Is comprehensive income required by IAS 1 relevant for users? A review of the literature

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Abstract

Professional accountants have accepted for decades net income a the key performance measure of a business. The IASB decision in 2007 to require the publication of comprehensive income as it has been the case since 1997 in the United States, has fed the long time debate regarding the concept of income.

In this paper, we will go through some background about both approaches of income and their consequences in terms of financial reporting. We will then review the related literature, classified according to the relationship between the concepts of income on one hand and of relevance and consistency on the other hand. Finally, we will show that empirical research does not allow so far to demonstrate the relevance for users of the concept of comprehensive income

Key words: performance, income, comprehensive income, relevance of financial information, consistency.

Introduction

Performance measurement has always been a key attribute of accounting. Without entering a theoretical debate over what is the performance of an entity, we shall admit that income is one of the key performance measures. The FASB and IASB joint project on the financial statement presentation has restarted the long time debate over the concept of income. While standard-setters would like the concept of comprehensive income to be used in practise as a key performance indicator, preparers and users still prefer the traditional concept of net income and don't see any need to redefine the concept of income. Moreover, they are calling for an empirical validation of the superiority of comprehensive income on net income as a key performance indicator.

In order to understand better which are the real stakes in this debate between standard-setters and accounting practitioners, we will first go trough some background about the two main approaches to income and their consequences in terms of valuation of assets and liabilities and presentation of the performance of the company in financial statements.

Secondly, we will propose a review of the related literature, structured around two axes:
concepts of income and relevance/consistency.

1. The two main approaches to income

"Income" or "Earnings" is usually the bottom line of the performance statement called "income statement".

Two theoretical currents oppose in Anglo-American accounting[1] for the determination of this income which is conceived either as a comprehensive income (*all-inclusive concept of income)*, or as a more restrictive income (current operating concept of income). We propose, thus, in this part a recapitulative and commented chart (cf figure) 1) of various approaches to the concept of income, their background and their consequences.

1.1. Asset-liability approach versus revenue-expense approach

Profit or income of an entity can be determined from two accounting approaches (Deegan et Unerman, p. 188). According to the first one, called balance sheet or asset-liablility approach, earnings is determined as a measure of change in net assets for a period, whereas it is determined from the difference between revenues and expenses engaged in order to generate these revenues according to the second approach called revenue-expense approach.

These conceptual divergences mean different ways of recording transactions. According to the balance sheet approach, a transaction will be recorded as a revenue or an expense only if it can't be regarded as an asset or a liability. The profit so obtained is in a sense residual. Accounting standards essentially set rules for the recognition and the evaluation of assets and liabilities.

Revenue-expense approach focuses on the recording of a transaction as revenue or an expense by respecting the matching principle and conservatism and grant only little importance to variations of assets and liabilities.. The balance sheet becomes a sort of residual statement including elements bound to the future.

US GAAP and IFRS GAAP are now balance sheet oriented but has it always been the case?

The Anglo-American accounting oscillated for a long time between both approaches. The balance sheet was therefore the essential document in the 19th century in Great Britain and the obligation to establish a profit an loss account as a supplement to the balance sheet appears only in 1929 (Hendriskon and Van Brenda, on 1992, pp. 63 and 64).

After the crisis of 1929, which revealed the weaknesses of balance sheet accounting (the revaluations of assets were authorized then until the SEC forbade them in 1940) professional accountants and academics show a growing interest for in profit and loss account to the detriment of the balance sheet. The financial information, previously intended essentially for creditors and managers, then aimed at investors, more interested in indicators of profit, such

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[1] The concept of comprehensive income has been debated for many years in Anglo-American countries and especially in United States. In the paper, most of academic and standards papers we refer to are American.

as earnings per share, such as the net worth or the liquidity of the company (Robinson, on 2001).

Even though, the situation carried on for several decades, criticisms appeared in the United States about the absence of a real formulation of the objectives of financial accounting (Belkaoui, on 1984, p. 143). The AICPA then formed a committee to draft a report on the objectives of accounting, the "Trueblood Report".

This report would be of used as a basis for drafting the American conceptual framework. The SFAC n° 1 (first constituent text of the conceptual framework, in 1978) reaffirms the priority accorded to earnings[2]. The SFAC n° 3 1980 (replaced in 1985 by the SFAC n° 6) (§14) insists on the existence of two categories of elements in financial statements: a first category including assets, debts and stockholder equities and a second one including the effects of transactions and events affecting the company over a given period. The match between these two categories of elements is considered essential. Assets and liabilities are the object of detailed paragraphs while the concepts of revenues, expenses, gains and losses, are defined only in reference to assets and liabilities (§19). It is very much a balance sheet approach.

The IASB framework, written 10 years later, refers to the same approach[3].

This difference of view could seem purely academic if it was without incidence on the determination of earnings. Today, non longer using historical cost for the evaluation of certain assets and liabilities and the existence of certain very complex transactions, lead to different accounting processes depending on to the approach chosen. Every approach corresponds to a different concept of earnings.

1.2 Current operating concept of income versus all inclusive concept of income.

Two theoretical currents dominate the debate over the definition of income from the 40s. The first one joins the revenue-expense approach (Belkaoui and Zeff) and advocates a restrictive definition of income (current operating concept of income) whereas the second prefers a

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[2] 2 SFAC no 1 § 43 « The primary focus of financial reporting is information about an enterprise's performance provided by measures of earnings and its components ».

