

# Recognition of Virtual Currency Sales Revenue of Online Game Companies

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**ABSTRACT.** *In recent years, the rapid development of the Internet has made online games very popular, so the problem of revenue recognition of virtual currency sales involved in online game companies is very realistic and important. Virtual currency is different from commodities in traditional economy, and its accounting treatment is also different. However, at present, the accounting standards of our country have no clear regulations on the accounting treatment of the recognition of virtual currency income. This leads to many problems in the practice of income recognition of virtual currency of online game companies in China. In order to make the income recognition of virtual currency more standardized, reasonable and comparable, this paper will, on the basis of reference to foreign literature, combine with the latest international income standard issued by the international accounting standards board in May 2014 - "international financial reporting standard No.15 - income from contracts with customers" (hereinafter referred to as "international financial reporting standard") Reporting Standard No. 15) provides some suggestions on the revenue recognition of virtual currency of online game companies in China.*

**KEYWORDS:** *online games, virtual currency, revenue recognition*

## 1. Introduction

With the continuous development of the Internet, online games in the world have been rapid development, become an industry can not be ignored. China is also catching up in the field of Internet. A large number of excellent enterprises have emerged in the field of online games. Some of them have already landed in the US stock market, some of them have been listed on the main board or gem in China, and become the new force driving the development of the industry. The increasing number of listed online game companies puts forward higher requirements for the financial supervision of the industry, especially the listed companies need to disclose their real performance. Therefore, it is very important to accurately reflect and evaluate the financial information of online game companies. Among them, income is often one of the important references for investors to evaluate the invested enterprise. The time node, amount, information disclosure and other factors of online game company in income processing directly have a significant impact on its

financial information. In view of the current accounting standards in China are not perfect in the recognition of virtual currency income of online game companies, this paper will provide some suggestions on the recognition of virtual currency income of online game companies in China based on the reference of foreign literature and combined with IFRS 15.

## **2. Literature review**

### ***2.1 Domestic research status***

Accounting standard for companies (2006) No. 14 - revenue according to the nature of the company's daily activities, revenue is divided into revenue from selling goods, providing labor services, transferring the ownership of assets, revenue from construction contracts, etc.

Ge Jiashu (2010) discussed income recognition, and thought that the most reasonable standards of income recognition are "realized" and "the main rewards and risks of commodity ownership have been transferred to the buyer".

Chen Chaolin, Ye Fengying and Huang Jingru (2015) discussed the recognition of currency income of virtual games. This paper puts forward the following points: (1) virtual currency and goods are not real objects, unless they are consumed in real time, they cannot be recognized as full revenue when players convert virtual currency into virtual props; (2) for promotional activities, it is necessary to judge the consequences of promotional activities on companies and customers, focusing on the analysis of the transaction price, performance obligations and customers of customer contracts. On this basis, we should consider how to carry out accounting treatment; (3) the company should reasonably predict the proportion of damage, and deal with the unused virtual currency.

### ***2.2 Research status abroad***

FASB pointed out in concept Announcement No. 5 of 1984 that the company's revenue recognition in a certain period should meet the following two conditions: (1) the revenue has been realized; (2) the company has substantially completed the obligation to bring benefits.

On May 28, 2014, the international accounting standards board (IASB) and the financial accounting standards board (FASB) jointly issued a new revenue recognition standard. The standard states that an entity should recognize revenue by using the following steps: Step 1: identify contracts with customers - contracts are agreements between two or more parties that establish enforceable rights and obligations. Step 2: identify performance obligations in contracts - contracts include commitments to transfer goods or services to customers. Step 3: determine the transaction price - the transaction price is the amount of contract consideration that the subject is expected to be entitled to because of the transfer of promised goods or

services to the customer. Step 4: allocate the transaction price to the performance obligation in the contract - the subject usually allocates the transaction price to each performance obligation based on the relative proportion of the individual selling price of each clearly distinguishable commodity or service promised in the contract. Step 5: revenue is recognized when the entity performs its performance obligations (or in the process of performance) - the entity should recognize revenue when it performs its performance obligations (or in the process of performance) by transferring the promised goods or services to the customer (i.e., when the customer obtains control over the goods or services).

### **2.3 Literature review**

From the existing domestic literature, the existing accounting standards can not be applied to the accounting treatment of some virtual economy. If the accounting treatment of virtual economy still adopts the current standards, it will violate the requirements of "accrual basis" and the principle of income cost matching. From the existing foreign literature, its research on the income recognition of virtual currency has made considerable achievements. It puts forward applicable income recognition methods, and timely issues new income standards according to the current economic environment. These studies and criteria are more in line with the characteristics of the current virtual economy, more in line with the requirements of "accrual basis" and the principle of income matching, which have laid a theoretical foundation for the research and analysis of this paper.

