Inventory pricing and its influence on financial statements

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INVENTORY PRICING AND ITS INFLUENCE ON FINANCIAL STATEMENTS

A THESIS
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF BUSINESS ADMINISTRATION

BY
LEYDON A. YOUNG

SCHOOL OF BUSINESS ADMINISTRATION

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L.A.Y.
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CHAPTER I

INTRODUCTION

The task of deciding what pricing method should be used on inventories is not a simple one. The volume of inventory goods handled during the year cannot be identified with any invoice. As a result, a decision has to be made as to the value to be placed on the goods on hand at the end of the year. The method adopted is of vital importance to the firm since different procedures will result in widely different valuations in times of fluctuating prices. The amount at which ending inventories are valued determines the firm's cost of goods sold and is reflected in the net income reported for the period. The amount of net income reported for the period determines the assessment to be made for federal income taxes. Further, decisions concerning dividend payments are made substantially, and for the most part, from earnings reported; other decisions which are influenced by the result of operations each year involve investment decisions of the firm; negotiations with labour unions concerning wage increases and added fringe benefits for employees (generally when substantial profits are reported); and the amount of bank loan to be negotiated.

Fictitious inventory profits or losses (often referred to as paper profits or losses) are the results of the method of inventory pricing adopted by the firm in times of fluctuating prices. Of the three most
popularly used methods--first-in, first-out (Fifo), last-in, first-out (Lifo), and Weighted Average Cost--the one which tends to eliminate such inventory profits or losses is Lifo. This method is derived from the base-stock method of inventory valuation and is recommended to counter the undesirable cyclical effects of Fifo, due to the fact that most accountants believe that it approximates the matching of current cost with current revenues more nearly than any other method. The Lifo method is based on the theory that the first items of inventory purchased are held as a base-stock, fixed in nature, and subsequent purchases are those used by the firm in its operations.

On the contrary, the Fifo method follows the procedure of a continuous flow-process of the inventories, that is, the first items purchased are the first items used. One might look at this method as a train going through a tunnel where the front is the first to enter and the first to leave or re-appear at the other end. As both the Lifo and Fifo methods are discussed in more detail later, it will be noticed that they are the complete opposite of each other.

The method of average cost is the simplest of the three and is used to best advantage where it is desired to spread the total cost evenly over all goods on hand. In its simplest form, it is an average of the total cost of the beginning inventory plus the purchases for the year.

In addition to the assumptions made with regards to cost flow in inventory valuation, that is, Fifo, Lifo and Average cost, further difficulty is encountered in the application of labour costs and manufacturing expenses to portions of the inventory; the particular stage of production of the goods at the time of inventory determination; and the physical
characteristics of some raw materials on hand which provide difficulty in precise and accurate determination of quantities. Other factors which have to be carefully considered in valuation of the inventory are obsolescence, inactive or slow moving stock, declines in market values, maintenance of adequate inventory records, the frequency and timing of physical inventories, and the expense of taking, pricing and summarizing of inventories. The inevitable problem of the proper matching of costs with revenues in the income statement further complicates the process.

Statement of the Problem.—The implication made above is that the method of inventory pricing adopted by the firm influences, to a very great extent, the income and retained earnings statement and the balance sheet. Based on the implication made concerning the method adopted for pricing inventories, a general statement might be made that any variance in asset valuation, inventories in this instance, has significant effect and eventually becomes of considerable importance to the firm and, subsequently, to the nation's economy.

The variety of methods which are used presents a problem of comparing different ratios even within the same industry. Such ratios are those involving the use of the amount of inventory on hand, e.g., the inventory turnover and the current position of the firm, or those involving the ultimate effects of the inventory value, e.g., net income to net sales and net income to tangible net worth. At the same time that the varying methods of pricing create difficulty of comparison, it appears there is another problem existing. That problem involves the classification of inventories as a current asset. The propriety of inventory classification as a current item is seldom raised. Is there an irrefutable
law which requires that this important asset be included in the current section of the balance sheet, or is there perhaps some justification for questioning the validity of this classification? The classification of inventories as a current asset tends to distort the current position of the company and, further, presents additional problems of comparison. In later chapters, an attempt will be made to resolve these problems with suggestions for consideration.

Purpose and scope of the study.--The importance of inventories as an item in the income statement and the balance sheet cannot be over-emphasized. So important is this asset that accountants are still at disagreement as to the method of pricing for a more meaningful presentation of the results of operations and the financial condition of the firm. Of the three most popularly used methods--Lifo, Fifo and Average methods--none is essentially better than the other although the results of using either one will differ from the other. The requirements of the Internal Revenue Code are sufficiently flexible to permit use of either method, but it is recognized that the Lifo method is more appropriate for tax purposes.

There are some accountants who are of the opinion that inventories should be valued on a strict actual cost basis; there are others who advocate the "lower of cost or market rule"; there are some who advocate the replacement cost basis and others in favour of net realizable value. Whereas the application of either of these bases accomplishes certain aims, it is the belief of the writer that such a basis should be used which treats inventories in the income statement and the balance sheet equitably and consistently. That is, if current value is used in one
statement, it should also be used in the other. The purpose, therefore, is to discuss the feasibility and the benefits and advantages of this. In conjunction with this, suggestions will also be made for consideration on the re-classification of inventories in the balance sheet.

In the chapters which follow, it is not the scope of this study to discuss all the methods of inventory valuation, but will be limited to the Lifo, Fifo and average methods. Of necessity, however, reference will be made to other methods where this becomes appropriate. Further, the study does not propose to discuss in any detail, or to any considerable extent, the effects of taxation on inventory pricing although it is recognized that an entire exclusion of this topic is not possible. Further, no considerable discussion on the court cases involving Lifo will be attempted.

The approach to the study might be summarized as follows: Chapter II covers the underlying concepts of inventory pricing and the propriety of inventory account classification with a general review of the balance sheet purpose. Chapter III examines, appraises and criticizes the three popularly used methods of pricing inventories and their influence on financial statements. Chapter IV attempts to resolve the problems encountered from the various methods of valuation and also looks at the re-classification of inventories in the balance sheet. Chapter V discusses the economic significance of inventory pricing, with a summation and conclusion of the study. It should be noted that the terms "inventory pricing" and "inventory valuation" are sometimes used interchangeably.
Sources of materials.--Materials for this study were obtained entirely from books and periodicals to which the writer had access. An obvious weakness of this study, therefore, is inherent in the fact that all the possible sources of information were not utilized, even to the satisfaction of the writer. The major sources of information were periodicals including The Journal of Accountancy and The Accounting Review and others as indicated in the bibliography.

