



Accounting Standards and Global Convergence Revisited: Social Norms and Economic Concepts*

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ABSTRACT

The leitmotifs underlying accounting standards setting have undergone changes over time, from best practices to a normative approach and then to global convergence. In the process, accounting standards have gradually lost their character as a set of informal social norms based on market practices. This trend, combined with the pursuit of a formal framework not amenable to adjustment through feedback from market tests, has unavoidably brought about a top-down approach. Under this approach, the uniformity of standards from the viewpoint of regulators has been given priority over the usefulness of income information for users of financial statements. Consequently income information, which plays an essential role in the valuation of companies in capital markets, has been affected by a mechanical application of the asset-liability approach and fair value measurement with scant attention to a marked difference in business transactions. Because investors today almost disregard national borders, the homogenization of accounting information is certainly an important goal. To achieve this goal, however, it is necessary to facilitate the spontaneous homogenization of norms based on an evolutionary market process which enables standards setters to incorporate *vox populi* into accounting standards themselves rather than decide on the direction and degree of convergence on an *a priori* basis.

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1. Introduction

The task of this paper is to take a look at accounting standards on a global convergence path anew, and address any problems underlying the process. Historically speaking, the main driving force of accounting standards setting has changed from market participants, including accounting professionals, to domestic governmental or private-sector regulatory bodies, and further to international standards setters. These changes have been accompanied by changes in the ways in which accounting standards are to be set, from the bottom-up approach which emphasizes the careful observation of market practices, to the top-down approach which strongly reflects the regulatory *a priori* perspective. The latter approach appears to have been intensified in recent years. As a consequence, the uniformity of standards has been increased, while the scope for market feedback to exert influence on standards has diminished.

Accounting information tends to focus on quantitative differences of companies in their common characteristics rather than qualitative differences that remain even in their seemingly similar activities. Although such qualitative differences certainly affect corporate profitability, accounting information necessarily relies on uniformity that subjects all qualitative differences to a common measure of value, just as diverse attributes of assets traded on markets which cannot be captured in prices are abstracted away. Nevertheless, the author believes that standards which force companies to uniformly appraise their transactions and acquired resources based only on their superficial similarity ignoring company-specific differences in investment objectives and purposes will neither emerge as rational interactions of market participants nor take root by promoting uniformity of practice. This belief alone makes it worthwhile for the author to reexamine the current standards from a market-oriented perspective. Given that information disclosure relies on market discipline, it seems appropriate to first pay careful attention to the autonomous function of markets in the development of norms.

2. Evolution of Accounting Standards and “Standards for Standards Setting”

2.1 *Meta-rules for Accounting Standards*

As a first step of investigating the potentially desirable characteristics of accounting standards, including convergence, there is a need to consider standards for standards setting or meta-rules on which accounting standards setting have been based throughout history. Accounting standards used to be regarded as an inventory of best practices tested and proved in capital markets. Markets are said to have developed accounting standards by collecting useful behavioral rules, putting them into a means-to-an-end structure, and codifying surviving practices inductively.¹ This process led to the GAAP (Generally Accepted Accounting Principles) concept, which finally won consensus from the 1920s to 1930s, when the modern accounting system was established in the United States.

The history of U.S. accounting standards is said to have begun in 1917 when *Uniform Accounting* was released by the Federal Reserve Board with the support of the American Institute of Accountants (AIA), an association of accountants who were then gaining recognition as an established profession. By the mid-1920s, a voluntary information disclosure system was in place that was centered on the New York Stock Exchange. In 1934, the Securities and Exchange Commission (SEC), whose

¹ This stance is epitomized by May (1943) and Littleton (1953) in which we can clearly see the influence of classical U.S. pragmatism, particularly the views on truth held by James (1907).

jurisdiction includes accounting standards setting, was established. However, by this time, voluntary information disclosure had become widely practiced among U.S. companies. As a result, the SEC deferred to the private sector retaining its jurisdiction to develop standards, and, with the SEC's blessing, a committee that was set up in the AIA worked on the development of GAAP by compiling best practices. This was the initial scheme for establishing standards in the United States.

