

# Accounting Historians Journal

---

Volume 9  
Issue 1 *Spring 1982*

Article 1

---

1982

## History of LIFO

Harry Zvi Davis

Follow this and additional works at: [https://egrove.olemiss.edu/aah\\_journal](https://egrove.olemiss.edu/aah_journal)



Part of the [Accounting Commons](#), and the [Taxation Commons](#)

---

### Recommended Citation

Davis, Harry Zvi (1982) "History of LIFO," *Accounting Historians Journal*: Vol. 9 : Iss. 1 , Article 1.  
Available at: [https://egrove.olemiss.edu/aah\\_journal/vol9/iss1/1](https://egrove.olemiss.edu/aah_journal/vol9/iss1/1)

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Accounting Historians Journal by an authorized editor of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).

*The Accounting Historians Journal*  
Vol. 9, No. 1  
Spring 1982

*Harry Zvi Davis*  
BARUCH COLLEGE  
CITY UNIVERSITY OF NEW YORK

## **HISTORY OF LIFO**

**Abstract:** The history of LIFO illustrates the interplay of taxes and the general acceptance of accounting principles. In this paper, the gradual acceptance of LIFO in the United States is traced. The study focuses on both the theoretical evolution of LIFO and its acceptance by taxing authorities and accountants.

### *Introduction*

According to the American Accounting Association Committee on Accounting History,<sup>1</sup> the prime example of an historical study which deserves attention is "the evolution of last-in, first-out (LIFO) inventory accounting as an acceptable method of computing taxable income for Federal Income Tax purposes and its subsequent evolution as a 'generally accepted accounting principle.'" In this paper, the acceptance of LIFO in the United States is traced.

Historically, LIFO can be viewed as an outgrowth of the base stock method.<sup>2</sup> Therefore, a brief history of the base stock method in England and in America is presented before the history of LIFO.

### *The Base Stock Method—Development in England and America*

#### *Definition of Base Stock*

A company that uses the base stock method defines a certain quantity of inventory as the normal amount necessary to continue operations. This quantity of inventory, sometimes called the "normal stock," is the minimum necessary as long as the business does not reduce or enlarge operations. Since the base stock is considered a permanent investment, any change in its value is ignored. In contrast, inventory above the normal quantity is intended for immediate resale and is thus a transitory investment. Goods sold are deemed to come from quantities purchased over and above the

---

I wish to thank David O. Green, Nathan Kahn, Kenneth Most, Hanns-Martin Schoenfeld, Norman Berman, and an anonymous reviewer for their helpful comments.

base stock. The company on the base stock method thus approximately matches the current costs of current purchases against current revenues.

### *The Base Stock Method in England*

It is difficult to pinpoint the earliest appearance of the base stock method in England. Arundel Cotter, writing in 1940,<sup>3</sup> claims that "normal stock has been in use in Scotland, Wales, England and Holland for more than half a century." Taken literally, Cotter's statement places the beginning of the base stock method at no later than 1890. However, both the lack of any documentation and the popular nature of Cotter's book leaves one with the impression that Cotter may have been guessing.

Maurice Peloubet<sup>4</sup> stated: "The base stock method has undoubtedly been in use in England since the middle 80's of the last century." The fact that Peloubet was an auditor in England at the beginning of the twentieth century lends credence to his statement. In 1914 he audited a foundry in England which had been using the base stock method for a long time.<sup>5</sup> He discovered that the base stock method was used in the base metal trades and in textiles. Even though he does not give specific names, there seems to be no reason to doubt his assertion that the base stock method predates the twentieth century.

All writers on the subject agree that the base stock method was not a theoretical construct of accountants, but rather, was developed by businessmen in response to economic pressures. Income tax was one of these important economic pressures. English income taxes started in 1799 and were discontinued in 1813. The taxes were permanently reinstated in 1842. Base stock has a natural attraction for taxpayers because it matches current costs to current revenues and suppresses changes in base stock inventory. The result is a smoother income stream. "During the first World War, a combination of high prices and heavy income taxes led to a demand for recognition of the base stock method in determining taxable income."<sup>6</sup>

Why was fluctuating income considered evil? A company with higher reported profits has to pay more taxes than a company with lower reported profits. Since the higher profit does not necessarily correspond to a better cash flow, the company is forced to pay taxes at a time when the cash flow cannot support such high payments. Furthermore, given a graduated tax system or the lack of carryback-carryforward provisions, a company with fluctuating in-

come pays more taxes in the long run than a company with non-fluctuating income.<sup>7</sup>

The fact that people tried to use the base stock method for taxes enshrouded its use in secrecy.

Actual legal precedents for the use of the base stock method in England will not, I think, be found principally because the issue has not, so far as I know, ever been clearly litigated, and the evidence of its use on a permissive basis untested by court action would be most difficult to obtain.<sup>8</sup>

Obviously, a company will not publicize its use of an accounting method that has doubtful tax validity and favorable tax consequences. The publicity can have only deleterious effects. The avoidance of publicity explains the difficulty of pinpointing the exact beginnings of the base stock method.