Significance of the study.--From a broad social and economic viewpoint, the most meaningful question concerning inventory methods to management policies and even to the national economy, is whether the methods which include or exclude inventory profits or losses tend to promote greater economic stability. To determine this, the economic effects of inventory profits or losses on business and investor expectations and on the cash position of business would need to be examined. A discussion of the economic significance of inventory methods will be presented in a later chapter. However, at this point, a tentative statement might be made to the effect that the psychological effects of inventory profits and losses tend to work in opposite directions. For management policy, a decision has to be made concerning the relative importance of either inventory profits or inventory losses. Inventory profits can be misleading to investors and subject to easy misinterpretation by the public. On the other side of the coin, inventory losses are allowed as deductions in the determination of taxable income, thus providing business with a smaller tax liability and a freer cash position.

This study is significant in terms of the effects of inventory pricing on management policies and its economic implications.
CHAPTER II

THE THEORY OF INVENTORY PRICING AND ACCOUNT CLASSIFICATION

Underlying concepts of inventory pricing.--The term inventories is an asset designation for goods which are held for sale in the normal operations of the business, as well as those goods in the process of being manufactured or else waiting to be utilized in the manufacturing process. Inventories are the most active elements in the operations of a business, being continuously acquired, converted, resold and then re-acquired in a never ending cycle. Because of this continuous cycle, a great part of the firm's resources are employed or tied up in the procurement or manufacture of inventories.

The costs pertaining to these inventories must be recorded, grouped and summarized during the accounting period and, at the end of this period, such costs must be allocated to current operations and to future operations. The allocation of such costs determines the results of operations for the period and, failure to properly allocate such costs, will result in a distortion of the financial position of the firm.

Since inventories play a dual role in (1) the income statement where costs are charged against revenues and (2) the balance sheet where costs are carried and assigned to future periods, cost is accepted as the basis for valuation. But there are instances in which there occurs a significant change in the value of the inventories between the date of
acquisition and the inventory date. In such instances where prices have declined, generally accepted accounting principles dictate the use of the traditional "lower of cost or market" rule.\(^1\) There are certain lines of industry, e.g., meat packing, or certain metals (gold), where it is the generally accepted practice to determine the inventory valuation on the basis of selling price. Such valuation, less a provision for disposable costs, is justified where costs are difficult to be determined and where there is an assured market for the product at a fixed price.\(^2\)

The variations in the bases for the valuation of inventories present a certain degree of inconsistency. However, the principle of consistency states:

> Consistency should be maintained between the statements prepared at the end of one period, and between the statements of successive periods. However, a proper regard for consistency need not preclude a desirable change in procedure. If a change of material consequence is made, the fact should be mentioned and the effect thereof on statements should be indicated, if determinable.\(^3\)

This principle of consistency, therefore, tends to alleviate the unintended consequences of a variety of inventory valuation procedures.

The Traditional "Lower of Cost or Market" Rule.—The Accounting Research Bulletin No. 43 explains the term market as it is used in the phrase


\(^3\) Ibid., p. 168.
"lower of cost or market." Essentially, market means "current replacement cost (by purchase or by reproduction) except that:

(1) Market should not exceed net realizable value (i.e., estimated selling price in the ordinary course of business less reasonable predictable cost of completion and disposal) and

(2) Market should not be less than net realizable value reduced by an allowance for an approximately normal profit margin.\(^1\)

The ultimate objective of the rule is to measure the residual usefulness of an inventory expenditure and, by reducing inventory to market, an attempt is made to reflect fairly the income of the period.\(^2\)

The cost or market rule adheres to an old accounting axiom of conservatism which is generally stated as follows: Anticipate no income and provide for all possible losses. This axiom is supported by present practice in recording revenue at the time of sale. It originated at the time when emphasis was placed on the balance sheet and when it was desired to value assets in a conservative manner, a justification for the understatement of asset values. The idea, however, has been gradually losing popularity as it becomes more undesirable to understate the balance sheet items as it is to overstate them.\(^3\) The conservatism theory of the lower of cost of market rule is that if market prices decline, it is expected that selling prices will follow the same pattern and an adjustment or provision should be made for possible losses and no anticipation of

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\(^2\)Ibid.

profit. If market prices increase, the inventory will be valued at cost and, again, no profit is anticipated.¹

As mentioned above, the idea of conservatism with regard to the lower of cost or market rule for inventory valuation has been losing ground. As stated by Delmer P. Hylton:

Instead of automatically reducing the carrying value of inventory when replacement price has dropped below costs, we are now supposed to consider the selling price in relation to normal mark-up. Where the selling price has declined, no write-down of inventory is considered appropriate although replacement cost may be below actual cost. If anticipated profit on the sale of inventory in the next accounting period, without reducing carrying value of inventory, is expected to be normal, no write-down is considered desirable. Thus we are now using expected future transactions as a part of our inventory valuation procedure in certain instances.²

The above statement seems to imply that net realizable value for inventory valuation is now being adopted. A further discussion of this topic will be presented in Chapter IV.

Although the principle of consistency tends to alleviate the consequences of a variation in the bases of inventory valuation, nevertheless, the magnitude of the inconsistency of the lower of cost or market rule requires additional comments. Furthermore, the "principle" is aimed at the variations in the several bases, not at any one particular basis.

Accountants agree that inconsistency is the antithesis of sound accounting practice. But the lower of cost or market rule continues to recognize the significance of market price whenever there is a general decline, and ignores its significance when prices rise. The use of this

²Delmer P. Hylton, op. cit., pp. 583-589.
"combined" rule (a combination of actual cost and replacement cost), means that management is swinging from cost to replacement cost and back again from period to period as market conditions change. At the close of one period a cost figure will be presented in the valuation of inventory; in the very next period, a replacement cost or market figure is used.

A major objection to this rule is that it essentially fails to satisfy the requirements of both the balance sheet and the income statement simultaneously. Whereas the balance sheet requires a valuation basis which shows the solvency and soundness of a firm, the income statement requires a valuation basis which shows the results of operations fairly. The former implies the use of cost or market while the latter implies the use of cost only. To determine solvency, it appears that selling price ought to be used based on what the inventory will sell for and not what it costs or will cost to replace. ¹

Inventory Classification and a Balance Sheet Review.--To close out the discussion on the theory of inventory pricing, a brief look at the propriety of inventory account classification and a general review of the asset section of the balance sheet will be an appropriate introduction to Chapter IV.

