A Comparative Study of the Application of Temporal Method and Current Rate Method

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Abstract. The foreign currency statement translation problem has been listed as one of the financial accounting problems since its inception. The conversion methods used by each country in the translation of foreign currency statements vary from country to country, but can be roughly classified into two methods: temporal method and current rate method. The temporal method matches the popular parent company theory, and the current rate method matches the entity theory. Currently the temporal method and the current rate method are two popular but opposite conversion methods. This paper first analyzes and compares the similarities and differences in accounting treatment between the current rate method and the temporal method, and then further argues the negative comments of the temporal method and the positive evaluation of the current rate method, thirdly improves the use of the tense method, finally from the perspective of China's national conditions, discusses that the use of the tense method is more in line with China's economic environment.

Introduction

Under the floating exchange rate system, due to frequent exchange rate changes, the translation of foreign currency statements faces two problems: the choice of exchange rate and the treatment of conversion gains and losses. At present, there are four basic methods for foreign currency statements translation in the world: the current/noncurrent method, the monetary and nonmonetary method, temporal method and the current rate method. Among the four methods, the first to be cited by accounting practice is the current/noncurrent method, later replaced by monetary/non-monetary method, and finally the temporal method. The current/noncurrent method based on accounting theory has been basically abandoned. Without considering the theoretical basis of monetary/non-monetary methods, only when considering the exchange rate selected and conversion results during the conversion of the pure historical cost measurement model, the monetary/non-monetary method can be incorporated into the temporal method. Different from the above three methods is another method of conversion - the current rate method, which uses a single exchange rate for each item of the financial statements, and the conversion is relatively simple. Currently the temporal method and the current rate method are two popular but opposite conversion methods. This paper will analyze these two methods from the perspective of theory and practice, and put forward its own views on the choice of foreign currency statement conversion methods at this stage.

Comparison of the Accounting Treatment between the Temporal Method and the Current Rate Method

(1) The temporal method selects the conversion rate according to the measurement basis of the financial statement items. The key to this method is that the monetary items such as cash, receivables and payables are converted at the actual exchange rate on the reporting date, while nonmonetary items are converted at the historical rate at the time the project transaction is recorded. For some items measured at current cost, they are also required to be converted at the current rate; losses or gains incurred during this period are included in the income statement. The cash item is measured at the amount held on the statement date; “receivables and payables” are measured at the
amount that can be recovered or the amount that the enterprise should pay in the foreseeable future on the statement date. Therefore, this method converts the assets and liabilities of the foreign currency statement at the exchange rate at the date of its measurement; for the company's "paid-in capital", it also uses the historical rate of the equity investment date to convert, and the balance number of the rolling after the conversion is used as retained earnings. In the income statement, the conversion rate of depreciation expense and amortization expense is selected to be consistent; income and expense items is converted at the average exchange rate. The cost of goods sold shall be determined on the basis of the conversion of the beginning inventory, current purchase, and ending stocks at different applicable exchange rates. The difference is that the resulting translation difference is recorded as a separate item in the income statement and is recorded in the current net profit.

The temporal method is developed on the basis of monetary/non-monetary method. It is to distinguish the measurement attributes of different items in the report and to select different exchange rates. It is actually an improvement of the monetary/nonmonetary method. The conversion of assets and liabilities under different measurement models at various exchange rates, such as historical rate and current rate, makes the use of this method more adaptable and practical, and also enables foreign exchange conversion method selected under the same accounting measurement model consistent, with greater operability. The advantage is that in the process of foreign currency statement conversion, only the unit of measurement of the foreign currency statement is changed, without changing its measurement attribute. This method directly records the difference occurred in the conversion process into the current profit and loss, which will make the foreign currency statement translation profit and loss of the multinational corporation group more variable than the single company engaged in domestic economic activities. Furthermore, using accounting measurement theory to clarify the comprehensive principle of foreign currency statement translation, this method is not a negation of the monetary/ non-monetary method, but only deeper development of the above method. Therefore, under the historical cost measurement mode, the exchange rate selection and conversion procedures of the two methods are exactly the same. However, the measurement model currently used around the world cannot be a complete historical cost measurement model, and some asset items are also measured at current cost within a certain range, such as inventories, investment and other assets, some companies will use the principle of lower of cost or market price to make impairment losses on such items at the end of the period. Therefore, for the above situation, using these two different conversion methods for conversion will get different measurement results. This is also the shortcoming of this kind of conversion method in practice.