Under this scheme, however, standards tended to become not only fragmentary but also inconsistent. As a result, people began exploring a more constitutive (normative) approach that was designed to deductively derive standards from a small number of *a priori* premises or basic concepts in the early 1960s.² This approach favored the direct recognition/measurement of such visible and real elements as economic resources rather than the development of a measurement mechanism for such invisible and constructed quantities as profits based on professional judgment. It drew people's attention to the frame of references on which its rules are based, eventually giving rise to the Conceptual Framework Project of the Financial Accounting Standards Board (FASB) in the 1970s and 1980s.

More recently since the arrival of a new century, global convergence, i.e., the integration and unification of accounting standards across borders as a means to ensure the worldwide comparability of financial information, has become a stated goal. Although this integration drive at first came mainly from the need specific to Europe for unifying accounting standards throughout the region after the unification of European capital markets, the development of international standards (as opposed to European regional standards) to ensure the ready acceptance of European companies' financial statements without reservation in the United States was also kept in mind. In this process, the International Accounting Standards Board (IASB), originally thought to be the European standards setter, has moved forward with a top-down standardization initiative increasingly reliant on formal definitions of concepts while competing with the FASB for the leadership in the global unification of standards.

2.2 From Emerging Social Norms to Deductive Written Rules

The next question is how actual standards have changed over the course of the historic evolution of "the standards for standards". Early accounting standards, which tried to embody best practices, were basically a subset of social norms as defined by Posner (1974, 1997). They more or less fit the description "shared expectations of members of society about the behavior of others". The adoption of the deductive normative approach has transformed such prototypical accounting standards from soft "social norms" into hard "written" rules (Sunder, 2005a, 2005b). As a result, the objectives of financial statements, qualitative characteristics of accounting information, and definitions of elements of financial statements now are derived from a formal conceptual framework rather than inductively emerge from best practices or widely shared social norms.

Both informal social norms and a formal conceptual framework approaches get along with the view that their usefulness should be judged from the actual outcomes brought about by their application of basic ideas. This trial-and-error process dovetails with informal norms, especially those called "best practices", because they are a compilation of rules that are actually in use and are known to be useful. On the other hand, in the case of the deductive derivation of formal standards, their premises are just assumptions to be proved. For this reason, a relatively flexible system used to be maintained allowing the premises to be changed in case the rules deduced from them turned out to

² A seminal work is Moonitz (1961), published as result of a research project conducted by the American Institute of Certified Public Accountants (AICPA; renamed from AIA).

be disappointing.

In recent times, however, this once flexible system has become more and more rigid turning into a regime that ordains standards mechanically derived from an unproven preconceived conceptual framework. This trend has been strongly influenced by the global convergence movement as well as various factors that have brought about the aforementioned change from informal social norms to formal normative standards. This change has occurred partly because the review of proposed rules based on market tests, though relatively easy within a single country, is far more difficult once adopted across borders. The territorial monopoly enjoyed by a national standards setter and the global monopoly enjoyed by an international standards setter have completely different influence over the process of standards setting.

If global convergence is being pursued in a top-down fashion without a feedback mechanism that is capable of fairly and efficiently incorporating outcomes of market experiences in individual countries into common international standards, newly devised rules from *a priori* premises, rather than existing rules that are actually in use somewhere in the world, will be imposed worldwide. While the due process for standards setting includes the incorporation of feedback from individual countries, to what extent their needs are considered is another issue. We do not live in an idyllic world where our views would be adequately reflected if we followed IASB's leadership. In this sense, the current regime seems to put us in a straitjacket of standards based on a written framework.

3. Key Concepts for Convergence: A Critical Review

3.1 Three Key Concepts

As discussed in the preceding section, the move toward global convergence has played a prominent role in changing the character of accounting standards. Three key concepts are crucial in understanding the process.

The first key concept is a single set of high-quality standards as the goal of standards setting. While a global single set of standards appears to increase the comparability of accounting information, standard setters should quest for not just comparability but also high-quality in information disclosure. However, can we pursue comparability and high-quality simultaneously without any tradeoff?