It is customary for business enterprises to report trading as well as manufacturing inventories as current assets, even though it is recognized in some instances that it may take considerable time before parts of such inventories are realized in the form of cash or accounts receivable. Generally, inventories are listed in the order of their liquidity and include such items as finished goods, goods in process, raw materials, and supplies.

¹Theodore Lang, op. cit., p. 728.
materials, factory supplies, goods and materials in transit, goods on consignment and goods in the hands of agents or salesmen.

The propriety of the classification of inventories as an asset is unquestionable just as it would be foolhardy to question the propriety of the classification of payables as a liability. But the question of whether inventories should be classified as a current asset does present a question worthy of debate, particularly where the valuation of inventories under the base-stock or Lifo methods is concerned. It might be recalled that both these methods treat a portion of inventories as being "fixed" in nature, at least, for accounting purposes. Some suggestions to the effect of a re-classification of inventories in the balance sheet as a current item might be considered, but before any such change is contemplated, a general review of the balance sheet would be in order.

The balance sheet, as stated earlier, is a statement of financial position; primarily, it is a listing of costs which have not yet been consumed in the ordinary operation of a business. These are unexpired costs. The definition of unexpired costs applies, for the most part, to fixed assets (plant and equipment) since these are costs which are historical in nature and are amortized over a period of time as the usefulness of the assets depreciates.1 There are also assets which are termed "permanent investments." Because of their permanent nature, they are not normally consumed in the operation of a business and, therefore, no

amortization is necessary. But as time goes by, the costs of these permanent investments will differ from current values. In the current asset section, one encounters items which are already liquid or will be converted into cash within the normal operating cycle. Furthermore, they are generally stated at amounts closely approximating current values.

The cash item needs no discussion as it relates to current values. Marketable securities, which are usually temporary investments, are stated at the lower of cost or market. But these investments generally involve government securities and a significant change in market values occurs in unusual circumstances.¹ Receivables present no problem of valuation and will usually be converted into cash at their carrying values, less any allowance for bad debts. Inventories are carried on the balance sheet at prices which do not reflect their conversion values to cash or receivables since their prices will be increased from cost to selling price. From the review of, specifically, the assets in the current section of the balance sheet, it is observed that inventories are one of the four major items which are not stated at their realizable values (prepaid items are excluded from the discussion because of their relatively insignificant amount). An obvious conclusion, therefore, is that inventories and other current items listed above do not have the same valuation bases.²

¹H. A. Finney and Herbert E. Miller, op. cit., p. 296.
CHAPTER III

EXAMINATION, APPRAISAL AND CRITIQUE OF THE MOST POPULARLY USED METHODS AND THEIR INFLUENCE ON FINANCIAL STATEMENTS

As was mentioned in the introductory chapter, the volume of inventory goods handled during the year cannot be identified with any specific invoice. This general statement does not apply to certain small businesses or even some large businesses where physical inventories are taken very frequently. In such businesses, it is possible to identify the cost of goods with each invoice thus bringing about a proper matching of costs and revenues. Real estate and automobile dealers are typical examples. But where such specific identification becomes difficult and inappropriate, certain assumptions as to the flow of costs have to be made. Three methods, each with a different assumption regarding cost flow, have achieved widest application. These are (1) First-in, first-out (Fifo), (2) Weighted average, and (3) Last-in, first-out (Lifo).

First-In, First-Out (Fifo) Method.--This method is based on the assumption that costs are charged out in the order in which incurred. The ending inventory on hand would represent the most recent purchases. For example, if 500 units of item x were purchased at fifty cents per unit and, later, another purchase of 800 units was made at forty-five cents per unit, the first 500 units to be used would be charged into production at the price of fifty-cents and the balance of 800 units charged at the price of forty-five cents. It is theoretically assumed that the 500
units will be segregated from the 800 units and will be issued first. In actual practice, however, all units are intermingled.

**Criticism.**—One major criticism of this method is that it fails to recognize that sales are made against current purchases and not against inventory, with the results that income is distorted by fluctuation in inventory values.¹

**Appraisal.**—In an appraisal of FIFO, a brief listing of the advantages will suffice. These advantages are (1) the units are "taken" from actual records in a systematic manner without using estimates; (2) it conforms to sound business and economic principles because it values the ending inventory on hand at close approximations of market values; (3) it is based upon a clear-cut assumption regarding the movement of goods which furnishes certain built-in control devices; and (4) it is a convenient system to use in any continuous inventory system.²

As compared with other methods, the FIFO pricing procedure will show larger profits in periods of rising prices because a higher value will be placed on ending inventories with a correspondingly lower value on inventories previously held during the year. Such profits which are measured by the increase in value are termed "inventory profits," and represent unrealized and unrealizable gains. In periods of falling prices, the FIFO procedure has the opposite effect on income, showing smaller profits (or larger losses) than actually is the case.³ The effects of inventory profits are discussed in Chapter V.

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²Ibid., p. 713.
The Weighted Average Method.--This method of pricing is used mainly by those firms which desire to spread total cost evenly over all goods on hand. It is applied by a relatively simple procedure wherein the total cost of the purchases, less discounts and allowances for returns, is added to any inventory at the beginning of the period and divided by the total units. This results in a weighted cost per unit.

Criticism.--The weighted average method is criticized as being contrary to proper merchandising procedure in that inventory values perpetually contain costs of earlier periods and that all sales are from all acquisitions proportionately. Further, there tends to be a significant lag of inventory values behind current prices thus representing smaller average costs on a rising market and excess average cost on a falling market.\(^1\) In certain respects, it has the same effect as that of FIFO pricing.

Appraisal.--One significant advantage of this method is that it is unnecessary to identify materials with particular quantities received. This process eliminates an excess amount of paper work.

There are some variations of the weighted average cost method, but they are not utilized as frequently. These are the moving average and the simple average methods.

Last-In, First-Out (LIFO) Method.--The LIFO method of inventory valuation is based on the assumption that the latest goods should be the first that are charged out. Inventories, therefore, are stated in terms of earliest costs. The principle applied here is that inventory profits should not

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\(^1\) Finney, *op. cit.*, p. 233.
be recognized in a rising market since the inventory used in production has to be replenished at higher costs.\(^1\) If inventory goods are purchased in the same quantities as they are sold, this method of computing the cost of goods sold will usually approximate current replacement costs. It will also leave the major portion of inventory stocks untouched (for accounting purposes) and valued at the acquisition costs of some prior period. The Lifo method is, in effect, a reverse of the Fifo method.\(^2\)

**Criticism.**--Several criticisms have been made concerning the Lifo method of inventory valuation. As stated by Paton and Littleton:

\[
\begin{align*}
\ldots \text{ while the last-in, first-out conception implies systematic procedure, it does not assume a consistent treatment for all costs incurred. Instead the first increments to the amount of inventory are capitalized for an indefinite period whereas later increments are assumed to fit through the process of production almost instantaneously.}\end{align*}
\]

In other words, Paton and Littleton are saying that inventory is viewed as a fixed asset and is not associated with the current flow of cost. In this respect, inventory quantities are priced at old costs and produce a mis-statement of working capital position which can be very misleading. Should there be a continued rise in prices, the amount reported for inventories among current assets will be substantially less than current costs.