[3] French GAAP are less explicit on the approach chosen. According to the article 230-1 of *Plan Comptable Général*, " the profit/loss of the exercise is equal both to the difference between revenues and expenses and to the variation of stockholders equities between the beginning and the end of the financial year, except for operations affecting directly equity".

widened definition (all inclusive concept of income) consistent with the asset-liability approach.

According to its defenders, the current operating income includes only the consequences of the current and normal operations of the period (Simon and Saghroun, p. 65), operations not bound to the normal activity of the company being directly recorded in equity[4]. Income obtained is regarded as recurring and allows to anticipate better the future performance of the company. As users tend to focus on the bottom line of the income statement, this bottom line has to show an income which can be easily used and without any reprocessing. Managers are the only ones able to make a distinction between current operating transactions and others. The current operating income comes from operations which are under control of managers. It gives therefore a representation of the performance of managers (Hendrikson and Van Brenda, on 1992, p. 325). This concept of restrictive income performs two essential objectives of financial information: providing financial elements useful for the elaboration of forecasts and allowing to estimate the performance of managers.

All-inclusive income is defined as all non-owner changes in equity between two periods [5]. Its proponents (Hendrikson and Van Brenda, p. 327) advocate two essential arguments. On one hand, the sum of the income on the life cycle of the company corresponds to the total income of this company. This arithmetical consistency can't be reached with a restrictive income. On the other hand, with comprehensive income, there's no need to make a distinction between current and non current transactions, which makes easier to produce the income statement. In fact, it's not so easy to separate operating items from non operating ones, as some items can be regarded as operating for some entities whereas non-operating for others. Letting managers making the distinction between operating and non-operating transactions can make earnings management easier. In the United States, the AAA favours the concept of all-inclusive income from 1936[6], but the AICPA adopts rather a restrictive approach to income[7]

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[4] The term *dirty surplus accounting* is also used, in order to mean that, according to this view, income doesn't include every non-owners changes in net asset which doesn't permit a perfect matcht between balance sheet and income statement.

[5] The concept of comprehensive income appears for the first time in Edwards & Bell (1961)'s book, *The Theory and Measurement of Business Income,* University of California Press. The authors present a *Comprehensive Satement of Real Profit and Loss*, making a distinction between the current operating income, a restrictive income, and the real business profit, which is a full income including all non-owner changes in equity (Saghroun & Simon p 68).

[6] According to the AAA 's report, *A Tentative statement of accounting principles underlying corporate financial statements,"* the income statement for any given period should reflect all revenues properly given accounting recognition and all costs written off during the period, regardless whether or not they are the results of operations of that period", quoted by Work & al (1992).

[7] According to the ARB 43 § 11 (1953), extraordinary items should bypass income and be recorded in a surplus income.

until 1966, afterwards it takes position in favour of an all-inclusive income with APB opinion no 9 (1966) [8].

This approach is adopted by the SFAC n° 3 (§ 56) under the term of comprehensive income. However, it also mentions the term earnings, without giving a definition but implying the existence of two different incomes. The SFAC no 5 (1984) confirms the existence of these two incomes and clarifies their contents and their differences. Earnings is thus defined as the difference between revenues and expenses[9], and as an integral part of comprehensive income, itself always defined in reference to the non-owner change in equity [10]. The definition of earnings refers to a Revenue-Expense approach whereas the definition of comprehensive income always joins a Balance Sheet approach. The juxtaposition of these two concepts of income does not question the Balance-sheet approach taken by the FASB but doubtless allows one to obtain a temporary consensus between the partisans of each approach (Saghroun and Simon, on 1999, p. 69).

If the American standard-setter recommends an all-inclusive concept of income coherent with an approach biased towards the balance sheet, several normative texts of the 80s and 90s break from it by imposing the recording of certain operations directly in equity[11]. Bypassing the income statement and having certain transactions recorded directly in equity does no longer maintain to the match between balance sheet and statement of income, which is nevertheless essential according to the SFAC no 6 (Wolk and al ., on 1992, p. 266). It creates, thus, a real problem of coherence in US GAAP and restarted the debate over the concept of income. We would have to wait until 1997 and SFAS 130 when it would become necessary to comprehensive income to be disclosed in the United States [12]. SFAS130 gives a practical definition of comprehensive income, whereas the conceptual framework is limited to an abstract definition. Comprehensive income is equal, thus, to net income, (that is the income

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[8] "The Board has concluded that net income should reflect all items of profit and loss recognised during the period with the sole exception of the prior period adjustments (APB 9 § 17)".

[9] « Earnings focuses on what the entity has received or reasonably expects to receive for its output (revenues) and what it sacrifices to produce and distribute that outputs (expenses). (SFAC n° 5 § 38).

[10] « Comprehensive income is a broad measure of the effects of transactions and other events on an entity, comprising all recognised changes in equity (net assets) of the entity during a period from transactions and other events and circumstances except those resulting from investments by owners and distribution to owners » SFAC n° 5 § 39.

