It seems to us that in trade, both in retail and wholesale, based on the conditions of free pricing in market environment, taking into account the constituent elements of selling prices, the calculation of prices can be simplified using the following algebraic equation: the selling price is equal to cost per unit plus trade allowance, plus profit per unit, plus the amount of value added tax. Calculation of these amounts to the selling price gives:

$$X = C + A \cdot X + X/6, \text{ where}$$

X – selling price, including value added tax (VAT)

A – trade markup to selling price

X/6 – VAT share in the selling price of a good, VAT 20%.

This equation can be simplified as follows:

$$X = C / (5/6 - A), \text{ or } X = C / (0.8333 - A)$$

Since the meaning of the trade markup is to cover the distribution costs and to ensure profitability, then the company will build its financial policy to minimize the profitability in order to lower sales prices and increase the turnover.

But if the VAT rate for the product is 8% (for socially significant goods), then the equation for determining the sale price can be transformed as follows:

$$X = C + A \cdot X + 8 / 108 \cdot X, \text{ i.e. } X = C / (0.9259 - A)$$

For example, if the cost of goods is 10 leu per unit, then with VAT rate 20% and trade mark up 30% to the sale price, then we get the following:

$$X = 10 / (0.833 - 0.30) = 18.75 \text{ leu} - \text{price per unit.}$$

If the purchase price of a socially significant product is 5 L per unit, at a VAT rate of 8% and trade markup up to 20% to the selling price, and to the sale price it is 15.43% (using equation $A = 0.20 / (1.08 \cdot 1.20)$), then the selling price per unit of this product is:

$$X = 5 / (0.9259 - 0.1543) = 6.48 \text{ L}$$

Thus, the proposed method of pricing calculation provides convenient support in the process of minimization of trade markup, depending on the acceptable levels of circulation expenses and the desired profitability from the sale of goods.

In this article, one more question related to changes in the prices of goods, including selling (retail) ones, is worth to be discussed.

From 01.01.2020 in the Republic of Moldova, changes are introduced to the national accounting standards and, accordingly, in the general chart of accounts. In particular, in accordance with the requirements of Directive 2013/34 of the European Parliament, a new requirement is included in the national accounting standard "Inventories", namely, that the difference between the carrying value of inventories (and goods, accordingly) and net realizable value calculated at the reporting date shall be booked to a separate account for impairment, i.e. to account 218 "Adjustment for impairment of inventories", sub - account 6 "Adjustment for impairment of goods".

The process of impairment of goods is practically expressed in the previous understanding with the phenomena of discounting of goods, and the recovery of impairment losses is characterized by the phenomenon of revaluation, i.e. price increases.

However, the impairment of goods is characterized by the difference between the carrying value prices and their net realizable value in the presence of relevant internal or external factors that have affected the impairment or recovery of losses from the impairment of goods.

In practice, changes in the retail prices of goods in retail trade may relate to the issue of impairment if carrying value is lowered as compared to the net realizable value. And if the retail price is lowered within the trade markup, as well as within VAT, then the impairment will not take place, therefore, there is no need to use the account 218.6 “Adjustment for impairment of goods”.

In this case, the cost of goods will be also reduced in terms of their selling value, as well as trade markup, and thus VAT.

There are 2 options for accounting entries:

- a) with reduction of both trade markup and VAT
- b) with reduction of trade markup and VAT, as well as the recognition of impairment losses using an account 218.6 “Adjustment for impairment of goods”

Example:

Assume that goods at retail value of 300,000L are subject to markdown, including VAT 50,000L, trade markup in the amount of 70,000L. Carrying value is 180,000L.

If the net realizable value is 160,000 L, then the total amount of the markdown will be 140,000L (300,000 – 160,000, of which the amount of impairment is 20,000L (180,000 – 160,000)).

If net realizable value is 160,000L, then the markdown is 140,000L (300,000 – 160,000), including the amount of impairment is 20,000L (180,000 – 160,000)).

The markup in the amount of 70,000 L will be booked in full for price reduction, and VAT will be reduced by 18,000 L, for the net realizable value of goods in the amount of 160,000 L will be estimated with the addition of VAT 20%, i.e. by 32,000 (160,000·0.2).

Hence, the retail value of goods will be reduced by 108,000 L (70,000 +18,000 + 20,000), and the sale value of the goods is 192,000 L. The following accounting entries are to be made:

1. debit of account 831.1 Trade markup – 70,000
debit of account 831.2 Value added tax – 18,000
credit of account 217.2 Goods in retail sale – 88,000
2. debit of account 714 Other operating expenses – 20,000
credit of account 218.6 Adjustment for impairment of goods – 20,000

But if the net realizable value at the end of the year is equal to, for example, 220,000L, not reaching the carrying value of the goods, which in our example is equal to 180,000L (300,000 – 50,000 – 70,000), then there is no impairment of goods, since only the trade markup is reduced by 30,000L (300,000 – 50,000 – 220,000) and VAT by 6,000L, i.e. the sum of VAT 20% is added to the realizable value, that is 44,000 (220,000·0.2).