(2) current rate method. It is a method of converting the items in the report based on the foreign exchange rate currently being implemented. Under this conversion method, all the report items in the foreign currency statement are converted at the current rate on the balance sheet date; the conversion loss or profit generated in the process needs to be separated from the retained earnings, and is separately stated in the balance sheet, and the cumulative annual list is not limited to the current year. In the process of conversion, the conversion of financial statement items is measured at the period-end exchange rate; the paid-in capital items are converted at the exchange rate on the day of the investment; the income and expense items are converted at the average exchange rate. The “translation difference of foreign currency statements” arising from the different exchange rate during the conversion process is only presented as a separate item in the owner’s equity and is not included in the current net profit.

The current rate method is obviously unreasonable. It assumes that the financial statement items expressed in the local currency of the investee country will be subject to exchange rate fluctuations. Take fixed assets as an example. First, fixed assets are recorded at historical cost, but they are converted at the current rate. The result is neither historical cost nor current market price. Therefore, the temporal method and the current rate method have been opposite. Specific analysis of each development process of foreign investment, it can be found that when the first establishment of overseas subsidiaries, the basic business of the parent company is only extended to the foreign
business, in this case, the temporal method is more suitable; However, with the close economic exchanges and the continuous expansion and development of the business, the subsidiaries established abroad have gradually evolved into independent entities. The investors and investees are only simple investment relationships, and the business involved is also different, and the current rate method is completely feasible. However, if the current cost measurement model is used instead of the historical cost measurement model, all financial statement items will be converted at the current exchange rate, but the mainstream of the world is still the historical cost measurement model. Therefore, the temporal method and the current rate method still have fundamental differences.

The current rate method converts all statement items at the current rate at the end of the period. It is easy to operate and has a single exchange rate, so that the converted financial statements can maintain the original relationship and financial ratios. However, the consequence of this is that the financial statement items expressed by the investee in all foreign currencies change with the exchange rate and share the exchange rate risk, which is unreasonable. In particular, inventories, fixed assets and other projects, the probability of such assets being affected by exchange rate changes is small, but the conversion at this method makes it lose the original book value, and cannot reflect the real current market price, there is no realistic economic significance.

In summary, the most significant difference between the current rate method and the temporal method is that the current rate method uses a single exchange rate for conversion. In theory, the conceptual basis of the temporal method is relatively clear, and its exchange rate selection is based on the measurement attributes of different financial statement items at the time of foreign currency business occurrence, the foreign currency statement conversion and foreign currency business conversion are guaranteed to follow the temporal principle. However, this method is also subject to criticism from the accounting practice, many multinational conglomerates claim that this approach makes the benefits of cross-border gains uncontrollable.

Different Opinions on the Negative Evaluation of the Temporal Method

(1) Evaluation I: Chang the original financial proportional relationship of the subsidiary's statements

It is argued that the temporal method will change the proportional relationship between the items in the subsidiaries' statements expressed in the currency of the country the subsidiary is located, which is not conducive to the analysis of the statements of the subsidiaries by the report users. In this regard, this paper believes that the main purpose of converting foreign currency statements of foreign subsidiaries is to compile consolidated statements of multinational corporations. As a general principle, the conversion data of subsidiaries' assets, liabilities, income and expenses must be added to the corresponding data of the parent company in the consolidated report. and the independent entities of the foreign subsidiaries will no longer exist in the consolidated statements. Therefore, from the perspective of the consolidated statement, the fact that various financial ratios such as liabilities/equity are owned by independent companies is irrelevant. If you want to use a foreign subsidiary as an independent entity to examine its financial situation, you should consider using a separate statement for the subsidiary expressed in a foreign currency.

(2) Evaluation II: Subsidiaries are likely to change from profit to loss after conversion

Under the temporal method, a considerable proportion of assets are valued at historical cost (such as fixed assets, intangible assets, etc.), while debt items are basically monetary items, so affected by the current exchange rate fluctuations, the amount of the liability item is often greater than the balance of the asset item, which means that when the domestic currency depreciates and the subsidiary makes large-scale investment in fixed assets by financing through long-term bond, there will be huge conversion losses under the temporal method, which is likely to cause foreign subsidiaries to change from profit to loss after the conversion, so that the book result of the subsidiary after the conversion is inconsistent with the real economic result. In this paper we argue that if the current accounting changes from historical cost model to a present value accounting model, the results of the temporal method will be fully consistent with the current rate method. In
this sense, the above-mentioned confusing phenomenon caused by the temporal method is not caused by the problem of the temporal method itself, but by the different choices of the accounting model.