[11] For example SFAS 115 on evaluation of certain assets and liabilities. As these exceptions don't have any conceptual reason, they seem to result from a lack of consensus in the Board. Indeed, some members of the Board accepted to vote for certain standards under the condition that certain items would bypass the income statement and be taken directly to equity (Johnson et al 1995)

[12] According to Johnson et al (1995),the decision of the FASB to impose disclosure of comprehensive income comes from AIMR's report (Association for Investment Management and Research) published in 1993. At that time, disclosure of comprehensive income was already mandatory, according to UK GAAP which prescribed disclosure of the "*Statement of Total Recognised Gains and Losses"*.

which   is usually referred to in the GAAP) plus other comprehensive income, which correspond to the adjustments imputed directly to stockholder equity until then. The concept of net income, which has been abandoned in the SFAC n° 5, reappears but is not defined. IAS 1 revised (september 2007) retains an equivalent definition[13]

For a long time, standard-setters privileged the concept of all-inclusive income to the detriment of a restrictive income. We can then wonder why so much time went by between the normalization of this concept and its application. It seems that the progressive passage of the historical cost to the fair value incites standard-setters to put into practice the concept of all-inclusive income, putting the concept of income as a measure of the firm performance in the center of the debate.

1.3 Fair value and historical cost

We don't want here to discuss about the concept of value in accounting[14] but only to put in perspective the principles of valuation of assets and liabilities with the two approaches to income. The principles of fair value and historical cost are not conceptually connected to a particular approach to income (Robinson, on 1991). However, the defenders of the revenue-expense approach and, thus, of the current operating income are for the most part of partisans of the historical cost. As the balance sheet is not the main financial statement, there's no point in evaluating assets and liabilities at fair value . The performance of the company is shown by income, and not by the increase of net assets. Then, the historical cost emerges as the only principle of measurement of assets and liabilities.

The emergence of fair value in the American and international standards seems to follow the adoption of the balance sheet approach. Thus, SFAS 87 (" Employers' accounting for thought") published in 1985 introduced the measurement at fair value of assets and liabilities in US GAAP. After SFAS 87, several standards imposing or proposing fair value as a mode of evaluation were then published by the FASB and the IASB[15]. Today the use of fair value is partial, both under US GAAP and IFRS. The coexistence of measurement at historical cost and evaluation at fair value isn't really compatible with an all-inclusive concept of income

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[13] « Total comprehensive income is the change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners. Total comprehensive income comprises all components of profit or loss and of other comprehensive income" IAS 1§7.

[14] The reader can refer to Claude Simon's article « Valeur et comptabilité », Encyclopédie de la comptabilité, du contrôle de gestion et de l'audit, Economica, 2 000, pp 1245-1257.

[15] Following standards in what concerns FASB: SFAS 105 (1990), SFAS 107 (1991), SFAS 115 (1993), SFAS 119 (1994). Following standards in what concerns IASB: IAS 16, IAS 40, IAS 39.

according to certain theorists of the accounting (Newberry, on 2003). Standard-setters would intend, thus, to make the use of fair value to all assets and all liabilities mandatory. At the moment, when fair value is used, holding gains (from revaluation of assets and liabilities) are not recorded in a homogeneous way under US GAAP and IFRS. In certain cases, they are considered as an income and appear thus in the income statement and otherwise they are regarded as other comprehensive income and are so directly recorded in equity. In most of the cases, this other comprehensive income has to be recycled in the income statement when assets and concerned liabilities are realized, but recycling is sometimes forbidden[16]. It is difficult to find any consistency in these different accounting processes which makes it difficult to understand financial statements.

If comprehensive income is to become the only indicator of performance standardized and disclosed, there will be no need of recycling anymore and understanding financial statements will be easier. In their current version, SFAS 130 and IAS 1 revised do not impose the rejection of net income and allows firms to present comprehensive income in various formats.

1.4 Presentation of income in financial statements

The efficient market hypothesis implies that any published information is taken into account by the market, whatever its format of presentation. Research on the impact of the presentation of a financial information on users' behaviour produces however contradictory conclusions. Dehning and al. (2004) thus show that the application of SFAS 130 did not modify the market consideration of comprehensive income, the constituents of which were previously published in the notes. Hirst and Hopkins (1998)'research then that of Maine and Mac Daniel (2000) suggest on the contrary that the format of presentation of comprehensive income has an impact on the way it is regarded by users. When adopting a restrictive conception of income a single statement of performance is necessary. The so-defined income appears on the bottom line of this statement of performance. Items recorded directly in equity are not recycled. This presentation allows users to focus on a single level of income.

On the other hand, comprehensive income raises significant problems of presentation, as the reactions of users and firms to the joint project of the IASB and the FASB prove it. A strict application of the concept of all-inclusive income should mean in practice a single statement

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[16] For example, IAS 16 allows to choose revaluation model for property, plant and equipment. Under the revaluation model, revaluations should be carried out regularly and the increase in value should be credited to equity. When a revaluated asset is disposed of, any revaluation surplus must be transferred directly to retained earnings, which means no recycling. On the other side, revaluation surplus concerning available for sale financial assets have to be recycled in income when the assets are disposed of, under IAS 39.

of performance with the comprehensive income as the bottom line. It was moreover the intention of the FASB during the drafting of SFAS 130. The exposure draft of SFAS 130 foresaw, indeed, a single statement of performance. The FASB finally took into account the numerous critical answers they received on this point and the definitive standard permits three formats of presentation for a firm's performance.

