University Of Hertfordshire
De Havilland Business School

Module Title: Financial Reporting and Analysis
Module (course) Code: MBSP 00o5
Module Tutor: Jane Waksman
Academic Year: Semester B-2004

Financial Reporting and Analysis

Title: **The Nature of Income measurements**

Word count: 1,864

By ZhenZheng MAO
03058775

Hand in Date: 30th –Apr-2004

To discuss whether the financial statements are usefulness, the most important criteria are whether they can provide useful information to the users (Scott 2003). Theory and practice of financial reporting are typically centered on the notion of income measurement. However, Beaver and Demski (1979) argued that income measurement exists in a world of complete and perfect markets, but not necessarily otherwise. Thus, the financial statements will be little useful in the real world since they are more centered on the income measurement.

According to the FASB's conceptual framework, the primary purpose of financial statements is to provide information to some defined class of users, and financial statement must communicate useful information to the market, not just to existing investors in the firm. There is another important purpose of financial statements, which is future-oriented, is to provide the inf ormation to help investors estimate future payoffs. That means if the information carried by financial statements can satisfy all such groups' requirements, then they are useful.

In conventional accounting, the measurement of income plays an important ro le in financial reporting, since the objectives of income measurement (Elliott and Elliott 2002; James 2002). First of all, income determines wealth transfers between persons. For example, employee bonuses and dividends are dependent on income. Second, Income usually is used as a means of control. It can measure the efforts and accomplishments of management of a business upon which they are rewarded or otherwise. Third, income is also a guide to investment e.g. earnings per share, based on an income number, is a major indicator on which share value depends on which investors make decisions on whether to buy, sell or hold their investments. In addition, accounting income is also the basis of taxation. The contemporary taxation philosophy uses income measureme nt to measure the taxable capacity of a business entity.

Currently, historical cost accounting is firmly fixed in practice in the worldwide. Under which the income measurement is called as accounting income, which is defined as

the excess of revenue from sales over direct and allocated indirect costs incurred in the achievement of such sales. It is the numerical result of the matching and the surplus resulting from business activity. Accounting income is presented in the form of the conventional income statement, which is being based on actual transactions, and concerned with a past-defined period of time. Thus accounting profit is said to be historic income, it is ex-post because it takes place after the event (Elliott and Elliott 2002).

The matching process causes an aggregation of unallocated costs to be carried forward (in the balance sheet) at the end of the defined accounting period. These unallocated costs (non-monetary assets) together with the monetary resources of the entity after deducting the liabilities gives rise to a residue called accounting capital or residual wealth. Which shows how much the shareholders really owned in the business entity. Accounting income therefore results in a corresponding measure of capital and in fact analyzed as a temporal change in capital. Thus the income statement of a financial period can be seen as a linking statement between that period's opening and closing balance sheet. In other words, income may be linked with opening and closing capital.

As the values of assets still in service at the end of a financial period have been based on the unconsumed costs of such assets, they are the by-products of compiling the income statement under the historical cost accounting. These values have been fixed not by direct measurement, but simply by an assessment of costs consumed in the process of generating period turnover. Thus, the balance sheet figure of net assets is a residual valuation after measuring income. However, this value is not the value of worth or the market value of such assets, it is merely a figure in the accounts, a value of unconsumed costs of assets (Elliott and Elliott 2002).

However, how can historical-cost-based financial statements be useful in predicting future returns? To solve this problem, economists gave a new concept of income,

which believe that income is base on the future cash flow contrast to the accounting income. For example, Hicks (1946) defined income as the maximum value which (a person) can consume during a week and still expect to be as well off at the end of the week as he was in the beginning.

Consider Hicks definition of income, economic income is the result of capital valuation at the beginning and end of the period as the capitalized value of the expected future receipts in contrast to accounting income which results from the matching process resulting in a residual capital. Hence in economics, income is the residue i.e. the economists computes capital to measure income whereas in traditional accounting, capital is the residual figure after income is calculated. Although both accounting and economic income are capital based, there are significant difference in measuring capitals, because economist's version of income measurement is microeconomic orientated in contrast to the accountant's business entity orientation (Elliott & Elliott, 2002).

Contrasts to accounting value of assets, the economists give the assets value a most important role to determine income. They believe the value is determined by the future cash flow of such asset. It means the value measurement is base on future earning power. Hicks (1946) used the discounted cash flow technique in the valuation of capital. He introduces the present value concept, present values replace the balance sheet values of net assets adopted by the accountant. The economic value of the business at each certain point will be based on the discounted cash flow of the future years. It can be seen that the difference between accounting and economic capital is one of measurement. As Boulding (1962) points out; whereas accountants measure capital in terms of actualities as the by-product of the income measurement process, economists measure it in terms of potentialities in order to measure economic income.

However, in the real worlds, the economic income is suitable. Since, in a dynamic

economy, values are changing both because prices and expectations are changing, this income cannot be computed objectively and therefore is impractical for business. Predicting the amount and timing of cash flow s and choice of an appropriate discount rate approximating the entity's opportunity cost presents considerable problems (Alexander (1977).

To explore the nature of income measurement, Beaver and Demski (1979) adopt a fundamental measurement perspective. Fundamental measurement relates the idea that shareholders are unanimity to agree on “more income is better than less”. Where income is measured under economic concept, which can provide useful information for individual shareholders to rank alternative pro duction plans for the various firms in the economy. Moreover, an outcome that results in higher market value and higher net income is preferred. Hence, the income measure easily and unambiguously performs the role of ranking outcomes. However, such measure ment only exists in the world of perfect markets.