In 1918, the question of the base stock method was examined by a Committee appointed by the Ministry of Reconstruction. This Committee rejected all proposals to extend the applicability of the base stock method. In the absence of a statutory definition of income, the Committee agreed to accept the base stock method only where its use had already been established.

It should be noted that the report of the Committee in 1919 was not unanimous. Four of the ten members of the Committee joined in the following reservation:

We are of the opinion that the base stock method of eliminating from trading profits the fluctuations in stock values, is preferable to the creation of reserves from profits enhanced by rising markets, and using up such reserves against losses in falling markets, as the more accurate ascertainment, and more equal distribution of actual trading profits, over a longer period than one year, which results from the method, we advocate, stabilizes the business and enables loan, or preference capital, to be obtained on better terms.<sup>9</sup>

It is quite possible that the majority of the Committee also saw the merits of the base stock method. Carson<sup>10</sup> believes that the majority view was dictated by the necessity of collecting taxes. If everyone adopted the base stock method, revenue collection could become problematic.

The Committee's report, whatever its reasoning, effectively limited the growth of the base stock method in England.

### *The Base Stock Method in the United States*

In the United States the beginning of the use of the base stock method can be established by the examination of published financial statements. In 1903, the American Smelting and Refining Company became the first company to adopt the base stock method.

... the base stock method was started by at least one company in each of the years 1906 and 1913, by at least four companies during the following four years, by at least five companies during the 1920s, and by at least 15 companies during the period 1932 through 1937. An investigation of prevailing inventory practices made in 1938 by the National Industrial Conference Board showed that of 826 widely scattered enterprises selected for the study, 4 percent used a base stock method.<sup>11</sup>

Warshaw, an officer of the National Lead Company, wrote two articles about his company's adoption and use of the base stock method.<sup>12</sup> The articles provide many insights into the base stock method and the following paragraphs draw heavily from them.

### *A Case History of the Use of the Base Stock Method*

Because lead does not spoil, National Lead Company was not forced to move out its oldest materials first. To avoid multiple handling, the company usually loaded the most recently purchased materials into the manufacturing process.

Similarly, the company often shipped the most recently finished goods to customers. A last-in, first-out (LIFO) assumption as to the flow of goods was thus closer to the actual flow than a first-in, first-out (FIFO) assumption.

Since the manufacturing process of white lead covered a period of five to six months, there always had to be a certain amount of work in process inventory. A depletion of the work in process inventory would have caused a six month lag in production of finished goods. The minimum inventory was thus a permanent investment necessary for the business to continue as a going concern. This minimum quantity was the "normal stock."

A study was made by qualified experts to determine the normal quantity of each of the different kinds of inventories (raw materials,

work in process, and finished goods) necessary for continued operation. The study took into account other factors, such as the inventory in transit and minimum inventories necessary to insure a delay-free flow of goods through the manufacturing process. The normal quantity was about 80 percent of the total inventories at the National Lead Company.

The normal stock inventory was valued at the lowest price of lead since the date of adoption of the plan in 1913. This valuation was accomplished in two ways. In 1913, the inventory was written down to the lowest value that could reasonably be anticipated. If the market fell below the 1913 book value, the inventory would be written down further to market.

Once the base stock is valued, the problem remains of valuing the difference between ending inventory and base stock inventory. If the quantity of ending inventory is greater than base stock, the excess is valued by using any conventional cost method. National Lead Company, for example, used a weighted average for valuing the excess inventory.

However, what is the accounting treatment when ending inventory, due to unforeseen shortages or other factors, is less than base stock? The theory of base stock is that the base stock is never sold. If base stock is depleted, the goods sold are regarded as being borrowed from the base stock. The goods borrowed must be returned to the base stock. Since the goods returned to the base stock will have to be bought at current market price, the current market value of the deficiency is charged to cost of goods sold and subtracted from the inventory.

A problem can arise when current market values are subtracted from base stock book values. If the base stock method is maintained over a long period of time, market value may be much higher than book value. Subtracting the current market value of the deficiency from the ending inventory can result in an understated or even a negative inventory.

A different approach can be used to avoid negative inventory values. The market value of the inventory sold from base stock is charged to cost of goods sold, but the book value is subtracted from the inventory. The difference between market and book value is treated as either a liability<sup>13</sup> or a deferred credit.

Did National Lead Company benefit from the use of the base stock method? Since the Internal Revenue Service never allowed the base stock method for income tax calculation, the company had to keep two sets of books. The company felt the extra work was well worth it. Between the years 1913 and 1920, the market price

per pound of pig lead, National Lead Company's raw material, moved up from 3.4 cents to about 12 cents and back down to 4.75 cents. In its 1925 annual report, the company discloses that each one cent a pound change in the market price of lead would affect profit by \$2 million. Since the company did not show any profits on the rise in the value of the inventories, it did not have to write down the inventories when prices fell. Profits were smoother than they would have been if National Lead had used the more conventional FIFO.