A first possibility consists in keeping "the old" statement of income with the net income as the bottom line, and presenting the other comprehensive income in the statement of changes in equity. A second possibility is the disclosure of two statements of performance, a traditional income statement and a statement of recognised gains and losses showing the constituents of comprehensive income. Finally it is possible to present a single statement of performance in which net income appears as intermediate income, other comprehensive income then being added to constitute comprehensive income.

IAS 1 revised allows firms to choose between the last two formats and forbid the disclosure of other comprehensive income in the statement of changes in equity. Thus, net income and comprehensive income coexist. In their Discussion Paper, published in October 2008, the IASB and the FASB[17] propose that a single statement of performance should be disclosed, with comprehensive income as a bottom line and net income as a subtotal. It seems that the Boards have accepted a kind of compromise, at least in the short term. They still wish comprehensive income to be the main key performance measure disclosed by companies, but have understood that practitioners are little inclined to abandon net income and ask for evidences of the superiority of comprehensive income.

The research presented in the second part of this paper justifies or refutes, depending on the case, the position of standard-setters on comprehensive income.

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[17] Both Boards published a Discussion Paper, « *Preliminary Views on Financial Statement Presentation* ». The IASB and the FASB Discussion Paper are the same except for differences in style and format.
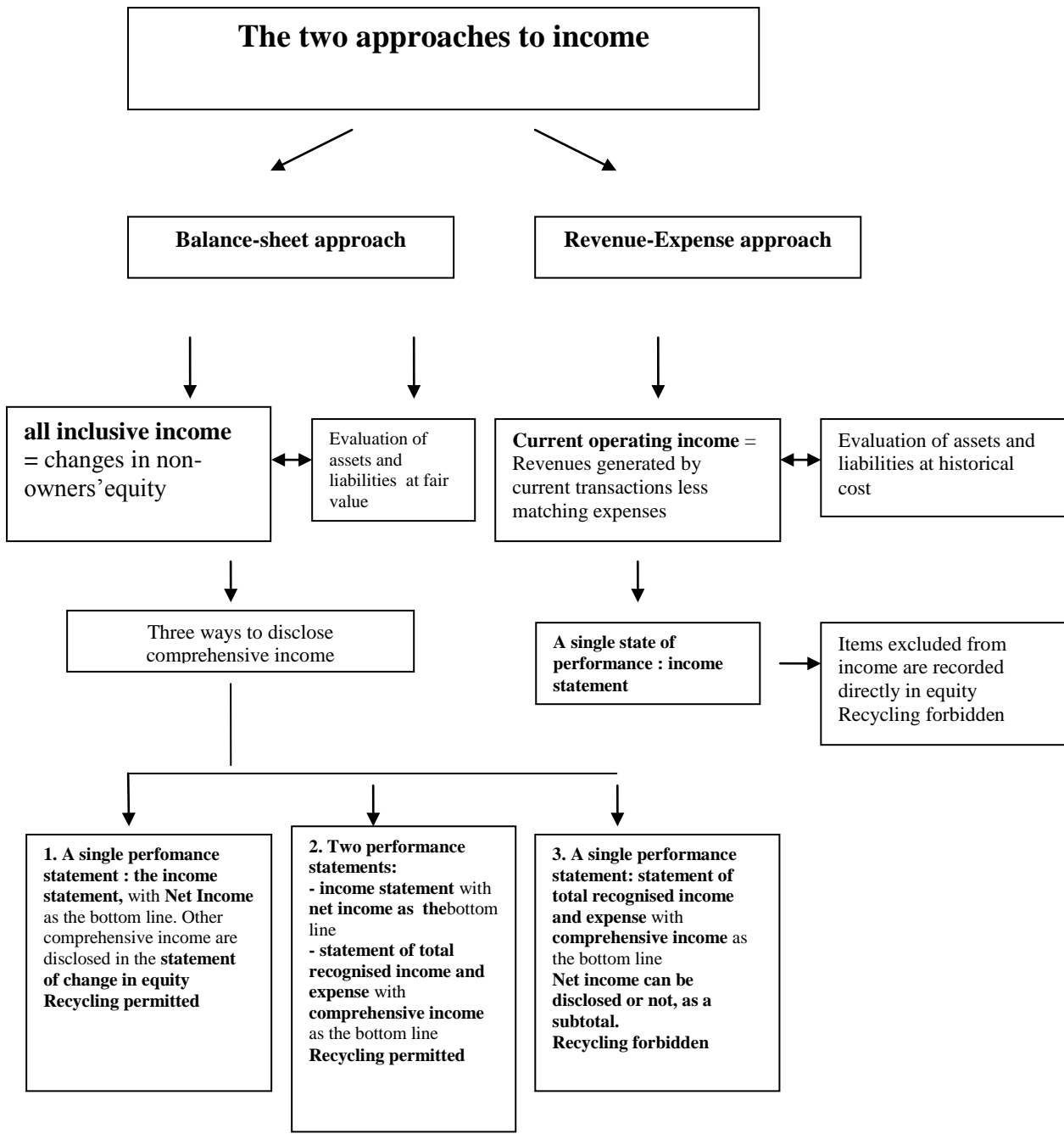
The two approaches to income

Balance-sheet approach

Revenue-Expense approach

all inclusive income = changes in non-owners'equity

Evaluation of assets and liabilities at fair value

Current operating income = Revenues generated by current transactions less matching expenses