Lifo attempts to bring about a proper matching of revenue and expense, but in so doing, it becomes inconsistent in that it provides

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inflated costs in the income statement and correspondingly deflated asset values in the balance sheet. This should be of some concern to the Certified Public Accountant who is requested to give as his opinion that his client's balance sheet presents "fairly" his client's financial position. Also, Lifo does not adjust for price-level changes in the income statement. What it does is to reflect in the cost of goods sold the latest cost paid for the commodity dealt in. These latest costs may or may not be close to the current replacement costs of the item.\(^1\)

**Appraisal.**—The chief advantage of the Lifo method of inventory pricing is its built-in protection against inventory profits and losses. The proponents of this method claim a greater stability of earnings from year to year, and that the resulting accounting records provide a better guide to management. Even when inventory quantities vary, the Lifo method does tend to bring reported profits more nearly in line with disposable profits since inventory liquidations do free cash for other uses.\(^2\)

The Lifo inventory method is a variation of the normal or base-stock method. The latter method assumes a minimum amount of raw materials and supplies must be carried at all times to meet production and consumer needs. Such items are generally carried as a fixed asset analogous to plant assets representing a fixed commitment of capital and should be valued accordingly. In 1930, the Supreme Court disallowed the use of the base-stock method for income tax purposes on the argument that

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\(^1\) Maurice Moonitz, "The Case Against Lifo as an Inventory Pricing Formula," *The Journal of Accountancy*, Vol. 95, No. 6 (June, 1953), pp. 682-690.

\(^2\) Keith Butters, *op. cit.*, p. 5.
this method of inventory valuation represented neither cost nor market. Following this ruling by the Courts, several companies came up with Lifo as a tax method of valuation. It took several years of unsuccessful argument with the United States Treasury before this method was sanctioned by Congress in 1938.¹ Since then, Lifo has surpassed any other method in popularity. In a survey conducted in 1950 and again in 1962 by the American Institute of Certified Public Accountants, it was found that Lifo was the leading single method of pricing inventory and was used by one-third of the companies surveyed.²

Effects of Pricing Methods Compared.--On the succeeding pages are presented computations illustrating the effects of the three methods of pricing inventory. The assumptions made here are that in the years 1960 and 1961, prices are rising and in the years 1962 and 1963, prices are falling. It is further assumed that in the final year, 1963, the firm sells out and ceases its activities. The same prices and the same quantity of units are used in each of the three methods to facilitate and present a better comparison.

If the cost of goods sold and the gross profit on sales for each method for the four years are separately totaled, the results would be the same; total cost of goods sold would be $16,550 while total gross profit on sales would be $7,363 in each instance. Although each method results in the same totals at the end of the four years, use of FIFO resulted in increased gross profit margins in periods of rising prices.

¹"Facts on Life," op. cit., p. 77.
and contracted gross profit margins in periods of falling prices; use of Lifo resulted in relatively steady gross profit margins during the period of changing prices; the Weighted Average method yielded comparatively similar results to that of Fifo. If operating expenses were approximately 28 per cent of sales, a profit would be reported with the use of Lifo in each year except 1963; under Fifo, larger profits would be reported in 1960 and 1961, while in 1962 and 1963 losses would result.

**FIFO METHOD**

**EXHIBIT I**

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<th>Purchases</th>
<th>End. inventory</th>
<th>Gross Profit on Sales</th>
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<td>200 units at $8</td>
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WEIGHTED AVERAGE METHOD

EXHIBIT II

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<tr>
<td>1960</td>
<td>500 units at $12</td>
<td>200 units at $7</td>
<td>500 units at $8</td>
<td>200 units at $7.71 ($5,400 ÷ 700)</td>
<td>$2,142</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,542</td>
<td>3,858</td>
</tr>
<tr>
<td>1961</td>
<td>450 units at $15</td>
<td>200 units at $7.71</td>
<td>500 units at $10</td>
<td>250 units at $9.34 ($6,542 ÷ 700)</td>
<td>$2,543</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,335</td>
<td>4,207</td>
</tr>
<tr>
<td>1962</td>
<td>475 units at $13</td>
<td>250 units at $9.34</td>
<td>450 units at $9</td>
<td>225 units at $9.12 ($6,385 ÷ 700)</td>
<td>$1,842</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,052</td>
<td>4,333</td>
</tr>
<tr>
<td>1963</td>
<td>525 units at $9.50</td>
<td>225 units at $9.12</td>
<td>300 units at $7</td>
<td></td>
<td>$836</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>
## LIFO Method

### Exhibit III

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Inventory</th>
<th>Purchases</th>
<th>End. inventory</th>
<th>Gross Profit on Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>500 units at $12</td>
<td>200 units at $7</td>
<td>500 units at $8</td>
<td>200 units at $7</td>
<td>$2,000</td>
</tr>
<tr>
<td></td>
<td>$6,000</td>
<td>$1,400</td>
<td>$4,000</td>
<td>$1,400</td>
<td>$2,000</td>
</tr>
<tr>
<td>1961</td>
<td>450 units at $15</td>
<td>200 units at $7</td>
<td>500 units at $10</td>
<td>250 units</td>
<td>$2,250</td>
</tr>
<tr>
<td></td>
<td>$6,750</td>
<td>$1,400</td>
<td>$5,000</td>
<td>$1,900</td>
<td>$2,250</td>
</tr>
<tr>
<td>1962</td>
<td>475 units at $13</td>
<td>250 units</td>
<td>450 units at $9</td>
<td>225 units</td>
<td>$1,875</td>
</tr>
<tr>
<td></td>
<td>$6,175</td>
<td>200 units at $7</td>
<td>$1,900</td>
<td>$1,650</td>
<td>$1,875</td>
</tr>
<tr>
<td></td>
<td>$5,950</td>
<td>50 units at $10</td>
<td>$4,050</td>
<td>$4,300</td>
<td>$1,875</td>
</tr>
<tr>
<td>1963</td>
<td>525 units at $9.50</td>
<td>225 units</td>
<td>300 units at $7</td>
<td>225 units</td>
<td>$1,238</td>
</tr>
<tr>
<td></td>
<td>$4,988</td>
<td>200 units at $7</td>
<td>$1,650</td>
<td>$2,100</td>
<td>$1,238</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 units at $10</td>
<td>$3,750</td>
<td>$1,238</td>
<td>$1,238</td>
</tr>
</tbody>
</table>
SUMMARY OF RESULTS

