

## ACCOUNTING TREATMENTS USED IN STOCKS VALUATION

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### **Abstract**

*Accounting treatments represent the methods used by a company to apply its own accounting policies. Accounting treatments can be divided into two categories: basic accounting treatments and alternative treatments. Stocks represent the quantities of material resources, half-finished goods, finished goods which stockpile in supply repositories of the economic entities, with a certain structure and volume, for a certain period of time, in order to ensure continuity and regularity of the manufacturing process and of consumption. Stocks will be acknowledged only when the company is likely to make an economic benefit and when the costs and values can be estimated in a credible way.*

**Keywords:** *accounting treatment, net realizable value, AWC, adjustment for depreciation.*

**JEL Classification:** *M40, M41*

### **1. Introduction end back ground to study**

This article aims to provide new insights into the process of stock valuation, starting with the beginning inventory valuation and finishing with the ending inventory valuation.

The main objective of the present study is the correct highlight of stocks in financial statements. Stocks should not be mirrored in the balance sheet at a higher value than the one that can be obtained when using or selling them. To this end, the stocks' value is diminished until it reaches the **net realizable value**, by reflecting a depreciation adjustment.

This work is a result of scientific research, based on the analysis of literature regarding the International Financial Reporting Standards, national regulations and current assets.

### **2. Alternative treatments used in stocs valuation**

#### **2.1 Accounting treatments**

**Accounting policies** represent the basis, principles, conventions, rules and regulations applied by a company when making and presenting the annual financial statements.

**The method** represents all the procedures, treatments or other means used for the recognition and evaluation of the elements presented in the financial statements.

Because the phrase “accounting treatments” is not defined by the International Accounting Standards, we agree with and support the opinion of Professor Mihai Ristea, who argues that **accounting treatments** is synonym of **accounting procedures and accounting methods**, meaning methods used by a company in order to apply its accounting policies.

Accounting theories and practices are organized by means of accounting policies. In order to develop accounting policies it is necessary to choose certain methods, which in turn encompass the principles, fundamentals, concepts, conventions, rules and practices used in primary accounting and for preparing financial statements.

When analyzing accounting treatments from the point of view of the accounting cycle of collecting, processing, storing, analyzing and presenting the information, they can be classified as follows:

- a) accounting treatments for measuring and evaluating;
- b) treatments for bookkeeping, organizing and validating documents, controlling and validating procedures of accounting entries;
- c) treatments for accounting synthesis, making and presenting the financial statements;
- d) treatments for measuring and evaluating the costs and analytical results.

International Accounting Standards establish two kinds of treatments for presenting the financial statements: basic treatments and alternative treatments.

**Basic or standard treatment** refers to a fundamental and reference treatment, applicable where the standard permits two accounting procedures for the recognition and evaluation of transactions and other similar events.

**Alternative treatment** refers to an accounting procedure that is accepted, according to those standards, as opposed to basic treatment.

The terms “basic” and “alternative” can also have a broader meaning, in this case both being substituted with the phrase “alternative accounting treatments”. In this instance, **alternative** means that there is a possibility of choosing between two solutions which rule themselves out.

## 2.2 The concept of stocks

**Stocks** represent the quantities of material resources, half-finished and finished goods, which stockpile in supply repositories of the economic entities, with a certain structure and volume, for a certain period of time, in order to ensure continuity and regularity of the manufacturing process and of consumption.

Stocks will be acknowledged only when the company is likely to make an economic benefit and when the costs and values can be estimated in a credible way.

Stocks can be classified as: **bought** (raw materials, consumable materials, inventory items, buildings, temporary establishments, animals, packaging) or **manufactured**.

**Identifiable stocks** are customized for each article or category of goods and include hard goods such as cars, equipments, TVs, computers.

**Fungible stocks (interchangeable)** are those goods from each category that cannot be identified as single items (bags of sugar that belong to the same sort, even if they are bought with different prices).

Stocks **include**: goods intended for re-sale or products meant to be sold in the companies’ own stores, raw materials, consumable materials which are used in the manufacturing process but which usually are not part of the end product, materials such as inventory items, half-finished and finished goods, defective articles, recoverable materials and discards, animals and birds, packaging, products in manufacture.