Evaluation of assets and liabilities at historical cost

Three ways to disclose comprehensive income

A single state of performance : income statement

Items excluded from income are recorded directly in equity Recycling forbidden

1. A single perfomance statement : the income statement, with **Net Income** as the bottom line. Other comprehensive income are disclosed in the **statement of change in equity Recycling permitted**

2. Two performance statements:
- income statement with **net income as the**bottom line
- statement of total recognised income and expense with **comprehensive income** as the bottom line **Recycling permitted**

3. A single performance statement: statement of total recognised income and expense with **comprehensive income** as the bottom line **Net income can be disclosed or not, as a subtotal. Recycling forbidden**

Figure 1

2. PROPOSITION FOR A TYPOLOGY OF THE LITERATURE

The attempt to define the concept of income raises two essential questions:

1) Is it necessary to retain an all-inclusive conception of income or is it better to hold a current operating income conception ?

2) Is it better to privilege consistency or relevance for the users of the financial information when defining the concept of income?

In general English, consistency is an "agreement or harmony of all parts of a complex thing among themselves, or of the same thing with itself at different times" (The New Webster dictionary of the English language).

Consistency of the definition of income means a logical connection between the concept of income and American or international standards. Relevance for users means that the financial information provided is useful in their decision-making.

It seems to us interesting to read the various normative texts and academic research bearing in mind these two essential questions. We thus propose to structure the literature according to the following matrix:

	All inclusive income	Restrictive income (1)
Consistency	Type A	Type B
Relevance	Type C	Type D

(1) We use "restrictive income" for all income which are not "all inclusive", as for example net income or current operating income.

Research concerning the different formats of presentation of comprehensive income and their impact on users has been voluntarily excluded from our classification. These research works[18] aren't concerned with the question of relevance or consistency of comprehensive income, thus they don't really fit our research field.

2.1 Type A : Consistency / comprehensive income

We suggest classifying in this category academic works and texts, (American most of them) which justify an all-inclusive conception of income by putting forward its

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[18] We refer here, among others, to the following research : Maines and Mac Daniel (2000), Jordan and Clark (2002), Beresford and al (1996), Beale and Davey (2001), Campbell and al (1999), Pandit and al (2006).

consistency with an assets/liabilities approach of financial performance. Certain authors advocate an application of the concept of comprehensive income for the shake of the coherence in US GAAP, whereas others favour a conceptual consistency between the principle of measurement at fair value and the concept of comprehensive income.

2.1.1 Comprehensive income and consistency of GAAP

While the American conceptual framework privileges the concept of comprehensive income out of concern for coherence of financial statements, starting in 1982 the FASB has published several standards which impose certain operations to be recorded directly in equity. Rather quickly researchers blamed the FASB for the lack of coherence of its standards.

Further to the publication of SFAS 52[19], Norton (1982)) shows that this new standard is inconsistent with the definition of comprehensive income included in the conceptual framework. Robinson (1991) calls for the publication of comprehensive income[20] which will lead to a better coherence between the conceptual framework and the recent standards adopted by the FASB.

As the FASB has continue to issue several standards compelling certain transactions to be recorded directly in equity, more and more authors advocate a concept of income that would be consistent with these new standards. Johnson and al (1995), Cope and al (1996) underline the urgent necessity of defining a comprehensive income according to solid bases which would be consistent with GAAP. In a paper written in the name of the American Accounting Association, Linsmeier and al (1997) insist on the coherence between financial statements (balance sheet, income statement and cash flow statement), made possible by comprehensive income (clean surplus accounting).

2.1.1 Comprehensive income and consistency with the evaluation of assets and liabilities

In the 50s, accounting theorists were are in direct opposition essentially on the relevance of an operating/non operating distinction, and on the way of recording gains and losses from previous exercises. The introduction of fair value in US and IFRS GAAP restarted and modified the debate over the concept of income. The casual link between fair value

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[19] According to SFAS 52, translation adjustments bypass net income and are recorded directly in equity.
[20] Robinson reminds us that if the SFAC n°5 gives a definition of comprehensive income, he doesn't impose its disclosure.

and comprehensive income can however be viewed in both ways. Newberry (2003) underlines that if the American conceptual framework recommends with the SFAS n°5 an all-inclusive approach of income in order to measure the value created for the shareholder, it remains unclear which methods of valuation should be used. The coexistence of evaluation at historical cost and at fair value isn't really compatible with an all inclusive income. Thus, the conception of income chosen by the FASB should imply the spread of fair value.

Batsch (2005) envisages an application of fair value to all assets and liabilities for the middle term, as the IASB and the FASB want. In that case, comprehensive income corresponds to the difference between two inventories of equity evaluated at market value and can be compared to the earnings of stocks held by the shareholders. The so-defined income becomes the variation of the market value of the firm. It is then the wide utilisation of fair value which imposes this new definition of income.

Nobody can deny that the greater use of fair value by the FASB and the IASB restarted the old debate over the concept of income and urged standard-setters to impose an all-inclusive income. However, at the moment, financial statements can't give the market value of a firm, if only because the internally generated goodwill cannot be activated.

