

Current value accounting flashcard



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Current Value Accounting and Its Influences on Accounting Environment Wei Cui Abstract Current Value Accounting is one of the hot spots of accounting researches. Three prevailing current value accounting methods are present value method, current entry price method and current exit price method. All these methods aim at adjusting the book value of assets and liabilities so that the information will not be distorted by the changing prices.

The theoretical roots of these methods are similar and they can be taken as options to deal with the issue of capital maintenance and income recognition under a changing price environment. It is found current value accounting affects accounting environment greatly in aspects of standard setting, financial analysis and academic researches. However, it is not the right time for current value accounting to dominate the accounting practice due to several weaknesses of it. It is recommended to mix present value method, current exit price method and current entry price method together as an organic entity to improve the adoptability of current value accounting. Index Introduction1 1 The Prevailing Current Value Accounting Methods1 1.

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Accounting14 5 Conclusions15 References16 Introduction Just like other
social sciences, consensus can hardly be gotten among accountants. Tracing
back of the accounting history, debates happened times and times and
ended without any general accepted argument. Such a phenomenon was
discussed so far as in1929 by Canning (Cited in Stewart, Claudio & Janek
1995). Current Value Accounting is one of the hot spots of those discussions.
Although historical cost principle has been prevailing from the birth of
accounting, doubts, suspicions and criticisms are endlessly put on it about its
usages for decision making. As a result, researchers developed various ways
to update the historical data together with their own opinions on income
recognition.

This article focuses on the introduction of current value accounting methods.
The first part will introduce the prevailing current value accounting methods
and followed by second part on the theoretical root of current value
accounting. The third part will turn to the perspective of the practicability of
current value accounting and how it is affecting current accounting
environment including standard setting, financial analysis and accounting
researches. Some challenges faced by current value accounting will be given

and ended with recommendations to future research. 1 The Prevailing Current Value Accounting Methods 1.

1 Present Value Method From the perspective of an economist, the monetary amount of an asset can be explained as the present value of the future cash flows to be generated from the use of the asset. In order to get the economic value of an asset, the economist need to measure four variables which are expected net cash flows, appropriate discount rate and a time horizon of the cash flows. The current value of the asset can be calculated as the sum of all future cash flows discount by their corresponding discount factors and the economic income from that asset can be derived from the formula given by Ahmed & Stewart (2002, p. 418).

and Where: the present value at time 0 the present value at time 1 = in come from the asset for the first year expected net cash flow in year j appropriate discount rate estimated life of the asset Although present value method is theoretically correct, due to the high subjectivity of variable estimation, ' the practical importance of that kind of information seemed to have dropped from sight'. (Stewart, Claudio & Janek 1995, p. 83) 1. 2 Current Entry Price Method Current entry price, known as replacement price, can be defined as ' the amount of cash or other consideration that would be required to obtain the same asset or its equivalent' (Ahmed & Stewart 2002, p. 422).

Three issues can be identified from this conception. First, current entry price method complies with the “ going concern” principle. With the consumption of assets, managers need to plan the fund to replace the current assets with

new ones in order to keep the firm ordinarily running. Second, this method focuses on the maintenance of productive capacity of the assets.

Replacement doesn't mean to keep the physical image of an asset unchanged but to make the asset keep on producing a stable cash flow for the firm. At last, the current entry price measurement needs a reliable reference for the evaluation process. That is, there should be an active market for the firm to get the new assets at fair prices. Replacement price was advocated by both scholars and profession organizations from 1950s to 1970s such as, listed by Stewart, Claudio & Janek (1995), Association of Certified and Corporate Accountants (Accounting for Inflation, 1952), Mathews & Grant (Inflation and Corporate Finance, 1958), Sprouse & Moonitz (1962), Edwards & Bell (1961) and the Committee of Inquiry into Inflation and Taxation (the Mathews committee, 1975). 1. 3 Current Exit Price Method Chambers is well known about his contributions to current exit price accounting with his continuous contemporary accounting or CoCoA (Riahi-Belkaoui & Jones, 2000).

An exit price can be simply defined as the realizable selling price of an asset or the refinanced monetary amount of a liability. Compared with current entry price method, CoCoA emphasises more on presenting realizable financial value of the assets. As a result, a financial report under CoCoA will report a gain without any transaction happened, which means CoCoA method thoroughly abandons the releasable principle of revenue recognition.

