CURRENT VALUE ACCOUNTING: A STUDY OF DEVELOPMENT OF THOUGHT IN CURRENT ENTRY AND EXIT PRICES

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ABSTRAK


Key words: current value accounting, current entry price, current exit price

The Concept of historical cost in accounting has been challenged for decades. Many accounting theorists have offered some alternative of historical accounting. Current value accounting is one of the proposals that became a major debate for a long time. Although the current value accounting is an old issue, the discussion has been sparked after the works of Edward and Bell (1961) and Chambers (1966) were published.

The purpose of this paper is to study the development of thought in current value accounting. The emphasis is in evaluating the ideas of Edward and Bell (1961) and Chambers (1966). Edward and Bell basically propose current entry values as the primary valuation in accounting. On the other hand, Chambers is a proponent of current exit values. Ideas of both authors will be evaluated along with their pros and cons.

Many accounting theorists offer concept of values, which will be briefly examined in this paper. Sterling (1982) lists six possible values that may be used in accounting as summarized in the following table:
Another writer, Edward and Bell (1961, p. 77) list eighteen possible value concepts that can be shown in the following table:

<table>
<thead>
<tr>
<th>Value date, market</th>
<th>Form and place of asset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial Inputs</td>
</tr>
<tr>
<td>Past, entry</td>
<td>Historical costs</td>
</tr>
<tr>
<td>Past, exit</td>
<td>Discarded alternative</td>
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<tr>
<td>Current, entry</td>
<td>Current costs</td>
</tr>
<tr>
<td>Current, exit</td>
<td>Irrelevant</td>
</tr>
<tr>
<td>Future, entry</td>
<td>Possible replacement costs</td>
</tr>
<tr>
<td>Future, exit</td>
<td>Irrelevant</td>
</tr>
</tbody>
</table>

Source: Edward and Bell (1961, p. 77)

From these eighteen possible values concepts, only six that Edward and Bell consider important for discussion. The six concepts are summarized as follows:

Exit Values:
1. Expected values—values expected to be receive in the future for output sold according to the firm's planned course of action,
2. Current values—values actually realized during the current period for goods or services sold.
3. Opportunity costs—values that could currently be realized if assets (whether finished goods, semi finished goods, or raw materials) were sold (without further processing) outside the firm at the best prices immediately obtainable.

Entry values:
1. Present cost—the cost currently of acquiring the asset being valued.
2. Current cost—the cost currently of acquiring the inputs, which the firm used to produce the asset being valued.

3. Historical cost—the cost at time of acquisition of the inputs which the firm in fact used to produce the asset being valued (Edward and Bell, 1961, p. 79).

**CURRENT ENTRY PRICE**

An asset can be obtained from many different markets. The entry prices are the prices obtained in the markets in which the firm could buy the asset in its specified form and at specified time.

Edward and Bell (1961, p. 88) advocate the use of entry values in the long run for accounting records. They choose entry values after judging all possibilities of value concept against the following criteria:

1. The events recorded in the accounts must be objective events of the current period alone.
2. Operating profit must be carefully separated from capital gains.
3. The events recorded must relate to the actual activities of the firm (Edward and Bell, 1961, p. 90)

The choice of entry price is a result of extension of the theory developed in chapter two of their book. Chapter two of that book deals primarily with the short-run analysis. Market values, whether entry or exit prices, are objective in the short run (Edward and Bell, 1961, p. 47).

The development of core theory in the short-run and extended theory in the long run has sparked criticism from Chambers (1962, 1982). Chambers' criticism in this regard based on the argument that short run and the long run are part of the same run:

...this include all interval from the time of choice to the effective horizon of expectations. Every such interval in the course of time becomes a short-run interval on the expiry of its antecedent interval. Unless the long run expectations is equal to the sum of all short-run expectations there would be a difference in expectations. No such difference is described, nor is they're any discussion about the possibility of there being a difference.... Every short-run expectation is thus part of a long run expectation; the two are not different...
things, ... If we do not get through the short run, there will be no long run (Chamber, 1965).