2.2 Type B: Consistency / restrictive income

In this paragraph, we present texts and academic works advocating a rather restrictive approach of income which would be coherent with the objectives assigned to accounting. In their book, (*An introduction to corporate Accounting Standards*) Paton and Littleton (1940) propose a model of determination of income based on the theory of conventional accounting (Saghroun and Simon, p. 64). The main function of accounting is stewardship, which means that managers are accountable to shareholders and creditors.

 The 1930's depression in the United States indeed highlighted the problem of the responsibility of managers towards the shareholders and the evaluation of their activity became, the following years, one of the main objectives of accounting. Evaluating managers' performance implies that accounting calculates a residue, named income, equal to the difference between the expenses and the generated revenues under managers' control[21]. The income statement shows how managers use the resources which are

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[21] « Accounting exists primarily as a mean of computing a residuum, a balance, the difference between costs (as efforts) and revenues (as accomplishments). The difference reflects managerial effectiveness and is

entrusted to them over a given period. It tells managers' efficiency. The matching principle becomes fundamental as well as the principle historical cost which is the only one compatible with the matching principle according to Paton and Littleton (1940). The historical cost also guarantees that income has been generated by managers and avoids all the problems of the determination of the replacement cost.

The model developed by Patton and Littleton (1940) joins an approach of income by transactions in opposition to an approach based on the preservation of equity (Hendrikson and Van Brenda, p. 312), and is supported by other accounting theorists of such as Ijiri, Mautz et Koh (Belkaoui, 1992, p. 269). According to the transactions approach, «*accounting income is operationally defined as the difference between the realized revenues arising from the transactions of the period and the corresponding historical costs* » (Belkaoui, 1992, p. 268).

Several arguments support the use of the historical cost which is the key element of this conception of income. At first, if it did not satisfy the users of the financial information the historical cost would have been abandoned for a long time. It provides objective information and records only realized incomes. Finally, it makes it possible to evaluate the efficiency of managers (accountability). Ijiri (1975) explains that only the historical cost allows managers to show that they used effectively resources which were entrusted to them by owners[22]. Thus, the historical cost would be coherent with the role of accountability traditionally assigned to accounting by showing an income for which managers are responsible. But, standards-setters consider now that the performance of the company isn't limited to a performance under the control of managers. The SFAC n° 1 (§ 50 - 52) clarifies that the financial information has to enable users to estimate if the managers assumed their responsibilities towards shareholders but adds that it is impossible to make a distinction between the performance of managers and the performance of the firm. The performance of the company can result from events which are not under managers' control and users have to estimate the amount of profit generated by managers. The joint project of the IASB and the FASB on the conceptual framework[23] reaffirms that

a particular significance to those who furnish the capital and take the ultimate the responsibility » Paton et Littleton, p. 16, quoted by Saghroun and Simon (1999).

[22] « Without historical cost data a manager will have a difficult time demonstrating that he has properly utilized the resources entrusted to him by the shareholders » Ijiri, p. 86.

[23] Discussion paper *Preliminary views on an improved conceptual framework for financial reporting,* julyt 2006.

the evaluation of the activity of managers is one of the objectives of financial information but proposes a rather wide definition of the responsibility of managers[24].

The debate over the nature of the performance measured by accounting is far from being closed. However standard-setters seem to be making a firm a commitment towards a measure of the global performance which in the end might not be so far away from the performance of managers as a wide conception of their responsibilities is admitted.

2.3 Type C: Relevance/Comprehensive Income

Investors are explicitly regarded as first users of the financial information by the American and IASB conceptual frameworks. One key objective of financial accounting is therefore to provide information useful in making investment decisions. Each time standard-setters propose new financial information to be disclosed, researchers seek to give it an empirical validation. The approval of SFAS 130 in the United States generated much research   which wanted to test empirically the hypothesis of the relevance of comprehensive income.

In this part, we present the research which demonstrates the utility of comprehensive income for users. Most of this research uses an association methodology from observed or reconstituted data, as there are very few laboratory studies.

2.3.1 Association studies

These works   are based on a methodology used for the first time by Ball and Brown (1968). They try to determine the relevance of the comprehensive income first by measuring the correlation between stock price or stock return and comprehensive income. Then, they compare this correlation with those of other performance indicators, as for example net income, operating income or cash flow[25]. Their objective is to validate empirically the standard-setters'hypothesis according to which comprehensive income constitutes a relevant indicator of performance, even superior to other usual indicators.

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[24] « Management's stewardship responsibilities include protecting the entity's economic resources, to the extent possible, from unfavourable economics effects of factors in the economy such as inflation or deflation and technological and social changes ».

[25] Holthausen and Watts (2001) make a distinction between relative association studies association and incremental association studies. Relative association studies compare the association between stock market values (or changes in values) and alternative bottom line measures. Incremental association studies investigate whether an accounting number is helpful in explaining values or returns given other specified variables. Empirical researches on the relevance of comprehensive income use most often both methodologies identified by Holthausen and Watts

The research led by Chambers and al (2006) does not aim to prove that comprehensive income is more relevant than other indicators , but that it is taken into account by the market, according to Ohlson's model (1999)[26]. Chambers and al conclude that other comprehensive income is taken into account by the financial market as they expected, but only when the data used have been published . Indeed, they show that results are not very decisive when reconstituted other comprehensive income is used which would explain why several researchers concludes that there is a lack of relevance of comprehensive income and its constituents.

