

## РОЗДІЛ 7. БУХГАЛТЕРСЬКИЙ ОБЛІК, АНАЛІЗ ТА АУДИТ

## FEATURES OF ACCOUNTING FOR INVENTORIES

## ОСОБЛИВОСТІ БУХГАЛТЕРСЬКОГО ОБЛІКУ ЗАПАСІВ

*The article is devoted to the features of recognition and assessment of current assets in enterprises and the problems of maintaining their records in China. The issues of accounting of current assets of enterprises with the aim of managing them are highlighted. The accounting and stock accounting methods in accordance with the International Accounting Standards are investigated below. In our opinion, improving the accounting of inventories is important for their preservation and rational use in the production process. Inventories are usually created in the process of the main production of the company. Therefore, it is necessary to clarify what expenses for their creation are considered direct and necessary so as not to include unnecessary items in the estimation of reserves. The lack of management will lead the company to undertaking not jointly agreed actions, which will result in the occurrence of risky and undesirable situations. Therefore, companies need to quickly solve their spontaneous problems arising in the economic activity, as this will help to ensure the formation of reliable, sufficient, impartial information on current assets for the management purposes.*

**Key words:** current assets, IAS, accounting for inventories, cost formulas, accounting.

*Стаття посвячена особливостям призна-  
ния и оценки оборотных активов на пред-*

*приятных и проблемам ведения их учета в Китае. Освещены вопросы бухгалтерского учета оборотных активов предприятий с целью управления ими. Исследованы ведение учета и методы учета запасов согласно международным стандартам учета. Улучшение учета запасов имеет важное значение в сохранении и рациональном использовании их в процессе производства. Запасы обычно создаются в процессе основного производства компании поэтому необходимо четко прояснить, какие затраты на их создание считать прямыми и необходимыми, чтобы не включать в оценку запасов лишнее. Недостаток управления приведет к тому, что компания предпримет несогласованные действия, которые приведут к возникновению рискованных и нежелательных ситуаций. Поэтому компаниям необходимо быстро решать свои спонтанные проблемы, возникающие в экономической деятельности, поскольку это поможет обеспечить формирование достоверной, достаточной, беспристрастной информации о текущих активах для целей управления.*

**Ключевые слова:** оборотные активы, МСБУ, учет запасов, способы расчета себестоимости запасов, бухгалтерский учет.

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*Стаття присвячена особливостям визнання і оцінки оборотних активів на підприємствах і проблем ведення їх обліку в Китаї. Висвітлено питання бухгалтерського обліку оборотних активів підприємств з метою управління ними. Досліджено ведення обліку та методи обліку запасів відповідно до міжнародних стандартів обліку. Удосконалення обліку запасів має важливе значення в збереженні і раціональному використанні їх в процесі виробництва. Запаси зазвичай створюються в процесі основного виробництва компанії, тому потрібно чітко з'ясувати, які затрати на їх створення вважають прямими і необхідними, щоб не включати в оцінку зайвого. Використовуючи різні формули оцінки запасів, можемо одержати різні значення валового прибутку, а особливо в умовах інфляції. Лише за умов використання методу FIFO собівартість запасів при системі періодичного та постійного обліку є однаковою. Цей метод є найбільше надійним для реального оцінювання залишку запасів, оскільки його застосування наближує вартість запасів на дату балансу до ринкових цін, тому більш достовірно відображається вартість активів підприємства. Однак основний його недолік полягає у впливі зовнішніх факторів економічного життя держави на показник прибутку підприємства. Для належного відображення потоків запасів слід користуватися такими критеріями при визначенні методу оцінки запасів: виходячи з історичних витрат; дотримуватися принципу об'єктивності, правдиво відображати собівартість продажів; дотримуватися принципу розсудливості, щоб власники бізнесу та потенційні інвестори приймали рішення, наскільки це можливо, уникаючи ризику, щоб прибуток був максимальним. Незалежно від того, який метод оцінки запасів вибирає підприємство, необхідно прийняти найбільш вигідний метод для підприємства відповідно до його власних умов та ринкового середовища, як це дозволено відповідними стандартами. Недолік методу управління призведе до того, що компанія зробить неузгоджені дії, які приведуть до виникнення ризикованих і небажаних ситуацій. Тому компаніям необхідно швидко вирішувати свої спонтанні проблеми, що виникають в економічній діяльності, оскільки це допоможе забезпечити формування достовірної, достатньої, неупередженої інформації про поточні активи для цілей управління.*

