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## FOREIGN EXPERIENCE IN A FIELD OF ACCOUNTING AND EVALUATION OF ENTERPRISE INVENTORIES

### **Abstract**

**Introduction.** At the present stage Ukraine faces some problems in accounting and evaluation of inventories. Inventories are the largest part of the company's assets. Our country is a developing country, so to achieve a high level of enterprise profitability we should analyze some foreign experience in accounting of inventories and identify those characteristic features by means of which it is possible to improve the financial performance of their activity and the country as a whole.

**Methods.** The study was carried out on the basis of monographic, abstract-logical, historical methods. Methodological basis in the development of the material made by the method of dialectical knowledge of socio-economic phenomena.

**Results.** Inventories belong to the current assets because they can be turned into monetary funds within one year or one operating cycle. In practice, different methods of inventory accounting are used. The organization of their accounting should be aimed at timely providing management with the information about the availability and movement of materials, about minimum and maximum amount of inventories in relation to the firm of each nomenclature of material resources in order to use them effectively and to increase enterprise profitability.

**Discussion.** The progress of foreign countries towards the formation of effective methods of inventory evaluation consists in both the formation of true accounting aimed at developing market economy, ensuring effective competition between business entities and creating particular innovative incentives for the development of a state. The latter confirms the high level of competition in the global market among enterprises that requires building balanced and efficient accounting policies in the countries. That is why Ukraine should take into account the experience of other countries in the accounting of enterprise inventory, including their mistakes in improving the financial condition of their own enterprises and efficient operation of domestic producers.

**Key words:** expenses, inventory, accounting, evaluation, enterprise, profit, methods.

**Introduction.** Inventories are the largest part of the company's assets. These stocks occupy a dominant position in the cost structure of enterprises in various fields of activity, their registration and

assessment impact on the results of business enterprises and the disclosure of information about its financial position.

Definition of the term “stocks” is different in different countries. If in Ukraine inventories are assets intended for production, services, or for resale within a short period of time, then in the US stocks are assets intended for sale within one normal business cycle or use within a production cycle. In addition, inventory valuation methods, which were the subject of our further research, are significantly different in the various countries.

**Analysis of recent research and publications.** The issue in accounting for inventories found their reflection in the works of such domestic scientists: F.F. Butynets [1], M.O. Vynohradova, H.V. Komlach [2], S.F. Holova, V.M. Kostiuchenko [3], O.V. Ivaschenko, Yu.Ye. Studenikin [4], L.I. Maruschak [5], O.V. Chumak [6]. Thomas Berry Needles, Henry Anderson and James C. Caldwell considered fundamentally the problem of choosing the methods for assessment of inventory.

However, it is necessary to determine the composition and place of stocks in the structure of objects in accounting of enterprises and analyze methods of evaluation of stocks for the needs of different user groups in different countries considering the crisis tendencies for the development of world and national economy.

**The purpose** of the article is to investigate some foreign experience in identifying enterprise inventories and to find out how existing evaluation methods of inventory accounting in foreign practice affect the financial performance of some enterprises.

**Methodology.** The studies were conducted through the use of monographic, abstract and logical and historical methods. A dialectical method of knowledge of social and economic phenomena was the methodological basis in processing the material.

**Results.** In normative documents of Germany the definition of the term “stocks” is not given, but during the last always understand articles intended for short-term use or resale [7; p. 334].

The definition of the notion “stocks” is interpreted in the system of accounting of the United Kingdom similarly to determining the US GAAP, excluding the following linguistic features.

Such assets are designated in the American accounting literature by the term “inventory”. In the UK, inventories are designated by the term “stock”, while in the American literature “stock” – it is usually shares. The inventories in the IAS 2 “Inventories” are assets for use in the ordinary course of business during manufacture, for sale or in the form of materials for use in providing services. Abroad, almost all stocks are trademarks at the commercial enterprises, where purchased goods that can not be processed before the implementation.

Procedure for accounting of inventories in foreign countries is regulated by the international standard 2 “Evaluation and reflection of inventories in the context of forming actual cost”, which entered into force from the 1<sup>st</sup> of January, 1976 [8]. The standard defines the concept of cost price (initial cost) and valuation methods for the cost of each unit for purchased materials, average cost, including the weighted average cost and variable average, the cost of the first and the most recent purchases. Choice of method of estimates inventories has material impact on financial results (profit, etc.).

