

BASES OF ACCOUNTING OTHER THAN HISTORICAL COST

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I General considerations

(i) *Introduction*

1 "Accounting bases" or "accounting principles" (the latter term having in this paper the North American audit report connotation) represent micro-economic norms aimed at the efficacy of the information provided by financial statements. This paper will deal mainly with the principles of valuation which underlie the determination of net equity and results. In micro-economic literature the problem of how to give purposeful information on net equity and results is often considered as no more than the establishment of well-founded micro-economic valuation principles. Certain problems, however, cannot be solved by a mere application of such principles, e.g. whether and to what extent a rise in the value of the means of production is to be regarded as income. Apart from the principles of valuation, the aforementioned and similar problems will be considered in the following chapters. This first chapter will deal with the purposes of information about the net equity and results and with the general requirements to be met by the principles of valuation.

(ii) *The Purpose of Information Provided by Financial Statements*

2 Such information (referred to above) is intended for the management of the business as well as for its shareholders, for the suppliers of outside capital and other persons interested in the business's performance. Information on net equity and results is of a retrospective and also of a prospective nature. Retrospectively, it provides management with a basis for judging how delegated managerial duties have been carried out within the enterprise. An important datum for arriving at such an opinion is the ratio between achieved result and that part of the enterprise's net equity attributable to the execution of delegated managerial tasks. Prospectively, such information provides one of the bases for deciding the management's policy in allocating limited available funds to alternative uses.

3 In essence, the foregoing also applies to suppliers of funds and other interested parties: retrospectively the information provides a basis for judging the management's stewardship; prospectively it is an important basis for allocating scarce financial means to alternative investments.

4 Two conclusions emerge from the discussions so far:

a. The use to be made of either prospective or retrospective information has no bearing on the principles underlying the information.

b. Irrespective of the use made of the information, the purpose of retrospective information, i.e. judging managerial stewardship, differs from the purpose of prospective information, i.e. policymaking. When determining the net equity and results, the aforementioned difference makes it necessary to distinguish clearly between the prospective and retrospective elements of the information to be provided.

(iii) *Developments since 1945*

5 Since 1945 attention has increasingly been given to the principles of valuation. Similarly, doubt has arisen about the appropriateness of accounting principles based on historical cost, mainly because continuous inflation has resulted in amounts of a dissimilar nature being added together. It is noteworthy that the totalling of dissimilar items, which, from time immemorial, has been inadmissible in arithmetic, is still an accepted procedure in business life when applying valuation principles.

6 The effect of inflation can be eliminated by making price-level adjustments to historically-based financial statements. We must now see whether price-level adjustments can eliminate the snag of adding dissimilar items. It would appear that this cannot be achieved only by making such adjustments because, as such, they make no allowance for the effect of technological development on the values of tangible assets. The adjusted historical cost of an existing durable means of production is not of the same nature as the current price of a replacing asset with a similar function. This is not only because other methods of construction and other materials have been applied in producing such an asset but also because by using it other, better products can be made. Particularly in times of speedy technological development, the mere application of price-level adjustments may result in appreciable variations in the determination of net equity and results.

(iv) *Effects of the Segregation of Management and Ownership*

7 Thought on the formulation of correct accounting principles is stimulated by the economic trend towards separation of management and ownership. The reasons for this trend are well-known. Continuous growth imposes demands for finance that, in many cases, cannot be met by profits retained in the business. Suppliers of capital other than the directors acquire a share in the ownership, and outside capital, too, becomes of increasing significance. This trend goes hand in hand with another one. With a view to spreading their risk investors distribute their investments over a number of enterprises.

8 Both trends have had a major bearing on the standards underlying the determination of net equity and results, since the growing segregation of management and ownership has resulted in the shareholders becoming increasingly inexpert about what is specific to a business's activities. This development entails an increasing need for generally applicable principles to determine the net equity and results so that interpretation of the information on a business's performance requires no specific knowledge of its activities.

(v) *Comparability of Financial Statements*

9 In the literature, uniformity of accounting principles is often recommended for achieving comparability between financial statements of different enterprises. It is incumbent upon the accounting profession to make interested parties aware that comparability leading to reliable conclusions can be achieved for only some elements of financial statements. Given the divergent

nature of various enterprises, a comparison of solvency and liquidity, for instance, will provide a basis for a conclusion only if the enterprises concerned are similar. One element of financial statements, however, is generally suitable for comparison, viz. the ratio of net income to net equity; i.e. the profitability. This datum is such that it can provide a basis for comparing dissimilar enterprises and is, accordingly, an important factor in determining the distribution of scarce financial means.

(vi) *The General Applicability of Valuation Principles*

10 Two requirements to be met by the principles of valuation can be deduced through ascertaining net equity and results. Reference was made to the first one in paragraph 8: the principles of valuation must be generally applicable. This requirement, however, does not imply that uniform depreciation, depletion and amortization rates, for example, are to be used by all enterprises. From micro-economic reasoning the guidelines can be derived for assessing the economic lifetime of the assets concerned and the system for ascertaining the value of the used-up capacity of such assets (or cost in the case of amortization).