The Theoretical Roots of Current Value Accounting 2. 1 Changing Price

Environment The changing price can be taken as the fundamental cause for

the emergence of current value accounting and most of time, changing price is represented by inflation.

Inflation can be simply defined as a certain period of rising prices. According to macro-economics, inflation can be caused by aggregate demand increases, by aggregate supply promotions and most of time, by the monetary policy adopted by the government. As inflation dominates the current economy, the purchasing power of each unit of currency will decrease. Thus, inflation advances a great challenge to accounting because traditional bookkeeping adopts the historical cost principle which will distort the true value of assets and liabilities with the passage of time. In an inflation environment, book value of assets are usually understated so that the financial reports can not give a reliable financial picture of the firm and will eventually lead to wrong managing and investing decisions.

Scholars realized the impact of inflation on accounting long time ago, whereas no consensus can be gotten on how to measure this impact and all the arguments finally contributed to diversified current accounting methods. Capitalised-value method uses a most theoretically approach to adjust the influence of inflation. When evaluating the current value of assets, the accountant should choose an appropriate discount rate such as weighted-average cost of capital and incremental borrowing rate. As the measurement of an investor's expected rate of return, interest rates can be derived by adding different risk premiums to the nominal risk free interest rate which is given by the following formula. represents the inflation rate which is the rate of change in a given price index over a specified period of time. By

integrating the inflation factor into the discount rate, the net present value will reflect the price change at a certain level.

Similar to the capitalized-value method, General price-level accounting usually restates ' the historical-cost financial statements in a way that reflects changes in the purchasing power of the dollar' (Ahmed & Stewart 2000, p. 449). However, these methods neglected a fact that inflation usually happens in specific economy sections instead of the whole economy, which means, by using general discount rate or purchasing power adjustments, current value accounting will distort the book value also. Compared with capitalized-value method, current entry price and exit price method are more straightforward and give more practical convenience because they can serve as the proxy to reflect the price changes and moreover, the relevant information can be obtained easily. In an inflation environment, investors will be keen on the true value of their capital and need an appropriate measurement of the income.

Thus, all the current value accounting theories have to answer these two questions: What does capital maintenance mean and how can the income be correctly measured? . 2 Capital Maintenance 2. 2. 1 Concepts of Capital Maintenance Economists defined income as the psychic satisfactions in nature and capital increments in the physical form.

Any recognition of income should under the premise that the capital have been maintained for future productive activities. Accordingly in practice, accounting should follow this principle to first deduct sufficient amount of revenue or gains to supplement the capital expenditures and then distribute

the residuals to capital owners as the income. The question rises when inflation biases the currency purchasing power and distorts the book value carried from previous period. During the development of accounting, four capital maintenance concepts were adopted and they can be grouped in two categories. The first category is financial maintenance, which requires the book value of capital can not be impaired and keep the pace with currency purchasing powers changes.

Traditional historical accounting complies with this definition and matches revenue with appropriate expenses so that the book value of capital will keep stable. Obviously, financial maintenance definitions focus more on the past performance and the monetary measurements. If a firm used certain amount of assets to forward transactions or deliver services, corresponding compensations should be matched with this consumption to keep the capital at its previous level. Another category is productive capacity maintenance.

Definitions under this group encourage managers make assumption about the future productive demand. Due to the competing environment, it seems a firm may hardly keep its position in industry without planning future. In order to succeed in the competition, a firm need not only keep current productive ability but also adopt new coming technologies and substitute current assets with more productive and efficient ones. Under this condition, a stable book value is meaningless for the capital owners because they may concern more on future income, the realisable cash flow, or productive capacity of capital.

Methods under this category have to capture the changes in industry and make necessary allowance for future needs. 2. 2. 2 A Capital Maintenance Model The analysis will be on the basis of a line of money time value showing above. Suppose the initial investment is CF_0 , this investment will give out cash flows for three years and leave a residual value at the end of year 3.

In order to replace this productive capacity which will enable the reproduce of cash flow 1 to 3, the firm has to keep a provision which is made up of three deductions , and . At the end of year 3, the firm need to invest the provisions and the residual value to retire the asset. This process might be the principle underlying the capital maintenance. Different definitions of capital maintenance can be derived by adding different assumptions to this process. If there is no change in the currency purchasing power, the replacement payment at the end of year 3 will be the same with initial investment CF_0 .