## 2.3 Stock valuation

**Stock valuation** is done at the beginning, when the stock enters the company, at balance sheet date, at inventory and also at the end or when it is given for consumption.

**A) Beginning stock valuation** is done to: acquisition costs, production costs, input value. Acquisition cost refers to the following:

- acquisition price;
- duties and irrecoverable taxes;
- direct expenses related to transporting, manipulating and other costs that can be tied directly to stock acquisition;
- commercial discounts (they are subtracted);
- indebtedness costs, when the production of a stock is financed, this stock needing a longer period of time to be finished and ready to be sold or used.

### **B) Valuation at inventory and at the end of the financial exercise**

At the annual inventory of assets and liabilities, stocks are valued at their actual value, also known as inventory value.

The actual value is established according to the product’s usefulness, its condition and the market price. When inventory takes place, the following things are established:

- quantitative differences (plus or minus) between the actual situation recorded at inventory and the registered situation from the accountancy;
- value differences (plus or minus) between the accounting value (beginning) and actual value (inventory).

In the financial statements, stocks will be registered at the lowest value between the accounting value and the net realizable value (inventory value). If the inventory value > accounting value, the accounting value will be the one registered in the inventory lists, according to the principle of prudence. If the inventory value < accounting value, the inventory value will be the one registered in the inventory list, and, in order to cover the difference, an adjustment for the depreciation of stocks will be written in the list.

The assets like stocks should not be reflected in the balance sheet at a higher value than the one that can be obtained by using or selling them. To this end, the stocks’ value should be diminished to the level of the **net realizable value**, by reflecting an **adjustment for depreciation**.

**Net realizable value (NRV)** is given by the selling price diminished by the estimated costs for finishing the production and the selling costs. The net realizable value must be established at each financial exercise.

**Value depreciation** appears when the cost is higher than the net realizable value; in this case the stock should be brought to this latter value. Starting with 2006, adjustment accounts have been introduced for the depreciation of

stocks and production in progress (group 39); thus it is possible to diminish the value of stocks until the net realizable value.

### 1) Example of how the net realizable value can be determined

Selling price of the stock = 58,600 lei, evaluation cost = 1,200 lei, cost of classification and preparation for sale = 600 lei, cost of selling = 650 lei.

**Net realizable value = 58,600 – 1,200 – 600 – 650 = 56,150 lei**

### 2) Example of how stocks can be valued at inventory

A company that produces goods has the following data after the inventory of its patrimony:

A) The article “Chairs”: registered quantity 58 pieces, actual quantity 56 pieces, production cost 470 lei, net realizable value 480 lei.

B) The article “Shirts”: registered quantity 107 pieces, actual quantity 110 pieces, production cost 80 lei, net realizable value 75 lei.

C) The article “TVs”: registered quantity 4 pieces, actual quantity 4 pieces, production cost 1,200 lei, net realizable value 1,050 lei.

D) The article “Men’s suits”: registered value 16 pieces, actual value 15 pieces, production cost 650 lei, net realizable value 700 lei.

Establish the value that must be registered in the balance sheet for each of the four articles and the accounting registration associated with the depreciation of stocks.

In order to establish the value of each article we make the following table:

Name of goods	Quantities			Accounting value			Inventory value			Balance sheet value
	Actual	Registered	Differences	Unit cost	Value	Difference	NRV	Value	Depreciation	
Chairs	56	58	□2	470	26,320	□940	480	26,880	-	26,320
Shirts	110	107	3	80	8,800	240	75	8,250	550	8,250
TVs	4	4	-	1,200	4,800	-	1,050	4,200	600	4,200
Suits	15	16	□1	650	9,750	□650	700	10,500	-	9,750
<b>Total</b>					<b>49,670</b>			<b>49,830</b>	<b>1,150</b>	<b>48,520</b>

For the article “Chairs” an inventory minus of 940 lei will be registered, and according to the principle of prudence, the lowest value will be registered between the accounting value (26,320 lei) and the inventory value (26,880 lei). The values are calculated according to the actual balance.

