

# THE ASSET-AND-LIABILITY VIEW AND THE INCOME CONCEPTS IN JAPAN

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## Abstract

*This paper clarifies the fundamental income computational structure under the Asset-and-Liability view. According to this income view, income is the increase/decrease in the net asset of an enterprise and key concepts are asset and liability. Thus, in the fundamental income computational structure, income is calculated in the balance sheet with the causes of income being explained in the income statement. However, the income statement does not necessarily have to explain all causes of income.*

*In the clarification of the fundamental structure, this paper examines income concepts defined in the memorandum of the ASBJ (Accounting Standards Board of Japan) where comprehensive income and net income are defined. Comprehensive income is to be based on the Asset-and-Liability view, net income on the Revenue-and-Expense view. These two income concepts may lead to duality of periodical income allocation in Japan. This paper considers the reason for co-existence of two different types of income in terms of the fundamental income computational structure of the Asset-and-Liability view.*

## Introduction

The purpose of this paper is to clarify the fundamental income computational structure of the Asset-and-Liability view and to examine the income concepts in the conceptual statements of the Accounting Standards Board of Japan (ASBJ) on the computational basis of income structure.

For this purpose, this paper begins by abstracting general factors of the Asset-and-Liability view in the discussion memorandum of the Financial Accounting Standard Board (FASB) titled “An Analysis of Issues Related to Conceptual Framework for Financial Accounting and Reporting: Elements of Financial Statements and Their Measurement” and builds the fundamental structure of income calculation under the Asset-and-Liability view. This structure is a technical feature of the Asset-and-Liability view.

In addition, this paper examines the income concept as defined in the “Discussion Memorandum, Conceptual Framework of Financial Accounting” issued by ASBJ. In this memorandum, comprehensive income and net income are defined independently from each other. As described will be later, comprehensive income is based on the Asset-and-Liability view and net income is based on the Revenue-and-Expense view. This paper shows these two heterogeneous income definitions may lead to duality of periodical income allocation.

Finally, this paper investigates the possibility of co-existence of two heterogeneous incomes based on the basis of technical features of the fundamental structure of the Asset-and-Liability view. This paper also show the flexibility of this income computational structure.

The global trend of accounting standards convergence moves to take comprehensive income as a main income concept. On the other hand, there seems to be two heterogeneous income concepts in the ASBJ’s discussion memorandum on conceptual framework. This paper will explain the reasons why these two income concepts can exist simultaneously under the Asset-and-Liability view.

## **Fundamental Computational Structure of the Asset-and-Liability View**

### **General Factors of the Asset-and-Liability View**

In building the fundamental structure of income computation under the Asset-and-Liability view, it is necessary to extract general factors that constitute income calculation. To extract general factors, the FASB’s discussion memorandum is most useful because it summarizes the essence of the theory of income calculation that many researchers asserted.

According to the FASB’s discussion memorandum, the meanings of income, key concepts of income calculation, general purpose of income calculation and object of accounting are essential in considering the fundamental income computational structure.<sup>1</sup> These factors of the Asset-and-Liability view are summarized as follows.

The meaning of income under this view is a measure of the increase in net asset (net resources) of a business enterprise during a period and the key concepts are asset and liability. In this view, the purpose of a business enterprise is to increase its net assets. Changes in its net assets are the best evidence of what business enterprises has done during the period [FASB (1976) par.34, 48]. Hence, the purpose of income calculation is to measure the net increase/decrease of economic resources and the object of accounting is economic resource.

Furthermore, we emphasize on the formula “Income = Revenues – Expenses”, because under the Asset-and-Liability view, income is related to asset and liability and this formula is not treated as a measure of income [FASB (1976)]. In this view, definitions of revenues

and expenses (further gains and losses) are solely for the purpose of showing how earnings were obtained [FASB (1976)].