11 In paragraphs 65 to 72, an analysis will be made of whether, and, if so, to what extent, the manner in which the business is financed has a bearing on the principles of valuation.

(vii) *The Objectivity of Valuation Principles*

12 The second requirement of principles of valuation is that they be objective. The hall-mark of objective financial statements is that valuation of all assets and liabilities be based on perceptible and factual circumstances existing when the valuation is made. For judging whether such circumstances are really pertinent to the valuation expert knowledge is essential. Public accountants have such knowledge.

13 Subjectivity comes into play if management thinks that its future policy for maintaining the enterprise's continuity is also a relevant factor in the preparation of the account of its stewardship. No independent expert can be expected to express an opinion on policy intentions, because it is possible (if not probable) that the expected developments underlying the policy will not materialize. Moreover, actual developments, had they been known earlier, might have called for another policy. If circumstances other than those perceptible when financial statements are being prepared are taken into account, it is essential that the bearing of such other circumstances be clearly disclosed in order to provide an insight into the outcome of the management's stewardship.

14 The proposition that maintenance of the enterprise's continuity should not govern the determination of net equity and results may create a misapprehension. This proposition only aims at avoiding the impairment of the primary function of financial statements (i.e. the rendering of an account on the management's stewardship) by not disclosing provisions made for safeguarding continuity (e.g. by hiding them in the balance sheet under the heading "Current Liabilities"). Such provisions should be part of the profit appropriation and taken up in the enterprise's net equity.

(viii) *The Bearing of Valuation Principles on the Business's Continuity*

15 Finally, the significance that can be attached to principles of valuation requires discussion, particularly as regards the protection of the enterprise's continuity. Both current-value and price-level accounting have a beneficial effect on continuity because, when prices show a rising trend, both methods result in a calculation of lower profits, and consequently in lower distributions to parties entitled thereto, than would result from the use of historical cost.

16 In this paper the term "current-value" is used instead of "replacement value" because, in the literature, the latter term appears to give rise to the misconception that the valuation should be based on the price when a used-up means of production is eventually replaced by a technically identical means.

II Basic principles of the current-value theory

(i) *Realizable Value and Current-Value*

17 Since the subject of this paper does not require an exhaustive discussion of all aspects of the current-value theory, the exposition can be confined to some main outlines. This theory concludes, *inter alia*, that, under certain conditions, valuation should be based on net realizable value and, under other conditions, on discounted net cash flow. For this reason, Section II will discuss those two bases.

18 The concept of "value" can be defined as: the expression in monetary terms of a good's significance towards achieving the aims of an enterprise, the main aim being, generally, the achievement of a profit by propelling a flow of goods (and/or services) from the buying markets concerned to the selling market. This significance can be measured in two ways, the first one being the ascertainment of the good's realizable value (i.e. its proceeds when sold), while by the other the value to be surrendered is arrived at on the assumption that, when its value is assessed, the good is replaced by another of identical significance for the enterprise (i.e. the current value).

19 Both realizable and current value are concepts of value of the same order, expressing at the same point of time, albeit alternatively, the significance of a good towards achieving the enterprise's aims. Unless the good forms part of excessive stocks held intentionally, its value is determined by the lower of the two values, which, in an enterprise working at an adequate profit, is the current value. As stated above, this value is derived from prices prevailing on buying markets at the point of time of assessing such value.

(ii) *Direct and Indirect Realizable Value*

20 Generally, the assessment of the net realizable value of finished products presents no real problems. However, ascertainment of the net realizable value of all other goods, particularly of durable means of production, is a problem requiring further analysis.

21 Net realizable value can also be approached in two ways. The first is to

ascertain the direct realizable value of the good, i.e. the proceeds from sale of the good as it is when its value is assessed. In the case of durable means of production, such value will rarely exceed the asset's scrap value.

22 Under the second approach the value of durable means of production is derived from the proceeds of the finished products made by using the assets concerned: this means assessing the asset's indirect realizable value. If, however, the business is run at a profit, it is impossible to assess such value for an individual means of production because in that case the proceeds of finished products comprise two elements, the current value of the productive capacity and the profit upon sale of the products. Since all the means of production are involved in making finished products, it is impossible to allocate the profit to the individual productive assets. In this situation, indirect realizable value is a concept that cannot be quantified for the individual means of production. It should be recognized, however, that this entails no problem because, if production is profitable, one thing is certain: the aggregate indirect realizable value of all means of production exceeds their aggregate current value. Consequently, the (lower) current value of productive assets determines their value.

(iii) Indirect Realizable Value (Continued)

23 If the business is running at a loss, it is necessary to differentiate between a temporary and an inherent loss-situation. In the former situation production is continued: eventually all means of production will be replaced and their value is the current one. An inherent loss-situation indicates a break in the enterprise's continuity, even though production may not necessarily be suspended in the short term. Since suspension implies that, in the aggregate, the value of durable means of production will decrease to their (low) direct realizable value, continuation of production is efficacious as long as future proceeds of finished products, less all outlays incurred in making them, leave a favourable balance. This balance is attributable to the remaining durable means of production. The discounted value of such favourable balances is termed "indirect net realizable value" - in Anglo-American literature "discounted net cash flow". In an inherent loss-situation production will be continued till indirect realizable value equals direct realizable value.