EXHIBIT IV

1960

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>Cost of Sales</th>
<th>Gross Profit On Sales</th>
<th>Gross Profit % of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIFO</td>
<td>$6,000</td>
<td>$3,800</td>
<td>$2,200</td>
<td>36.3</td>
</tr>
<tr>
<td>Weighted Average</td>
<td>6,000</td>
<td>3,858</td>
<td>2,142</td>
<td>35.0</td>
</tr>
<tr>
<td>LIFO</td>
<td>6,000</td>
<td>4,000</td>
<td>2,000</td>
<td>33.3</td>
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</tbody>
</table>

1961

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>Cost of Sales</th>
<th>Gross Profit On Sales</th>
<th>Gross Profit % of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIFO</td>
<td>$6,750</td>
<td>$4,100</td>
<td>$2,650</td>
<td>39.7</td>
</tr>
<tr>
<td>Weighted Average</td>
<td>6,750</td>
<td>4,207</td>
<td>2,543</td>
<td>36.8</td>
</tr>
<tr>
<td>LIFO</td>
<td>6,750</td>
<td>4,500</td>
<td>2,250</td>
<td>33.8</td>
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</table>

1962

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>Cost of Sales</th>
<th>Gross Profit On Sales</th>
<th>Gross Profit % of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIFO</td>
<td>$6,175</td>
<td>$4,525</td>
<td>$1,650</td>
<td>27.4</td>
</tr>
<tr>
<td>Weighted Average</td>
<td>6,175</td>
<td>4,333</td>
<td>1,842</td>
<td>29.1</td>
</tr>
<tr>
<td>LIFO</td>
<td>6,175</td>
<td>4,300</td>
<td>1,875</td>
<td>30.6</td>
</tr>
</tbody>
</table>

1963

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>Cost of Sales</th>
<th>Gross Profit On Sales</th>
<th>Gross Profit % of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIFO</td>
<td>$4,988</td>
<td>$4,125</td>
<td>$863</td>
<td>18.0</td>
</tr>
<tr>
<td>Weighted Average</td>
<td>4,988</td>
<td>4,152</td>
<td>836</td>
<td>16.0</td>
</tr>
<tr>
<td>LIFO</td>
<td>4,988</td>
<td>3,750</td>
<td>1,238</td>
<td>24.0</td>
</tr>
</tbody>
</table>
CHAPTER IV

SUGGESTED CONSIDERATIONS AFFECTING INVENTORY PRICING AND ACCOUNT CLASSIFICATION

In the review of the balance sheet in Chapter II, it was brought out that, of the four major assets in the current section, inventories are the only one not stated at realizable values. Cash, marketable securities, and receivables are considered to be, relatively, of the same valuation basis—that is, at their realizable values. It would appear, therefore, that an attempt ought to be made to value inventories on approximately the same basis because this inconsistent valuation can only weaken the validity of working capital analysis. To include the current amount of inventory cost in the computation of working-capital does not provide the best measure of funds. Inventories valued at net realizable value would be inclined to present a more favourable picture of the "margin or buffer for meeting obligations within the ordinary operating cycle of the business."¹

Net Realizable Value for Inventories.—A definition of net realizable value is a measurement of expected revenue less costs of completion and disposal. Such costs of completion and disposal include conversion, selling and administrative costs. Net realizable value is sometimes referred to as being ideal because of its focus on expected future economic


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services which essentially, is the fundamental basis for asset measurement. The expected economic services are recognized as being independent of acquisition costs.

Net realizable value of inventory valuation assumes that the cost of operating in the ordinary operating cycle of the business is the cost of acquiring, producing and selling the product and that all income or loss arises exclusively from these productive activities. If the ultimate sales prices and the costs of completion and disposal are equal to the estimates made at inventory date, no income or loss would be shown beyond such date. An example of this for raw material valuation is shown below as follows:²

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of raw material (actual)</td>
<td>$200</td>
</tr>
<tr>
<td>Valuation of raw material at net realizable value:</td>
<td></td>
</tr>
<tr>
<td>Gross realizable value (estimated)</td>
<td>$1,000</td>
</tr>
<tr>
<td>Cost of conversion, selling &amp; admin. (estimated)</td>
<td>700</td>
</tr>
<tr>
<td>Net realizable value (not discounted for time or uncertainty)</td>
<td>$300</td>
</tr>
</tbody>
</table>

In the overall approach to the valuation of inventories on a net realizable value basis, a discussion of the treatment given this topic by Delmer P. Hylton is necessary to theorize and highlight certain points. In his treatise, Hylton essentially argues that if the beginning inventory of the period is valued at net realizable value, then the cost of disposal of the inventory included in the period of sale and the gross profit will be the result of any revenue which is in excess of the added

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²Ibid.
increment of cost. Had the inventory been carried at cost, the gross profit would have been incorrectly stated to the extent that revenue was included which should have (for the beginning inventory) been matched against administrative and selling costs of the preceding period. The effect of net realizable method of inventory valuation is that of inventory selling and administrative expenses and the profit or loss on the inventory. Costs expected to be incurred in the subsequent period are left for that period, along with the expected revenues to cover that added costs.¹

Charles E. Johnson supports the net realizable value method in one instance by stating briefly: "If we wish to estimate what inventories are worth--it seems evident that the best evidence is the discounted estimated future net selling price."² However, Johnson in an earlier statement had rejected this method of valuation: "The mere existence of an inventory and of past transactions is not considered good enough evidence to warrant estimating the ultimate net selling price and discounting that back to an inventory value ...."³ The latter prognostication by Johnson appears to have support in the concept of realization which, in effect, is concerned with the extent to which uncertainty has been reduced to such a point where expected future receipts warrant recognition in the accounts.