As to the Revenue-and-Expenses view, the meaning of income is a measure of effectiveness of an enterprise and the key concepts are revenue and expense. The purpose of this income calculation is to measure enterprise or management performance and the object of this view is enterprise action [FASB (1976) par.38, 48]. In this view, the income is related to revenue and expense and is not presumed to reflect all changes in the enterprise's net resources [FASB (1976)]. Table 1 summarizes general factors of two income views.<sup>2</sup>

Table 1: The General Factors of the Asset-and-Liability View and Revenue-and-Expense View

	<b>Purpose</b>	<b>Object</b>	<b>Key concepts</b>	<b>Meaning of income</b>
Asset-and-Liability view	To measure net increase/decrease in economic resources of the enterprise	Economic resources of enterprise	Asset and Liability	A measure of increase in net resources of a business enterprise
Revenue-and-Expense view	To measure the performance of enterprise or management	Activity of enterprise	Revenue and Expense	A measure of effectiveness (earning power) of enterprise

(Okada (1999) p.70)

### **Balance Sheet as a Place of Income Computation**

According to Table 1, in the Asset-and-Liability view, income is measured by changes in assets and liabilities. As previously mentioned, we noticed that the formula "Income = Revenues Expenses" does not determine the amount of income. This means that income is not calculated in the income statement.

Therefore, we can consider the balance sheet as the place for income calculation. If there is no capital transaction during the period, income is measured by the net assets at the end-of-accounting-period and at the-beginning-of-accounting-period.

Obviously, the amount of net assets at the end-of-accounting-period is calculated on the basis of the ending balance of each asset account and each liability account. In the Asset-and-Liability view, measuring the changes in each account is basic measurement process. Figure 1 shows the relationship of asset accounts and liability accounts to income calculation in the balance sheet.

If the purpose of the Asset-and-Liability view is only to measure the change of net asset, all that we need to do is to recognize the net increase/decrease in each asset and liability

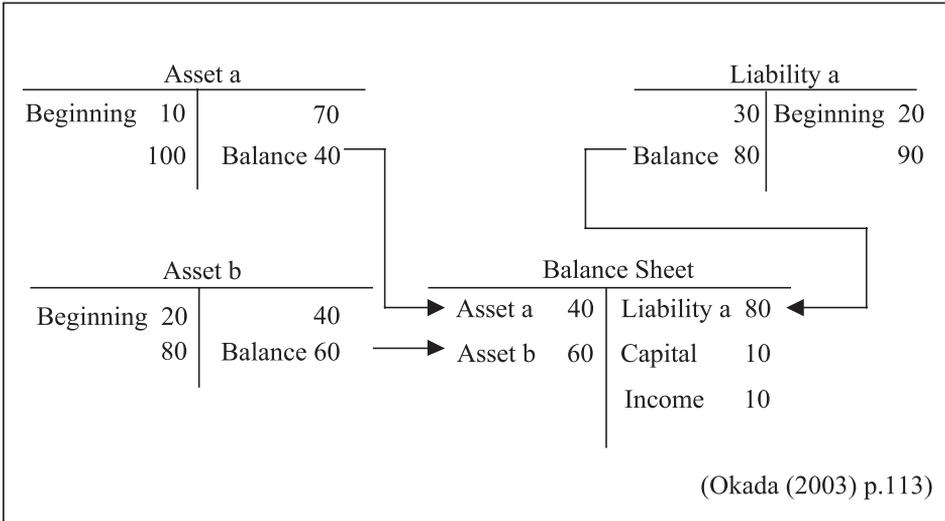


Figure 1: Income Computation in the Balance Sheet

account. But the FASB’s discussion memorandum does not explain this type of income calculation.

As to income calculation in the balance sheet, the FASB’s discussion memorandum emphasizes the importance of capital (equity) account, because the FASB views the balance of capital account as a reference value in calculating income in the balance sheet [FASB (1976)]. In this sense, capital account is vital for measuring the net increase/ decrease of net assets of the firm. Without the capital account, income could not be measured in the balance sheet. Capital account embodies the purpose of the Asset-and-Liability view.

**Income Statement as a Place of Explanation of Income Causes**

According to the FASB’s discussion memorandum, revenues and expenses are solely for the purpose of showing how income was obtained [FASB (1976)]. Therefore, revenue accounts and expense accounts can be viewed as explanations for the causes of the income. Revenues represent causes increase in assets or decrease in liabilities. Expenses represent increases in liabilities or decreases in assets. The formula “Income = Revenues – Expenses” can be viewed as an explanation for the causes of income that is calculated in the balance sheet.

**Fundamental Income Computational Structure under the Asset-and-Liability View**

Figure 2 shows the fundamental computational structure of the Asset-and-Liability view.