(3) Evaluation III: Conversion of profit and loss into the current income statement will have adverse consequences

It is pointed out that since the temporal method converts all the translation gains and losses of the current statement into the income statement, it will cause the profit and loss of report in each period to fluctuate with the exchange rate change, especially when the exchange rate changes greatly, the accounting profit and loss of the period will contain too much uncontrollable profit and loss factors of conversion, the company cannot correctly evaluate business performance. In this paper, we believe that, firstly it is important to emphasize that volatility is not a sufficient reason for abandoning an accounting standard. Any business is in a risky environment with variable prices, especially for multinational companies. Ideally, the volatility of reported net income should reflect the volatility of the company's actual operations and capital structure. Moreover, this deficiency can be solved by perfecting the temporal method. According to the theory of effective security market, if the choice of an accounting policy does not affect the actual or potential cash flow of the enterprise, as long as the information of the accounting policy is fully disclosed, they will be “see through” by the majority of the report users, and will not have a negative effect on the stock price. In this paper we believe that as long as the translation difference and the current operating profit of the enterprise is separately listed on the consolidated income statement and is fully disclosed separately, the above adverse consequences under the temporal method can be reduced.

Different Opinions on the Positive Evaluation of the Current Rate Method

(1) Evaluation I: The current rate method is based on the concept of “net investment”

The former Accounting Standards Board of the United Kingdom referred to the current rate method in its No. 21 Exposure Draft and considered that the term ending exchange rate method (current rate method) is based on the concept that the reporting company has net investment in a certain foreign business activity. Precisely the risk is that this net investment will be subject to currency fluctuations. The term ending exchange rate method can effectively deal with the situation that overseas fixed assets raise funds through foreign currency borrowing, and exchange rate changes make the gains and losses offset each other. In this regard, the complete derivation process can be expressed as follows: In many cases in practice, foreign subsidiaries enjoy autonomy, and the local board of directors has the right to decide which assets to acquire or hold, or to make business decisions. In addition, most of these foreign subsidiaries raise funds themselves, using local loans or retained earnings. Under these circumstances, the interests of the subsidiaries enjoyed by the parent company are mainly represented by annual dividends. If the annual dividend is satisfactory, the parent company will not excessively interfere with the financial status or operation of the subsidiary. The parent company therefore does not pay attention to detailed information on the assets, liabilities, income and expenses of the subsidiary. The concern is the net investment in the subsidiary as it is the only tangible benefit—the source of the annual dividend. The value of this net investment is best reflected in the conversion of the net capital value at the current exchange rate, so if only one exchange rate is allowed, then it must be the current exchange rate. Since the current exchange rate is used to convert the net capital value, in order to maintain the balance of the converted balance sheet, the same exchange rate must be used when converting other items on the balance sheet.

This view and the derivation process seem to be both logical and self-explanatory. But we also agree with Christopher Nobis and Robert Parker in their "Comparative International Accounting" that they believe that when the parent company's investment in a foreign subsidiary is reflected as a separate item in the parent company's balance sheet, the above procedure may be appropriate when the method of listing the interests in an associated company is adopted. If the assets, liabilities, income and expenses of the subsidiary are included in the corresponding part of the group's consolidated financial statements, such a procedure is not appropriate. The valuation method
applied to the net capital value does not necessarily apply to each individual asset and liability item. This derivation will directly result in the conversion of historical cost-based assets at the current exchange rate, that is meaningless results. Moreover, if the subsidiary is largely an independent entity, why not list it in a consolidated statement as a separate project, but merge each asset and liability item one by one?

(2) Evaluation II: Applicability of the current rate method to independent entities operating abroad

The Accounting Research Bulletin No. 51 (ARB51) issued by the US Committee on Accounting Procedure (CAP) states that “the purpose of the consolidated financial statements is to treat the entire enterprise group as a single economic entity with one or more branches”, International Accounting Standards 27 (IAS27) issued by the International Accounting Standards Committee (IASC)—Consolidated Financial Statements and Separate Financial Statements stipulates that “Consolidated financial statements are financial statements presented by the group as a single enterprise”. Obviously, the existence of a single entity is a prerequisite for the preparation of consolidated statements. Therefore, in this paper we believe that the current rate method cannot be used in the preparation of consolidated statements, because if foreign subsidiaries enjoy a large degree of autonomy, they should not be included in the preparation of consolidated statements. At this time, the holding company’s investment in subsidiaries is usually presented as a separate item in its balance sheet. And if the parent company and the foreign subsidiary are treated as a single entity, then the temporal method should be used, because the temporal method is based on the concept of reporting a single enterprise while operating activities abroad are an extension of parent company activities, and this concept is the basis for all consolidated statements.