As a result, the following records shall be made on the accounts:

- debit of account 831.1 Trade markup – 30,000
- debit of account 831.2 Value added tax – 6,000
- credit of account 217.2 Goods in retail sale – 36,000

Consequently, the retail value after markdown is equal to 264,000L. From the foregoing, it follows that the solution to the problems of accounting for changes in the price of goods in retail organizations regarding their devaluation or revaluation should be coordinated, among all, with the requirements of national standards regarding impairment of goods and recovery of losses from impairment.

Regarding the existence of conditions for impairment of assets, national and international accounting standards consider a number of factors (criteria) of an external and internal nature that require the depreciation of assets, mainly long-term ones.

With regard to stocks, that is, current assets, the standards do not provide neither external nor internal factors for their depreciation. In our opinion, the factors creating the situation for the need to reduce sales prices, as well as the cost of goods or finished products prepared for sale in specialized stores at production enterprises, include:

External factors:

- significant decrease in market value for relevant types of goods;
- natural disasters and other emergency events;
- emergence of competing entities that sale similar goods and products in the territory where the company is located;
- other signs established by the subject;

Internal factors:

- evidence that the goods have lost marketability due to long storage or their marketable condition or quality;
- damage to the goods due to improper storage or use for advertising purposes;
- expiration (soon expiration) of shelf life and the loss of certain quality indicators for the use of goods for their intended purpose;
- other signs associated with the need for mark down and depreciation.

Concerning depreciation amounts, the general accounts plan provides for the use of account 218 “Adjustment for depreciation of inventories” and account 254 “Adjustment for depreciation of inventories of current financial investments”, effective since January 1, 2020; this means that the situation with impairment relates to various current assets. However, neither the national accounting standard “Stocks” (NAS “Stocks”), nor NAS “Accounts receivable and financial investments” provides any interpretation of impairment issues for these assets.

We consider it appropriate to fill these gaps in the standards in accordance with the requirements of Directive 213/34 of the European Union, which is accepted as guidance in the Republic of Moldova, namely, include in the above standards the issues of accounting for losses from depreciation of stocks and current financial investments, and accordingly the writing-off of these losses by income recovery if there are appropriate signs of changes in net realizable value.

In retail trade, as well as in other areas of activity, prices for goods and other inventories may increase, that is, a company may decide to re-evaluate the goods in the presence of relevant external or internal signs (factors).

These may be:

- increase in the market value of goods,
- changes in the competitiveness situation for certain types of goods,
- significant increase in demand for seasonal goods and so on.

Revaluation, that is, an increase in retail prices, and possibly the self-cost of goods, will have an effect on increasing the resale markup, and, accordingly, the value added tax in the retail value of goods.

But if the product was depreciated in the last reporting period, meaning that its self-cost was reduced and the loss was attributed to the company’s expenses, then when restoring (increasing) the self-cost, that is, writing-off losses, such a revaluation will be attributed to income from depreciated adjustments for current assets.

For example, a retailer decided to revalue goods in connection with an increase in retail prices in the market. The net realizable value for the type of product is 100,000 lei (L; MDL).

The purchase price at historical cost is 80,000 MDL. At this, the product was previously depreciated, the value of which amounted to 20,000 MDL. Consequently, losses from previously depreciated goods will be written off and income restored.

To determine the retail sales price for this type of product, observing the norms, we assume the trade markup of 30% of the retail value and 20% VAT; then the retail value of the entire batch of goods is the following (according to the pricing formula):

$$X = C + 0,3 X + \frac{X}{6} - a; \text{ so, } X = C / \frac{5}{6}, \text{ hence}$$

$$X = 80,000 / \frac{5}{6} - 0,30 = 150,000 \text{ MDL.}$$

Thus, the purchase cost is 80,000 MDL.

VAT – 25,000 MDL. (150,000 : 6);

Trade mark-up – 45,000 MDL. (150,000 × 0,30)

This retail value of goods in the amount of 150,000 MDL amounted in, at net realizable value in the amount of 80,000 MDL, after depreciation.

In our case, the self-cost of goods increased by 20,000 MDL by bringing it to the market net realizable value, that is up to 100,000 MDL, in connection with which the trade mark-up and 20% VAT from 20,000 MDL increases accordingly.