Thus, the provision R can be taken as the straight line depreciation and this method is under the direction of financial capital maintenance. When taking inflation into consideration, the replacement cost at year 3 will be , the future value of , where represents a constant inflation rate. should be recognized at the end of each year with adjustment for inflation. Thus, , (the second part of is the increment of in year 2), because has already been adjusted to in year 2, in year 3 adjustments will be all applied to). Assume the residual value of the asset is 0, the sum of the three provisions will be , which is right the amount of replacement cost. The carrying amount of the asset at the end of year 1 will be .

Obviously, this process keeps the monetary capital value unchanged in an inflation environment and can be taken as the principle underlying the general purchasing power method. Current value accounting methods depart from another perspective. The value of an asset can be regarded as the present value of future cash flows generated from it. Under the non-inflation environment, the provisions for capital maintenance should be the same with depreciation expenses under historical cost accounting. However, inflation will affect the cash flow generated every year, so accountants should revalue the asset so that the income distribution won't erode the capital. Now, suppose the inflation rate is and will keep constant, the cash flow in each year will be , and .

As a result, the current value of the asset at the end of year 1 is and will be the income or the increment on the capital during year 1. As discussed before, a right discount rate and exact cash flow estimation can be hardly obtained, so accountants have to introduce other values, such as replacement price and exit price to serve as the proxy of present value. Replacement prices, also known as entry prices, represent the expectation of future productive demand. The considerations underlying entry price is current holding assets will be no more useful in future and replaced by other assets due to business expansion or technology development.

Theoretically, replacement price can be taken as the present value of seller's expecting cash flow. However, on the perspective of the buyer, this price should be lower than the present value of future cash flow generated by using the asset so that the net present value will be positive. This may be an intrinsic confliction of using current entry price that the price itself doesn't

represent the future productive capacity but only the seller's expectation. Current selling price may be more appropriate because the firm as the seller will not accept a price lower than the present value of future cash flows generated from keeping on using the asset. Thus, using current exit price may provide a consistent view of current value and future productive capacity even though it seems not like that from the surface. 2.

3 Motivation of Income Measurement From the perspective of capital owners, it is necessary to own the information about all the gains or losses generated during the past period on which reasonable management and investment decisions can be made. To fairly report the income, accountants should have a clear knowledge on what is income and how to recognize the income, especially in the price changing environment. Income is defined in economics as the benefits or, satisfaction gotten by a person during consumption. Economists use opportunity costs to measure the resources given up in order to get the income. The difference between income and total opportunity costs are earnings or profits.

The main difference between economics costs and accounting costs are those opportunity costs were not recognized in accounting. Taking cash as example, when a firm holds cash in hand, it will lose the chance to invest the cash into any opportunities which will bring expectable benefits to the firm. Due to time value of money, though the book value of cash keeps unchanged, its economic value has already depreciated. Inflation works in the same way because it will bias the value of cash on hand after a certain term and consequently, the lower purchasing power of cash means a loss suffered by the firm owners which should be reflected in the income

statement. However, historical accounting fails to do that because of the static perspective it is standing at as well as the matching principle it insists on recognizing income.

However, current value accounting methods do give recognition to such gains and losses. All the differences between book value and the corresponding market value can be categorised as realised or unrealised gain and loss and they should be reported separately in income statement under the income from operating transactions. Although different methods suggest different treatment of such gains and losses, they follow the same underlying principle that is capital maintenance. In order to correctly record such changes in assets and liabilities value, accountants should begin from the capital-maintenance view point and take all the change in assets and liabilities value as the factors affecting income.

3 The Influences of Current Value Accounting on Current Accounting Environment

Current value accounting aims at solving the problems brought by inflation so that the financial reports will reflect the true financial position and financial performance of an entity. From 1950s to 1980s, scholars developed various propositions based on current value point of view and some of them have been adopted by both practical users and standards setters.

The main influence of current value accounting is reflected in three aspects.

3. The Effects on Australia Accounting Standards

Even though current value accounting methods are still not primarily adopted in standard setting process, the current accounting standards are not based on pure historical cost assumption any more. In conceptual framework 76 and 80, Australia Accounting Standard Board (AASB) asserts clearly that any unrealised gains

or losses are not different in nature from revenue and expense so they should be parts of components of income and expenses, however, these effects should be disclosed in income statement separately from the performance of ordinary activities. Framework 81 defines any revaluation and restatement of assets and liabilities should be reflected in equity section as capital maintenance adjustments.

These assertions imply the income recognition method under current value accounting basis will be allowed under current regulation system.