(3) Evaluation III: the current rate method is easy to understand

It is argued that the use of a single exchange rate under the current rate method can make the converted statement only change the original form without changing its nature, so it is easy to understand. However, in this paper we believe that the assets on the foreign currency statement that are valued at historical cost are converted at the current rate at the date of the compilation. The translation result is neither the historical cost of the asset nor the current market price of the asset, but only the product of two unrelated numbers of historical cost and current exchange rate, is of little economic significance. It is not helpful to provide these conversion results in the consolidated statements for the report users.

(4) Evaluation IV: The current exchange rate method is easy to operate

In this paper we believe that the current rate method is indeed relatively simple, but it cannot be one-sidedly exaggerated the difficulty of the temporal method. In fact, under the temporal method, once the historical cost of an asset expressed in the national currency is determined, the value in the balance sheet of the subsequent periods does not need to be changed. Under the current rate method, this value will change from period to period due to the difference in exchange rates at the end of the period. Furthermore, computational simplicity cannot be a compelling reason to choose an accounting method, especially when the value of the assets involved may vary greatly.

Improvements to the Temporal Method

(1) The exchange rate is determined by the measurement attributes of different accounting subjects under the temporal method. In the financial statements of subsidiaries, except for cash, accounts receivable and payable, if other assets and liabilities are priced at historical cost, they will be converted at historical rates; if they are based on current cost, they will be converted at the current rate. But in this way, when the financial statements of each subsidiary are converted at different exchange rates, it will be difficult for the parent company to prepare the financial statements uniformly. Therefore, when using the temporal method, the subsidiary statements of the same group should be converted at the exchange rate chosen by the parent company—the current rate or the historical rate, so that the consistency of the financial statements can be guaranteed.

(2) The temporal method is to calculate the profit and loss of conversion into the income statement. After the conversion, the subsidiary's operating results will be changed from profit to
loss, which cannot be truly reflected. Under the temporal method, a large proportion of assets are valued at historical cost (such as fixed assets, intangible assets, etc.), they should be obviously converted at historical rates; and for accounts payable, bills payable, long-term liabilities and other liabilities, which are usually monetary items, they are converted at the current rate. This shows that when the domestic currency depreciates, the foreign exchange rate rises, and the subsidiary is going to make large-scale investment in fixed assets and issue long-term bond for financing, there will be huge conversion losses. The translation difference is directly included in the income statement. If the operating profit of the subsidiary is lower in the current year, and then reduced by the conversion loss, the original profit of the subsidiary will become a loss. After the conversion, the book results of the subsidiary are obviously inconsistent with the actual business results. In this paper, we believe that under the temporal method, the company's borrowing items can be divided into general borrowings and proprietary borrowings. For proprietary borrowings for investment in fixed assets, since the fixed assets are converted at the historical rate at the time of acquisition or occurrence, the proprietary borrowings should also be converted at the same historical rate; For general borrowings, they are converted at the current rate. This avoids significant gains and losses of conversion on huge long-term debt. In practice, according to the monetary environment of the enterprise and the financial characteristics of the industry, we don't emphasize the clarity of the concept basis, and several conversion methods are used interchangeably, which can make the profit smoother and weaken the conversion risk.

(3) The temporal method does not distinguish between two types of subsidiaries, but all translation gains and losses of current statement are included in the income statement, and the parent company's operations cannot be reasonably assessed. According to whether the activities it engages in are highly autonomous, whether the cash flow generated directly affect the cash flow of the parent company, we divide overseas subsidiaries into two categories: (A) the independence of the subsidiary is relatively poor, and it is greatly affected by the parent company. It is an expansion of the parent company. The business results can directly reflect the decision of the parent company; (B) the subsidiary has strong independence, the parent company has relatively little control over it, the subsidiary has a strong decision-making power, and the business results basically cannot reflect the decision of the parent company. Under the temporal method, the translation gains and losses are all included in the income statement. For the second type of subsidiaries, the parent company only shares the profit with the subsidiaries, and does not interfere with its daily business activities and business decisions. The inclusion of this difference in the income statement will distort the actual operating results of the parent company. In this paper we believe that translation gains and losses of foreign currency statement should be handled separately according to the nature of the two types of companies. If it is the first type of subsidiary mentioned above, it is equivalent to the parent company directly engaged in such transnational business activities. Its operating results can directly reflect the parent company's business decision-making. The translation difference of its foreign currency statement should be taken as the current profit and loss and directly included in the income statement for comprehensive evaluation of the parent company's business activities. Currently the temporal method is used in this way, which can strengthen the risk awareness of the corporate management, and the decision and behavior of the parent company management will be regulated and restricted. If a subsidiary's business activities are relatively independent, the parent company does not have strong control over it, that is the second type of subsidiary, its business results cannot correctly reflect the parent company's business decisions, so we think the translation difference can be placed in the owner's equity and is separately listed as part of the parent company's shareholders' equity.