A comparative statement of the two methods of valuation (viz., cost or market compared to the normal stock method) over a period of 10 years, 1913 to 1923, which was made for the National Lead Company shows practically no difference in the net profit for this period, due to methods of valuing inventories.<sup>14</sup>

Sanders starts with National Lead Company's reported base stock method income and calculates an adjusted income based on the lower of cost or market.<sup>15</sup> For the period 1915 to 1922, the reported net income varied between \$2.7 million and \$4.9 million. The adjusted income varied between a gain of \$8.58 million and a loss of \$2.1 million (see Figure 1).<sup>16</sup>

In the period of rising inventory value, the company was under no pressure to increase dividends and wages. When inventory values fell, National Lead was able to continue paying its dividend since it had maintained its liquidity when inventory values rose.<sup>17</sup> The company was thus satisfied that the base stock method stabilized earnings.

### *The Base Stock Method and Taxes*

In 1919, the Treasury Department prohibited the base stock method for taxes.<sup>18</sup> The issue was not, however, settled until 1930, when the Supreme Court ruled on the legality of using the base stock method for taxes.

Kansas City Structural Steel Company fabricated steel items on special order. It kept an inventory of raw materials on hand to avoid delay in starting work on contracts. Materials were taken from inventory as needed and were subsequently replenished. The company contended that its income resulted from the performance of its contracts and not from the change in the value of inventories. The materials were only borrowed from the base stock. The District Court accepted the company's line of reasoning and compared the

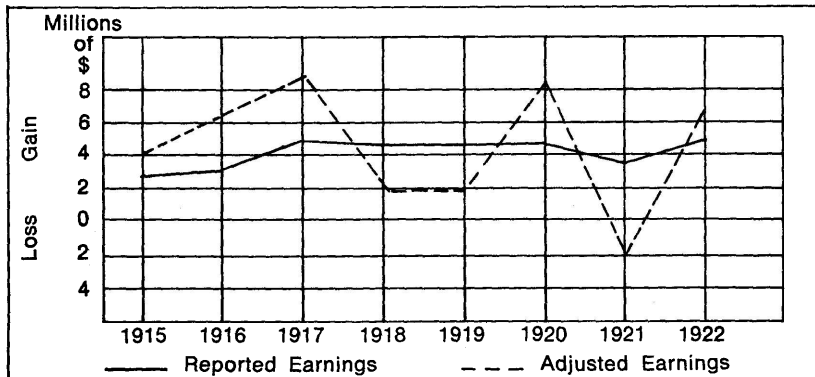
borrowing from base stock to borrowing from a neighbor.<sup>19</sup> Since the base stock must be maintained if the business is to remain a going concern, the base stock has to be replenished in the same way that a neighbor has to be repaid.

**Figure 1**

**National Lead Company: Reported Net Earnings and Net Earnings Adjusted to Cost or Market Basis—1915-1922**

	Reported Net Earnings	Excess over Value	Net Profits Inventory at Average Market
1914 .....	\$2,500,000	\$ 800,000	\$
1915 .....	2,700,000	1,920,000	3,820,000
1916 .....	3,000,000	5,440,000	6,520,000
1917 .....	4,900,000	9,120,000	8,580,000
1918 .....	4,700,000	6,400,000	1,980,000
1919 .....	4,600,000	3,840,000	2,040,000
1920 .....	4,700,000	7,520,000	8,380,000
1921 .....	3,500,000	1,920,000	2,100,000*
1922 .....	4,900,000	3,800,000	6,780,000

\* Loss



Source: Sanders, T. H. "Some Variations in Inventory Valuations." *Journal of Accountancy* (December 1926), p. 433.



The Supreme Court, however, rejected this line of reasoning.<sup>20</sup> In 1930 the Court unanimously ruled that the base stock method was unacceptable for income tax purposes. Since the base stock is commingled with all other inventories, there is no clear line separating the base stock from the other inventories. Since the line is arbitrary and can easily be manipulated, income can be distorted. The Court decision disallowing its use for taxes sealed the fate of the base stock method.

#### *Development of LIFO up to the 1939 Revenue Act*

When the base stock method was disallowed for tax purposes, a search for a suitable alternative began. The acceptance of LIFO by professional groups and by Congress in the Revenue Acts of 1938 and 1939 represents the final phase of the early development of LIFO.

#### *The Search for Alternatives to the Base Stock Method*

When the base stock method was disallowed for taxes, motivations for its use had not disappeared since prices were still fluctuating. Using 1926 as the base year when prices equalled 100, the Wholesale Price Index in 1921 fell from 161.3 to 104.9. A survey of 468 companies shows that the average markdown of inventories in that year was over 26 percent.<sup>21</sup> Some industries were harder hit than others. Two studies of the tanning industry<sup>22</sup> show huge fluctuations of tanning income in the years between 1926 and 1936. Most of this fluctuation of income can be traced to the fluctuation in the value of inventory.