Additionally, AASB conceptual framework 110 figures out replacement cost, realisable value and present value can be employed as measurement bases of financial statements. Capital maintenance is also discuss in detailed in Framework 102 to 110 in which two groups of capital maintenance concepts are permitted according to the needs of financial reports users. It should be noticed in these sections, the framework prohibits recognizing the holding gains under physical capital maintenance as profits. 3. 1.

1 Non-Financial Assets Valuation Conventionally, assets should be carried at the lower of cost or net realisable value, which is reflected in AASB102 Para. 10, cost of inventories. AASB102 Para. 28 to Para. 3 lists the options of realisable value estimation in which replacement cost and selling price are all recommended. This method complies with the conservatism principle which was prevailing for a quite long time.

However, AASB replaced conservatism with prudence principle which requires the entity to act with “ a degree of caution” (AASB Framework, 2004 p. 19). Prudence principle no more prohibits the entity from reporting a

higher assets value when evaluating as the conservatism principle did before and should be taken as a support of current value accounting. This principle is reflected in revaluation of property, plant and equipment (PPE).

Entities are allowed by AASB116 Para. 31 to adopt revaluation model to decide the carrying amount of PPE. Entities use revaluation method need to adjust the carrying amount of PPE to its fair value which may be an appraisal evidenced market value or a depreciated replacement cost. However, the appreciation or depreciation of PPE can not be directly recognized as profits or losses, instead they are attributed to equity section as the revaluation reserves in most of circumstances. Current value accounting also can be applied on intangible assets by using revaluation method to decide the appropriate carrying amount and the standards for intangible assets revaluation are similar to those of PPE. For assets under financial lease contract, AASB117 requires the lessee should record the value of leased asset at the lower of its fair value or present value of the minimum lease payments.

Moreover, the lessee is also required to disclose periodically about the total of future minimum lease payments and their present value. AASB117 requires the lessee should record the value of leased asset at the lower of its fair value or present value of the minimum lease payments. Moreover, the lessee is also required to disclose periodically about the total of future minimum lease payments and their present value. 3.

1. 2 Financial Accounts Evaluation Current value accounting is more widely adopted in evaluation of financial instruments. One feature of financial

instruments is the current value can be easily measured by discounting future cash flows. AASB139 Para. 46 requires most of the financial assets and liabilities should be carried at their fair values. AASB139 also recommends effective interest method to recognize certain kinds of financial instruments.

The effective interest is “ the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument” (AASB 2007, p. 20). As discussed before, this discount rate comprises of inflation factor and other risk premiums the investors assume proper to charge so based on effective interest, accountants may measure the amortized cost of a financial asset or liability and reflect them at the current value on the financial reports. AASB139 also identified four categories of financial instruments which are held for trading, held to maturity, loans and receivables and available for sale assets.

It figures out that any gain or loss arises from held for trading assets should be recognized in profit or loss which is a totally compliance to current value accounting. AASB139 also allows the entity to use financial pricing models to price the financial assets and liabilities at their current market values.

Current value accounting is also dominating the pension fund accounts. It is emphasised clearly in Australia Accounting Standard (AAS) 25 Para.

37 that assets of defined contribution plan and a defined benefit plan should be carried at net market values. AAS 25 also argues the situation where no market exists, it recommends the entities to use a current, market determined and risk-adjusted discount rate to get the net present value of

those assets. Moreover, AAS25 Para. 44 figures out any changes in net market value of pension fund should be included in the current year's revenue which reflects the current value accounting income recognition. Liabilities under the pension plan should be also evaluated using current value accounting by discounting future payments to a present value. Obviously, current value accounting has been adopted by standard setting organisations as the underlying theory basis and widely used in many aspects of accounting.

It has affected the conceptual framework, its opinions on capital maintenance has been supported by AASB, its methods on assets and liabilities evaluation has been used in several accounts and its arguments on tangible assets carrying amount has been partially supported by standards. Even though still many accounts are required to be recorded at historical price, for the convenient of financial analysis, AASB requires a disclosure on information regarding current values. For all the facts above, people can put a positive expectation on current value accounting. 3.

2 The Uses of Current Value Accounting Information in Financial Analysis 3.

2. 1 Improving the Effectiveness of Decision Making In an inflation environment, historical cost accounting will distort true value of assets and liabilities which will eventually mislead the decision making. Managers and analysts have realised this situation and current value accounting methods have been more and more adopted in practice.