**Ключові слова:** оборотні активи, МСБУ, облік запасів, способи розрахунку собівартості запасів, бухгалтерський облік.

**Problem setting.** Inventory is an indispensable and important part of an enterprise's current assets, and the inventory of the enterprise is also an important economic component of itself, including the actual inventory of the enterprise, the quantity of raw materials, the quantity of products under production etc. The inventory management is an important part of the internal control system of enterprise. The reasonable selection of inventory accounting method is one of the ways to strengthen the effective inventory management of enterprise. The inventory is an important part of current assets

and directly affects the level of the enterprise liquidity. The accounting for inventories is related to the book value of assets in the balance sheet and inseparable from the cost of sales calculation in the income statement. Inventory measurement is an important part of the inventory accounting and it is of vital importance.

**The analysis of recent research and publications.** In practice, the inventory of the firm is constantly changing, it is in a state of flow, and there is a difference between the actual inventory and the order of the original cost. Different authors also have

different interpretations and understanding of the valuation method of the inventory accounting.

Guo Xuexin analyzed the changes of the new accounting standards in four aspects of inventory entry value, issuing an accounting method, ending accounting and accounting items related to the inventory accounting, and believed that the new accounting standards required more standardized accounting requirements for enterprise's inventory and ensured that financial accountants of enterprises can provide more valuable information [1].

Bao Na emphasizes influence of selection of an inventory valuation method on corporate accounting [2].

Zhang Ailing believes that different inventory accounting methods will produce different profits and inventory valuation. The financial situation of enterprises, operating results, financial indicators, financing plans, investment decisions, etc. will be affected to a certain extent. The selection of inventory valuation method should be compared and analyzed from multiple perspectives and in an all-around way. It should be taken into full consideration to maximize the advantages and avoid the disadvantages, and maximize the benefits for enterprises within the scope of accounting standards and income tax laws. Each company should select the method of accounting for inventories, which is the most suitable for them [3].

**Task setting.** The task of the research is to summarize and analyze the methods for estimating reserves permitted by the International Accounting Standards, comparing them, which will help in the future research and may become the basis for practical optimization by enterprises of their previously chosen methods for assessing reserves.

**Presentation of the main research material.** Inventory is the current assets of an enterprise. It occupies a large proportion in the assets of an industrial enterprise and a commodity circulation enterprise, and the accounting of inventory directly affects the data of financial statements and the judgment of the company's financial status and operating results [4]. In order to regulate the accounting of inventories, the International Accounting Association approved IAS 2 "The Valuation and List of Inventory under the Historical Cost System" in October 1975, which specified the purpose and scope of accounting for inventories, the definition, measurement and cost determination of inventory and revised it in the November 1993. The inventory standards approved in 1975 have been replaced by IAS 2[5].

IAS 2 "Inventory" contains the requirements on how to interpret most types of the inventory. The standard calls for measuring inventories at the lower of net realizable value (NRV) and outlines the acceptable methods of determining costs, including specific identification (in some cases), FIFO, and the weighted average method.

China also promulgates "the Accounting Standards for Enterprises – Inventory" in November 9, 2001, which has been in effect for joint-stock companies since January 1, 2002. On the one hand, the standards promulgated retain most of the inventory content of "the Enterprise Accounting Standards" and "the General Principles of Corporate Finance", promulgated in 1992. On the other hand, it also actively absorbs the contents of the international accounting standards to adapt to the actual development of our country, which stipulates that enterprises should determine the actual cost of issuing inventory according to the actual situation of various types of inventory. The methods that can be used are individual identification method, first-in first-out method, weighted average method, moving average method and last-in first-out method, etc. For inventories that are not fungible and those purchased or manufactured specifically for a particular item, it is generally appropriate to determine the cost of the inventory issued by an individual identification method. In 2006, the accounting standards for business enterprise had some new provisions on the inventory that is the enterprise should use the first-in first-out, weighted average or individual identification methods to determine the actual cost of inventory for inventory of a similar nature and purpose of inventory. The same cost calculation method should be used to determine the date of the cost balance sheet for the issuance of inventory. The inventory should also be measured in accordance with the cost and the net realizable value, and if the inventory cost is higher than the net realizable value, the provision for the inventory decline should be taken into account and included in the current profit and loss [5].

Individual identification method is also known as individual valuation method. The individual identification method takes the actual purchase price of each batch of goods as a method to calculate the cost of sales. This method assumes that the cost flow of inventory is consistent with the physical flow, identification, one by one, of the purchase or production batches, to which each lot is shipped and to which each ending inventory belongs, and calculation of the cost of each lot according to the unit cost determined at the time of purchase or production.