The second key concept is the asset-liability approach of accounting measurement. This approach attempts to calculate accounting numbers through appraising stock value on the balance sheet and is considered the antithesis of the traditional revenue-expense approach which starts with the measurement of flow value on the income statement. We should keep in mind that there are two separate issues to be carefully distinguished when examining these opposing approaches: how to organize accounting information systematically, and how to utilize accounting information for valuation.

The former issue is which of the two, assets and liabilities or revenues and expenses, should have primacy in conceptual definition. Because stock and flow are interlinked through the clean surplus relation, we cannot define stock and flow concepts independently. In this regard, it seems reasonable to use assets and liabilities, more concrete concepts, to define revenues and expenses, more abstract ones rather than vice versa. This is an asset-liability approach in terms of conceptual definition.

The latter issue is which should have primacy in valuation. If stock information is thought to be more useful than flow information, we should choose an asset-liability approach in terms of valuation.

However, is stock information or assets and liabilities, more useful than flow information or revenues and expenses (summarized in income)? We cannot claim that this question has been firmly settled.

The third key concept is fair value measurement. Fair value originally meant market value. However, because market value does not always exist, it now refers to both market value and pseudo-market value. Under the fair value rule, we should evaluate stock or assets and liabilities in terms of present value rather than initial acquisition cost and disclose accordingly. Moreover, this requirement has also led to the birth of a new income concept, comprehensive income, as a change in fair value over a period of time. Fair value advocates have tirelessly argued that such information is also useful in appraising corporate value as a whole. However, no consensus has yet to be reached concerning such critical questions as: to what extent fair value represents the value of the firms in its entirety as well as each stock item; how useful the change in fair value of assets and liabilities as income information is.

3.2 Single Set of High-Quality Standards: Compatibility of Two Requirements

The first question is whether uniformity (culminated into a single set) and high-quality are mutually compatible. As discussed above, the purpose of unifying accounting standards and practices worldwide is presumably to facilitate investors to evaluate accounting information without being bothered by national borders. The quality of standards in terms of information usefulness, however, directly depends upon how accurately disclosed information can convey the actual state of a company. While various institutional systems that collectively control the behavior of companies (e.g., legislations such as corporate law and tax code, and regulatory frameworks such as financial, industrial and price regulations) affect how firms disclose their information, accounting standards are expected to promote high-quality undistorted information disclosure by eliminating biases induced by these systems as much as possible. If national accounting standards are unified but country-specific institutional systems which are potential sources of several biases are left unchanged, an improvement in the quality or usefulness of information cannot be a foregone conclusion. On the contrary, uniformity and high quality are not likely to be fully compatible.³

In this kind of problem, the path dependency and cross-complementarity of institutional systems cannot be ignored. Social systems, including accounting standards, are constrained by their own past, and influence each other because of their complementary relationships. For example, assume that three interrelated systems, A, B, and C, exist, and these systems have developed into combination of A_1 , B_1 , and C_1 in one country and A_2 , B_2 , and C_2 in another. Even if A_1 is in isolation a more desirable form of A than A_2 , it is not clear whether this holds true when A_1 is combined with B_2 and C_2 . Namely, if A_2 is replaced with A_1 , the cost of a mismatch between A_1 , on the one hand, and B_2 and C_2 , on the other, may exceed the incremental benefit of A_1 over A_2 . This parable shows that no one knows beforehand the optimum unification level of standards. It can only be determined in an incentive compatible manner through market transactions, which, at the same time, will set an optimum path toward the unification of standards.⁴

³ A more fundamental question is whether the unification of standards guarantees the international comparability of information. As Ball (2006) points out, the unification of standards does not automatically lead to the unification of practices, while the latter is more important than the former from an investor's point of view. In order to evaluate the degree of unification of practices, we have to keep in mind that even the same accounting standards are interpreted in the context of their application to actual corporate behavior and, as such, is greatly influenced by the relationship among (the global) accounting standards and other distinctly national institutional systems in each country.

⁴ If differences remain among individual countries in the process, they must be considered necessary rather than undesirable at least for a while (maybe decades). On this issue, see Dye & Sunder (2001) and Sunder (2002).