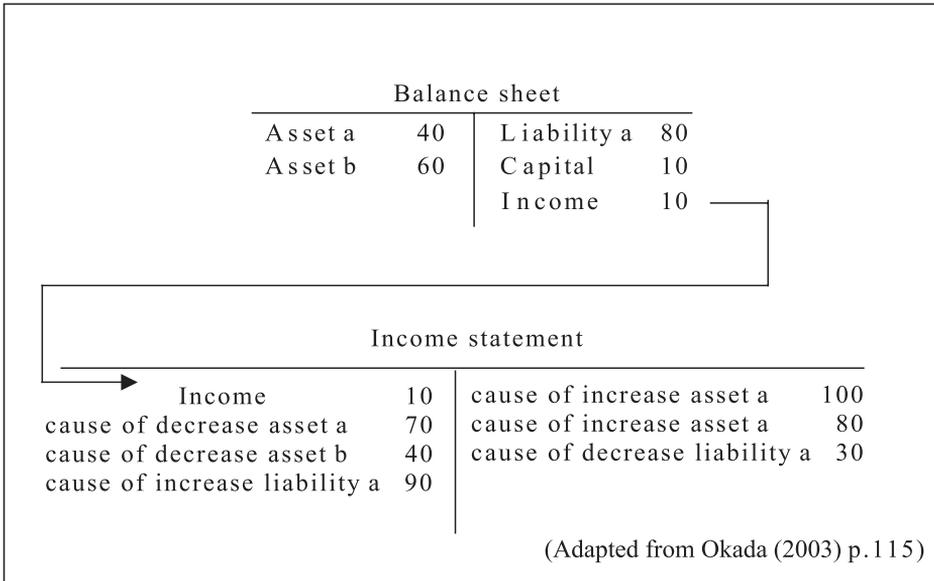


Figure 2: Fundamental Computational Structure of the Asset-and-Liability View

Under the financial statements of the Asset-and-Liability view, the income statement explains the causes of the income that are measured in the balance sheet. In other words, income that is determined in the balance sheet is transferred to the income statement as well as revenues and expenses that explain the causes of increases/decreases of net assets are collected in the income statement. This is a principle under the Asset-and-Liability view. In the actual income statement, income is exhibited after revenues and expenses because of the closing process of bookkeeping.

### Fundamental Income Computational Structure under the Revenue-and-Expense View

As shown in Table 1, the purpose of accounting under the Revenue-and-Expense view is to measure the performance of an enterprise. Under this view, the object of accounting is the activity of a business enterprise and the key concepts are revenues and expenses. Under this view, revenues represent output (accomplishment) from business activity and expenses represent input (effort) into business activity. Hence, income that is measured by comparing revenues and expenses expresses the effectiveness of business enterprises. In the Revenue-and-Expense view, income is calculated in the income statement and the balance sheet serves as storage that contains items standing ready to be input to and items resulting from business activity. Balance sheet is “a means of carrying forward unamortized acquisition prices, the not-yet-deducted costs; it stands as a connecting link joining successive income statements” [Paton et al. (1940)].

Figure 3 shows fundamental computational structure of the Revenue-and-Expense view.