First-in first-out method. The FIFO method is a method of amortizing costs between the inventory and the cost of goods sold on the assumption that goods purchased first are sold first. When sales occur, the cost of goods purchased earlier is classified as the cost of goods sold, so the closing inventory balance reflects the cost of goods recently purchased.

The last-in first-out method is relative to the first-in first-out method: the goods or products purchased later will be issued first.

The moving weighted average method of inventory valuation refers to the cost of each purchase with the original stock inventory costs, divided by the quantity in

each time and the sum of the number of original inventory stock. It calculates the inventory of the weighted average unit cost, based on cost formulas [7].

Combined with the above calculation analysis, we can see the impact of various inventory cost accounting methods on the financial statements. If the commodity purchasing price remains unchanged, the resulting inventory cost and the cost of goods sold will be the same regardless of which inventory cost accounting method is used. However, if the commodity price changes, the inventory cost and the cost of goods sold using different inventory cost accounting methods are not the same.

The cost apportioned to the cost of goods sold by the FIFO method is the least, so the gross profit and the net profit are the highest. "Since the sales revenue of the current inventory corresponds to the cost of the inventory in the previous period, the cost of the product being issued is underestimated, resulting in an inflated profit realized in the current period and an overestimation of the value of the inventory at the end of the period". Because of the inflated profits, it increases the corporate income tax burden, as well as increased dividends to investors, resulting in an increase in the amount of cash outflows. From the perspective of financing, more profits, higher inventory value, higher liquidity ratio means that the financial situation of an enterprise is good, it can win the public's trust in enterprises, and enhance investors' investment confidence [8]. In order to get more bonuses, keep their jobs, or maintain their reputations, managers often want to have the higher corporate profit levels. "In this case, if the cost of buying is rising, they will be more willing to use the FIFO method to calculate the cost of inventory".

"The use of the last-in first-out method is the most cost-sharing of the cost of goods sold, so gross profit and net profit is minimal, and this method can defer partial income tax payments and temporarily reduce the income tax burden on enterprises". However, IAS 2 has eliminated the last-in first-out method. At present, the European Union, Hong Kong, Russia and other countries or regions have completely used the international accounting standards or substantive convergence, the United States accounting standards are also constantly towards the direction of convergence with the international accounting standards to revise. The trend of convergence between accounting standards of different countries and international accounting standards is also consistent in the provisions of inventory valuation methods.

The proportion of the cost of goods sold by the weighted average cost formula is between that by the FIFO method and the LIFO method. It is more convenient to use this method to calculate the cost of sending out the inventory. Moreover, when the price continues to rise or fall, the weighted average unit price can average out the measurement results and

share the cost of sending out the inventory and carrying out the inventory more evenly. However, since this method can only be carried out at the end of the month, only the unit price, quantity, amount of income materials and quantity of goods sent and stored in the ending inventory can be recorded in daily life, which is not conducive to the daily inventory management and control of enterprise [9]. The weighted average method is only suitable for enterprises when the price fluctuation is small. When the price fluctuation is large, there is a large difference between the weighted average unit price calculated by using the weighted average method and the unit price of the end of the inventory. It makes the end-period inventory not accurate and reflected improperly.

The cost-sharing of individual identification method often depends on what goods are sold. The individual identification method is the most accurate and reasonable inventory pricing method, the physical circulation cost and the cost of inventory calculated by individual calculation method are consistent and have real validity. However, this calculation method requires a large amount of work, the operation is complex, can only be applied to some enterprises with low inventory quantity, high cost, and irreplaceable products, if only for other large and medium-sized enterprises, this and the same calculation of the same pricing method in the balance of accuracy, lost a certain degree of feasibility [10]. Different accounting methods have different characteristics and have different effects on financial situation. When the first-in first-out method is used, the cost of inventory is close to market value when the price change is relatively large. However, the relevant financial ratios are not accurate enough. The weighted average method accounts for the relative average of the unit cost of inventory, the inventory cost is not easy to be manipulated, and when the price is unstable, there are some differences between the book value of inventory and the fair value, and the financial ratio calculated from it is also different from the actual value [11]. An enterprise may use any of the above four methods of accounting for inventory cost, provided that it must state the method of accounting for inventory cost in its financial statements or in the notes to the financial statements.