LIFO was created to smooth income. In ideal situations, the base stock method and LIFO give identical results. The base stock method is, however, difficult to administer from a tax collection viewpoint. Both the quantity<sup>23</sup> and value of the base stock are dependent upon management judgments and are thus subject to manipulation for tax avoidance.<sup>24</sup> On the other hand, LIFO sets up a simple rule: the last goods in are the first ones out. This rule is very easy to administer. There are no arbitrary divisions and valuations. The ending inventory is the value of the first goods purchased by the business. Since LIFO is identical to the base stock method in ideal conditions and yet is easy to administer, LIFO became the banner of the base stock method advocates when the base stock method was struck down by the Court in the Kansas City Structural Steel Company case.

**Early Acceptance of LIFO**

In August 1934, four years after the Kansas City Structural Steel Company case, the American Petroleum Institute received a report from its Committee on Uniform Methods of Oil Accounting. The Committee voted unanimously to recommend the approval of LIFO for petroleum companies.<sup>25</sup> In November of that year, the American Petroleum Institute passed a resolution which started out as follows:

**RESOLVED:** That the Uniform method of valuing petroleum inventories called the "last-in, first out" system, . . . is hereby accepted and recommended . . . as a method of valuing petroleum inventories. . . .<sup>26</sup>

The 1936 edition of the "Uniform System of Accounts for the Oil Industry," published by the American Petroleum Institute, shows how LIFO should be used. The following are some important excerpts:

**CURRENT COSTS AGAINST CURRENT SALES:** Current costs of crude oil and products should be charged against current sales as long as inventory quantities remain approximately unchanged, . . . **VALUATION:** In starting the "Last in, First out" inventory plan, the prices should be set at a conservative or reasonable figure. In the future, inventory prices should not be reduced to market prices, when lower than the regular inventory value. Where the market value of the inventory is less than that carried in the Balance Sheet, such condition should be shown in parentheses or as a footnote. . . .<sup>27</sup>

In 1936, the American Petroleum Institute's Committee collaborated with the Special Committee on Inventories of the American Institute of Accountants (now known as the American Institute of Certified Public Accountants) and submitted a report to the Institute. This report concludes: "The last-in, first-out method for the valuation of oil company inventories, as recommended by the American Petroleum Institute, constitutes an acceptable accounting principle. . . ."<sup>28</sup>

The old base stock practice of writing down the opening inventory was included in the recommendation. The write-down attempts to avoid any later write-downs resulting from the fall in market prices. One could almost have predicted that the write-down of opening inventories would, because of its arbitrary nature, be eliminated in subsequent tax legislation. Aside from this provision,

the 1936 report marks the first acceptance by an accounting body of the basic principles of LIFO.

In 1938, the American Institute of Accountants' Committee on Federal Taxation issued a report recommending that LIFO be allowed for tax purposes provided six conditions are present.<sup>29</sup> One of the conditions is that the change in the price of raw materials should parallel the change in the price of finished goods. Another condition is that the inventory should be of a homogeneous nature. The four other conditions had nothing to do with LIFO *per se*. They guarantee the materiality of the difference between LIFO and FIFO. Surprisingly, the report does not distinguish between the conditions which guarantee the materiality of the difference between LIFO and FIFO, and conditions for which LIFO was considered appropriate. The report lists, for instance, the requirement that inventories be a significant percentage of assets. Obviously, if inventory is insignificant, the inventory valuation method is immaterial.

In discussing the effect on tax collections, the report claims that the companies using LIFO will not pay less taxes than companies using FIFO.<sup>30</sup> The only difference will be that LIFO companies will pay taxes more evenly. That is, since their earnings will be more level, their tax payments will be more level. This report assumes, as did almost all writers until the 1950s, that prices are cyclical but have no steady upward trend.

### *Recognition of LIFO for Taxes*

Whatever its limitations, the 1938 report was very influential. In that year Congress made the first move to allow LIFO for tax purposes. Specifically, Congress allowed the use of LIFO for certain raw materials of tanners and brass smelters and refiners. Interestingly enough, the petroleum industry was not included.

Why were only certain industries allowed to use LIFO? The Treasury had argued that it would be impossible for them to draft adequate regulations if LIFO were allowed to a wide group of taxpayers.<sup>31</sup> Possibly, the industries allowed were the users of the base stock method for financial reporting purposes, but more likely the choice was political. These industries had been unsuccessful in getting the Internal Revenue Service to recognize one of their business practices, so Congress compensated them with LIFO.<sup>32</sup> The hearings for the 1938 Revenue Act indicate that LIFO was considered appropriate only under the conditions listed in the American Institute of Accountants' report of 1938.<sup>33</sup>

Many people complained that the Act was poorly drafted.<sup>34</sup> The inclusion of only certain industries was considered especially unfair. In response to these criticisms, Congress appointed a committee to rewrite the tax law relating to LIFO.<sup>35</sup> The committee's work resulted in the more general acceptance of LIFO in the 1939 Revenue Act. The quality of the 1939 Revenue Act may be judged by the fact that, except for a recent relaxation of the conformity rule, it has continued in the Internal Revenue Code without material change until the present day.

One of the most important features of the Revenue Act is the conformity rule—any company using LIFO for taxes must also use LIFO for financial reports. This is a unique feature in the tax laws. A company may use accelerated depreciation for tax purposes and at the same time use straight-line depreciation for its financial reports. But a company cannot use a non-LIFO method of reporting on financial statements and use LIFO for taxes.