There are two approaches to achieving a global convergence of institutional systems. One is to first set uniform standards and to force individual countries to adopt them. The other is to treat uniform standards as a model and allow each country to reform its respective set of institutional systems consonant with the model. Each individual country is required to develop the best possible set of institutional systems and modify its standards accordingly to attract as much capital as possible. The model itself is not fixed, and should continue to evolve into a better one by incorporating the best part of national standards through competition between different sets of institutional systems. This process will further promote institutional reforms in individual countries. Ideally, convergence processes should follow this scenario to simultaneously achieve the homogenization and improvement of standards. It is this market-oriented approach that will realize convergence in the true sense of the word through competitive institutional reforms in each country and a consequent bottom-up global unification.⁵

3.3 Asset-Liability Approach: Relationship with Income Recognition

The clean surplus relationship is a fundamental constraint in accounting, measurement requiring that the change in equity (net assets) be equal to income if no capital transactions with shareholders occur during the period. It can be expressed in the following equation:

$$\begin{aligned} & \text{Equity at end of period} - \text{Equity at beginning of period} \\ & = \text{Revenues} - \text{Expenses} = \text{Income}. \end{aligned}$$

The identity shows that the balance sheet is constrained by the income statement and vice versa because assets minus liabilities always equal equity by definition.

Given the time-series of cash flow, accounting accruals affect the pattern of period income but cannot alter the sum of the entire income stream. Thus the essence of accounting measurement to allocate cash flow based on either the valuation of assets and liabilities or the recognition of revenues and expenses. Although the term “allocate” is no longer in vogue among accountants, it is at the heart of the matter: the relationship between assets and liabilities on the one hand and revenues and expenses on the other.

In the asset-liability approach, assets and liabilities as visible and concrete concepts are used to define revenues and expenses as invisible and abstract concepts. Therefore cash flow is intertemporally allocated according to the recognition and measurement of (change of) stock items on the balance sheet. While it is not appropriate to discuss the pros and cons of this method, the important point is how accurately the total value of assets (minus liabilities) determined in this manner can track the corporate value in its entirety. As long as the core competence of a firm is inseparable from its off-balance-sheet “goodwill” (e.g., its human resources), there is no guarantee that the aggregate value of individual assets that are recognized on the balance sheet has a stable relationship with the corporate value, the estimation of which is its stock price. Unless this link exists, accounting information based on the asset-liability approach is of limited use for investor decision making.

The corporate value of a firm is not simply the total value of its assets but depends on future financial results expected from those assets. For this reason, future-oriented permanent income (normalized income converted from expected net cash flow) is likely to be a proxy for corporate value rather than the present market value of individual assets or its approximation. It is not unreasonable to expect an information disclosure system to provide information users with present (and past)

⁵ An example worthy of mention is the corporate law system in the United States, where the existence of mutually distinct state laws with the non-binding Model Business Corporation Act has been encouraging innovations interdependently through market competition among state laws.

income (stream) and leave the rest for them to work out. There is no income without changes in assets and liabilities. However, whether they alone determine an income concept which is useful for the valuation of a firm is another matter. Being a necessary condition does not guarantee sufficiency for income recognition.⁶

Comprehensive income, which is measured only from changes in the value of assets and liabilities (excluding capital transactions with shareholders), is likely to be an indicator with little information content. If the total value of recognized assets has little if any direct relationship with corporate value, the fact that comprehensive income is mechanically derived from it poses a serious question on its usefulness to explain stock price behavior. In case its usefulness is wanting, there is a need to devise an income indicator that has greater information value than comprehensive income. Traditionally, that role has been played by net income (or “earnings” in U.S. parlance). Although it is not known whether net income is the best indicator, it is at least an accounting concept of income that has been developed by the capital market participants over the past century. Net income or the bottom line of financial statements, which is equal to comprehensive income minus (unexpected) windfall gains, has been used for the estimation of permanent income.

Windfall gains, when recognized, become part of comprehensive income, although they cannot be included in net income but constitute “other comprehensive income (OCI)”. While windfall gains are excluded from income as an economic concept to be discussed later, they need to be transferred (recycled) to net income in corporate accounting, which allocates cash flow associated with investment projects intertemporally, when they satisfy the requirements for inclusion into net income.⁷ The problem lies with what condition should be met to transfer items such as windfall gains from OCI to net income. The Accounting Standards Board of Japan (ASBJ) has proposed *release from the risks of investment* instead of traditional *realization* as its guiding principle for income recognition. While financial results (cash flow) expected from investments are inherently uncertain and risky, they satisfy the condition for inclusion in net income once there no longer exists any substantial risk.