In relation with the choice of entry values, Edward and Bell offer a realization and realizable criteria for judging the possible profit concepts, and therefore values concepts as follows:

<table>
<thead>
<tr>
<th></th>
<th>Entry value (realization principle: production basis)</th>
<th>Exit values (realizable principle: production basis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic values</td>
<td>Accounting profit</td>
<td>Historic values</td>
</tr>
<tr>
<td>(realization principle: time basis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current values</td>
<td>Business profit</td>
<td>Realizable values</td>
</tr>
<tr>
<td>(realizable principle: time basis)</td>
<td></td>
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</tbody>
</table>

Source: Edward and Bell (1961, p. 89)

Edward and Bell (1961, p. 92) argue that values based on current cost would appear to be the best measure of the production resources being used by the firm in its existing process of production. Hence "current operating profit, the gain related to production and sale of output, results from the matching of current costs with current values" (Edward and Bell, 1961, p. 93).

To determine current operating profit through business profit concept is explained as follows: Business profit concept, on the other hand, retains the production dimension of the realization concept are current in nature, but those current values selected are entry values not exit values. These entry values are accumulated in the accounts, although they are kept current as time passes, until actual sale takes place. At that time the accumulated entry values are subtracted from the exit value related to the actual sale in order to determine current operating profit (Edward and Bell, 1961, p. 275).

For internal uses of current operating profit, Edward and Bell assert, "current operating profit indicates whether or not the current proceeds from the sale of product are sufficient to cover the current cost of the factor of production used in producing that products" (1961, p. 93). Further, they stated that "current operating profit is a measure of the amount of current output, in the sense of value added, which
is profit" (p.99). Also "current operating profit can be used for predictive purposes in the existing production process and the existing conditions under which that process is carried out are expected to continue into the future" (p. 99).

As for external use, current profit is said would be a much more useful figure for potential entrepreneurs in assessing the relative profit abilities of different lines of business (Edward and Bell, 1961, p. 104). Current operating profit is also useful in the measurement of national income and output. "Current operating profit by itself is the ideal measure of value added by the business sector in the formulation of national income accounts" (p. 105). Edward and Bell in short conclude that:

It seems fairly clear that the external users of accounting data should prefer current operating profit figure. The point of view of external users of accounting data is not likely to be a dominant influence in the decisions of business firms as to which accounting techniques to prefer. The final decisions will likely rest on the uses which business firms feel will be serve by the different profit concepts. For this purpose, too, we have seen that current operating profit has much to recommend it although realizable operating profit has certain advantages also (Edward and Bell, 1961, p. 105).

Another proponent of current entry price contends that replacement cost income is surrogate for economic income (Revsine, 1970). He asserts that economic income measurement embodies changes in the service potential of assets. Since the change in the service potential of assets is often regarded as an ideal income measure for investors, the indirect approximation of this ideal by replacement cost income would explain its relevance to investors (Revsine, 1970).

In his model, Revsine demonstrate that operating segment of replacement cost income is virtually identical to expected income of economic income. "In similar fashion the second component of replacement cost income— realizable cost saving— is direct counterpart to the second component of economic income— unexpected income." Therefore, in this assumed perfectly competitive economies, total replacement cost income must also equal total economic income.

In imperfectly competitive economies, different hypothesis should emerge.
The basis for the indirect measurement hypothesis in "realistic economies should now be evident. There are two distinct correspondence underlying this supposed relationship between total replacement cost income and total economic income: (1) that the current operating profit component of replacement cost income is an indirect measure of the expected income component of economic income, and (2) that the realizable cost savings component of replacement cost income is an indirect measure of the unexpected income component of economic income.

However, there are a priori grounds for questioning the validity of the posited relationship between changes in asset prices and changes in service potential in realistic economies.... (Revsine, 1970).