Congress may have reasoned that since LIFO proponents claim that only LIFO presents a true picture of earnings, companies using LIFO for tax purposes must use it for financial reporting. Firmin<sup>36</sup> claims that the intention of Congress was to allow LIFO only when the actual flow of goods is roughly identical to LIFO. Congress believed that no auditor would certify statements of a company that was assuming a LIFO flow when the actual flow was FIFO. Firmin's line of reasoning, however, does not stand up to an historical analysis. The proponents of LIFO never claimed that LIFO represents the actual flow of goods, nor did they require that the actual flow of goods correspond to LIFO.

It may be true, however, that Congress believed that no company could get certified statements using LIFO if LIFO did not produce reasonable financial statements. *Accounting Research Bulletin Number 29*, issued by the Committee on Accounting Procedure of the American Institute of Accountants in July 1947, stated:

Thus, where sales prices are promptly influenced by changes in reproductive costs, an assumption of the "last-in first-out" flow of cost factors may be the more appropriate. Where no such cost-price relationship exists, the "first-in first-out" or an "average" method may be more properly utilized.<sup>37</sup>

If auditors refuse to certify the financial statements of a company that uses LIFO inappropriately, the company would have to use FIFO for financial statements and would not be able to use

LIFO for tax purposes. Congress believed it was thus ensuring that LIFO would be used only where appropriate. It should, however, be pointed out that, in 1953, the above passage was eliminated from *Accounting Research Bulletin Number 29*. This omission means that the accounting profession rejected the premise that LIFO should be used only under appropriate conditions. In summary, if Congress had intended that the Certified Public Accountant make sure that LIFO was only used appropriately, the intention was thwarted.

In a recent case, Senior District Judge Hogan examined the purpose of the conformity requirement.

Why did Congress, when it made the LIFO method available to all taxpayers, include a subsection requiring conformity of method? . . . Legislative and judicial history of the conformity requirement are of limited value. . . . The conformity requirement, in essence, is designed to establish prima facie evidence that at the time of its election, the taxpayer feels LIFO provides a clear reflection of income.<sup>38</sup>

All writers agree that the Internal Revenue Service did not make it easy for taxpayers to use LIFO. For instance, they only allowed LIFO for fungible inventories. Morrissey<sup>39</sup> claims that the Internal Revenue Service insisted on three other conditions before it would allow the use of LIFO: that the ratio of purchasing cost to selling cost must remain steady; that material cost must be a large part of total cost; and that inventory must be a large part of assets.

However, it is hard to believe that the Internal Revenue Service required these three conditions. If inventory is a small part of assets, why would the Internal Revenue Service bother to contest a LIFO election; and further, on what grounds would it contest the election? The writer is probably extrapolating from the American Institute of Accountants' report to the Internal Revenue Service.

The flavor of the Internal Revenue Service thinking becomes clear from a close reading of the Treasury Regulation issued December 28, 1939.

Whether or not the taxpayer's application for the adoption and use of . . . [LIFO] should be approved . . . will be determined by the Commissioner in connection with the examination of the taxpayer's returns.<sup>40</sup>

This means that a few years may pass after the taxpayer elects LIFO before he finds out if his election has been accepted. The

*Davis: History of LIFO*

Commissioner also reserved the right to make any adjustments which he deemed necessary.

The most important ruling of the Internal Revenue Service was that LIFO applied only to homogeneous inventories. This ruling led to the legal battle which resulted in a major redefinition and extension of LIFO.

### *Theoretical Development of LIFO-Retail*

When LIFO was approved by Congress in 1938, only a handful of industries were permitted to use LIFO. Retailers were not among them. In 1939 Congress allowed anyone to use LIFO. Retailers, who were also concerned with cyclical profits, found that they had a problem even in 1939.<sup>41</sup> Since they did not deal in homogeneous inventories, the retailers would be forced to apply the LIFO concept to many small classes of goods called "pools." This would involve voluminous record keeping. Furthermore, because of the vagueness in the law defining what qualifies as a LIFO pool, the retailers were not sure how similar the goods in a pool had to be. Stringent interpretations of pools by agents in the field made matters even worse.

Furthermore, the original intent of LIFO proponents was obviously not to include retailers. Peloubet, an early supporter of LIFO, writes:

Obviously any trade or industry where one type of material is completely disposed of, is not replaced, and another different type is substituted is not suited to the use of the LIFO method. . . . Responsible writers on LIFO do not generally advocate the indiscriminate extension of the method to all types of trade and industry. . . . LIFO is not applicable to merchandising businesses.<sup>42</sup>

Carman G. Blough, one of the three people who helped draft the 1939 Revenue Act, had this to say about the universal application of LIFO:

Anyone who has given any consideration to the question of costing inventories recognizes that there are certain types of businesses to which . . . LIFO is not at all appropriate . . . ordinary retail stores, the usual manufacturing business, etc., would not qualify.<sup>43</sup>

Obviously, the early proponents of LIFO did not envision a LIFO-Retail. Early LIFO was envisioned as a flow assumption applicable only to homogeneous inventory.