For the article “Shirts” an inventory plus of 240 lei will be registered and an adjustment for depreciation of 550 lei, because the actual value (net realizable) is lower than the acquisition cost. Thus in the balance sheet the value of 8,250 lei will be registered and not 8,800 lei, which is the accounting value.

For the article “TVs” an adjustment for depreciation of 600 lei will be registered, because the actual value (net realizable) is lower than the acquisition cost (1,200 lei compared to 1,050 lei). Thus in the balance the value of 4,200 lei will be registered and not 4,800 lei, which is the accounting value.

For the article “Men’s suits” an inventory minus of 659 lei will be registered and in the balance sheet, according to the principle of prudence, the lowest value will be registered between the accounting value (9,750 lei) and inventory value (10,500 lei). Per total, the value of the stock from the balance is established as a difference between the accounting value and the adjustments for depreciation (49,670 – 1,150 = 48,520).

The adjustments for depreciation will be registered as follows:

6,814	=	394	1,150
“Expenses regarding the adjustments for depreciation of the current assets”		“Adjustments regarding the depreciation of products”	

### C) A Valuation of stocks at the end

For the ending stock valuation, IFRS (International Financial Reporting Standards) establishes the FIFO and LIFO method as a basic treatment and LIFO method as an alternative treatment.

At the ending inventory, stocks are valued using one of the following methods: first in-first out method (FIFO), last in-first out method (LIFO) and average weighted cost method (AWC).

**The FIFO method** considers that the first stocks to be bought are the first to be sold, thus the elements left in the inventory at the end of the period are the ones that have been bought or produced recently. Using the FIFO method, the final stock will reflect the newest entered elements. If the evolution of costs is ascendant, the stocks valued at a lower price will be the first ones exiting the company, thus the final balance will be higher because it will be comprised of the newest entries which have higher costs. If the evolution of prices is descendant, the stocks valued at a higher cost will be the first ones exiting the company, and the final balance will be lower because it will be comprised of newest entries which have lower costs.

The **AWC method** consists in determining the costs of stock elements by using their weighted average. This method can be applied either from time to time, or when entering inventory.

According to the AWC method, the cost of each element is determined by the weighted average of costs of similar elements at the beginning and the cost of elements bought or made during the period. AWC is calculated as follows:

$$AWC = \frac{S_{bv} + E_v}{S_{bq} + E_q}, \quad (1)$$

where:

- $S_{bv}$  – stock at the beginning expressed in value;
- $E_v$  – entries during the period expressed in value;
- $S_{bq}$  – stock at the beginning expressed quantitatively;
- $E_q$  – entries during the period expressed quantitatively.

The **LIFO method** considers that the stocks exiting the company should be valued at the cost of the latest elements that entered the company; using this method the final stock may indicate lower values than the actual costs. If the evolution of prices is ascendant, the stocks valued at a higher price will be the first ones exiting the company, and the final balance will be lower because it comprises the first entries, having lower costs. If the evolution of prices is descendant, the stocks valued at a lower price will be the first ones exiting the company, and the final balance will be higher because it will comprise the first entries, meaning those having higher costs.

The main **advantages** and **disadvantages** of the three methods can be seen in the following table:

METHOD	ADVANTAGES	DISADVANTAGES
<b>FIFO</b>	- easy to calculate; - stock value is up-to-date; - keeps track of stock physically.	- profits are overvalued, especially during inflation; - difficult to draw a comparison between orders.
<b>AWC</b>	- easy to calculate; - allows comparison between different orders; - balances profits.	- distortion of costs during certain periods of time; - the result's accuracy must be checked.
<b>LIFO</b>	- easy to calculate; - uses up-to-date costs.	- does not keep track of the normal distribution of physical elements of the stock; - undervaluation of stocks in the balance sheet.