24 The concept of net indirect realizable value (or discounted net cash flow), however, has a far wider use than just arriving at the value of durable means of production in an inherent loss-situation: indeed, in the case of a profitable enterprise it is possible to ascertain the discounted net cash flow of the enterprise taken as a whole. The (favourable) difference between the value thus determined and the enterprise's net equity determined on the basis of current value provides an insight into the entity's future profitability. Accordingly, this difference is an important yardstick when management has a merger under consideration. Since, however, a valuation based on discounted net cash flow also includes future profits, it cannot serve as a basis for financial statements prepared for giving a retrospective picture of the outcome of the business's activities.

(iv) *Is Current-Value Accounting in Conflict with the Objectivity Requirement?*

25 Application of current-value theory extends to all sections of production, and valuation standards derived from this theory are generally applicable. One is strongly tempted to describe the social effects of this theory, which stem from the fact that price movements have a direct bearing on the determination not only of net equity and results but also of managerial policies. However, such macro-economic effects fall outside the scope of this paper.

26 In contrast to valuations based on historical cost those based on current-value theory are all reduced to the same denominator of time.

27 The comment is often heard that the ascertainment of net equity and of results based on this theory is of a subjective nature. This certainly would be so if replacement values, i.e. prices payable upon eventual replacement, underlay the valuation instead of current values. The former prices can indeed only be based on subjective estimates. It is, however, the prices when values are being established, in other words under perceptible and factual circumstances, that are fundamental to the current-value theory. Because valuations are not to be based on future prices, application of the theory is not aimed at maintaining the continuity of the enterprise. Attention has already been given to this aspect in paragraph 15 above.

(v) *The Concept of Stocks in Current-Value Accounting*

28 Literature published outside the Netherlands dealing with current-value theory gives strikingly little attention to concepts relating to stocks as developed in this theory. An analysis of the micro-economic nature of stocks is essential to understanding the conclusions derived from current-value theory as regards the determination of net equity and results. In contrast to the theory of price-level accounting which, *inter alia*, is directed to the valuation of goods actually held by an enterprise, considerations of current-value theory are directed to the valuation of economic stocks. Economic stocks are meant to comprise goods actually held by an enterprise, plus goods bought but still to be received, less goods sold but still to be delivered.

29 This section will deal with economic stocks of current means of production; complications relating to durable means of production will be discussed in paragraphs 40 to 47.

30 Economic stocks can also be defined as stocks in respect of which an enterprise runs the risk of price-level changes. To a certain degree such risk is unavoidable: the period which stretches from the production of wool in Australia to the moment at which a woollen dress is bought in the Netherlands covers many months during which there is the risk of a change in wool prices.

31 In the aggregate, economic stocks held by all enterprises in the wool sector - i.e. wool-producers, wool-traders, spinners, wool manufacturers, clothing manufacturers, wholesalers of woollen clothing and, finally, retailers - will equal the aggregate of the total stocks held by each enterprise, albeit each enterprise's economic stock will deviate from its stock on hand. This

deviation originates from contracts for future purchases or sales, as a result of which the price-fluctuation risk is transferred.

32 It is impossible for micro-economics to arrive at normative conclusions, applicable to the whole field of production, regarding the manner in which the aggregate price risk and, consequently, economic stocks should be allocated to each consecutive enterprise. The pattern according to which economic stocks held in the wool sector should appropriately be distributed over industry and trade varies from that for an appropriate distribution of economic stocks held in the wood sector. Both distributions vary from appropriate distributions in other sectors.

33 The price risks to be borne by any sector as a whole are intrinsic to the period stretching from the production of raw materials to the use of the finished products made therefrom. By making a pertinent analysis of the functions of the consecutive owners of the economic stocks micro-economics will have to indicate the decisive factors for determining and allocating unavoidable economic stocks.

34 Unavoidable economic stocks are designated by the term "normal stocks". Normal stocks should be viewed as a collectivity, the component parts of which are continuously being processed and sold and simultaneously replaced. In respect of this stock there is an obligation continually to replace used-up items. Reduction of this collectivity affects the enterprise's functioning and thus its profitability. Since a rise in prices entails an increase in the capital invested in normal stocks, such increase is not at the disposal of the enterprise. Consequently it must be concluded that to the extent to which an advance in prices relates to normal economic stocks it results in an increase in net equity only and not in a profit.

35 By analogy, it might be concluded that a decline in prices does not give rise to a loss but to a charge to net equity. Such a conclusion, however, calls for comment. The decline may well stem from a good being of lesser economic significance because, for instance, similar goods, which discharge the same function in the enterprise better, have been developed and are being offered on the market. In essence this is a fact of technological development, the bearing of which will be extensively discussed in paragraphs 40 to 44 below, dealing with the valuation of durable means of production. Accordingly, this section ends by stating that decreases in value that originate from such lesser economic significance should be regarded as losses and thus not be charged to net equity.