Cahan and al (2000), Biddle and Choi (2003) point out that comprehensive income, as it is defined by SFAS 130, is more strongly correlated to stock return than net income. They conclude from this that comprehensive income is more relevant than net income as a performance indicator. Biddle and Choi (2003) show however that net income remains the best explicative variable of executive compensation contracting. This conclusion does not question the relevance of comprehensive income but suggests that several indicators of performance can be used, depending on the needs of users.

The conclusion of Biddle and Choi (2003) on the necessity of having several performance indicators is one of the main issue in the current debate over the measure of the performance between standards-setters and accounting practitioners. In Europe, users and preparers seem to think that the IASB intend to make net income disappear and make comprehensive income the only standardized indicator of performance. To date, nothing allows us to predict a planned extinction of net income[27].

2.3.2 Laboratory studies

The laboratory methodology is rarely used by researchers in accounting. Nevertheless, it is well adapted to test the relevance for users of new standards envisaged by standard-setters (Mc Daniel and Hand,1996).

The only laboratory research demonstrating the relevance of comprehensive income was led by Hirst and Hopkins (1998) with financial analysts divided into 6 subgroups, each having to deal with a different version of financial statements from the same fictitious

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[26] Ohlson makes a distinction between the core income, regarded as recurrent, and the transitory income which can't be predicted and can't be used to estimate forward revenues but is useful to evaluate a firm. Ohlson shows that transitory income is a part of the book value of an entity and as such impact value dollar-for dollar. According to Chambers & al, other comprehensive income is transitory income and is thus correlated to market value.

[27] IAS 1 revised in september 2007 doesn't envisage disappearance of net income.

company. The authors conclude that the detection of earnings management is easier when comprehensive income is disclosed. Comprehensive income seems thus to be used by financial analysts, which means it is a relevant indicator.

2.4. Type D: relevance/restrictive income

In this paragraph, we present research papers which show a lack of relevance of comprehensive income or a superiority of other more restrictive indicators of performance on comprehensive income.
They all use an association methodology, with the exception of a qualitative study carried out by Saghroun (2003).

2.4.1 Association studies

Before the publication of SFAS 130, Cheng and al (1993) estimate how operating income, net income and comprehensive income can explain stock returns. Operating income obtains the highest correlation. They also observe that other comprehensive income items don't have any incremental value as they are not a part of net income whereas the constituents of net income excluded from operating income do have incremental value. The authors think that non operating items are used because they've been part of net income for a long time. Cheng and al suggest that the same behaviour could happen with other comprehensive income if an accurate definition of comprehensive income was adopted.

Dhaliwal and al (1999) are the first ones to compare the correlations between stock returns and net income first and then comprehensive income, defined according to the criteria of SFAS 130. They obtain contradictory results as they note a better correlation for comprehensive income defined under SFAS 130 but a lower one for wider comprehensive income (that is a comprehensive income including more items than those defined by SFAS 130[28]). Moreover, net income is more closely correlated to market value than to future cash flows or future income. According to the authors, these contradictory results don't allow them to conclude that comprehensive income is superior to net

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[28] According to SFAS 130, there are three kinds of other comprehensive income: tranlsation adjustments, pension plans adjustments, surplus of revaluation of financial assets available for sale. Some other items are recorded directly in equity but aren't regarded as other comprehensive income, as for example adjustments from previous periods (SFAS 130 § 106 to 118). Using COMPUSAT and CRSP data from 1994 an 1995, Dalhiwal and al reconstituted SFAS 130 comprehensive income and a "comprehensive income broad "including all non-owner changes in equity.

income, but doesn't mean that disclosure of comprehensive income has to be abandoned. These contradictory results can be explained by the use of reconstituted data instead of published data (Chambers and al, 2006).

More recently, Kanagaretnam and al. (2005) find that each of the components of other comprehensive income defined by SFAS 130 is positively associated with stock return which mean it is relevant [29]. Net income remains however more relevant than comprehensive income to predict net income, comprehensive income and operating profit. According to the authors, the predictive superiority of net income could be explained by the transitory nature of other comprehensive income (Ohlson, on 1999). But if we admit that transitory income has less predictive ability than core earnings, according to the terminology of Ohlson, net income will always be more relevant than comprehensive income for the making of forecasts.

Ramond and al (2007) test the value relevance of comprehensive income and other comprehensive income using a dataset made to of French and UK listed companies over the pre-(1993-2004) and post-(2005) IFRS compliance period. They find that comprehensive income is less relevant that net income in both samples while other comprehensive income is value relevant compared to net income. They conclude however that their results are in opposition with the ideology of the standard-setters who intend to replace net income by comprehensive income.

Association studies presented here conclude that comprehensive income is irrelevant but research we classified in type C draws a different conclusion. Most of the quoted researchers admit however that theirs results do not allow them to draw definitive conclusions.

Cheng and al raises a methodological problem to which the researcher in financial accounting is confronted with: can we really measure the relevance of financial information before it is published or even soon after its publication becomes compulsory?

Indeed, research in psychology maintains that information is used only if it exists and is easily available. It would take thus some time before users integrate new information.