In attempting to estimate the net realizable value of inventories, the operating cycle has to be taken into consideration. The average time intervening between the acquisition of materials and their sale and

1Hylton, op. cit., pp. 583-589.
3Ibid.
conversion to receivables and cash is generally twelve months; this is
considered an operating cycle. However, in some industries such as
tobacco, distillery and lumber, the operating cycle is more than twelve
months and, therefore, a longer period is used. Where a particular busi-
ness does not have any clearly defined operating cycle, a one year rule
should govern. Although the operating cycle does vary among industries
it is recognized that most, if not all, businesses prepare annual finan-
cial statements. In view of this, an attempt to estimate net realizable
value of inventories would not be seriously affected by the differences
in the operating cycle. Paton and Littleton clarify this point in
stating:

In a tract of growing timber . . . evergreens can be sold
at almost any age at a going market price and consequently the
realizable value of a stock of growing trees can be estimated
with some degree of accuracy at any particular date. This
condition affords some defense for the practice . . . of in-
vantorying certain classes of nursery stock at current selling
price less the estimated cost of digging, wrapping and delivery
. . . . There is no serious objection to the reporting of care-
ful estimates of accretion provided that the addition to assets
is handled in such a manner as not to obscure recorded costs and
that the resulting credit is clearly labeled and excluded from
realizable income . . . . In the case of certain kinds of
liquor, . . . the increase in realizable value during the period
of aging is a major part of the final selling price and can be
estimated accurately at a number of stages during the aging
process by reference to aging formulae.¹

If the businesses mentioned above were considering a merger into another
corporation, the current values of properties of all sorts, including
inventories of all sorts, should be appraised at current values. It
would appear that just as much, or as little, difficulty would be involved
in estimating the current values of such properties as there would be in
estimating the net realizable value of inventories.

¹Paton, op. cit., p. 49.
Variations in Net Realizable Value Approach.—A variation of net realizable value might be referred to as "net realizable value less normal operating income or activities not performed." This concept presupposes that operating income is earned as each phase of the production or merchandising service is performed. To illustrate this concept, refer to the same data used earlier:

| Cost of raw material, conversion selling & admin. | $ 900 |
| Normal operating income | 100 |
| Selling price | $1,000 |

Ratio of operating income to costs:
$100 \div $900 = 1/9

Allocation of operating income:
- Acquisition and holding of raw material to inventory date (1/9 x $200) = $22
- Subsequent completion and sale (1/9 x $700) = 78

Total = $100

Net Realizable value of raw material (as illustrated before) = $300
Less operating income applicable to activities not yet performed—completion and sale = 78
Net realizable value less operating income on activities not performed = $222

This concept could be rather difficult to grasp meaningfully because the allocation of income over purchasing, production and selling requires certain assumptions such as a uniform mark-up on all costs, but this would be questionable as to its reality.

Another version of net realizable value is called "net realizable value less normal operating income," which presents a valuation falling between manufacturing costs and selling price. In application, this method works backwards, using expected selling price as its beginning.

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1 American Accounting Association, op. cit., pp. 706-708.
point as follows (using the data as before and assuming sales commission
of 5 per cent): ¹

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected selling price of finished goods</td>
<td>$1,000</td>
</tr>
<tr>
<td>Less sales commission-5%</td>
<td>$ 50</td>
</tr>
<tr>
<td>Normal operating income</td>
<td>100</td>
</tr>
<tr>
<td>Net realizable value less normal operating income</td>
<td>$ 850</td>
</tr>
</tbody>
</table>

Market forces play the significant role in using this approach, thus the values may differ from historical computations. This would be evident if market prices and selling prices were similar, then net realizable value less the normal operating margin would more closely approximate replacement costs. It is asserted that this method of net realizable value more closely approximates the conventional accounting theory that does not recognize income before sale.

"Net realizable value is the preferable asset valuation method which should be applied whenever the criterion of objectivity is reasonably satisfied." ²

Benefits and Problems of Changeover to Net Realizable Value.--Under the going concern concept, the cost convention would not necessarily bar the use of net realizable value as a method for the valuation of inventories. The benefits inherent in the use of this method of valuation are two-fold in nature. The first affects the current section of the balance sheet in that it will become internally consistent. As indicated earlier, cash, marketable securities and receivables are stated approximately at cash providing amounts, but inventories are not given the same treatment. As

¹Ibid.

a result of the disparity in treatment accorded these assets, ratios and percentages based on inventories and/or current assets are often misleading. By a changeover to the net realizable value method, these current assets will be essentially on the same basis, and financial analysis will be more meaningful and more useful. Working-capital would be more accurately stated.

The second benefit to be derived from the net realizable value method would be uniformity in inventory valuation. In present use are a variety of inventory methods even within the same industry. This makes meaningful intercompany comparison extremely difficult. Not only does such a variety of methods affect the balance sheet, but it would certainly have some effect on reported periodic income. Uniformity in practice and the reporting of current value are each worthy of consideration for change in an attempt to produce better results.¹

As far as the problem of the changeover is concerned, except for the year of the change itself, income results would not differ to any significant degree. In dealing with the allocation of values, the long-run effect will present the same results, because the ending inventory of one accounting period becomes the beginning inventory of the next period. The size of the ending inventory in the year of the change will determine the significance of the change from the income reported or that income which was expected thereon. Following the year of change, the effect on reported income of each period will be minimized due to the offset experienced from the counter-balancing effects of the beginning and ending inventories.²

¹Hylton, op. cit., pp. 583-589.
²Ibid.
Considerations on Re-Classification.--In the absence of an attempt at net realizable value for the valuation of inventories, or some method which would treat inventories in the income statement and the balance sheet on an equitable basis, or some method which would treat the value of inventories on approximately the same basis as cash, securities and receivables, or some method which does not create difficulty in a meaningful comparison of the current position of a firm and does not distort working-capital--in the absence of either of these methods or a combination of two or more, then the accounting profession should work in the direction of more clearly segregating working-capital and fixed-capital--of more clearly differentiating between current assets and fixed assets. If an asset is current, then it should be valued currently; if it is not current, it should be valued at cost and transferred to the fixed assets section of the balance sheet.