(vi) Results from Transactions

36 Results from transactions are those arising from propelling a flow of goods from the buying market to the selling market. Such results reflect the difference between the proceeds of goods sold at a certain point of time, and the current value - at the same point of time - of the productive capacity that has been or will have to be surrendered to acquire such proceeds.

37 Consideration must be given to the time at which results from transactions should be accounted for. Such results arise when (a) pursuant to a sale, the price risk is transferred to the next enterprise in the sector and (b)

the enterprise has delivered the goods or rendered the service. In other words, the actual exchange is critical to the moment at which the result is generated. Requirements of space do not allow discussion of either the determination of the value of work in progress or the manner in which profits in the case of enterprises engaged in longterm construction activities, e.g. shipbuilding, are determined.

(vii) *Results from Market Positions*

38 When a decline or an increase in prices is envisaged, the management may temporarily bring the enterprise's economic stock below or above its normal level. In such case there is a short or a long (excessive) position respectively. Since such speculative positions indicate an intentional suspension or an anticipation of the obligation to replace, it is the price movements relating to these positions only which lie at the root of the results. The financial statements will have to disclose the results achieved by manipulating stocks during the period ended on the balance sheet date. Since purchases and sales are not critical to the result on speculative positions, such positions must be valued at their net realizable value. This conclusion is not concerned with whether a diligent management should distribute such (net) profits while they are unrealized. Such distribution is a question of profit appropriation, to be solved for each individual case.

(viii) *Explanatory Example*

39 The following example may explain the foregoing observations. Suppose the economic stock of an enterprise consists of 10,000 raw material units. For determining this quantity the normal economic stocks of semi-finished and finished products must, on the basis of standardcost calculations, have been reduced to their component raw materials. Assume that on 1 January the actual economic stock was 8,000 units, the purchase price was \$1 and the revaluation surplus on stocks showed a balance of \$5,000.

On 10 January the purchase price fell to \$0.80, on 20 January it rose to \$1.20 and on 30 January it fell again to \$1.10, which price was unchanged at the end of the month. During the above-mentioned period purchases and sales were as shown in Table 1.

(ix) *Valuation of Durable Means of Production*

40 Current means of production are continually being replaced. Thus, technological developments - see paragraphs 25 to 35 - have an immediate bearing on the valuation of such assets. Replacement of durable means of production, however, is intermittent and accordingly the replacing asset will often be of quite a different nature. It is not known during the life of the existing asset what replacing asset will eventually be acquired and at what price: this fact is often used as a ground for criticizing the current-value theory. So the theory is deemed to be neither scientifically founded nor feasible.

41 The following explanation will demonstrate that the criticism is ill-founded. Under current-value theory the effects of technological develop-

TABLE 1

	<i>Purchases</i>		<i>Sales</i>	
1-10 January:	2,000 units at \$1.00		1,000 units at \$1.20	
11-20 January:	7,000 units at \$0.80		5,000 units at \$1.10	
21-30 January:	3,000 units at \$1.10		3,000 units at \$1.40	

	Economic stock	Revaluation surplus	Profit from operation	Profit from market position
January	units	\$	\$	\$
1 Balance	8,000	5,000		
10 Purchases	2,000			
1-10 Sales	(1,000)		200 ²	
Economic Stock	9,000	(2,000)		200 ³
20 Purchases	7,000			
11-20 Sales	(5,000)		1,500	
Economic Stock	11,000	4,000		400
30 Purchases	3,000			
21-30 Sales	(3,000)		600	
Economic Stock	11,000	(1,000)		(100)
		<u>\$6,000¹</u>	<u>\$2,300</u>	<u>\$ 500</u>
1 At 1 January the revaluation surplus amounts to				\$5,000
During January the price rises from \$1.00 to \$1.10				
Computed on the normal economic stock, $10,000 \times \$0.10$ must be added				1,000
				<u>\$6,000</u>
2 Sales from 1 to 10 January $1,000 \times \$1.20$				\$1,200
Current value during this period $1,000 \times \$1.00$				1,000
Result from operations				<u>\$200</u>
3 At 10 January there is a short position of 1,000 units. The price falls from \$1.00 to \$0.80				
Profit from market position				\$200

ments on valuation, and thus on depreciation charges, are adequately recognized. For, according to the theory, it is not the durable asset, as such, but the used-up and remaining units of productive capacity that respectively determine the depreciation charges and the book-value. In this connection "unit of productive capacity" means the productive capacity surrendered in the course of one year of the asset's lifetime. Technological developments are recognized by establishing the price of modern equipment making similar products and by computing the value per unit of productive capacity of the existing asset as follows:

Depreciation charge per unit of the modern asset	a
Complementary exploitation costs per such unit	b
Deduct: Complementary exploitation costs per unit of the existing asset	(c)
Value per unit of productive capacity of the existing asset	<u>Balance</u>

This balance represents, for the year concerned, the depreciation charge attributable to the existing asset and, when multiplied by the number of its remaining units of productive capacity, its current value. If due to technological or economic developments the asset's current value is lower than its opening book value less the depreciation for the year as calculated above, the difference should be charged to the result for the period.