3.4 Fair Value Measurement: Scope of Application

Fair value, which is the third key concept, is basically the exit price, but for assets that do not have a market price, an estimate that approximates such a price must be devised. This pseudo-market price is a construct made on the basis of average market expectations rather than the firm’s own estimation of value in use or the discounted value of future financial results to be realized through the use of the asset. The issue is to what extent fair value (as understood in this sense) should be applied to both asset valuation and income recognition. So far, while the IASB sticks to the principle that calls for the full application of fair value to financial instruments, it has actually proposed and set standards falling short of full application. In this regard, the IASB does not seem to be much concerned about a systematic investigation of its principle.⁸

On the other hand, the ASBJ has been arguing that fair value accounting should be applied to all assets and liabilities considered financial investments in the sense that they are held for the immediate realization of monetary gains, regardless of their external forms. Financial investments are

⁶ In a word, the asset-liability approach defines income (revenues and expenses) from assets and liabilities rather than assets and liabilities from income.

⁷ This is because the total income generated from an investment project over its entire period is equal to the total net cash flow on an *ex post* basis.

⁸ Quite a few accounting scholars have expressed a view close to the ASBJ’s on the scope of fair value measurement. For example, Penman (2007) argues that the application should be limited to assets and liabilities whose fair value (changes) has a one-to-one correspondence to stock price (changes) of the firm. Dichev (2007) expresses the similar view.

characterized by the existence of a liquid market and the freedom of the firm over their liquidation without being constrained by its business purposes. Because liquidation at exit price is the only way to achieve financial results from their possession, the only relevant criterion of financial instruments is exit price not specific to the firm which holds them. The application of fair value accounting to those kinds of investments is consistent with the ASBJ's risk-release concept mentioned above. If a financial investment is made in the expectation of achieving a capital gain, actual or estimated exit price enables the firm to confirm a realized gain (or loss) as a result of investment released from risk (ASBJ, 2006).

In the case of an investment made in the expectation of achieving business results (business investment), the value of assets does not necessarily agree with market value because the investment is not released from risk until its cash flow is finalized, regardless of its current market value. It is true that a fair value measurement of financial investments is more desirable than not, but the change in value of business investments, even if recognized on the balance sheet, is better excluded from net income and relegated to OCI as a windfall until the investment results are finalized. The usefulness of net income information has been confirmed by numerous empirical studies.⁹ Although International Financial Reporting Standard (IFRS) No. 9 of 2010 has not abolished net income as a concept, the criteria to differentiate elements of net income from those of OCI are not clear, and the clean surplus relationship no longer holds between net income and equity because of the ban on recycling OCI.

If comprehensive fair value accounting is adopted (or no change in fair value is excluded from income), net income and comprehensive income are the same, and there is a clean surplus relationship between income and net assets on the balance sheet. However, if part of comprehensive income is excluded from net income, then the clean surplus relationship no longer holds between net income and net assets. For this reason, ASBJ's discussion paper on the conceptual framework defines shareholders' equity, which satisfies the clean surplus relationship with net income, as part of net assets (therefore shareholders' equity is not equal to net assets in Japan). Because the recycle of OCI is a necessary condition for the recovered clean surplus, the information value of net income may be lost if recycling is not allowed. Although the IASB failed to abolish net income, it seems to have succeeded in rendering it meaningless.

4. Usefulness of Information: Comprehensive Income and Net Income

4.1 Quantitative Analysis: Empirical Test of Usefulness

The next issue is the usefulness of accounting information, arguably the most important aspect to determine the quality of accounting standards. In the context of the current argument, it comes down to the relevance of net income, which equals comprehensive income minus windfalls classified as OCI (for now, limited to revaluation gains or losses of assets and liabilities characterized as business investments). On this topic, the verdict is unambiguous: the usefulness of net income information in terms of its correlation with stock price has been amply confirmed by empirical studies (Wakabayashi, 2010). While OCI, when disclosed in addition to net income, may be credited with marginal information value, the dominance of net income in terms of information usefulness is beyond question.