An empirical research advanced by Norby (1981) found inflation accounting can provide better measurement to financial reports users. This research

also indicated companies improved their financial performance after adopting inflation adjustments to their internal accounting. A good example is the measurement of inventory value. Although first in first out (FIFO) method can provide the best balance sheet information, it will understate the cost of goods sold (COGS) in a rising price situation.

U. S. general accepted accounting practice requires all companies using last in last out (LIFO) method to report a LIFO reserve with which analysts can convert the FIFO COGS into a LIFO one so that they can have a more appropriate measurement of the income. More uses of current value accounting can be found in ratio analysis. For example, “ the appropriate measure of the rate of return for assessing economic performance is one derived from current cost accounts” (Whittington 1988, p.

261). With the attributions of current value accounting, managers, investors can forward more valuable choices based on the effective decision making processes. . 2.

2 Supporting Information Users in Financial Industries Financial industries such as banking, insuring, funding etc. are highly financial risk-related. Management of these firms need more reliable accounting information on current financial position. The assets and liabilities of these firms are mainly financial instruments which are suitable to apply current value accounting on. On the other hand, financial firms have the motivation to measure any potential gains and losses rising changing market values. Banks have a special financial structure and the management of banks more focus on liquidity and insolvency.

Under this situation, current value accounting may contribute a lot to risk management of banks. Investors can also be helped by the information based on current value accounting. According to the research of Barth (1994), a bank's market value will be more affected by disclosures of the fair value of investment securities than by just disclosing the historical costs of them.

3.3 Influences on Accounting Research

Current value accounting focuses mainly on how to reflect the financial position properly.

However, during the development of current value accounting, more topics were discussed such as the concepts of real income, definitions of capital maintenance and evaluation models and their applicability are forwarded. Accounting is promoted greatly by current value accounting research. Currently, a lot of researches are conducted on how to apply current value accounting on specific accounts. Pappu, Quester and Cooksey (2005) tried to evaluate the consumer-based brand equity using current value accounting method. Herath and Bremser (2005) resolved the evaluation of research and development by using real-option valuation model. Kawaller (2007) conducted his research on how to account for interest rate swaps and concluded three alternatives based on fair value accounting are all suitable to reflect the true value of a swap.

Intellectual capital accounting was discussed by Roslender (2004) and it was recommended alternative theoretical precepts should be forward in order to solve this problem. With all these efforts, current value accounting will contribute more to accounting and economy development in future.

Challenges Faced by Current Value Accounting

Although current value accounting is theoretically reasonable than historical cost accounting, it is

hard to be applied in practice systematically. Situations vary from firms to firms and “ no consensus exists regarding the appropriate approach for dealing with the accounting for changing prices problem since so many fundamental and methodological issues remain unresolved” (Shalchi & Smith 1985, p. 5). Current value accounting tried to capture the price changes in market and reflect these changes in financial reports.

This process is really time and cost consuming because accountants need to revalue assets and liabilities periodically to decide their fair value and some methods need high professional skills or technology to support. If current value accounting replaces historical cost accounting, those small and media size companies will doubtlessly be in trouble. Moreover, current value accounting allows too much subjectivity when accountants perform their personal judgement to choose the appropriate method for evaluation or the proper price as the proxy of fair value. This circumstance will finally result in severe income manipulation and fraudulent reporting which make society put more resources on auditing and regulations setting. On another hand, management may refuse to adopt current value accounting in public financial reporting.

It has been found “ asset revaluation practices reduce reported profits, rates of return on assets, and rates of return on equity” (Henderson & Jenney 1992, p. 75). If the remuneration and management payments are strongly based on income statement performance, it will create the motivation to protect their self-interests. Conclusions Current value accounting affects accounting environment greatly. It has been partially adopted in accounting standards, its opinion on capital maintenance and income recognition has

influenced the conceptual framework, it is used in financial analysis and especially the analysis of financial industries and current researches may advance current value accounting to be adopted in more aspects in future. Due to the unsolved problems faced by current value accounting, it can not be generally used as a system for public accounting.

It is more suitable to keep current value accounting methods as the supplementary components for historical cost accounting. To put current value accounting in general use is a comprehensive accounting revolution, it need progresses in all aspects such as theoretical foundation, methodology, information technology and so on. It is recommended to mix present value method, current exit price method and current entry price method together as an organic entity to improve the adoptability of current value accounting. Researches on specific accounts measurement should be forwarded to provide more economic assessment methods as well. References Australian Accounting Standard (AAS) 2006, 25 Financial reporting by superannuation plans, viewed 18 April 2007, <http://www.aasb.com.au>

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