42 The foregoing may be illustrated by an example taken from the airline business. The value of an aircraft which is technically in good repair is not determined by applying specific indices to the prices of materials and manpower used in producing that aircraft, but by the aggregate exploitation costs per passenger-mile of a modern plane, less the complementary costs of the asset in use.

43 Thus, the current value theory not only offers a basis for the preparation of financial statements but also gives essential guidance to management when deciding its policy for the replacement of existing fixed assets.

44 Along the lines discussed in paragraphs 28 to 35 regarding stocks of current assets, a gain due to a rise in prices of fixed assets is not part of income. The balance of the revaluation surplus on fixed assets should reflect the rise in value of the productive capacity that, in the aggregate, must be at the enterprise's disposal for fulfilling its function in perpetuity.

(x) *Current-Value Accounting and the Public Accountant*

45 It is often said that current-value accounting makes the auditor's opinion dependent upon the management's views regarding the prices at which the assets will eventually be replaced. For current tangible assets this comment is felt to be of far less importance because continual replacements keep the auditor informed about the current value of such assets. It should be realized, however, that the calculation in paragraph 41 is based on factual and ascertainable data which are equally perceptible to the reporting auditor. Probably the objection stems from a misapprehension that, according to the theory, a revaluation surplus has the nature of an unrealized profit. Another reason may well be that it is not generally understood that the theory recognizes not only value-increasing (mostly inflationary) factors but also value-decreasing ones (economic wear and tear). Finally, it should be realized that the management of an enterprise is very unlikely to base its financial statements on excessively high current values, when, compared with historical cost, the current-cost basis results in a higher net equity and a lower net income. The resulting lower profitability-rate and lower earnings-per-share put a natural brake on the use of unjustifiably high current values.

(xi) *The Problem of a Backlog of Accumulated Depreciation*

46 It is often suggested that a backlog of accumulated depreciation resul-

ting from a rise in prices of fixed assets should be accounted for in full as loss. For this view an argument of the following nature is often adduced. The price of a tanker having an estimated economic life of 20 years and acquired ten years ago for \$10,000,000 increases by 20%. If no shortfall of accumulated depreciation is recognized, accumulated depreciation at the end of the 20th year will show a balance of 10 (\$500,000 + \$600,000) = \$11,000,000 while \$12,000,000 is required for replacing the tanker.

47 This example shows that safeguarding the finance for the eventual replacement is often implicitly assumed as one of the aims of current value accounting. This view requires comment as follows:

a. Owing to the diversity of the times when the individual items in the aggregate of fixed assets have been acquired and also of the economic life-times of such assets the depreciation charge calculated for a period on the basis of current values is used to a material extent for the immediate replacement of retired assets. To this extent there is no backlog.

b. If the profitability of the enterprise using the tanker is adequate it will be possible to raise the shortfall of \$1,000,000 required for replacing the used-up tanker by issuing new shares. This, however, implies a shift in the enterprise's ownership and thus in its financial structure. Shareholders can avoid such shifts by appropriating to retained earnings \$1,000,000 of the net profits to be made during the tanker's remaining life.

c. If according to the theory of financing the situation warrants raising funds from parties other than shareholders, additional funds needed for replacing the tanker can be obtained from such parties.

III The theory of price-level accounting

(i) *Introduction*

48 Striking inflationary tendencies, particularly since 1945, have accelerated the development of the theory of price-level accounting. This theory aims at statements which reflect the effects of a decrease in the purchasing power of money. The information provided is primarily directed towards making financial statements comparable in two respects. Firstly, by applying indices to all previous years' figures in the annual report and so reducing them to the currency's purchasing power at the end of the period, all such figures are presented on a comparable basis. Secondly, general application of the theory would result in financial statements of heterogeneous enterprises being comparable, in that all the financial information is expressed in monetary units of current purchasing power.

49 Literature on this subject seems to indicate little unanimity. Upon further analysis, however, it appears that most differences of opinion stem from differing indices being advocated to express changes in purchasing power. Such indices can be classified into two main groups, viz. those expressing the change in purchasing power of the monetary units (1) in its generality and (2) if spent for specific purposes. This section will only discuss indices for general price movements, such as the Gross National Product

Implicit Price Deflator, by which a nation's income can be reduced to the same denominator of time particularly to its current purchasing power.

50 The limitations of the discussion mentioned above stem from the following considerations:

- a. Application of specific indices impairs the comparability of financial statements prepared by heterogeneous enterprises.
- b. The more specific the indices used, the more analogous will the information provided by the financial statements be to that based on current values except that the impact of technological development will not be recognized.