In a replacement-cost accounting model, changes in the replacement cost of assets held during a period are viewed by some as holding gains and losses which are includable in income. Two alternative arguments in support of the holding gains treatment are that replacement cost-changes represent cost saving and that replacement-cost changes may be used as surrogates for changes in net realizable value or discounted present value. Samuelson (1960) examines the two arguments and concludes that neither is acceptable. He recommends that, if a replacement-cost model is used as a basis for financial reporting, replacement-cost changes be treated as direct adjustments to capital.

**CURRENT EXIT PRICE**

The work of Chambers (1966) seems to be the major proposal of using current exit price in accounting. Chambers called this system continuously contemporary accounting (CCA) (1966, 1970a). The reason for this name of the system is to bring the accounting matching the observable behavior of the business community, as in stated in his assertion:

Changes in the environment and in the expectation of businessman constantly obliged business firms to respond, sometimes aggressively, sometimes defensively. According to my undergraduate economics, all this was 'old hat'. But in learning it anew, by observation, it became clear that the form which adaptation took depended in part, often a crucial part, on the means at the
disposal of a firm. Knowledge of the present facts, in particular the present financial facts, of a business was a necessary condition of informed adaptation. And as adaptation is continuous, knowledge of the financial facts must be continuously brought up to date.

Accounting as it was then expounded and practiced did not provide this information. Perhaps it could....

For some years I had no clear idea of what should be regarded as contemporary information. That it should be contemporary was the main thing. I wrote of replacement prices sometimes, of price-level adjustment at other times and the present value of expected proceeds at other times. It was not until I began (in 1963) to put the product of my past thinking into comprehensive and systematic form that the solution of the problem occurred to me. Neither replacement prices nor price-level adjusted costs nor present values provided the generally usable premises of financial calculations. The argument I developed in Accounting, Evaluation, and Economic Behavior led to the conclusion that resale prices were the kind of contemporary information which was useful in making all judgment about the past and all plans for the future of business firms (Chambers, 1970b).

In Chamber's system treatment for monetary accounts is no different from conventional accounting. All transactions related to cash, amounts payable or amounts receivable will be recorded initially in the same way.

Inventory transaction is explained in his brief version of his major work:

For inventory or goods accounts the initial entries will be the prices paid. ...the recorded unit price of any goods on hand will be changed whenever a change occurs in the purchase. The value of the balance of the goods account will be increased if the unit price has risen; there will be a corresponding credit to a price variation account. Downward movement in prices will give rise to similar but opposite kinds of Entries (Chambers, 1970a).

As for profit and loss account, Chambers notes that during the year the goods account will have been credited with the current recorded cost of goods sold. The profit and loss account will have been credited the amounts charged to customer or the cash received from sales. The balances of the price variation account or accounts
will also be brought into the profit and loss account. At the end of the year changes in purchasing power are taken into account. "The critical differences between this systems and traditional accounting are the unit selling prices used at balance dates and the simple calculation of the capital maintenance adjustment." (Chambers, 1970a).

To account for depreciation Chambers explains:

In essence, depreciation is just another kind of price variation. If resale price of a machine falls in a period through its use and obsolescence, the amount of the fall is the depreciation. ...And if a good is not saleable, it has no present financial characteristic, even though it is expected to assist in the earning of future income (Chambers, 1970a).

In his proposal Chamber (1970b) rejects present values and replacement prices as bases for the preparation of factual financial statements, on the grounds (a) that they are both transient or ephemeral in character and are ascertainable directly at any time, and (b) that they do not in any case yield an indication of the present state of the financial affairs of a firm at any time—information which is necessary to every retrospective and prospective judgment.

Comparing with historical cost accounting, general price-level adjusted accounting, replacement price accounting, and present (discounted) value accounting Chambers' proposal offers superior benefits:

First, the accounts contain the original entries of transactions exactly as they occurred. The financial summaries do not contain the unmodified results of manipulating those entries; for the events of the year will have necessitated modification of many of the firm's funds has occurred, to give a warrant of good stewardship in that sense....

Second, ...In the course of deriving the final figures there are additions and subtractions of different pounds. But the overall corrections, the current prices at the close of the year, have the effect of making the final statements into statements in homogeneous pounds.