Calculating the retail value from revaluation of the goods in connection with the write-off of depreciation losses, that is, recovery of income of 20,000 MDL using the pricing formulas used above, we obtain the following data:

$$X = C / \frac{5}{6} - a, \text{ so } X = 20,000 / 0,8333 - 0,30, \text{ hence}$$

$$X = 37,500 \text{ MDL}$$

$$C = 20,000 \text{ MDL}$$

$$A = (\text{trade mark-up}) = 11,250 \text{ MDL } (3,750 \times 0.30);$$

$$\text{VAT} = 6,250 \text{ MDL } (37,500 : 6).$$

For clarity, we summarize the indicators of the given example in the following table:

Table no. 1
Recovery (write-off) of goods depreciation losses and determination of retail value (MDL)

Indicators	Purchase value	Retail value	including		
			Trade mark-up	VAT (20%)	Total
1. Prior to recovery (write-off) of depreciation losses	80,000	150,000	45,000	25,000	70,000
2. After recovery of depreciation losses	100,000	187,500	56,250	31,250	87,500
Revaluation	20,000	37,500	11,250	6,250	17,500

From the data in the table above it follows that as a result of revaluation, the retail value of goods increased by 37,500 MDL, among all due to recovery of depreciation losses by 20,000 MDL (100,000 - 80,000), due to increase of the trade mark up by 11,250 MDL and due to increase of VAT by 6,250 MDL.

The result of revaluation shall be shown by the following entries on accounts:

1. In the amount of recovery losses of goods depreciation in previous reporting periods

Debit of account 218.6 Adjustment for depreciation of goods - 20,000 MDL

Credit of account 612.6 Income from adjustment for current assets depreciation - 20,000 MDL

2. For the amount of increase of the trade markup and VAT when bringing the value of goods to their retail prices:

Debit of account 217.2 Goods in retail sale – 17500 MDL

Credit of account 831.1 Trade mark-up - 11250 MDL

Credit of account 831.2 VAT in balances of goods – 6250 MDL.

It is also worth noting that the revaluation process in retail trade, when goods are accounted at retail selling prices, can also take place in situations where there was no depreciation of the corresponding type of goods in previous reporting periods and there is no credit balance in the account 218.6 "Adjustment for depreciation of goods".

In this case, the revaluation amounts will increase the retail value of goods only due to increase of the trade markup and the corresponding VAT rate. For example, a retailer, due to an increase in the cost of delivery of goods, as well as an increase in pay rates for highly qualified trade specialists, decided to increase the trade mark-up from 30% to 35%.

The starting retail value for this batch of goods was 120,000 MDL. Recalculation of the retail value of these goods is demonstrated by the above formulas, as shown in Table no. 2.

Table no. 2
Revaluation of goods due to increase of the trade markup and VAT with no depreciation of goods in previous reporting periods (MDL)

	Retail value	Including			Purchase value
		Trade mark-up	VAT (20%)	Total	
1. Value of goods before revaluation	120,000	36,000	20,000	56,050	64,000
2. Value of goods after revaluation	132,420	46,350	22,070	68,420	64,000
Changes of amounts of revaluation	12,420	10,350	2,070	12,420	-

The data in Table no. 2 follows from the following definitions of indicators. Equation

$$X = C / \frac{5}{6} - a, \text{ at VAT rate } 20\%,$$

gives: $X = 64,000 : (0.8333 - 0.35) = 132,420$ MDL - the retail value of goods.

The trade mark-up is 46,350 MDL ($13,420 \times 0.35$), VAT from the new value of goods is 22,070 MDL ($132,420 : 6$).

In total, the retail value increased by 12,420 MDL due to increase of the trade markup in the amount of 10,350 MDL ($46,350 - 36,000$) and increase of VAT by 2,070 MDL ($22,070 - 20,000$).

A 5% price increase due to the trade markup and increase of VAT shall be shown by the following complex entries on accounts:

- Debit of account 217.2 Goods in retail sale – 12,420 MDL,
- Credit of account 831.1 Trade mark-up – 10,350 MDL,
- Credit of account 831.2 VAT in balances of goods – 2,070 MDL.

Conclusions

Summarizing the study results in this paper, it is necessary to pay attention to the requirement of the European Directive 2013/34 regarding accounting for depreciation losses and their recovery not only for long-term assets, but also for current assets; relevant provisions are absent in the National Accounting Standards in the Republic of Moldova.

A change in retail prices may not affect the change of the self-cost of goods, since markdown or revaluation can take place only due to changes in the trade markup and, accordingly, of VAT for these types of goods.

Supplementary recommended readings

National Accounting Standards, MO no. 233-237 at 21.10.2013

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