(ii) *Technique of Price-Level Accountig*

51 Net equity and result are determined as follows:

- a. The result equals the difference between (1) the net equity at the end of the period, assessed as indicated under (b) below, and (2) the net equity at the beginning of the period after adjustment by the co-efficient:

Index at end of period

Index at beginning of period

- b. The net equity at the end of the period is computed by applying indices to the original cost figures of non-monetary assets so as to convert these figures into the equivalent end-of-period currency. Accumulated depreciation and amortization of tangible and intangible assets is similarly dealt with.
- c. Results are differentiated under gains (losses) on net monetary assets (liabilities) on the one hand, and profits (losses) from operations on the other. "Net monetary assets" is understood to be the balance of financial resources and amounts receivable after deducting total liabilities. When determining the result on net monetary items the movements during the period are analysed according to origin. Normally this analysis will result in the following summary:

Non monetary items at beginning of period	±
Sales	+
Loans raised less repayments	±
Purchases of raw and auxiliary materials and of services	—
Investments in durable means of production	—
Other expenses, including wages, taxes, etc. (no charges reflecting deterioration, e.g. depreciation, etc.)	—
Profit distributions	—
Net monetary items at end of period	<u>Balance</u>

52 Subsequently, each of those components is adjusted by the co-efficient:

Index figure at end of period

Index figure at point of time of receipt or payment

Though this adjustment may seem very cumbersome, for practical purposes, simplifying assumptions can be introduced. If production and sales are evenly spread over the period, the middle of the period may be taken as the

appropriate time for adjusting the receipts from sales and the payments for purchases and expenses. Net monetary assets at the end of the period having been thus computed, the difference between that balance and the actual nominal balance derived from the balance sheet at the end to the period reflects the result on monetary items (the “purchasing-power result”).

53 The result from operations is determined along similar lines: Starting from the profit and loss account prepared on an historical basis each of the components is extracted as follows:

Sales	+
Usage of raw and auxiliary materials and services	—
Depreciation and amortization charges	—
Other expenses including wages, taxes other than on income, etc.	—
	<hr/>
Result from operations before tax on income	—
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The result as computed above is reduced to current purchasing power by applying the co-efficients used for the corresponding monetary items. Thus, the net result from operations for the period is expressed in monetary units having the purchasing power at the end of the period.

(iii) *Purpose of Information Based on Price-Level Accounting*

54 Forming an opinion on the benefits derived from information prepared in the manner described above requires an investigation into whether the theory’s purposes, i.e. maintenance of the purchasing power of enterprises’ net equities and general comparability of their performances, are attained. Doubts are immediately raised when one considers whether policy decisions are helped by information on the general purchasing power of the shareholders’ net equity.

55 In the course of such consideration, as in Section II, a distinction should be drawn between policy-making by management and by shareholders.

56 In an economic sense an enterprise can be characterized by certain capital having been set aside with a view to securing a profit by using it for commercial activities. Once set aside, the capital is tied up in this use, which results in its running the risk of changes in the value of monetary and non-monetary assets and liabilities required for and arising from the specific activity. By making decisions the management meets its obligations to limit that risk and to achieve the best possible results from the use of the capital.

57 Owing to the specific use of the capital, however, movements in its general purchasing power play no part in the management’s policy-making.

58 Implicitly, one can deduce from the foregoing the circumstances under which the capital’s general purchasing power does become a factor for consideration: namely if and when the management is contemplating the severance of the tie between the capital and the existing activities and its use for some other purpose. For such a decision, however, it is not the purchasing power of the going concern’s net equity that is relevant, but the purchasing power remaining after all ties have been severed, i.e. after winding-up.

59 Even then, however, knowledge of such purchasing power is of little relevancy since its use must be preceded by a selection from alternative investments, for each of which size, expected profitability, and specific price risks involved will be determinative.

60 Next comes the question of what significance is attributable to information on the general purchasing power of an enterprise's net equity for its shareholders' policy-making. One facet of this was referred to above: the limited relevancy of such information in the case of putting an end to existing activities. For the rest, such information serves no purpose whatsoever. This is pithily explained in the following quotation from R. S. Gynther:

But the company is not going into liquidation. It hopes to survive, expand and prosper. The shareholder is not going to be paid back his monies. The shareholders' interests are in the stock exchange where share prices will reflect management's efforts to make the company prosper and survive. This can only be done by ensuring that the physical assets of the company are protected at all times, and that, in addition, satisfactory profits are earned. If the concern is going to survive, accounting for the concern must be carried out in costs, which are real and specific to it, and not in costs, which are intended to reflect the general purchasing power of money.¹⁾

61 Lastly, the most important objection. Index figures, irrespective of whether they are general or specific, are inadequate as determining factors in assessing values since, implicitly, such figures are based on the assumption of technically indentical instead of economically adequate replacements. After what was said in paragraphs 40 to 44 this statement requires no further clarification.

(iv) *Current-Value Accounting Versus Price-Level Accounting*

62 The main differences between financial statements prepared along the lines explained in Sections II and III are:

Current-Value Accounting

1 a. To the extent to which stocks are of a normal size, a rise in the value of such stocks due to price-changes is added to revaluation surplus. A decrease of such value is charged to this surplus.

1 b. Changes in value of long or short positions give rise to a profit (or loss).

2 Specific technological and economic developments are recognized when determining the value of normal stocks.

Price-Level Accounting

1 A change in value of aggregate stocks as computed by using the currency's purchasing power index pertains to net equity and not to result.