### **3. Research content**

The research content of this paper is how to recognize the virtual currency sales revenue of online game companies, including the recognition of normal sales revenue, the recognition of incentive virtual currency revenue and the recognition of long-term unused virtual currency revenue.

### **4. Innovation and deficiency**

The innovation of this paper is based on the reference of foreign literature, closely combined with the latest international income standard issued by the international accounting standards board in May 2014 and effective from January 1, 2018, International Financial Reporting Standard No. 15 - revenue generated by contracts with customers, which is the latest international income standard, to make a systematic recognition of the income of virtual currency of online game companies in China. On the one hand, it can provide some reference for the accounting treatment in practice, on the other hand, it can enrich the theoretical research of innovative income recognition in China. The deficiency of this paper lies in the fact that it is not introduced and analyzed with examples, which leads to the abstract and lack of persuasion.

## 5. Nature of income

What kind of income does online game company get? Services, goods or transfer of the right to use assets?

(1) if it is service income, the two conditions for the recognition of service income cannot be met. The reasons are: first, the completion schedule of the transaction cannot be determined reliably. After purchasing props, there is no rule for players to use props, so the progress of online game companies in providing services is uncertain; secondly, the costs that have occurred and will occur in the transaction cannot be reliably measured. For the sale and use of charged props, because they are only a series of digital codes, the direct cost of each sale of props is difficult to determine. If the total service cost of the game provided by the online game company to the players is taken as the cost of the charging props, it is impossible to estimate when, how much or how much the players will buy the props, so it is impossible to reliably measure the corresponding cost of a certain sales charging props. According to the principle of matching revenue and expense, revenue and cost related to the same sale shall be recognized in the same accounting period. Therefore, if the cost cannot be measured reliably, the relevant income cannot be recognized even if other conditions have been met.

(2) if it is income from the sale of goods, the two conditions for the recognition of income cannot be met. In addition to the uncertainty of the relevant costs just mentioned, there is also a condition: the enterprise does not retain the continuous management right usually associated with the ownership, nor effectively control the sold goods. After selling the props, the online game company still retains the right to continue to manage the props and effectively control the sold props. This is because the online game company holds the game account information of the player, and can freeze or transfer out the player's props at any time, or modify the game rules of the props. In addition, the consumption of props must also rely on the specific game environment of online game companies.

(3) therefore, it is more reasonable to understand the income from the sale of props by online game companies as the income from the transfer of the right to use assets. Props are intangible assets of online game companies in the form of digitalization. The sale of props does not mean the transfer of the ownership of props, but only the transfer of the right to use them.

## 6. Recognition of normal sales revenue

Game players usually recharge their game accounts to form virtual currency, and then buy game props with virtual currency. At present, the game props in the market are divided into two types: one is disposable consumable props. In this case, revenue can be recognized when players buy props; the other is consumable props with a service life. In this case, how to recognize revenue is controversial. The specific practices of listed online game companies at home and abroad are shown in Table 1.

Table 1 list of sales revenue recognition of props of listed online game companies

Corporate name	deferred	Revenue recognition of independent operation
Zhongqingbao (domestic)	NO	Revenue is recognized at one time when players actually use virtual currency to purchase virtual props
Control technology (domestic)	NO	Revenue is recognized at one time when players actually use virtual currency to purchase virtual props
Fujian Netdragon (domestic)	NO	Revenue is recognized at one time when players actually use virtual currency to purchase virtual props
Yujiu game (domestic)	NO	Revenue is recognized at one time when players actually use virtual currency to purchase virtual props
37 mutual Entertainment (domestic)	NO	When the virtual currency consumed by the game player is completed, the company will recognize the actual recharge and consumption amount of the game player as the operating revenue
Youzu network (domestic)	NO	Independent operation of the game recognizes the operating revenue when the game player actually uses the virtual currency he / she purchases in the game product
Taomi network (America)	YES	For a term or permanent item, revenue is recognized over the estimated average life of the virtual item or the estimated life of the paying player
Giant network (America)	YES	Revenue is recognized when the player consumes virtual currency or is apportioned over the estimated life of the item purchased by the player
Changyou network (America)	YES	For articles with service life, revenue shall be gradually recognized within the service life of the articles; for articles without service life, revenue shall be recognized within the estimated service life of the articles

From table 1, it can be seen that the six online game companies listed in China have recognized the revenue when the game players actually use virtual currency to purchase the props, while the three companies listed in the United States have shared the revenue within the service life of the props. Breaking the boundary between goods and services in IFRS 15 requires enterprises to recognize revenue when they perform their contractual obligations, i.e. when customers obtain the control over related goods (or services). The players have not consumed the props at the time of purchasing the expendable props with the service life and have not obtained the control right of the service, so the conditions for revenue recognition have not been met. In this way, the US approach is more reasonable. Since the consumption of props is a long period, the time point of purchase of props can only be used as the starting point rather than the end point for online game companies to recognize the corresponding revenue period. Online game companies can only allocate and recognize revenue in a systematic way during the whole period when players consume props to obtain control of the service.