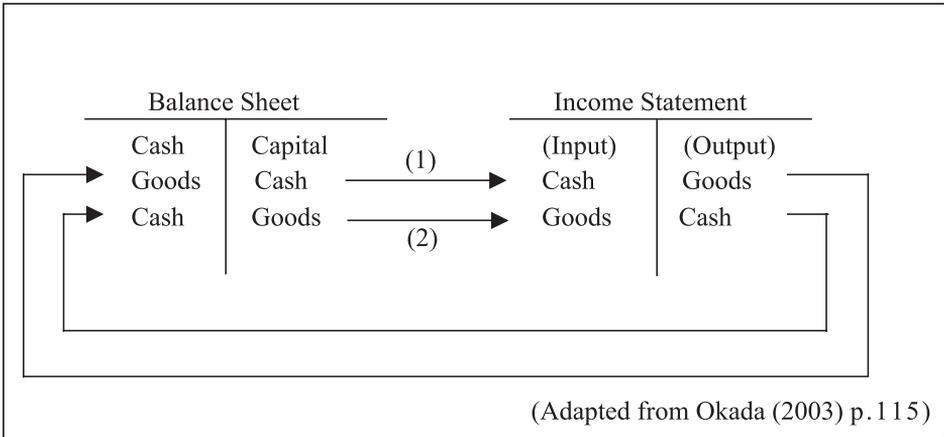


Figure 3: Fundamental Computational Structure of the Revenue-and-Expense View

Figure 3 shows that (1) cash in hand is put into purchasing process and the process outputs goods, and, (2) goods are put into selling process and the process outputs cash. Under this view, both income statement and balance sheet express the input-output process that is carried out in a business enterprise, because the object of this view is activity of enterprise.

## Income Concepts in the Discussion Memorandum of the ASBJ

The ASBJ issues a revised version of discussion memorandum on conceptual framework of financial accounting in 2006.<sup>3</sup> In this discussion memorandum, the ASBJ defines both comprehensive income and net income. But the discussion memorandum gives weight to net income, because Japanese investors are more familiar with net income than comprehensive income [ASBJ (2006)]. The reason why the ASBJ defines comprehensive income is to make provision for the future [ASBJ (2006)].

According to the ASBJ's discussion memorandum, comprehensive income is the amount of increase in decrease in net assets of business enterprise during an accounting period except for direct transactions with shareholders of reporting entity, minority stockholders and option holders who will be able to be shareholder or minority stockholder [ASBJ (2006)].

Comprehensive income is calculated on the basis of net assets. Because net asset is based on asset and liability, comprehensive income is related to asset and liability directly and this income seems to be based on the Asset-and-Liability view.

On the other hand, net income is calculated by deducting the minority stockholders' income from the amount of difference between revenue and expense. Net income is the

result of investment that is released from investment risk and attributable to stockholder of reporting entity [ASBJ (2006)].

Net income is measured as the difference between revenues and expenses. In the discussion memorandum, revenue is defined as the items that increase net income or minority stockholders income [ASBJ (2006)]. Revenue is the amount of asset increase and/or liability decrease. This amount has been released from investment risk (ASBJ (2006) chap.3, par.13). Expense is defined as the items that decrease net income or minority stockholders income [ASBJ (2006)].

Expense is the amount of asset decrease and/or liability increase. This amount has been released from investment risk [ASBJ (2006)]. Although both revenue and expenses are directly related to net income, these definitions are also indirectly related to increase/decrease of asset/liability. But this income seems to be based on the Revenue-and-Expense view.

## Duality of Income Allocation in Japan

### Relationship between Comprehensive Income and Net Income

Figure 4 shows the relationship between comprehensive income and net income in the discussion memorandum of the ASBJ. In Figure 4, A+B+C means comprehensive income and A+D means net income. As to the relationship between comprehensive income and net income, the discussion memorandum of the ASBJ explains it as follows [ASBJ (2006)].