Estimation is one of the main methodological principles of accounting inventory in the market conditions. Error in the evaluation of inventory at the end of this year, negatively affects the value of net income both in the current and next year. And thus it affects the amount of paid tax on profits. Therefore, federal authorities specifically regulate the use of various evaluation methods of inventories by enterprises and accountants of the firms often face the problem on the one hand, the most accurate determination of profit, and the other – with the desire to reduce tax on profits.

There are several methods for assessing inventory for financial reporting. The main part of which is based either on cost price or at market price.

The American Institute of Chartered Accountants notes that the primary basis of accounting of inventory is the cost price, which includes the following elements:

- 1) the amount of the invoice by calculation of the discounts by purchasing

- 2) the amount of insurance of goods in transit;
- 3) corresponding taxes and fares.

Other costs associated with the purchase, reception, etc., in principle, it also necessary to include in the cost of inventory. However, in practice so difficult to distribute these costs between different types, mainly taking into account as the costs of the reporting period (i.e. include overhead costs) and not as an element of the cost price of inventory.

During the year, prices for the most part of the goods are changing. The same amount of goods may be purchased at different prices. Therefore, accountants are interested in movement of values and not the physical movement of goods in the process of company, because it allows you to more accurately determine income.

Different methods for assessing inventory were use in foreign countries, namely:

- 1) the method of specific identification;
- 2) the method of average cost;
- 3) FIFO (the first party in income – the first in expenditure);
- 4) LIFO (the last party in expenditure – the first in income);
- 5) NIFO (the next party in income – the first in expenditure);
- 6) the method of base stocks;
- 7) the price of the last purchase.

However, the first four methods are used the most widely. Therefore let's stop on them more detailed.

The essence of an identification method consists in the fact that it establishes the actual cost of the specific items of inventory. According to this method, each product unit receives a certain price. The identification method is mostly used when buying and selling product units, which are of great value, such as cars, heavy machinery equipment and jewelry. Using this method the cost of goods sold and closing stocks are accounted at their actual cost.

Some accountants argue that this is theoretically the most accurate method. However, despite this, it is not widespread due to significant drawbacks. Firstly, when using this method identical goods in stocks are accounted by different price. Secondly, there is the possibility of manipulating profits. So, depending on which of the identical TVs a buyer buys, profit will change according to the initial price of each TV set [9, p. 59].

When using the average cost method, the cost of inventories is determined by dividing the whole (full) value of goods (balance at the beginning plus all items purchased within a certain period) by the number of product units. As a result, we will have a weighted average cost per product unit. The cost of inventories, determined by the average cost method, takes into account all the prices at which goods were purchased during the reporting period and thus determine the increase and decrease. Some experts criticize this method noting that it is necessary to take into account the latest prices because they have the largest influence on the level of income and administrative decision-making.

The evaluation of stocks by the FIFO method is based on the assumption that stocks are used in the order in which they came to the enterprise (recorded in the accounting records), i.e. stocks which were the first to be released into production (sale and other disposals), are estimated by the cost price of stocks which were the first to come.

The FIFO method is an assessment of inventories by their original cost. The evaluation procedure does not depend on actual sequence of consumption of parties of inventories which were received.

Using this method, inventories should be written off by the purchase price of the respective parties in the chronological order of their receipt, i.e. at first the materials are written off by the purchase price of the first party, then the second, the third and so on until this material is fully used. The order of evaluation does not depend on the actual sequence of consumption of parties of inventories which were received. This method takes into account the movement of the value and not the movement of goods. The effect of using the FIFO method consists in the fact that inventories at period end are estimated at the prices of the latest purchases and prices of first procurement of goods are used in cost price of sales. During the

continuous increase in prices FIFO method provides the highest possible level of net income. Accordingly, during the decline in prices we can observe the reverse process. Therefore, the main disadvantage of this method is that it increases the influence of the development cycle on revenue indices. In this regard, the FIFO method is best used in conditions of a stable economy with minor fluctuations in prices.

The LIFO method is reverse (inverse) FIFO method, i.e. spent inventories are estimated by the price of the last receipt, then previous, etc., although their actual movement may be different. During the inflation period LIFO gives considerably less income than FIFO, respectively, less income tax. Therefore, in some countries (e.g. the UK) it is not allowed to use this method. During deflation processes it makes more profit than any other method. Thus, the impact of the economic development cycle (rise and decline) is leveled. One of the disadvantages of this method is the underestimation of the cost of inventory as in the balance sheet inventories are estimated and displayed by the first procurement prices (previous prices); and this assessment often does not match the real value of inventories. The LIFO method should be used when the economy is characterized by inflation or hyperinflation processes [10, p. 62].