The financial information of an enterprise is of great significance to the enterprise's relevant business decision-making and the relevant personnel. In the production and operation activities of enterprises, financial information is one of the most important contents of enterprises, and inventory pricing methods are more important in accounting policies, and different choices have an important impact on the financial affairs of enterprises. Under the condition of inflation, the enterprise chooses the first-in first-out pricing method, which will make the reflected financial information exaggerate the enterprise's operating profit, and lead to the enterprise's economic situation

reflected by the financial information of the enterprise to deviate from the real situation. It causes the economic value expressed by it to be greatly reduced, thereby causing the loss of the economic interests of the stakeholders. In addition, this approach can be used by the managers concerned as a means of manipulating performance and artificially adjusting sales performance in order to achieve their intended objectives, which can seriously damage the quality of financial information [12].

When using the first-in first-out method for inventory valuation, the inventory at the end of the period must be calculated in accordance with the later method, very close to the cost amount of the working day, so that the enterprise's asset calculation becomes more reasonable. Moreover, if the problem of inflation occurs in the market, this method can be used to accurately match the amount of the previous inventory with the actual operating income, and then calculate the size of the gross profit. Finally, the gross profit value should pay income tax and dividend amount after the elimination, the actual recovery cost of the enterprise will be reduced to a certain extent, but in the actual price level, the enterprise cannot reset the same amount of inventory, so that the operation of the enterprise will be a problem, the size of the enterprise will be reduced, it cannot be expanded [13].

Different inventory pricing methods will directly affect the determination of inventory value at the end of the period and the calculation of sales cost, which will have an impact on the enterprise's profit, tax burden, cash flow, financial ratio, etc. The purpose of the enterprise's inventory is: in addition to the profit from the external sales, to maintain operations and reproduction. In this process, the cost of the inventory is converted into production costs or sales costs, management costs, etc. In contrast, the main purpose of an enterprise's inventory is to achieve external sales, in which the cost of the inventory is converted into the cost of sales, the choice of pricing method directly affects the cost of sales, operating results and taxable income, thus having a vital impact on the income tax due on the enterprise. The choice of pricing method has the function of regulating financial leverage in enterprise tax payment, which can be called "tax regulator", which achieves the purpose of deferring tax payment by adjusting the total profit of different fiscal years. If the first-in first-out method is used, the cost of sales is carried forward by the opening inventory cost and the early purchase cost, when the price level continues to rise, its book value is lower than the market value, the cost of sales is relatively low, and the sales price of the product is determined by the market price, sales revenue will increase, because the current sales gross profit is relatively high. Current sales revenue subtracts early cost of sales, which inflates the total profit, known as "inventory profit", increases taxable income and increases income tax expenses.

This valuation method cannot match the current income with the current cost, which violates the principle of prudence in the accounting standards. On the contrary, in the case of continuously low prices, it will make the taxable income amount low and have the effect of deferred tax payment [14].

The difference of inventory valuation method is caused by the inconsistency between inventory cost flows and physical object flow and the difference of actual cost of homogeneous inventory. The inventory circulation includes both the physical and the cost transfer. "In general, the cost of outsourcing or home-made inventory is inconsistent with the cost of the goods sold, thus creating a problem of the distribution of the inventory costs between the inventory and the sales". In order to properly reflect inventory flows, the following criteria should be adhered to in determining the method of inventory valuation:

- based on historical costs;
- adhere to the principle of objectivity, truthfully reflect the cost of sales and ending inventory value;
- adhere to the principle of prudence, to ensure that business owners and potential investors make decisions, as far as possible to avoid risk, so that the return maximizes.

The choice of inventory accounting method mainly considers two factors, first of all, the characteristics of inventory and its management requirements, and the second is tax planning. No matter which method of inventory valuation an enterprise chooses, it is necessary to adopt the most advantageous method for the enterprise's operation according to its own conditions and the market environment, as permitted by the relevant standards.

**Conclusions based on the conducted researches.** The accounting method of inventory plays a vital role in the development of enterprises, and the choice of enterprise inventory accounting method has a great impact on the financial information, business results and taxation of enterprises. Because the accounting method of inventory cannot be changed at will, its choice affects the long-term survival and development of the enterprise. Therefore, the enterprise should choose the suitable inventory accounting method according to the characteristics of different inventory accounting methods and the development of the enterprise itself and the change of external market price. Only the optimal inventory valuation method that conforms to the enterprise's own situation will promote the development of the enterprise, while the inventory valuation method that is inconsistent with the enterprise's own development may lag behind the development. Therefore, companies should be encouraged to improve inventory accounting methods to maximize the economic benefits, to ensure that the management decisions can avoid risks as much as possible, so as to maximize the interests of enterprises.

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