Despite the inauspicious environment, a solution to the retailers' problems was devised by Thomas McAnly. Instead of viewing inventories as pools of homogeneous goods, an inventory, even of heterogeneous goods, is viewed as one basic inventory. This basic inventory is measured in dollars rather than in units. McAnly's method is similar to the retail inventory system. The retail inventory system dispenses with the pricing of individual units of inventory and instead multiplies departmental retail values by the markup percentages. Similarly, LIFO-Retail dispenses with individual units and instead considers only layers of departmental inventory. Each layer of inventory is restated into the base year price at which it was acquired. The rise in the value of the base inventory is removed from the inventory and charged to cost of goods sold.

### *Acceptance of LIFO-Retail*

In 1941, two years after the passing of the 1939 Revenue Act, more than sixty retailers made the LIFO election for tax purposes.<sup>44</sup> The group used indices compiled by the National Retail Dry Goods Association to calculate the change in the dollar value of the inventory.<sup>45</sup> The indices were used to forestall the argument that individual retailers might manipulate income figures by manipulating the indices. The Commissioner of Internal Revenue rejected LIFO-Retail. In February 1942, the American Institute of Accountants' Committee on Cooperation with Controllers' Congress of the National Retail Dry Goods Association issued a report that retailers should be eligible to use LIFO for taxes.<sup>46</sup>

Since the Internal Revenue Service would not allow LIFO-Retail, the American Retail Federation chose the Hutzler Brothers case for a court test.<sup>47</sup> In 1947 the Court ruled for Hutzler Brothers, using the following line of reasoning: The law allows all taxpayers to use LIFO. The Internal Revenue Service accepts the retail method in lieu of specific identification. Thus, there is no reason why the retail method cannot be combined with LIFO. This ruling legitimized LIFO-Retail and resulted in an Internal Revenue Service ruling allowing retailers to use LIFO.<sup>48</sup> The ruling insisted that the only indices acceptable for LIFO-Retail are those of the Bureau of Labor Statistics.

### *Further Extensions of LIFO in the Basse Case*

After the Hutzler Brothers case, all that remained was to allow the use of LIFO to businesses that have heterogeneous inventories but do not use a retail system,

The Basse case<sup>49</sup> in 1948 is the last major extension of LIFO. Basse was a wholesale grocer who used dollar value LIFO with his own indices. The difference between dollar value LIFO and retail LIFO is that the former does not include a markup. In 1949, the Treasury Department approved the universal use of dollar value LIFO.<sup>50</sup>

In the ten years from the Revenue Act of 1938 until the Basse case, the acceptance of LIFO expanded from a handful of industries to a universal acceptance.

### *Other Developments of LIFO*

There have been many technical developments in LIFO, especially relating to the construction of indices and to the definition of LIFO pools. They are omitted in this paper because of their technical nature. Any good intermediate accounting text illustrates the different types of adjustments.<sup>51</sup> Three major theoretical developments of LIFO are discussed.

### *Involuntary Liquidations*

During World War II shortages developed in many industries. The companies in these industries sold goods from their LIFO stock which had been acquired earlier at very low prices. Since the inventory could not be replaced because of the shortages, the companies were taxed on the difference between selling prices and LIFO stock cost. If the companies could have replaced the inventory, they would, of course, have been taxed only on the difference between selling price and replacement cost. The shortages thus subjected the companies to the high wartime tax rates on the difference between the low LIFO cost and the subsequent replacement cost. To alleviate this situation, Congress in 1942 amended the Revenue Act to provide that any taxpayer who had to liquidate inventories due to wartime conditions could elect to replace the inventories at a later date.<sup>52</sup> The election allowed the taxpayer to get a refund for all taxes paid on the difference between replacement price and LIFO cost. Congress later extended the involuntary liquidations for all liquidations occurring before January 1, 1948.

During the Korean War, Congress again passed relief provisions for all involuntary liquidations between June 30, 1950, and December 30, 1954. Both these laws specified dates by which the inventories had to be replaced. World War II liquidations had to be replaced before January 1, 1953. Korean War liquidations had to be replaced before December 31, 1954.



In response to recent energy shortages, Congress enacted a relief provision for a limited set of involuntary liquidations in tax years ending after October 31, 1979.<sup>53</sup> The relief provision applies to all liquidations attributable to either a "Department of Energy Regulation or request with respect to energy supplies, or any embargo, international boycott or other major foreign trade interruption."<sup>54</sup> The company generally has up to three years to replace the inventory.<sup>55</sup>

These Congressional relief provisions are important because they allow charging cost of goods sold with a replacement price rather than an actual price. The next goods bought are charged to cost of goods sold, which led to the name, next-in, first-out (NIFO).

The theory of NIFO may best be understood by an analogy. Assume a merchant must borrow some goods to make an important sale. Obviously, his cost of goods sold is the replacement value of the goods he borrowed. Thus, when a merchant liquidates his inventory, he is temporarily borrowing from it. He will have to return the goods borrowed. His cost of goods sold is thus the replacement cost. In effect, NIFO grafts a concept from base stock theory, that liquidations are only borrowed from base stock, onto LIFO structure, in which all inventory is said to comprise the base stock.