2 When determining the value of economic stocks such developments are not recognized.

¹⁾ *Accounting for Price-Level Changes - Theory & Procedures* by R. S. Gynther, Permagon Press, Oxford, 1966, p. 47.

3 Changes in the purchasing power of net monetary assets are not recognized when determining the result.

3 Changes in the purchasing power of net monetary assets are taken into account when determining the result.

63 From this comparison it appears that current-value accounting and price-level accounting differ mainly in that changes in the purchasing power of net monetary assets are not being recognized in the former and specific technological and economic developments in the latter.

64 After the discussion in paragraphs 40 to 44 further substantiation of the necessity for recognizing specific technological and economic developments in price-level accounting can be omitted. Of late, supporters of current-value accounting have realized that changes in the purchasing power of net monetary assets also deserve their attention.

(v) *Tentative Approach to Recognizing in Current-Cost Accounting the Effects of Inflation on Monetary Assets and Liabilities*

65 Following the line of thought which underlies the current-value theory, viz. that an increase in the prices of normal stocks leads to an increase of net equity, not of profit, on the one hand, and to higher future charges to results on the other hand, one must conclude that in the case when purchasing power of net monetary assets decreases a charge against results must be made with a consequent credit to net equity to the extent to which such assets are unavoidable.

66 The factors and circumstances which determine the size of unavoidable net monetary assets have to be investigated. It is a basic rule of the theory of finance that the use of net equity for financing all non-monetary assets and of liabilities for financing all monetary assets eliminates the risk inherent in the decreasing purchasing power of the currency. So it is a managerial duty to eliminate the risk of decreasing purchasing power of net monetary assets as far as possible, i.e. to strive after a nil balance of monetary assets and liabilities. Except for the specific cases to which the basic rule does not apply (see below), the conclusion emerges that every balance of net monetary assets or liabilities is of a speculative nature. Analogous to the conclusion in paragraphs 28 to 35 and 38 (increase in prices of speculative stocks of current means of production, i.e. decrease in the purchasing power of the money invested in those assets, is not of a net equity nature), it must also be concluded that movements in the purchasing power of avoidable net monetary assets do not lead to a movement in net equity.

67 Starting from this basic rule its general validity must now be investigated. Owing to the specific nature of some assets and liabilities there are, according to the theory of finance, acceptable deviations from the rule. As the requirements of space do not permit a discussion of all deviations, the following examples are selective. (Tax implications will be ignored.)

68 For an enterprise in a strong financial position it is often necessary to grant long-term payment conditions to customers, who are themselves financially weak, in order to enable them to finance their durable means of

production. Net equity has to be used for financing such part of the receivables. Though those receivables are formally of a monetary nature, actually they are of a non-monetary, i.e. of an investment, nature. To arrive at a proper insight into the cost of sales to such customers, it is essential that the specific index relating to the goods involved is applied to the investment part of the receivables and that the outcome of the computation is treated as part of the cost of sales. The amount charged to cost of sales should be added to net equity.

69 Temporary long positions in stocks are adequately financed by employing bank credits, because such non-monetary assets are self-liquidating. Like the receivables referred to in paragraph 68 above, such positions give rise to a way of financing other than the one indicated by the general rule stated in the introduction to this section.

70 In some cases durable means of production can be acquired on a hire-purchase or a sale and lease-back basis. Provided that from a micro-economic point of view (the theory of finance) this mode of financing is justified, the extent to which it is adopted determines the part of the rise in value of the asset's remaining productive capacity that should be credited to a suspense account, "financial results - fixed assets". The balance should be added to the revaluation surplus on fixed assets, while, naturally, the total rise in value should be added to the asset's book value. As, in the course of time, the resulting higher depreciation charge is absorbed in the cost of production the balance of that suspense account becomes part of the income available for distribution. It must be stressed that, when enterprises under the influence of steady inflation finance their durable means of production to a greater extent than the micro-economic rules as to a sound financial structure permit, the above treatment is not allowed in respect of such excess.

71 Because of their size it is impossible for many small enterprises to acquire as much outside capital as they need to maintain the monetary assets: liabilities parity. In such cases it is inherent that part of the monetary assets is financed by net equity. Income must then bear the purchasing-power loss of such part of the monetary asset as is unavoidably financed with net equity.

72 It may be objected that the foregoing conclusion introduces the criteria for proper financing as determinative factors in assessing an enterprise's net equity and results and that the exactness of such criteria falls short of that of data underlying financial statements based on historical cost. This objection may be outweighed by the saying attributed to Keynes, "It is better to be vaguely right than precisely wrong",²) or, expressed in other words: It is better to give slightly inexact figures on an appropriate basis than exact figures on an inappropriate basis.

²) Quoted by R. S. Gynther, *op. cit.*, p. 63.

IV Consideration of the effect on taxation liabilities of adopting bases of accounting other than historical cost

73 Before considering the effect referred to in the heading of this section, the system for levying tax on income which is assumed to prevail must be indicated.

74 Since such taxation is based on different principles in various countries, a number of simplifying presumptions will be introduced, namely

- the subject of taxation is the profit made by the enterprise;
- the profit determination is based on historical cost (first in, first out);
- investment and similar tax allowances are ignored;
- the size of the profit has no bearing on the tax rate (taken to be 50%).