What would happen if net income were abolished and comprehensive income became the sole income concept? Some researchers try to answer this question by reconstructing comprehensive income from accounting data obtained under the current standards. However, we have only stock

⁹ See Wakabayashi (2010) for a comprehensive up-to-date survey of U.S. empirical studies and her own research using Japanese data.

price data obtained under the current regime which requires the disclosure of net income. In order to answer the posed question, we would need data obtained under a hypothetical no-net-income regime, which does not exist by definition. This methodological criticism is in line with a well-known argument (Lucas critique): because a policy or institutional change has the potential to alter people's expectations and behavior by affecting their incentives, a model consisting of parameters estimated on past data under the old regime cannot be used to evaluate its impact. Therefore, the validity of the argument for the comprehensive-income-only regime based on the correlation between comprehensive income and stock price in a world where net income information existed is seriously called into question because net income information is most likely to affect people's expectations and behavior including implicit as well as explicit contracts and customs.

The discussion brings about an even more important issue. As has been widely pointed out, this type of empirical studies pretends to test the causality that is assumed to exist between accounting information and stock price, but can at best find statistical correlations. As such, it does not prove any existence of causality, let alone explain its inherent mechanism. If a correlation is established between income number and stock price, it may be possible to "explain" stock price behavior by recognizing a "risk" of the company due to changes in its income and comparing it with the market-wide risk (e.g., beta) under the capital assets pricing model (CAPM). However, any attempt to generalize this idea into causality has little prospect because CAPM (or any theoretically clean model) fares badly as an empirical model. Unless we find a theory based on deep parameters invariant to any policy change, we should be skeptical about any policy recommendation "supported" by empirical tests.

4.2 *Qualitative Analysis: Concept of Economic Income*

To complement quantitative studies, we should qualitatively analyze the usefulness of income information. In this context, the concept of economic income, as proposed by Hicks and others, has been a focus of attention,¹⁰ and used to justify a specific set of standards. Recently, a joint project of the FASB and IASB has released a document that seeks a theoretical basis of the asset-liability approach and comprehensive income in Hicks's income concept (FASB/IASB, 2005).¹¹ In particular Hicks's income No. 1 concept has been extensively used as a first model to arrive at an appropriate concept of income. In the context of the current argument, this income can be defined as a maximum amount of money that can be spent in the current period while maintaining the equity value measured at the beginning of the same period.

However, if the capital value is a function of financial results that are expected to be achieved in the future, it certainly depends on the term structure of interest rate. Therefore, what is closer to the central concept of income in the context of interdependence between capital value and income, as pointed out by Hicks (1946, pp. 174-176), is the amount that can be spent in the current period and is expected to be spent in each ensuing period (income No. 2). Because this income does not include capital appreciation (or depreciation) due to the expected change of interest rates, income No. 1 does not coincide with income No. 2, a "closer" concept than the former, unless the interest rate is intertemporally constant.

Moreover, there is always an unexpected difference between its valuation at the beginning of the period and that at the end of the period due to a change in future expectations (i.e., unexpected windfall gains or losses). Therefore capital value increases if an expected future revenue stream is

¹⁰ In addition to Hicks (1946), important contributions include Fisher (1906, 1930), Lindahl (1933) and Kaldor (1955).

¹¹ See Bromwich *et al.* (2010) for a theoretical critique of the joint project.

revised upward and/or expectations of accompanying interest rates are revised downward. However, if (part of) the increased value brought about by the change of expectations were spent immediately, then future revenues would decrease correspondingly and the level of wealth as measured in terms of the potential for consumption, could not be maintained.¹²

The unexpected difference in capital value between the beginning and the end of the period can give rise to two different income concepts depending on which point is used as reference. If capital values at the beginning and the end of the period are measured on the basis of expectations held at the beginning of the period, the difference will be defined as income *ex ante*. If they are measured on the basis of expectations held at the end of the period, it will be defined as income *ex post*. Of these two income concepts, only income *ex ante* is directly relevant to economic decisions. Retrospectively estimating the capital value at the beginning of the period on the assumption that the information that became available at the end of the period would have been available at the beginning of the period was not a major concern for Hicks. This is likely to be the reason why his income *ex post* concept is not adjusted for windfalls.