Fremgen<sup>56</sup> calls for the extension of NIFO to include all involuntary liquidations resulting from non-war shortages and strikes. In recent years, however, support for the extension of NIFO has abated.

### ***Problems when Market Value Falls Below LIFO***

As previously discussed, a taxpayer using LIFO for taxes must use LIFO for financial reports. A problem arose if market declined below the book value of the inventory. If no write down was permitted on the balance sheet, the inventory was overstated.

Arundel Cotter<sup>57</sup> suggested that when market value falls below LIFO book value, the solution is to write down the inventory on the balance sheet. The write-down does not flow through the income statement but rather, is set up as a reserve on the balance sheet. McAnly<sup>58</sup> echoed the solution of setting up a reserve for the decline in value of the inventory. A balance sheet write-down is specifically permitted by the Income Tax Regulations. "Use of the market value in lieu of cost . . . is not considered at variance with this [LIFO] requirement."<sup>59</sup>

An article in the *Arthur Young Journal* sheds some light on what auditors actually did when the market value of inventory fell below the LIFO cost basis.<sup>60</sup> When the inventory quantity of the company

was at a normal level, Arthur Young allowed the decline to go unnoticed. The reasoning was that the normal quantity of inventory was not for sale, so the loss will not be realized, an argument reminiscent of base stock theory. Any excess quantity above the normal requirements was written down to market on both the balance sheet and the income statement. The write-down on the income statement was not matched by a write-down on tax returns, thus resulting in a timing difference.

McAnly<sup>61</sup> called for a provision in the tax code allowing the use of lower of cost or market in conjunction with LIFO. This combination is called HIFO, highest-in, first-out. Since for all other taxpayers write-downs to market are fully tax deductible, why should the LIFO taxpayer be discriminated against? The American Institute of Certified Public Accountants' Committee on Federal Taxation recommended the following change in the tax laws.

The Code should be amended to permit taxpayers using the LIFO inventory method for income tax purposes to value their inventories at the lower of cost or market while the Excess Profits Tax Act of 1950 is in force, and for five years thereafter.<sup>62</sup>

The proponents of HIFO are not really presenting a coherent theory. If one accepts the base stock premise that changes in the value of inventory do not affect income, one cannot argue that losses in the value of inventory affect income. Why should gains in the value of inventory be excluded from income, if losses are included in income? In recent years there has been no support for HIFO.

### *The Conformity Rule: A Constant Conflict Finally Resolved*

The conformity rule, which restricts the information that a LIFO taxpayer may report, has caused a number of jurisdictional conflicts. The first conflicts were with accounting rules. The write-down of LIFO inventory to market is one such conflict that has already been examined. Later there were conflicts with other government agencies that wanted a LIFO firm to disclose FIFO data. In each case the Internal Revenue Service issued a specific exemption allowing a taxpayer to disclose the FIFO information. Early in 1981, the Internal Revenue Service liberalized the conformity rule in general. The first two areas of conflict with the conformity rule stemmed from *Opinion 16* and *Opinion 20* of the Accounting Principles Board.

*Opinion 16* lays down strict guidelines distinguishing between a purchase and a pooling. In a purchase, all assets of the acquired

company are written up to market; in a pooling, all assets of the acquired company remain unchanged. Likewise, the tax laws distinguish between business combinations which are tax free—that is, the basis of all property remains the same—and between combinations that are taxable—that is, the difference between the book values and current market values are recognized and taxed. A problem arose because the tax criteria are not identical to the criteria of *Opinion 16*. Assume a company acquires another company in a tax-free combination that is treated as a purchase for accounting purposes. The parent company will have to write up the value of the inventory on its books, but for tax purposes the inventory will remain at its LIFO base price. Would the Internal Revenue Service disallow the LIFO election of the parent company since on its books the parent company has written up the inventory? In 1972, the Internal Revenue Service answered the question.<sup>63</sup> If there is a difference between tax and financial statements because of *Opinion 16*, the Internal Revenue Service requires only a footnote disclosure of the difference.

Accounting Principles Board *Opinion 20*, passed in 1971, required that a company changing to LIFO disclose *pro-forma* what the income of the firm would have been if it had retained its previous method of accounting. Revenue Ruling 73-66 states that such *pro-forma* disclosure is permitted in the footnotes.<sup>64</sup> However, Revenue Ruling 73-66 was issued in 1973 and *Opinion 20* was issued in 1971. A company wanting to adopt LIFO in 1971 or in 1972 was sailing between Scylla and Charybdis. Failure to give the *pro-forma* information would cause problems with the auditor's certificate and with filing for the Securities and Exchange Commission. Disclosing the required information ran the risk of having the LIFO election disqualified. The company did not know in 1971 that the Internal Revenue Service would allow footnote disclosure.