75 Thus, the taxable profit according to the tax return is computed irrespective of whether the underlying financial statements were prepared on either current-value or price-level accounting bases. In both cases, if prices rise, the statements will show a higher net equity and a lower profit than when determined on the basis of historical cost.

76 The argument will be developed by means of the following, greatly simplified, example which is based on the assumptions that:

- the cost of a building is \$600,000;
- its estimated lifetime is 40 years;
- depreciation is calculated on a straight-line basis;
- the cost of a similar building, while remaining unchanged for 15 years, amounts to \$1,000,000 at the end of the 15th year;
- the profit is at a constant level of \$200,000. In the 16th and subsequent years the increased depreciation charge can be fully passed on to customers so that profit remains \$200,000.

77 At the end of the 15th year, the value of the remaining capacity of the building, stated at \$375,000, rises to \$625,000. The effect of the increase of \$250,000 on net equity, profit and deferred tax must now be investigated.

78 In the 16th and following years the net profit will be computed as follows:

the profit before depreciation and tax on income will be	\$225,000
the depreciation charge will amount to $2\frac{1}{2}\%$ of \$1,000,000	25,000
Profit before tax	\$200,000
Since \$10,000 of the depreciation charge is not allowed for tax purposes, 50% tax will be payable on \$210,000, i.e.	105,000
Profit after tax on income	\$95,000

79 From an economic point of view an enterprise owning a building 16 years old differs from one acquiring an identical building in the 16th year. *Ceteris paribus*, the first-mentioned enterprise's annual tax burden will be \$5,000 in excess of that for the other enterprise. In order to reflect this difference, 50% (the tax rate) of the assumed increase in value, i.e. \$125,000 should be presented as revaluation surplus on fixed assets, and the balance, in this case also \$125,000, as a provision for deferred tax. As the annual tax

of \$5,000 arising from depreciation disallowed is being charged against income, the revaluation surplus should be adjusted correspondingly by charging \$5,000 to the provision for deferred tax. Thus, at the end of the 40th year the enterprise's net equity will have been increased by the full amount of \$250,000.

80 The limited size of this paper does not permit entering into the question of whether the provision for deferred tax should be presented at its discounted value.

V Advisability of presenting financial statements regularly to interested parties on one or other of the above bases for comparison with statements drawn up on traditional lines

81 Many countries prescribe by law that financial statements shall be based on historical cost. Thus, enterprises established in such countries and applying current-value or price-level accounting for their financial statements are obliged also to include traditionally-based statements in their reports. Up to now, however, only the latter statements are nearly always presented. This is highly regrettable. If the accountancy profession and the business community hold the view that traditional statements provide inadequate information to interested parties, this view should be demonstrated by the parties rendering an account of their stewardship in statements based on current-value or price-level accounting as well. Without such action it is unlikely that governments will change their policies in respect of Company Law or Tax Law. Not until the extent to which tax is being levied on amounts which, in the considered opinion of the accountancy profession and business community, form no part of income becomes strikingly apparent, is it to be expected that the grave objections, which, so far, have been raised mainly in theoretical studies, will impress the authorities concerned. Consequently, inclusion of adequately based statements alongside traditional ones is not only advisable but indeed essential.

82 Furthermore, the following should be realized. For external purposes financial statements are primarily intended to give an insight into the profitability of enterprises, with earnings per share being used as a sacrosanct yardstick for judging the management's performance. In times of rising prices traditional statements reflect a better performance than those based on current values or price-level accounting. As long as it is not recognized that traditional statements are inadequate, enterprises issuing such statements may expect to be at an advantage both on the capital market and when their annual reports are being reviewed in the financial press. For this reason enterprises not under a statutory obligation to present traditional statements are well advised to include traditional statements in their annual accounts for comparative purposes lest their competitive position on the capital market be prejudiced.

83 The Netherlands is among the countries which do not by law require financial statements to be prepared on the basis of historical cost. Section 5 of the recently enacted Bill on Annual Accounts of Enterprises reads:

- 1 The bases underlying the valuation of assets and liabilities and the determination of the result shall comply with standards that are regarded as being acceptable in economic and social life.
- 2 The explanatory notes shall give an exposition of these bases.
- 3 If an alteration of the bases is of essential significance, such alteration shall explicitly be stated, showing its effect on the net equity and the result.

84 With reference to this section the Minister of Justice stated in the Explanatory Memorandum to the Bill:

The undersigned expects that organized business life and the organization of accountants co-operating therewith will consider it their duty to make an inventory of the standards used in economic and social life and to test such standards against what, in their opinion, may be deemed to be acceptable in the present social system . . . The publication about acceptable bases resulting from these activities will fill a real need experienced by the boards of enterprises and may also serve as a guide for the Enterprise Chamber of the Court of Justice of Amsterdam when a suit is submitted to its judgment. In order to avoid a possible consequential rigidity, the organizations concerned will continually have to devote their attention to developments that present themselves in this field.

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