The above discussion shows that Hicks would not endorse the use of his income No. 1 *ex post* for justifying the asset-liability approach. In this regard, a more meaningful approximate concept for economic income is his income No. 2 *ex ante*.¹³ However, accounting information is based on *ex-post* measurement. The role of accounting income is to examine projected results based on *ex-ante* expectations in comparison with corresponding *ex-post* facts and use the outcome for the formation of future expectations. Given that income No. 2 *ex ante* is a concept that excludes windfalls, this role can only be played by a similar but *ex-post* concept. Income *ex post* that excludes windfalls seems to be the most appropriate concept for accounting measurement regardless of Hicks's indifference to *ex-post* concepts (see Appendix).

Should expectations not change during a period due to the absence of any uncertainty, there would be no need to consider windfalls, but in such a world, accounting information itself would be unnecessary. However, fortunately or not, we live in a world full of uncertainty. Therefore an approximate concept of income *ex post* that corresponds to Hicks's income No. 2 *ex ante* is a powerful weapon to examine measurement rules. This *ex-post* concept enables us to propose what kind of accounting information is useful conceptually and to designate areas where empirical studies are most informative.

Moreover, it exactly matches the ASBJ's main concept of investment results released from risk. Based on this concept, the ASBJ has proposed separate measurement rules for business investments, which is made for achieving business results specific to the company concerned, and for financial investments, which is made for achieving capital gains through arm's-length market transactions. Therefore unrealized windfalls must be relegated to OCI but recycled into net income once gains or losses are realized.¹⁴

¹² See the implication of unexpected changes for Hicks (1946, pp.184-185) and Fisher (1906, pp.287-288).

¹³ It means that in the real world where future expectations are constantly changing and the term structure of interest rates is not flat, the use of Hicks's income No. 1 concept as a theoretical basis for the asset-liability approach and comprehensive income is not warranted. Income No. 2 cannot, as a matter of course, be claimed to support the approach. See Fukui (2011) for a detailed analysis.

¹⁴ See Saito (2009) for a more detailed analysis.

5. Conclusion

Income concepts discussed in the preceding section have been proposed to be useful for investment decisions (*ex ante*) and evaluations (*ex post*) and are accordingly subject to usefulness tests designed for various purposes. Nevertheless, it should be emphasized that the function of income information can be clarified through a careful economic analysis of investment behavior. Where a concept used as the premise is a dogma for which no method exists to explain its usefulness empirically, the conclusion can be nothing but a dogma, no matter how consistent the deduction process may be. The ongoing global standards development process lacks an adequate feedback mechanism to incorporate the results of usefulness tests into basic concepts and overemphasizes consistency with *a priori* conceptual frameworks. It seems that this kind of pseudo-consistency is mistaken for consistency as a necessary condition for the falsifiability of a proposition (Popper, 1968, sec. 24).

As stated at the beginning of the paper, rules for market transactions, including accounting standards, used to be rooted in social norms that emerged from actual transactions and were almost unanimously recognized as useful by market participants. Such social norms have gradually been replaced by uniform standards to suit the definitions of *a priori* concepts adopted by standards setters, and this transformation has been accelerated in the course of global convergence, resulting in diminished usefulness of information. Under these circumstances, standards reform is required to avoid hasty unification and to devise a mechanism that promotes the autonomous and evolutionary development of informal norms through market tests. Two tasks are urgently needed: to strike a balance between the uniformity and quality of standards; and to find an optimal trade-off between the comparability and usefulness of information by flexibly adjusting the definitions of concepts on an ongoing basis to the outcome of the aforementioned processes.

This approach proposed here does not necessarily reject written rules, including a written conceptual framework. However, a conceptual framework is not a set of *a priori* normative rules that ultimately determine accounting standards. Instead, it should be a set of guiding principles for codifying informal social norms that are shared by market participants into formal accounting rules such as standards. Other guiding principles underlying the structure of the market economy may also play a role in the codification of informal social norms into legal norms on the basis of the historical development of that structure. While the selection of guiding principles greatly influences how standards turn out to be, the selection itself ultimately depends on social norms. It is not guiding principles but social norms that determine laws and standards, while guiding principles serve to mediate between informal social norms and formal standards.