Third, ... The system proposed also uses current price—in making the price variation adjustments and in deriving the financial position at the year's end bye reference to current prices...
Fourth, ...The system goes as far as it is possible to go, by seeking to give the best indication that can be given of the actual state of a firm as it faces the future at each reporting date. It therefore meets the principle that the information be useful for forward-looking estimation, without committing readers of financial statements to the optimistic or pessimistic outlook, as the case may be, of managers or accountants of firms (Chambers, 1970,a).

Unlike the current entry prices, Chambers' proposal raises more criticism. Solomon (1966) criticize that Chambers' proposal for handling 'nonvendible durables.' Since these assts have no alternative use outside the business, holding them involves no opportunity cost. In Chamber's view, recognition of their zero resale value must force the business to recognize a loss of residual equity as soon as such an assets has been bought. Solomons contends that clearly the asset would not have been bought if the business had thought of the purchase as involving loss. In Solomon's view "the use of resale prices in this situation leads to what I can only regard as an absurdity and a flagrant failure to measure up to the criterion of correspondence with the economic events which are being recorded."

Solomons further offers his opinion regarding relevance of 'value to the owner': The right conclusion, in my view, is that it is 'value to the owner' that is relevant. If this falls below resale price, a rational owner will sell. An asset which is not held for sale must, therefore, be worth more to its owner than its resale price. The failure to recognize that the owner of an asst which is not for sale does not directly suffer if the resale price drops, unless this price change is associated with some change in his expectations (as indeed it may be, indirectly, or in the long run) must be regarded as a serious flaw in Chambers' theory (Solomon, 1966).

Chambers reply on this issue was that he was not sure what the phrase 'value to the owner exactly. Wright (1971) also address the issue of vale to the owner. In his paper Wright make clarification of the concept 'value to the owner' which in his view has been misunderstood by Chambers'. However, Ma (1976) study demonstrates that the concept 'value to the owner' which is subscribed by the Sandi-lands Report and the Australian Preliminary Exposure Draft has not been unambiguously defined, an its implementation in accounting measurement and reporting is not operationally
viable in any of the proposed accounting systems which rely on the concepts for its valuation base.

Larson and Schattke (1966) questioned the additivity of "current cash equivalent" which, in general, Chambers recommends for the measurement of assets and liabilities. They shown that the addition of the current cash equivalents of the individual assets (the sums obtainable from the sale of the assets individually) may not equal the current cash equivalent of the group of assets as a whole (the sum obtainable forma the sale of the assets as a group. Chambers (1967, 1970b) replied that the alleged refutation "turn on argument relating to mercantile action, rather than to financial action or event metrological action."

Chambers asserted that:

In dealing with additivity I made frequent use of the words "combine" and "combination." The context of the discussion indicates that the terms have reference to monetary measures; to the combining of monetary measures, not to the combining of goods and rights, nor to combination of goods and/or rights as such. The discussion is directed to the resolution to the problem of aggregating differing measures though time, measures taken in scale which itself varies through time. ...

The summation of current cash equivalent of assets gives the firm's present command of purchasing power, and without any special presumption about the firm's possibility of taking a long time to dispose of any assets in order to obtain the best possible prices, or about the strains it may be under to dispose of assets in minimal time (Chambers, 1967).

Baxter (1967) address the issue that Chambers is inconsistence with sale price principle. He stated that "when Professor Chambers' book comes to deal with each type of asset in detail, it abandons the sale price principle and substitutes replacement cost." The answer to this criticism, along with others, are that Chambers develops the theory with regard for the availability of the information which the theory presumed to be available. The reason is that Chambers believe that theory is closely related to practice, and he did not wish to evade the practical difficulties which might stand in the way of endorsement (Chambers, 1970). However, the allegation of consistency by many other critics and his second thought that resale prices become more and more
accessible have caused Chamber to abandon the use of surrogate, such as replacement costs and specific indexes, proposed in earlier writing (Chamber, 1970b).