The evaluation of stocks by the LIFO method is based on the assumption that stocks are used in a sequence opposite to their receiving at the enterprise, i.e. stocks that are released first in production (sale and other disposals), are estimated by the cost price of the most recent stocks. Thus the cost of remaining stocks at end of an accounting month is determined by the cost price of first received stocks.

In the foreign countries, the methods of analytical accounting of inventories include [7, p. 151]:

- periodic accounting of inventories;
- continuous (current) accounting of inventories.

Then, we propose to consider differences in displaying of operations for current and periodic accounting of stocks in the Table 1.

We can see From the Table 1 that detailed accounting of inventories is not conducted during the year according to the method of periodic accounting, and at the end of the year inventory of available stocks for establishing the level of stocks should be at the end of the reporting period. Cost of realized stocks can not be determined until the inventory will not be completed. Cost is calculated as follows: net price of purchase plus the level of stocks at the beginning of the reporting period minus the stock level at the end of the period.

The method of periodic accounting of stocks is used in many trading companies because it requires large amount of clerical work. The main disadvantage of this method is the lack of detailed records about that, what stocks are available at the moment. Such information would allow for leadership to carry out efficient inventory management in order to avoid the lack of necessary of stocks in the warehouse.

The essence of continuous (current) method of accounting of inventories consists in the fact that systematically, in process of their receipt and movement inventories are strictly documented in a quantitative and sum expression.

Table 1

**The differences in displaying operations of current and periodic accounting**

<b>The system of current stocks accounting</b>	<b>The system of periodical stocks accounting</b>
1. The beginning of the reporting period: Account "Warehouse stocks" shows the stocks balance (by their kinds) at the beginning of the reporting period is 11400 equivalent units	1. The beginning of the reporting period: Account "Warehouse stocks" shows the stocks balance (by their kinds) at the beginning of the reporting period is 11400 equivalent units.
2. Buying (purchase) of goods for the reporting period: Account "Warehouse stocks" debit is 45600 equivalent units Account "Accounts payable" credit is 45600 equivalent units	2. Buying (purchase) of goods for the reporting period: Account "Expenses on buying" debit is 45600 equivalent units Account "Accounts payable" ("Suppliers") credit is 45600 equivalent units

Continuation of Table 1

3. Sale of goods for the reporting period:	3. Sale of goods for the reporting period:
Account "Accounts receivable" debit ("Customers") is 56800 equivalent units	Account "Accounts receivable" debit ("Customers") is 56800 equivalent units
Account "sales return" credit is 56800 equivalent units	Account "sales return" credit is 56800 equivalent units
Simultaneously: Account "Cost price of goods sold" debit is 39000 equivalent units Account "Warehouse stocks" credit is 39000 equivalent units	
4. The end of the reporting period:	4. The end of the reporting period:
Account "Warehouse stocks" shows the stocks balance (by their kinds) at the end of the reporting period is 18000 equivalent units. There is no need in making an accounting entry.	a) The initial balance of warehouse stocks is written off: Account "Financial results of the reporting period" debit is 11400 equivalent units Account "Warehouse stocks" credit is 11400 equivalent units
	b) the balance of stocks (goods) at the end of the reporting period is shown (determined by the results of inventory taking): Account "Warehouse stocks" debit is 18000 equivalent units Account "Financial results of the reporting period" credit is 18000 equivalent units
	в) Account "Financial results" debit is 4600 UAH units Account "Expenses on buying" credit is 4600 equivalent units

This method provides control over the operations regarding the movement of inventory, allows timely making new orders for materials to replenish stocks, and generates information about the optimal volume of the order. Consequently during the entire reporting period volume of existing stocks is known.

Receipt of materials to the enterprise is made by a report that make up in two copies. The basis for the making up the report is the invoice of the supplier. One copy of the report is sent to the supply department for verification with the terms of order placement, the second is passed to the warehouse of forms of materials, and the third is left in the group of receiving. A copy of the report, which was initially sent to the department of supply, then transferred to the financial accounting for payments to suppliers [11, p. 98].

Supply of materials to production is carried out according to the requirements. The content of requirement letterhead is not very different from the requirements used at our enterprises. Requirement is prescribed in triplicate. The first copy is left in a warehouse, the second – in the group of material accounting, the third – the person who receives the material. The requirement on the basic materials is different from the requirements on auxiliary only by color.