Appendix: Economic Income and Variable Income

We can clarify the conceptual distinction between accounting and economic income if we keep in mind that any capital valuation is based on a particular set of expectation which are always changing, as shown in Table 1.

TABLE 1: INCOME *EX ANTE* AND *EX POST*

| | Capital value, beginning of period | Capital value, end of period | Economic income |
|--------------------------------|------------------------------------|------------------------------|--------------------------------------|
| Valuation, beginning of period | ${}_0V_0$ | ${}_0V_1$ | ${}_0V_1 - {}_0V_0$: <i>ex ante</i> |
| Valuation, end of period | ${}_1V_0$ | ${}_1V_1$ | ${}_1V_1 - {}_1V_0$: <i>ex post</i> |

Suppose capital value V changes from ${}_0V_0$ to ${}_1V_1$ during the period. We also assume that capital value at the beginning would be ${}_1V_0$ based on expectations at the end, and that at the end would be ${}_0V_1$ based on expectations at the beginning. Income *ex post* is defined as the difference between capital value at the beginning of the period and that at the end based on expectations at the end, represented as $({}_1V_1 - {}_1V_0)$. Comprehensive income is roughly equal to $({}_1V_1 - {}_0V_0)$, which is the actual difference between capital value at the beginning of the period and that at the end of the period, based on expectations of respective points in time. The difference between ${}_1V_0$ and ${}_0V_0$ represents windfalls. Capital value at the beginning of the period ${}_1V_0$ is a hypothetical construct with hindsight revaluated on the basis of facts that unfolded during the period and expectations held at the end.

Although income *ex ante* may be an ideal concept for economic theory, accounting information must be based on measurement with hypothetical hindsight. One of the noteworthy attempts in formulating accounting income in contrast to economic income is Alexander (1950). In his framework, assets are approximately divided into monetary items (cash and its equivalents) and non-monetary items. The investment results from monetary items including windfalls are based on *ex-post* valuation, while the valuation of non-monetary items is based on systematic amortization, an *ex-ante* rather than *ex-post* concept.

Alexander tried to solve this apparent inconsistency with the help of economic income but simultaneously avoid the hypothetical value ${}_1V_0$ by regarding a firm as a bundle of independent projects with finite investment periods: the investment results for the monetary and non-monetary items are evaluated with $({}_1V_1 - {}_0V_0)$ and $({}_0V_1 - {}_0V_0)$ respectively, and added together. The total amount is the once celebrated variable income concept.

In this approach, whereas *ex-post* changes in the value of monetary items are fully included in income, unexpected changes $({}_1V_1 - {}_0V_1)$ in the value of non-monetary items are temporarily excluded from income and become part of income in the period in which, and for the portion for which, cash flow is realized.¹⁵ We can claim that this scheme is a logical consequence of the view that a company is a bundle of investment projects with the fact that income earned throughout the entire life of a project equals net cash flow for the project on an *ex post* basis. While changes in the value of non-monetary items based on changes in expectations are excluded temporarily from income, variable income keeps them on the balance sheet and puts them back into income when they are realized as monetary items (i.e., cash flow).¹⁶

Although this concept was reconsidered by Solomons (1961), it seems to have been forgotten again. While economic income itself can be directly applicable to accounting standards on income information under very limited conditions (Beaver, 1981, Chap. 3; Christensen & Demski, 2003, Chap. 3), it clarifies what is desirable in the formulation of accounting income concepts from an

¹⁵ However, if the life of a project were infinite, capital appreciation (depreciation) due to the change of interest rates would never be recognized as income.

¹⁶ If aggregated over the entire investment period, a temporal difference between variable income and the "objective" concept of income *ex post* (Hicks did not differentiate *ex post* from *ex ante* concepts in case of his objective ones) vanishes. The variable income concept is also consistent with *release from the risk of investment*, the ASBJ's guiding principle for income recognition.

economic (theoretical) point of view. The author believes that the variable income concept and others that approximate economic income under the constraint of the real world deserve more attention if a systematic study on the usefulness of income information has any merit.

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