Example regarding the use of accounting treatments for the entries-exit of stocks:

Specification	Date	Quantity	Unit price
<b>Stock at:</b>	01.01.2011	500	20
<b>Acquisition</b>	11.01.2011	250	18
	05.03.2011	300	17
	07.10.2011	200	16
<b>Exits</b>	15.07.2011	400	?
	10.08.2011	300	?

Determine the value of stocks when exiting the company and the value of the final stock using the three methods: FIFO, AWC and LIFO.

**Solution:**

#### FIFO method

Date	ENTRIES			EXIT			STOCK	
	Quantity	Unit price	Value	Quantity	Unit Price	Value	Quantity	Value
01.01.11	500	20	10,000				500	10,000
11.01.11	250	18	4,500				750	14,500
05.03.11	300	17	5,100				1,050	19,600
15.07.11				400	20	8,000	650	11,600
10.08.11				100	20	2,000	550	9,600
				200	18	3,600	350	6,000
07.10.11	200	16	3,200				550	9,200
<b>Final balance</b>			<b>22,800</b>			<b>13,600</b>	<b>550</b>	<b>9,200</b>

The stock's structure at the end of the period is:  $50 \times 18 + 300 \times 17 + 200 \times 16 = 9,200$  lei

## AWC method

Date	ENTRIES			EXIT			STOCK		
	Quantity	Unit price	Value	Quantity	Unit price	Value	Quantity	Value	Unit price
01.01.11	500	20	10,000				500	10,000	20
11.01.11	250	18	4,500				750	14,500	19.33
05.03.11	300	17	5,100				1,050	19,600	18.67
15.07.11				400	18.67	7,468	650	12,132	18.67
10.08.11				300	18.67	5,600	350	6,532	18.67
07.10.11	200	16	3,200				550	9,732	17.69
<b>Final balance</b>			<b>22,800</b>			<b>13,068</b>	<b>550</b>	<b>9,732</b>	<b>17.69</b>

The balance's structure will be:  $550 \times 17.69 = 9,732$  lei

## LIFO method

Date	ENTRIES			EXIT			STOCK	
	Quantity	Unit price	Value	Quantity	Unit price	Value	Quantity	Value
01.01.11	500	20	10,000				500	10,000
11.01.11	250	18	4,500				750	14,500
05.03.11	300	17	5,100				1,050	19,600
15.07.11				300	17	5,100	750	14,500
				100	18	1,800	650	12,700
10.08.11				150	18	2,700	500	10,000
				150	20	3,000	350	7,000
07.10.11	200	16	3,200				550	10,200
<b>Final balance</b>			<b>22,800</b>			<b>12,600</b>	<b>550</b>	<b>10,200</b>

The stock's structure at the end of the period is:

$$350 \times 20 = 7,000$$

$$200 \times 16 = 3,200$$

$$\text{Total } 550 = 10,200$$

When using the FIFO method the final stock of the 550 products will be 9,200 lei, when using the AWC method the value is 9,732 lei, and with the LIFO method the final stock represents 10,200 lei. If the entry prices are greatly modified (over 10%), then the final value of stocks will have different values (if using the LIFO method the value of stocks will be 10.86% higher than with the FIFO method).

**The value of production on the stock** is established either by inventorying the unfinished products at the end of the period of time through technical methods of observing the degree of implementation of the technical procedures (direct method), or through the accounting method, according to which the value of production on the stock is equal to the difference between the total of production expenses and the actual cost of the obtained products (indirect method).

### 3. Conclusions

Financial statements are based on the accounting treatments used by a company. In order to gain certain material of financial advantages, these statements are often modified by their compilers.

Because accounting norms and policies offer multiple treatments for solving the same problems, some distortions might appear in the relevance of the accounting information and also some differences between the results.

Practice shows that there wasn't, isn't and probably will never be an absolute accounting truth. The truth is relative, being influenced by a number of political, economical, social, international and psychological factors. The accounting truth must be in accordance with a set of rules, principles, conventions and specific practices. It should be seen as a compromise between the producers of accounting information, financial auditors and information users.

In order to provide correct information, companies must compile a manual of accounting policies in which they present the accounting treatments used by the company. Moreover, in the appendices to the financial statements the accounting treatments must be described.

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