In his third thoughts, Chambers (1974) makes clear that it was never intended that current cost equivalent and resale price should be considered as identical in all respects. Chambers also clarify his previous statement in Chamber (1966, p. 218) that "the current cash equivalents of the assets of a going concern are the sums obtainable in the short-run in the ordinary course of business; that is market resale prices in the short run." By this statement he insists that no value which was asserted to be a value to the business in the long run could properly be include in a dated balance sheet. He was also "trying to avoid the charge (made by some) that accounting on the basis described was 'liquidation' accounting" (Chamber, 1974).

With respect to bonds payable, Chambers (1974) pointed out that "assets are not equities, and there is no ground for supposing that the same rules apply to both." For this reason Chambers defends his belief that bonds should be reported at its contractual amount. Later study by Henderson and Peirson (1984) support Chamber's method of measuring long-term liabilities. They conclude that the proposal of Iselin, Ma and Friedman give results which not significantly different from contractual amount.

CHOICE

Both proponent of current entry prices and exit prices have their own arguments. If only on system should be chosen, there should be criteria to evaluate each argument. Sterling (1970, 1982) proposes criteria to judge historical cost, current cost (current entry price), and exit values.

According to Sterling (1981) the problems in the pas are that we overlook two important points regarding the different kinds of current prices and different timing and kinds of information. These two points lead to other problems:

First, it has prohibited the widespread recognition of the existence of alternative. Most of the past discussion has been about merits of alternative methods of accounting for costs, and the use of exit values has not been perceived as alternative. Recognition of the existence of an alternative is a prerequisite for the rational choice of the preferred alternative...
Second, it has prohibited the widespread recognition of the conceptual
difference between the two. Many have thought that since both are current
prices, and since the difference in magnitude is often immaterial, the conceptual
difference is immaterial. The fact is that the difference in magnitude is
sometimes material and the conceptual difference is always material. The
equality of the two has hindered resolution of the question of current costs
versus historical costs because it has often been debated on the basis of the
characteristics of exit values. In effect, such arguments say that we should adopt
(reject) current costs and abandon (retain) historical cost because exit valued are
good (bad)...
Third, it has prohibited the widespread recognition of the nature of the two
alternatives. As a result, arguments are often based on a misunderstanding. We
have witnessed spirited arguments that current costs are superior (inferior) to
exit values because exit values are based on past (future) prices when in fact
exit values are one kind of current price...
Fourth, current costs versus historical costs combines two separable questions.
It is quite possible, for example, to favor reporting current prices but to oppose
reporting costs, or vice versa. ... (Sterling, 1981).
In search of criteria that are to be used in the selection, Sterling differentiate
between definition and criteria. Conservatism, realization, and stewardship or
accountability are merely definitions not criteria. In the past people use of economic
reality, going concern, management intent, and providing a permanent record as
criteria of selection. Although each of these is a prevalent criterion, the criterion does
not discriminate, when all alternative satisfy a criterion or all fail to satisfy it.
Therefore it does not aid in making a choice (Sterling, 1981).
Sterling then suggests the criterion of relevance. Having applied this
discriminating criterion to a case, Sterling offers conclusion:
1. Future flows are relevant to cash maximizing decisions regarding exchanges of
   shares.
2. Costs are relevant to cash maximizing decisions regarding purchases of unwonted
   shares.
3. Exit values are relevant to cash maximizing decisions regarding selling of owned shares.

4. Exit values of owned shares should be reported on the balance sheet.

5. Exit values of owned shares should be utilized as the basis for measuring past gains and those value gains be reported on the income statement. (Sterling, 1981).

Further, Sterling concludes with the ranking of those three as: (1) Exit values, (2) current cost (current entry values), and (3) Historical costs. Note that Sterling admits that he "cannot extend the conclusions to say that costs should not be reported on the basis of irrelevance because there may be other decision models which specify costs." This assertion has raised a criticism from Nobes (1983) who argues that "since those to whom financial reporting is directed are not able to make decisions about selling marketable securities held by the company, Sterling has not prove that information relating such decisions (exit values) is the only relevant information to report."