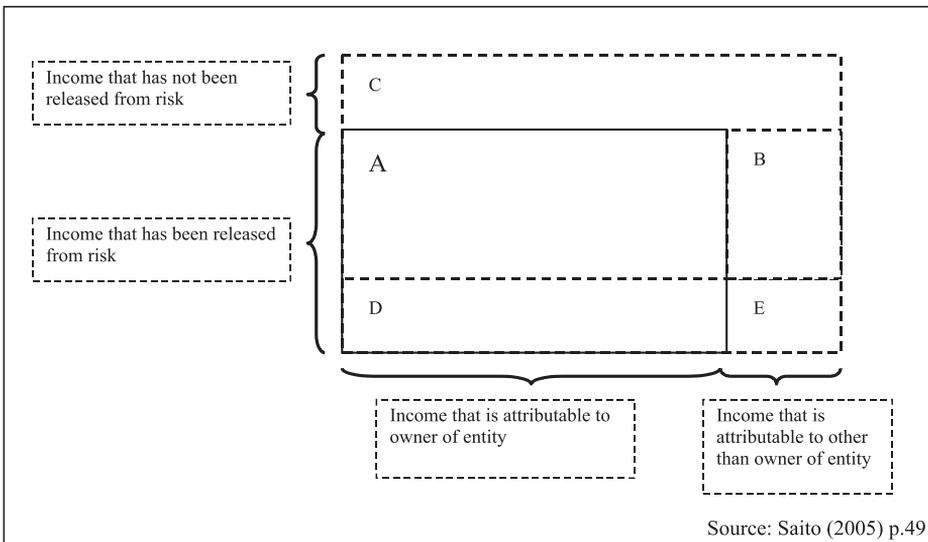


Figure 4: Relationship between Comprehensive Income and Net Income

Firstly in Figure 4, the element C that has not been released from investment risk is deducted from comprehensive income. ASBJ statement No. 5 takes “valuation difference of other securities”, “deferral hedge gain or loss” and “foreign currency translation adjustment” as examples of the element C [ASBJ (2005)].

Secondly, the elements D and E in Figure 4 are added. This procedure is called recycling.<sup>4</sup> These elements were recorded as a part of comprehensive income in the previous accounting period and have been released from investment risk during the current period. Finally, the elements B and E in Figure 4 are deducted. These elements are not attributable to the owners of enterprises. Example of this element is minority stockholder income.

### Duality of Income Allocation

Net income is composed of the items that are released from investment risk. Comprehensive income includes the items that are not necessarily released from investment risk. According to the discussion memorandum, the word “release from investment risk” means that results of investment have been yielded [ASBJ (2006)]. The ASBJ assumes that investors need information about actual results of the company’s investment that can be compared to expected results of it [ASBJ (2006)].

This is a substantial difference between Comprehensive Income and Net Income in the discussion memorandum of the ASBJ. The element C and D in the Figure 4 are focuses on this difference.

As previously mentioned, in Japan concrete examples of the element C are “valuation difference of other securities”, “deferral hedge gain or loss” and “foreign currency translation adjustment”. Common nature of these items is appraisal or unrealized profit or loss. This profit or loss is mainly recognized on the basis of accrual principle.

On the other hand, element D in the Figure 4 has been released from the risk during the current period. A company is released from risk of business investment when it gets risk free asset (ASBJ, 2006). The narrow sense of realization is that revenue is recognized when a company acquires the monetary asset. This meaning of realization is included in the word “release from risk” [ASBJ (2006)]. Most of the elements D are mainly recognized on the basis of realization principle.

From the standpoint of income measurement, “released from risk” and “unreleased from risk” are related to the timing of revenue recognition. This difference leads to two income allocation patterns during some accounting periods under the framework of the discussion memorandum of the ASBJ. Since the ASBJ has not made accounting standard relating to comprehensive income yet, Japanese company does not prepare “statement of income and comprehensive income”.<sup>6</sup>

But practically these items are reported under the title “valiance of estimate and translation” under “net asset section” in the balance sheet directly [ASBJ, (2005)]. Because these are the same as what is termed “other comprehensive income” in the FASB’s accounting

standard No.130, Japanese company calculates income that is equivalent to comprehensive income. This situation violates clean surplus relation between the balance sheet and income statement and leads to a duality of income allocation in Japan.

An explanation with an example of the duality is as follows. Table 2 shows the fair value of other security at each time. In this case the company records “valuation difference of other securities” at the end of Period 1.

Table 2: Fair Value of Other Security

Period 1 (acquisition)	End of Period 1 (holding)	Period 2 (sale)
1,000	1,500	1,300

At the end of the Period 1 income from valuation of other security 500 is recognized and reported in the balance sheet. In the Period 2 when this security is sold at 1300, gain of sale of security 300 is realized and recorded in the income statement. Concrete procedure in Japan during the Period 2 is as follows.

Firstly, at the beginning of Period 2, the company transfers income from valuation difference of other security account to other security account in order to cancel the income from valuation by eliminating entry. This procedure has the same effect of recycling.

Secondly at the end of Period 2, this company records gain of sale of this security 300 in the income statement.

The income 500 reported as “variance of estimate and translation” at the end of previous Period 1 is recycled and included in net income at the end of Period 2.

If comprehensive income were calculated, the comprehensive income reported at the end of Period 1 would be 500 and that of the Period 2 would be -200. The total amount of comprehensive income would be 300.