The Choice of Foreign Currency Statement Conversion Method in China

Through the above comparison of advantages and disadvantages between the temporal method and the current rate method, the temporal method should be the best method for the translation of foreign currency statements in our country. The current system is a floating exchange rate system. The formulation of foreign currency statement conversion standards is still in a stage in China that
isn’t very mature. For the current foreign subsidiaries of China’s multinational group, from the analysis of their business activities, it is unreasonable to convert their foreign currency statement with the current rate method. More importantly, the temporal method is more suitable for China’s economic environment.

(1) The temporal method is consistent with the purpose of compiling the consolidated statements in China. In China consolidated accounting statements mainly adopt the parent company’s point of view, and China will maintain the historical cost measurement model for a long time. The current rate method uses the current term exchange rate as the conversion rate for foreign currency statements. It is obviously unreasonable that assuming all assets and liabilities of subsidiaries are subject to the impact of exchange rate changes, for the purpose of revealing the interests of the parent company in the subsidiary’s statements, to ignore the measurement attributes. It is also contrary to the purpose of the preparation of the consolidated statements in China. The temporal method uses the measurement attribute of the report item as the basis for the translation of the foreign currency statement, and remeasures the report item according to the reporting concept of the parent company, which is consistent with the historical cost accounting and the purpose of the compilation of the consolidated statement in China.

(2) The treatment of the translation gains and losses by the temporal method does not cause adverse consequences. In the current situation in China, the temporal method will directly classify the conversion difference into the current profit and loss without adverse consequences. The reasons are: (A) China's current capital market is not yet fully open, and the RMB is limited to the free exchange of economic items. The exchange rate of the RMB against the US dollar is relatively stable and prices are stable. China's multinational corporations use the temporal method to convert foreign currency statements of overseas subsidiaries without huge conversion losses. On the contrary, there may be small conversion gains, and it will not cause the phenomenon that transnational corporation's reported profit and loss seriously deviate from its real operating results; (B) China's multinational corporations cannot be compared with developed countries in terms of quantity and scale, and overseas subsidiaries account for a small proportion of the entire group. The activities of China's current overseas subsidiaries are mostly parent company business expansion. Therefore, the conversion of the profit or loss into the consolidated profit and loss will not affect the parent company's market price.

(3) The temporal method is in line with the world. At present, the United Kingdom, Canada, Australia and the International Accounting Standards Board have adopted a similar approach to the United States in formulating foreign currency statement translation guidelines, but this is not based on the inherent consistency of the theory, nor based on scientific research, but the result of imitating each other, more precisely, was influenced by the US Financial Accounting Standards No. 52. And most countries in the world use a single foreign currency statement conversion method. For example, Germany, which has a more similar accounting environment to China, mainly uses the temporal method to convert foreign currency statements. This is mainly because the No. 52 Financial Accounting Standards Announcement is not a panacea for solving the problem of foreign currency statement conversion. It solves the problem and brings more new problems.

(4) China is a developing country. Multinationals have not been around for a long time. It is difficult to compare with the United States and Britain in both quantity and scale. Moreover, most of the business units of Chinese enterprises in foreign countries do not cross their own industries. Their operating funds depend on the financing and provision of the parent company. Once the exchange rate changes, it will directly affect the parent company's business activities and cash flow. Therefore, such foreign subsidiaries should use the temporal method from the perspective of business characteristics. As the current cost measurement model replaces the historical cost measurement model, all items measured at current cost are translated at the current exchange rate, and the temporal method is combined with the current rate method into one. At present, China has set new standards for non-monetary assets such as inventories, fixed assets, and intangible assets. Inventory is priced at the end of the period using the lower of cost or market price. The market price
is close to the value of the current cost, so with the further perfection of standards, the negative impact of the temporal method will be further reduced.

References