Bedford and McKeown (1972) contend that "advantages accrue to both net realizable value and current replacement cost valuations." They conclude that the complexities of modern economic life require both calculations. They contend that "attempts to find simple unequivocal answers to complex problems are bound to fail."

**EMPIRICAL RESEARCH**

Foster (1969) attempts to consider the feasibility of the current price accounting system proposed by Chambers (1966) by reference to the inventories of mining companies. The finding of the research is that for 10 out of the 13 forms of minerals represented in the accounting reports of all metalliferous mining companies listed on the Sydney Stock Exchange in 1967 a readily available form of evidence has been found to exist, e. g. buying schedule and market prices. Foster concludes that the support of his paper gives to the feasibility of the general adoption of Chambers' current price accounting system is of modest nature. However, it is only by intensively examining the feasibility of the proposal in particular sectors of the economy that any conclusion will be reached on the general feasibility of reporting on a market price basis.
McKeown (1971) also attempts an application of the model proposed by Chambers to a medium sized road construction company. The determination of the market resale price of plant assets is using two methods. The first was the use of linear regression based on sales of similar assets. The second was reference to publications generally available which give resale prices of various assets at specific points in time. If neither of these methods yielded a market resale price, the current cash equivalent was approximated by use of indexed calculations. The conclusion do not prove that the model was practical in this generally applicable in all situation. They indicate that the model was practical it this situation. The one overriding general conclusion is that a large study should investigate a wider sample of companies (possibly over a longer period of time) to determine the extent of the situations in which the model is practical.

Another effort to assess the feasibility of current value in accounting was done by McDonald (1968) Initially McDonald specify criteria and then make empirical test which can be judge in terms of criteria. The empirical data reported for automobiles provide evidence that direct reference to available market price indicators results in less disperse measure than those obtained under "generally accepted accounting principles."

Lee (1984) conducts survey of students with and without prior knowledge of accounting with a view to identifying any differences in their perception of the relevance of current prices of assets. He concludes that in the process of learning about accounting, it seems that students learn to abandon net realizable values in favor of historical costs. Bernard and Ruland (1987) used time-series analysis for 1962-180 to examine the information content of current cost income and historical cost income. Some evidence of incremental information content is (at best) evident only for small subset of industries where the correlation between historical cost income and current cost income is low; for the majority of industries, the low income measures convey essentially the same information.

DeBerg and Shriver (1987) reviewed the major studies addressing the relevance of current cost data. They offer concluding observations that the debate on the relative merits of valuation system such as historical cost versus cost continued unabated throughout much of this century. The answer probably is not absolute but
rather inextricably tied to specific decisions within alternative economic environments. The adoption of SFAS 89 provides firms with an opportunity to experiment with changing prices disclosures. Continued availability of current cost disclosure would have the benefit of providing analyst and researchers with data for trend analysis and model testing.

Enthoven (1982) studied and updated his earlier study on NV Philips' accounting system and procedures. Philips lends itself very well for a study as it is one of the largest multinational companies in the world, is extremely well-organized, and has a very sophisticated accounting systems (e.g. current value methodology).

**CONCLUSION**

Although current value accounting has been an old issue and people seems realized its importance, there is no conclusive solution whether to use historical cost of current value accounting. Proponents of current value accounting itself divided into two competing fronts: current exit value versus current entry value.

The issue of current exit values and current entry values has sparked endless discussion. Current exit values issue especially raises more criticisms perhaps because it depart totally from historical cost accounting. Current entry values or replacement cost seems to be slowly accepted in the U.S by the experiment of FASB (SFAS No. 33) to require disclosure of current cost income for certain company that meet criteria. However, SFAS 89 superseded all prior standards dealing with changing prices and only encouraged continued voluntary disclosure of the supplementary data.

The approach used by Sterling (1981) to select whether to use historical cost, current cost, or exit value is interesting. This writer supports the approach and its conclusions. However, further refinement of the approach should be improved to eliminate equivocal opinions. Empirical research such as Foster (1968) and McKeown (1971) may be extended to other countries experiencing high inflation including Indonesia to make generalizability of the frameworks.
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