For registration of returned unused materials to the warehouse we use a different color form containing the same parameters as the claim form but changing information accordingly. About the return of unused materials we make an entry in the column "Distributed" with the help of "reversing entry". With continuous (current) method the accounting of inventories in the warehouse is carried out in analytical accounting cards in terms of their names, in which the receipt and the release of inventories are recorded in process they are implemented. Using the method does not exclude the need for the inventory taking of inventories at the end of the reporting period. Accounting stocks show what should be available, but that's not what is in reality, because there can be losses due to damage, theft or other causes. The cards of analytical accounting should be adjusted in accordance with actual number of identified stocks.

For example, a corporation "Aris Kontis" [7, p. 47] has the information about the acquisition and

use of materials in six months (Table 2) and uses a system of periodic accounting of stocks. Let's determine the cost price of expended materials and the balances on June, 30, using FIFO, LIFO methods and weighted average estimates.

Table 2

**Data for the system of permanent and periodical accounting of stocks**

Date	Indicator	Measurement
2 January	Balances	3000 units on 10 equivalent units
15 January	Income	820 units on 11 equivalent units
29 January	Expenditure	1600 units
4 February	Income	900 units on 13 equivalent units
25 February	Income	700 units on 13,5 equivalent units
10 March	Expenditure	1940 units
10 April	Expenditure	780 units
6 May	Income	1500 units on 14 equivalent units
10 June	Expenditure	900 units

1. Let's determine balances on 30.06:

$$3000+820-1600+900+700-1940-780+1500-900=1700 \text{ units}$$

2. Let's determine the value of balances of materials on 1.01:

$$3000 \times 10 = 30000 \text{ equivalent units}$$

3. Let's determine the value of materials that were received:

$$820 \times 11 + 900 \times 13 + 700 \times 13.5 + 1500 \times 14 = 51170 \text{ equivalent units}$$

4. Let's determine the amount of materials that were received:

$$820 + 900 + 700 + 1500 = 3920 \text{ units}$$

5. Let's determine the value of stocks on 30.06 when using the FIFO method:

$$1500 \times 14 + 200 \times 13.5 = 23700 \text{ equivalent units}$$

6. Let's determine the cost price of realized stocks (the FIFO method):

$$30000 + 51170 - 23700 = 57470 \text{ equivalent units}$$

7. Let's determine the value of balances on 30.06 when using the LIFO method:  $1700 \times 10 = 17000$

equivalent units 8. Let's determine the cost price of realized stocks when using the LIFO method:

$$30000 + 51170 - 17000 = 64170 \text{ equivalent units}$$

9. Let's determine the weighted average costs of materials:

$$\frac{30000 + 51170}{1700 + 3920} = 14.44 \text{ Equivalent units}$$

10. Let's determine the value of balances of materials on 30.06 when using the method of the weighted average costs:

$$1700 \times 14.44 = 24548 \text{ equivalent units}$$

11. Let's determine the value of realized materials when using of the weighted average value:

$$30000 + 51170 - 24548 = 56622 \text{ equivalent units}$$

Thus, when using the FIFO method, the cost price of expended materials is 57.470 equivalent units, and the balance on June, 30 is 23.700 equivalent units, when using the LIFO method, the cost price of expended materials is 64.170 equivalent units, and the balance on June, 30 is 17.000 equivalent units, when using the method of weighted average estimates, the cost price of expended materials is 56.622

equivalent units, and the balance on June, 30 is 24.548 equivalent units.

Inventory is applied for the current control of the use of stocks in foreign countries. This inventory is implemented at least once by a year, but mostly with using "cyclic method". The essence of this method consists in that the removal of remnants is implemented by specially trained nominal group of employees performing this work better than those that are attracted episodically (occasionally).

This group works by a compiled schedule in advance, which allows to inventory each type of inventory at least once a year, and in some cases by the most valuable objects and more than once a year [12, p. 69]. However, schedule is made up so that inventory of concrete material was conducted at a time, when this material is the smallest in a warehouse. This method for conducting an inventory has been extended at the enterprises where there is a large nomenclature of materials.

Conducting an inventory is planned detailed and special instructions are given for each member of inventory group, where the goals and objectives of inventory, organization of works on the removal of residues, duties and responsibilities of each member of group in the general organizational scheme of the enterprise, classification of values in assigning of individual items to this or that group of materials, procedure for allocating current operations of inventory in the process of removing residues etc., are indicated.