Inventories valued on the Lifo and base-stock methods have residual balances which are carried on the balance sheet representative of normal or base quantities necessary to carry on the business under the "going concern" concept. These inventories will not be liquidated in the ordinary course of business and, therefore, will not normally be shown in the income statement as charges against revenues. In this respect, Lifo inventories are not similar to fixed assets. On the contrary, such inventories are similar to fixed assets in that their values are not to be realized through disposal in the near future.¹

Assets which are classified as current and are used in determining working-capital consist of such liquidity that, in the normal course of business, they will be available for the payment of debts and dividends, for investment or for use in the normal operating cycle. As a result of their nature, their current value is significant. Assets which are classified as being fixed are more or less fixed commitments and will be used in the operation of the business over the estimated useful life of the assets. The current value of fixed assets is not significant because it is not intended to convert these assets into cash but will be used over a long period, and the cost actually expended at the time of acquisition is the measure of what is used up. On this basis, if the proponents of Lifo are correct, the base-stock portion of Lifo inventories should be transferred to the fixed assets section of the balance sheet and should not be included in the current assets since it will not be converted into cash in the long run and is not available for current operations.\(^1\)

In general practice, bankers, analysts, credit grantors and other users of financial statements will frequently exclude inventories from their calculation of the current ratio and the determination of short-term funds available. The exclusion of inventories from these calculations is due sometimes to the physical nature of the inventories and their probable saleability, but more so because of their liquidity as compared to cash, securities and receivables. To include inventories would distort the current ratio and overstate the availability of short-term funds. If at all inventories are included in the calculation of funds available, it

would appear that a proper treatment would be to increase them to realizable values as they are usually stated at some level of acquisition cost and a weighted average of such costs could be pulled way below current realizable values under the base-stock principle. The extent of the variance would certainly depend on the year in which Lifo was adopted. If the firm adopted Lifo before 1950, inventories will be based on 1950 dollars, while realizable values are far in excess of this figure.
CHAPTER V

ECONOMIC SIGNIFICANCE OF INVENTORY PRICING POLICIES: SUMMARY AND CONCLUSION

Section I

The Economic Significance

It was mentioned and demonstrated in a previous discussion that the three primary methods of inventory pricing yield different results in profits or losses reported for each period during times of fluctuating price levels. In periods of stable prices there is relatively no difference in the amount of profits reported under each of the three methods of pricing inventories. The Lifo method of pricing inventories tends to stabilize profits; the Fifo and Weighted Average methods, on the other hand, create fictitious inventory profits or losses which have a tremendous impact on the economy.

The Nature of Inventory Profits.--Increases in profits reported by companies in periods of rising prices were generally not recognized by businessmen. This was particularly true for the small businessman with no systematic accounting procedure. But even the larger companies failed to realize that the increase in profits did not provide expendable cash, but that it was tied up in inventories, was unrealized and unrealizable. There is no question that cash can be realized by selling a portion or all of the inventories on hand, but this would consist of a depletion of the most vital asset which is necessary if the business is to continue in
operation. Furthermore, this depletion would not yield profits from operations but profits from "investments" which would be termed a capital gain.

As a simple illustration of the nature of inventory profits, assume that the opening inventory of goods on hand of the Y corporation is 5,000 units at a cost of $10 per unit; further, assume that during the year, there was a price increase to $11 per unit and assuming the same quantity on hand for the closing inventory, the results would be as follows under a Fifo method of inventory valuation:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening inventory</td>
<td>5,000</td>
<td>$10</td>
<td>$50,000</td>
</tr>
<tr>
<td>Closing inventory</td>
<td>5,000</td>
<td>$11</td>
<td>$55,000</td>
</tr>
<tr>
<td>Profit for the period</td>
<td></td>
<td></td>
<td>$5,000</td>
</tr>
<tr>
<td>Cash: no change</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This rather crude example illustrates somewhat the nature of inventory profits with certain assumptions. The cash position of the company is not affected by this increased valuation placed on inventories, the $5,000 profit being inventory profit. Under the "going concern" concept, inventory profits are profits which are re-invested in higher cost inventories. However, corporate management which failed to recognize the nature of these reported profits used them in several ways.

**Effects on Management Decisions.**—Management, in noting increases in profits, will tend to make decisions which will require the use of additional funds. In view of this, bank loans will be sought and, with what appears to be a profitable business in a good working-capital position, these loans will doubtlessly be granted. Other creditors would also tend to increase their line of credit to these businesses.

The added funds obtained from bank loans might be used to pay dividends to stockholders who generally would expect such dividend payments.
with the "substantial" profits reported for the year. These dividend payments, particularly where an increase per share of common stocks has been effected, will influence the prices of the company's stocks along with the increased profits. Other investors will be led to believe something which does not actually exist and will purchase stocks of the company. Wage policies might also be affected by the increasing profits and the pressures of labour unions for increases in wages and other benefits to employees. Finally, the management might use these borrowed funds to liquidate already outstanding obligations although others are being incurred in the process; or it might be decided to increase the investment in plant and equipment for expansion purposes.

The increases in dividend and wage payments and the added investment in plant and equipment will, according to the principle of the multiplier and the accelerator, create increased activities in the economy.  

General Effects on Business Cycles.--As bank credit becomes more lax and wage payments and investments increase, there will be added demand for durable and consumer goods and services. To satisfy this increased demand, additional labour is required to increase production. As demand continues to exceed output, inflationary trends begin to creep into the economy which require the action of the Federal Government and the Federal Reserve Board. The brakes which are applied to general economic activity by the government tend to bring about a tapering-off of prices, and a tightening of bank credit. This psychological effect of danger creates pessimism

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among businessmen, who immediately launch programs of retrenchment; cut-back in production schedules is followed by workers being laid-off. The outstanding obligations owed to banks and other suppliers of credit cannot be liquidated because no cash is available and the substantial profits reported are not "real." The task is made more difficult in that debts contracted at a high level of prices will then be paid out of earnings to be realized at a lower price level in the recessionary period, if at all earnings are realized.

The inability of businesses to meet their obligations due could bring about failures as assets are realized, generally at a loss, in order to liquidate liabilities. The failure of some large business or a number of small ones may cause failure of banks which financed them.\(^1\) It is at this point that businessmen will, or should realize that the substantial profits previously reported were merely fictitious profits. A general panic could set off a crisis which, unless restraining actions are taken by the government, could bring about a depression as was the case in the 1930's. The business cycle in the short-run is influenced by any changes in credit, in production output or by re-actions of consumers; it is also subject to changes during war years when there is increased need for durable and non-durable war materials. This is just to point out that inventory profits are not the only, or the major, cause of changes in the business cycle, but they do have an impact of immense magnitude.

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Section II
Summary of Thesis

In an overview of the subject of inventory pricing, it was noted that inventories play a dual role in (1) the income statement where costs are charged to current operations and (2) the balance sheet where costs are carried to be assigned to future periods. Cost is, therefore, considered as the basis of valuation. But where significant changes take place in the market, generally accepted accounting principles dictate the use of "cost or market, whichever is lower." The application of this rule carries a certain degree of conservatism and inconsistencies. It is not applied (or accepted) to inventory valuation on the Lifo basis, but is applicable (and acceptable) where the Fifo or the Weighted Average methods are used for valuing inventories.