Table 3: Periodical Income and Total Amount of Income (ASBJ)

	Period 1	Period 2	Total
Net Income	0	300	300
Other Comprehensive Income – Variance of estimate and translation -	500	-500	
Comprehensive Income	500	-200	300

As shown in Table 3 the company reports two different income numbers in each accounting period. Total amount of income is the same (300). But the amounts carried at each period are different. This is duality of income allocation during accounting periods.

## Reason for the Co-existence of Two Income Concepts

As mentioned in Section 1, the Asset-and-Liability view and the Revenue-and-Expense view has their own income computational structure. It seems to be difficult for income based on the Asset-and-Liability view to be in computational structure based on the Revenue-and-Expense view vice versa. But there are two income concepts in the discussion memorandum of the ASBJ. One seems to be related to the Asset-and-Liability view, the other seems to be related to the Revenue-and-Expense view.

It is necessary to clarify the reason for the co-existence of two income concepts in a specific income view. In order to investigate the reason from the standpoint of technical aspect of accounting, this paper stands on the Asset-and-Liability view.

Figure 2 shows that under the fundamental structure of the Asset-and-Liability view, income is calculated in the balance sheet and the income is transferred to the income statement to show causes of income with revenue and expense. But it is not necessary that, under this fundamental structure, the income statement has to explain all causes of income. The income statement can select the causes of income that should be explained. This means that the accounting standards setting body can arrange the income statement in order to explain or show the causes of income that should be explained during a period according to purpose of accounting regulation. This is the reason for existence of the items that bypass the income statement and go to the balance sheet directly.

Furthermore, we can see the income statement can decide when to explain the causes of income under the fundamental computational structure of the Asset-and-Liability view. The portion of income that was not explained in the past accounting period can be explained in another accounting period. In other words, the income statement of current period can explain the causes of income that is calculated in the balance sheet of previous period.

Recycling explained in the discussion memorandum of the ASBJ is performed in order to transfer some items in the other comprehensive income to Net Income. Through recycling, the items that have not been released from investment risk are transferred to the items released from risk. This means that recycling relates to timing of income recognition.

In order to maintain a clean surplus, double counting of income has to be avoided. If some part of income were double counted, the total amount of income during the lifetime of company would not equal to the net cash receipts excluding those from capital changes. This is the reason for the necessity of recycling.

## Conclusion

In the fundamental computational structure under the Asset-and-Liability view, income is calculated in the balance sheet and causes of income are explained in the income statement. But income statement does not have to exhibit all causes of current period

income. The fundamental structure of the Asset-and-Liability view is so flexible that accounting standard setting body can decide what causes of income should be explained in the income statement of current period.

The ASBJ sets some causes of comprehensive income as items of net income. In Japan, investors are more familiar with net income than comprehensive income to make decision. The ASBJ does not declare that it takes the Asset-and-Liability view officially. Even if the ASBJ employed the Asset-and-Liability view, the ASBJ could continue to maintain their policy.

There are three laws regulating accounting practice as well as accounting standards. However, this paper has not considered all aspects of accounting regulations. In order to make this research more precise, it is necessary to consider the purposes of these laws and build in the income computational structure. This is an issue for the future.

## Notes

- 1 The concrete purposes of accounting regulation are not considered in this paper. Examples of concrete purpose are to calculate earnings available for dividends, to calculate decision useful income etc. Concrete purposes are related to the coordination of interest parties in a nation or region. Thus, concrete purpose creates concrete periodical income calculation and income allocation pattern for several accounting periods.
- 2 See Fox et al. (2003) pp.170-174, Sprouse (1978) pp.67-70. These two papers summarize the characteristics of the Asset-and-Liability view and the Revenue-and-Expense view.
- 3 The revised version of discussion memorandum consists of four chapters.  
Chapter 1. Objectives of Financial Reporting  
Chapter 2. Qualitative Characteristics of Accounting Information  
Chapter 3. Elements of Financial Statements  
Chapter 4. Recognition and Measurement in Financial Statements  
The contents and constitution of the discussion memorandum are almost same as the IASB's conceptual framework or the FASB's conceptual statements.
- 4 In the FASB's Statement of Financial Accounting Standards No.130, this procedure is called "reclassification adjustment" [FASB (1997) para.18].
- 5 "Other security" is available-for-sale security.
- 6 In Japan company is permitted to prepare the financial statements on the basis of US GAAP.

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