Objects that are not in demand and lost their value are usually separately distinguished in the inventory of stock. Also items that belong to other organizations or are not included in the balances of other reasons are distinguished. Values that belong to the company, but there are in the other organizations, have to be documented.

Recordings and calculations of filmed availability, usually made by hand in labels, cards, letters or books intended for recording residues. Forms for records are previously numbered.

**Discussion.** The most common types of stocks in accounting of foreign countries are raw materials, works in process, finished goods and stocks of goods for resale, components of finished products, bulk or liquid substances (oil, flour), etc. Elements those are included in the reserves, depending on the features of the enterprise. Machinery and equipment are the main means for some enterprises for enterprises that produce them are finished products, and for the enterprise carrying out their resale by goods. Stocks related to the composition of current assets because they can be converted to cash within one year or one operating cycle. All these methods have their advantages and disadvantages. Therefore, companies use one or the other method depending on the purpose for which they are seeking to achieve in the first place. However, choosing one or the other method, the company must use it each year.

Different methods of accounting of inventories were used in practice. Herewith the organization of their accounting should aim to provide timely management of information on the presence and movement of materials, on the minimum and maximum stock regarding the company of each nomenclature of material resources for the effective use and increase the profitability of enterprises.

#### References

1. Butinets, F.F. (2002). *Buhgalterskiy finansoviy oblik* [Accounting Financial Accounting]. Zhitomir: PP «Ruta». [in Ukr.].
2. Vinogradova, M.O., & Komlach, G.V. (2007). Metodichni pidhodi do obliku zapasiv v Ukraini i Rosii ta yih vidpovidnist mizhnarodnim standartam [Methodological approaches to the integration of reserves in Ukraine and Russia and their compliance with international standards]. *Visnik Natsionalnogo Universitetu «Lvivska politehnika» Menedzhment ta pidpriemnitstvo v Ukraini: etapi stanovlennya i problemi rozvitku*, № 577, 58-66. [in Ukr.].
3. Golov, S.F., & Kostyuchenko, V.M. (2001). *Buhgalterskiy oblik za mizhnarodnimi standartami: prikladi ta komentari* [Accounting according to international standards: examples and comments] Kyiv: Libra. [in Ukr.].
4. Ivaschenko, O.V., & Studenikina, Yu.E. (2008). Normuvannya virobnicnih zapasiv na pidpriemstvi [Normalization of inventory in the enterprise]. *Visnik ekonomichnoyi nauki Ukraini. Naukoviy zhurnal*, № 1 (13), 43-46. [in Ukr.].
5. Maruschak, L.I. (2007). Ekonomichna sutnist virobnicnih zapasiv [The economic essence of inventory]. *Visnik Natsionalnogo universitetu «Lvivska politehnika» Menedzhment ta pidpriemnitstvo v Ukraini: etapi stanovlennya i problemi rozvitku*, № 577, 225-230. [in Ukr.].

6. Chumak O.V. (2007). O probleme ucheta i kontrolya zapasov promyshlennogo predpriyatiya [The problem of accounting and control inventories of industrial enterprises] *Logistika problemy i resheniya mezhdunarodnyiy nauchno-prakticheskiy zhurnal*, №1, 78-79. [in Ukr.].
7. Butinets, F.F., & Goretska, L.L. (2002). Buhgalterskiy oblik u zarubizhnykh krayinah [Accounting in foreign countries]. Zhitomir: PP «Ruta». [in Ukr.].
8. Mizhnarodniy standart 2 «Otsinka ta vidobrazhennya materialno-virobnichih zapasiv u konteksti formuvannya faktichnoyi sobivartosti». Retrived from <http://zakon4.rada.gov.ua/laws/show/z0751-99>. [in Ukr.].
9. Golov S., & Kostyuchenko, V. (2000). *Buhgalterskiy oblik za mizhnarodnimi standartami* [Accounting according to international standards]. Kyiv: Ekaunting. [in Ukr.].
- 10 Luchko M. (2001). *Buhgalterskiy oblik v upravlinni biznesom. Zarubizhniy dosvid* [Accounting in business management. Foreign experience]. Kyiv : Oblikinform. [in Ukr.].
11. Pankov, D.A. (2002). *Buhgalterskiy uchet i analiz za rubezhom* [Accounting and analysis of overseas]. Minsk : Novoe znanie. [in Rus.].
13. Kachalin, V.V. (2002). *Finansovyy uchyot i otchetnost v sootvetstviy so standartami GAAP* [Financial accounting and reporting in accordance with GAAP standards]. Moskow : Delo. [in Rus.].