If we accept this hypothesis, it is not surprising that comprehensive income and its components seem little relevant when data previous to SFAS 130, or published shortly

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[29] Kanagartnam & al use a first sample of data from Amercian companies for the period 1994-1997, and then a second sample for the period 1998-2003. They find that associations between components of other comprehensive income and stock returns are higher for the second period.

after later are used. Accepting this hypothesis would however mean denying any relevance in research which seeks to determine if the publication of a new normative text would present an interest for users. Now standard-setters ask for this kind of research as it can be very useful when writing new standards (Mac Daniel & Maines, 1996).

Kanageratnam and al point out two limits in their research and in the association studies generally. Association tests measure at the same moment and without distinction the relevance of accounting information and the reliability perceived by users. Disclosed information could therefore be relevant without being perceived reliable[30] by users who wouldn't take it into account in their investment decision. The association study would then conclude that there is a lack of relevance because of a low correlation. According to Kanageratnam and al, relevance mustn't be achieved at the expense of reliability.

The question of the balance between relevance and reliability of financial information raised here seems to us important [31]. Kanageratnam and al add that an association study does not constitute a really satisfactory methodology to test the relevance of financial information, as a positive association does not necessarily mean that the financial information caused the prices to change. They suggest using the experimental economics methodology for further research.

2.4.2 Qualitative studies

Saghroun (2003) chooses to examine the perception of net income by financial analysts in France. She carries out a qualitative study based on interviews with a limited sample of financial analysts. For most of the interviewed analysts, net income is an indicator of the business performance and isn't an indicator of change in value of a firm. They don't know what comprehensive income is, which leads the author to ask the question of the relevance of comprehensive income for users. At the very least, this study confronts users directly with the concept of comprehensive income but does not enable us to conclude that all-inclusive income is irrelevant for financial analysts. On one hand, the number of analysts interviewed is doubtless too small to give convincing results. On the other hand, interviews were held before the application of IFRS in France. Items

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[30] Kanageratnam and al quote holding gains and losses in fair value of financial instruments as an example of arbitration between reliability and relevance. Some financial instruments have to be evaluated at fair value whereas there's no available market value. In this case, fair value won't be regarded as reliable by users and they won't take it into account in their investment decision.

[31] According to the FASB and the IASB conceptual frameworks, relevance and reliability are both main objectives of financial information.

recorded directly in equity being rare under French GAAP, it is not surprising that French financial analysts are unaware of the concept of comprehensive income.

Empirical research don't manage to prove that one concept of income would always be more relevant than the others, whatever users needs may be.

Recent research concludes more often that comprehensive income is relevant, which may mean that there is a process of appropriation of all new financial information by financial markets. As empirical research is based on questionable hypotheses (implicit most of the time) its conclusions can be discussed and are not really useful for standards setters.

According to Holthausen and Watts (2001), empirical research accepts as an implicit hypothesis that the only objective of financial statements is to provide information which can be directly used to estimate the value of a firm [32]. To reduce the role of financial information in the valuation of the firm is in contradiction with the American conceptual framework as the SFAC n° 1 denies explicitly that the objective of financial statements is to enable users to make a direct valuation of an entity.

The second implicit hypothesis of this research works is that information is relevant when it is used by users, restricted to the investors in most cases. This conception of the relevance is questioned in the joint project on the conceptual framework of the IASB and the FASB[33]. In this paper, relevant information is defined as information "capable of making a difference in a decision". Standard-setters add that it is sometimes difficult, and even impossible, to determine wether information is relevant, either because it does not yet exist, or because information can be relevant for certain decision-making but is not used for diverse reasons. Association studies seem to present limited utility for standard-setters.

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[32] « information (provides by financial reports) may help those who desire to estimate the value of a business enterprise but financial accounting is not designated to measure directly the value of an enterprise » § 41.

[33] p. 65 « Discussion paper: Preliminary Views on an Improved Conceptual Framework for Financial Reporting: The Objective of Financial Reporting and Qualitative Characteristics of Decision-useful Financial Reporting Information », July 2006.

Conclusion

The American and international standard-setters seek to impose comprehensive income as a key performance indicator. At the moment, revised IAS 1 requires the disclosure of comprehensive income as SFAS 130 has done since 1997 in the United States.

Accounting practitioners fear however that the use of the concept of net income will be forbidden in the medium term. The arguments in favour of an all-inclusive conception of income proposed by standard-setters, such as the consistency of GAAP and financial statements and the weaknesses of net income, do not seem to convince users and preparers who ask for real evidence of the superiority of comprehensive income as a performance measure. In its discussion paper (2006), EFRAG underlines that participants in the debate over the concept of income do not have to take into account the coherence in international standards, which will change if necessary, but have to consider relevance and practise of a new concept of income.

There are still few empirical research projects on the subject and they lead to contradictory results which make it difficult to conclude. Most research uses an association methodology based on the correlation between comprehensive income and market value of the firm or stock returns.

Several authors show that this methodology is not very effective in validating the relevance of financial information as yet little known to users. Standard-setters themselves underline the difficulties met when trying to estimate the relevance of a financial information.

If one of the objectives of research in financial accounting is trying to answer the questions of standard-setters and other stakeholders about the concept of income, other research methodologies are to be envisaged. The FASB and the IASB showed their intention to work closer with users to understand better how they use financial information. The use of a laboratory methodology would, therefore, allow the researcher to confront users directly with various concepts of income and to note whether they use comprehensive income in their decision-making.

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