The balance sheet is a listing of unexpired costs which have not yet been consumed in the ordinary operation of the business. Some of these costs are amortized over their estimated useful life, while others are carried currently at realizable or cash convertible values. Inventories are carried at "cost or market, whichever is lower" and are classified as current assets along with those carried at cash convertible values. Lifo inventories carry a base stock portion which is considered "fixed" in nature. The differences in valuation methods of these current assets and the fixed portion of Lifo inventories destroy comparability of companies even within the same industry and distort working-capital position. Net realizable value for inventories or a re-classification of the base-stock portion of Lifo would present a more favourable position of the liquidity of the company.
The various methods of pricing inventories yield widely different results in periods of changing prices. The Fifo method of valuation and, to some extent, the Weighted Average method, affect income reported by understatements or overstatements of values in periods of changing prices; the Lifo method tends to level reported profits during similar periods. The latter method of inventory valuation has, since 1939, been used to a greater degree and is particularly recommended for tax purposes.

Net realizable value for inventory valuation has not yet, and may never, become an acceptable and the standard method for valuing inventories. By definition, net realizable value is a measurement of expected revenue less expected costs of completion and disposal. Essentially, it is an attempt at the valuation of inventories which would properly treat them on relatively the same realizable basis as other current assets, thus providing a more meaningful and useful comparison of the current position of companies. The effect in the income statement would, in the long-run, be of no significance due to the counter-balancing effects of the opening and closing inventories.

Inventory profits realized from the use of Fifo pricing go a long way in affecting the decisions of management, bankers, investors and other users of financial statements. The overall impact on the economy is of great significance.

Section III
Conclusion

One of the primary purposes of accounting is to provide information for management decisions. The choice of alternative methods of accounting
will depend upon the situation which exists in each instance and upon the quality, quantity and type of information desired by management. Certain assumptions concerning the relative usefulness of information offered by various methods have to be made. The issues raised in this thesis on inventory valuation and account classification are not new, but might be considered as being insufficiently discussed by members of the accounting profession. A relatively small quantity of literature has been published on the concepts of net realizable value for inventory valuation and for the concept of re-classification of inventories in the balance sheet. As alternative methods of treating inventories and other problems in accounting have been proposed, developed and put to use, the profession has engaged in discussions concerning the advantages and disadvantages to be derived from a change in methods. Further, discussions are also conducted on the effects upon various elements of diverse practice in the profession.

Inventory valuation methods have been for many years the "Achilles Heel" of accountants and the profession in general. The topic has been discussed with a diversity of opinions, objectively and subjectively voiced, but, as an indication of the dynamic nature of the profession, no one method has been agreed upon although some have become acceptable. It should be recognized, however, that, although some methods have become acceptable, it does not necessarily mean that either one of these "acceptable" methods is the best and cannot be replaced in the future. Serious attempts have always been made to ascertain the validity of arguments in support of particular methods or arguments in opposition to them. The research methods employed in the past have not provided sufficiently
conclusive evidence on the effects of alternative methods on the
decisions of management. Differences in reported values concerning the
use of different methods of valuation have been demonstrated in the past,
but empirical support for conclusions about the relative effect upon
management decisions have not been obtained. The problems of comparing
the decisions of different companies with each other, or of comparing
decisions of one firm over several periods, have prevented empirical
study, leaving the choice of theoretical analysis or the use of hypothetica
cases which are complicated by certain assumptions which have
to be made.\(^1\) The decision-making processes of management as a result
cannot be laid at the feet of any one method of accounting for inventories
or any other element.

As an indication of the difficulty and diverse opinions concerning
the selection of any one method of inventory valuation as the best,
reference is made to studies conducted by the American Institute of Certi-
fied Public Accountants (mentioned in an earlier chapter). The survey,
conducted in 1950 and again in 1962, revealed that none of the three
primary methods--Lifo, Fifo or Weighted Average--is used by a majority
of companies. In 1962, the companies were almost equally divided in
their preferences. Further, the fact that almost the same distribution
was found to exist in 1950 (see Exhibit V) indicates that there is no
clear trend towards the unanimous adoption of any of the methods.\(^2\)

\(^1\) William J. Bruns, Jr., "Inventory Valuation and Management

\(^2\) Allan R. Drebin, "Price Level Adjustments and Inventory Flow
p. 155.
EXHIBIT V

FIRMS USING VARIOUS METHODS OF DETERMINING COST OF INVENTORIES

<table>
<thead>
<tr>
<th>Method</th>
<th>1950 Number</th>
<th>1950 Per cent</th>
<th>1962 Number</th>
<th>1962 Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last-in, First-out</td>
<td>161</td>
<td>31</td>
<td>195</td>
<td>31</td>
</tr>
<tr>
<td>First-in, First-out</td>
<td>134</td>
<td>26</td>
<td>183</td>
<td>29</td>
</tr>
<tr>
<td>Average</td>
<td>136</td>
<td>26</td>
<td>153</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>87</td>
<td>17</td>
<td>91</td>
<td>15</td>
</tr>
<tr>
<td>Total firms surveyed</td>
<td>518</td>
<td>100</td>
<td>622</td>
<td>100</td>
</tr>
</tbody>
</table>

To the extent that price-level changes affect the financial statements, if inventory costs and the level of prices do vary together, "... an adjustment which, in effect, divides each element of cost by the general price index is likely to result in a reduction of differences in the adjusted cost of items purchased at different times."\(^1\) With the adjustments made for price-level changes, the preparation of statements with different flow assumptions will be made more comparable. The adjusted statements will provide stockholders, investors and other users of these statements with more meaningful results which enable them to judge the relative effect of changing prices.

One method of inventory valuation, in addition to net realizable value, which is getting more attention is direct costing. Any company which is giving consideration to the adoption of direct costing as a technique for inventory valuation cannot overlook the threat of certain possible legal entanglements. Although the use of direct costing might

\(^1\)Ibid., p. 162.
be condoned for tax purposes, successful rulings to date have been very few, and the possibility of the Securities and Exchange Commission accepting financial statements prepared from direct costing records is not very strong. Furthermore, the relationship of this method of costing to the Robinson-Patman accounting is further complicated with uncertainty. The use of direct costing at this time cannot be considered a generally accepted accounting practice, and until such time that legislative rulings have sanctioned its use, it would be advisable to any company to observe caution in adopting direct costing as a method of inventory valuation for both internal and external reporting.\(^1\)

Although the use of net realizable value method for inventories is not sanctioned for tax purposes, it is used to some extent by certain industries as was pointed out earlier. Such industries as meat-packing and mining have relatively fixed prices which are controlled by the government. As a result, objectivity in determining the net realizable value of inventories is made possible from available data.

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"Why Companies are Turning to Lifo," Business Week, No. 1167, January 12, 1952.