## 7. Recognition of incentive virtual currency income

Players will be given virtual currency when they meet certain conditions in some games. Most online game companies think that when they reward virtual currency to

players, they can't get any form of consideration from players, so the company can't recognize the deferred income, so they can't recognize the income when the virtual currency is converted into virtual props. In essence, this is a special promotion behavior: if the player has bought the service of the online game company before, it is actually a reward for the player to buy the service of the online game company before. In the following period, if the player converts the virtual currency of this part of reward into virtual props, the online game company will provide corresponding services to the player. Although the payment corresponding to the virtual currency of the reward is collected before the player reaches certain conditions, the revenue is realized after the player reaches certain conditions. Therefore, the accounting treatment of the virtual currency of the reward by the online game company currently violates the requirements of the accrual basis. In addition, when players convert the virtual currency of rewards into virtual props, online game companies need to incur costs to provide corresponding services to players. However, according to the current accounting treatment of the online game company, the revenue is not recognized in the subsequent period when the player reaches certain conditions, which violates the matching principle. The main reason for this problem is that China's accounting standards are not clear about the explanation and provisions of this special type of promotion behavior, and online game companies are confused in the operation. IFRS 15 provides clearer guidance on the accounting treatment of contracts with multiple transaction arrangements. Enterprises are required to evaluate the contracts on the contract start date, identify the individual performance obligations contained in the contracts, and apportion the transaction price to the individual performance according to the relative proportion of the individual selling price of the goods (or services) contracted by the individual performance obligations Obligations, and then recognize the corresponding income when performing the individual performance obligations. Therefore, according to the provisions of the income standard, the author believes that online game companies can reasonably estimate the average amount of virtual currency purchased by players before reaching certain conditions on the basis of sufficient data, and then distribute the income according to the ratio of the amount and the amount of virtual currency awarded.

#### **8. Income recognition of long-term unused virtual currency**

Many online game companies sell unlimited virtual currencies, which are not allowed to be converted into cash. In reality, a small number of virtual currencies have not been used for a long time. These virtual currencies that have not been used for a long time are the rights that customers have not exercised, also known as "Breakage". For this part of "damage", companies listed in Hong Kong, China and Nasdaq, the United States, are more appropriate to deal with it. Generally, they recognize income when the possibility of using this part of long-term unused virtual currency is very low. For A-share listed companies and unlisted companies in China, because this part of virtual currency accounts for a small amount of virtual currency sold by the company, and there are no clear rules and regulations for "damaged" virtual currency in China, these companies do not deal with this part of virtual

currency. In practice, online game companies often recognize revenue when virtual currency is converted into virtual props. If this part of long-term unused virtual currency is not processed, there will be a long-term deferred income on the account. In addition, the probability of long-term unused virtual currency being used in the future is very small, that is, online game companies do not need to provide the corresponding services for players in the future. In essence, the income of this part of virtual currency has been realized. From the quality requirements of "substance is more important than form", it is inappropriate not to deal with this part of virtual currency. According to IFRSs 15, for the adjustment of the original contract, if the remaining goods or services can be clearly distinguished from the goods or services delivered before the modification of the contract, the future use method shall be adopted to allocate the remaining transaction price to the remaining performance obligations. When "Breakage" occurs, it can be regarded as an adjustment of a contract. According to the rules, the author believes that online game companies can first determine a reasonable time according to their own characteristics. Based on this time, if the unused virtual currency exceeds this time, it can be recognized as a virtual currency with low possibility of future use; then it will exceed this time on each balance sheet date. All the standard virtual currencies are summarized; finally, the revenue is recognized according to the distribution of virtual currencies consumed by each game in the current period. Note that if a game has been offline, it will not be assigned to the game.

## **9. Conclusion**

The recognition of virtual currency sales revenue of online game companies generally involves three aspects: (1) recognition of normal sales revenue; (2) recognition of incentive virtual currency revenue; (3) recognition of long-term unused virtual currency revenue. For the first problem, if it is a disposable consumable item, the revenue can be recognized when the player purchases the item; if it is a consumable item with a service life, the revenue can be apportioned and recognized in a systematic way during the whole period when the player consumes the item. For the second problem, online game companies can reasonably estimate the average amount of virtual currency purchased by players before reaching certain conditions on the basis of sufficient data, and then distribute the income according to the proportion of the amount and the amount of virtual currency awarded. For the third problem, online game companies can first determine a reasonable time according to their own characteristics. Based on this time, if the unused virtual currency exceeds this time, it can be recognized as a virtual currency with low possibility of future use. Then, on each balance sheet date, they will summarize all the virtual currencies that exceed this time standard. Finally, according to each game in this period, the virtual currency consumed is allocated to recognize revenue. If a game is offline, it is not assigned to the game.

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