Beaver and Demski (1979) argued that in a certain world with perfect and complete markets, where all products are traded in organized markets and in each such market the prices are known by all agents, no transactions costs, all agents behave as strict price takers, the income measure is well -defined, at a fundamental level, that receipts less expenditures. They believe the measure is by no means unique, but it surely exists and is open to straightforward, conventional interpretation. Income is already known or is costlessly constructible by each agent since plans, possibilities, and market prices are all known. Finally, the distinction between ex post and ex ante measurement is unimportant. At each point t ime, the market value of firm’s assets is known since the market is complete and exists.

In the uncertain world with perfect and complete markets, here the precise productive outcome is unknown at the time of production. Beaver and Demski (1979) argued t hat existence of uncertainty in and of itself creates no problems with, or interest in,

income measurement. Since there is a market valuation of each possible production plan, and all the component items are already assumed known. The ex ante and ex post measures are now influenced by the state variable.

Contrast to the perfect market, the unanimity in the rankings of production plans is not necessarily preset in an uncertain world with incomplete markets, since some of firm's inputs and outputs cannot be traded in organized market and there is no marketability of all of the factors and commodities. Beaver and Demski (1979) deeply argued that, in such a case, the firm may simply be unable to make a choice form alternative production plans. Thus, some plans are non-comparable. On the other hand, the income measurement should be the mapping from a set of production plan into the real line, and it must be represented complete and transitive. But in such setting, the traditional income is failed to do so since the incomplete market. Thus, financial reporting cannot be described in terms of income measurement in this setting of incomplete markets. Beaver and Demski (1979) did not mention which concept of income measurement is better. They suggested that one challenge to accounting theorists is to address the primitive question of the propriety of the accrual concept of income.

It is clearly, Beaver and Demski (1979) concluded that financial statement is little general use, since the income measurement cannot provided useful information to the users in the real world with the imperfect market. They believe an informational perspective does describe the accountant's activity. But it raises deep concerns over the role of the income concept. They rejected the measurement perspective, since in their view it carries no meaning. However, Ohlson (1987) argued the rejection of income measurement of financial reporting leaves accounting in a void. Without such objective the central concept of aggregation makes little economic sense. Thus he believes that the income measurement cannot, and should not be abandoned.

The income statement can be served as a guide to investment policy, investors seek

to maximize their return on investment and their search will be guided by the income earned on the existing investment. Income provides the best measure we have of success in the management of business enterprise in a competitive economy. In so far as historical data can help us in the choice of investments, it will be data about th e growth in the present value of existing investments (Solomons, 1961).

Although Beaver and Demski (1979) concluded that income is not well defined when markets are incomplete and at a fundamental level the central feature of financial reporting cannot b e income measurement, the financial statement are still concerned with income measurement. Furthermore, the financial statement is still important in the real worlds. Since major accounting standard setting bodies such as the ASB and FASB have established some linkage between past firm performance and future prospects (Scott 2003) to meet up various requirements of different users. For example, the FASB goes on to consider that the financial statement information is to be useful for investor decision-making. Also the decision usefulness approach has been adopted by such bodies. This is evidenced by their conceptual frameworks, which show a clear recognition of the role of financial reporting in providing relevant and reliable information for investors.

Reference:

Alexander, S.S. "Income Measurement in a Dynamic Economy", (Revised by D. Solomons) in Baxter and Davidson (eds), Studies in Accounting Theory, ICAEW:1977.

Beaver, W. and J. Demski, (1979), "On the nature of Income Measurement," *The Accounting Review,* January, Vol. LIV. No.1, pp.38-46.

Boulding, K. (1962), "Economics and Accounting: the Uncongenial Twins", in Baxter and Davidson (eds), *Studies in Accounting Theory*, Sweet and Maxwell, 1962 pp44-55.

Elliott, B. and J. Elliott, (2002), *Financial Accounting and Reporting.* 6th ed., Prentice Hall. England.

Fisher,I., (1930), *The Theory of Interest* ,Macmillan,New York.

Grinyer, J. R. and I. W. Symon (1980), "Maintenance of Capital Intact: An Unnecessary Abstraction?" *Accounting and Business Research,* AUTUNMN, PP403-413.

Hicks,J.R., (1946),*Value and Capital:An Inquiry into some Fundamental Principles of Economic Theory* ,Clarendon Press,Oxford.

Lee, T.A. (1985), *Income and Value Measurement: Theory and Practice,* Wokingham,England: Van Nostrand Reinhold (UK) Co. Ltd, 3rd Edition, 1985.

James,S., (2002),"The Future International Tax Environment ",in A.Lymer and J. Hasseldine (eds.)*The International Taxation System, Kluwer* Academic Publishers, Boston, pp.105-119.

Ohlson, J. A., (1987), "On the nature of income measurement: The basic results". *Contemporary Accounting Research* (Autumn): 1-15.

Scott, W., (2003), *Financial Accounting Theory.* 3rd ed., Prentice Hall. England.

Solomons, D. (1961) "Economics and Accounting Concept of Income", *The Accounting Review*, Vol 36, July 1961, pp 374-383.