Soon after allowing an exemption to the conformity rule for *Opinion 20*, the Internal Revenue Service had to issue a more general exclusion<sup>65</sup> allowing a LIFO taxpayer to disclose any information required by Accounting Principles Board *Opinion 20*, *Opinion 28*, *Financial Accounting Standard 3*, *Accounting Series Release 159*, *Rule 3-07 of Regulation S-X* and/or *Release 11079* of the Securities and Exchange Act of 1934, the latter three requirements all having been issued by the Securities and Exchange Commission. The above was followed by exemptions for data required by the Federal Trade Commission,<sup>66</sup> the Bureau of Census and the Bureau of Economic Analysis,<sup>67</sup> disclosure of replacement cost data required by the Securities and Exchange Commission,<sup>68</sup> reports made available to

*Davis: History of LIFO*

the Council on Wage and Price Stability,<sup>69</sup> and quarterly data required by the Federal Trade Commission.<sup>70</sup>

In 1981, the Internal Revenue Service substantially modified the conformity rule.<sup>71</sup> The new rule has a number of important features. One, supplementary disclosure of income is permissible on any basis, as long as LIFO income is the primary income presentation.<sup>72</sup> Two, in valuing the asset inventory on the balance sheet any method may be used. Three, even primary income may be reported using any method if the income report is to be used for internal management reports or for interim statements. Four, lower of LIFO cost or market may be used in calculating even primary LIFO income.

By allowing a broad range of disclosures while at the same time requiring that LIFO income should be the primary public reporting method, the Internal Revenue Service should avoid any future conflicts resulting from the conformity rule. The conformity rule in its present form will probably not require any further modifications.

#### FOOTNOTES

<sup>1</sup>American Accounting Association, Committee on Accounting History, p. 53.

<sup>2</sup>Most, pp. 329-330, argues that the base stock method and LIFO are ". . . conceptually two different approaches, since the base stock method involves determining a normal inventory quantity and LIFO does not." Although Most is correct that the two methods differ conceptually, historically LIFO is clearly an outgrowth of the base stock method.

<sup>3</sup>Cotter, 1940, p. 44.

<sup>4</sup>Peloubet, 1953, p. 246.

<sup>5</sup>Peloubet, 1971, p. 56.

<sup>6</sup>May, p. 5.

<sup>7</sup>Butters and Niland, p. 72. Paton, pp. 359-360.

<sup>8</sup>Peloubet, 1953, pp. 246-247.

<sup>9</sup>Great Britain, Ministry of Reconstruction, Committee on Financial Risks Attaching to the Holding of Trading Stocks, Report.

<sup>10</sup>Carson, pp. 8-15.

<sup>11</sup>Hoffman, pp. 134-135.

<sup>12</sup>Warshow, 1924. Warshow, 1941.

<sup>13</sup>The liability concept, while in keeping with the borrowing theory of the base stock concept, does violence to the concept of liabilities since the company is under no legal obligation to replace liquidated inventories.

<sup>14</sup>Warshow, 1924, p. 31.

<sup>15</sup>Sanders, pp. 431-433.

<sup>16</sup>Nickerson, pp. 61-62 has a similar table and chart.

<sup>17</sup>The retrenchment that followed the extravagance on the upcycle was one of the concerns of that era.

<sup>18</sup>Treasury Regulation 94, Article 22(c)-2.

<sup>19</sup>United States Circuit Court of Appeals, 11 B.T.A. 877, May 14, 1925. Quoted in Peloubet, 1929, p. 578.

<sup>20</sup>Lucas v. Kansas City Structural Steel Company.

- <sup>21</sup>Iglauer, p. 4.
- <sup>22</sup>Palmer. Dittmer.
- <sup>23</sup>Even National Lead Company changed the quantity of its normal stock twice. In 1924, it changed the quantity from 80,000 tons to 96,000 tons and in 1932 it reduced its normal stock to under 50,000 tons. "Base Stock Inventories and Federal Income Taxation," p. 1433.
- <sup>24</sup>Devine, p. 93.
- <sup>25</sup>Hoffman, pp. 146-152. The phrase "last-in, first-out" appears to have started with committees representing the Petroleum Institute.
- <sup>26</sup>Hoffman, pp. 147-149.
- <sup>27</sup>American Petroleum Institute, p. 61.
- <sup>28</sup>American Institute of Accountants, Special Committee on Inventories, p. 132.
- <sup>29</sup>American Institute of Accountants, Committee on Federal Taxation, 1938.
- <sup>30</sup>"Base Stock Inventories and Federal Income Taxation," p. 1441 echoes this claim. ". . . it is apparent that over a reasonably long period of years, the taxes paid by a company that is constantly making money will be the same whichever method is used."
- <sup>31</sup>"Base Stock Inventories and Federal Taxation," p. 1431.
- <sup>32</sup>Hoffman, p. 153.
- <sup>33</sup>Senate Finance Committee, pp. 154-155.
- <sup>34</sup>Peloubet, 1971, p. 60 claims that the LIFO provision in the Revenue Act of 1938 was ". . . in the opinion of almost everyone concerned with it, one of the worst pieces of revenue legislation that had been passed for some time."
- <sup>35</sup>The Committee consisted of Carman G. Blough, research director of the American Institute of Accountants and formerly the chief accountant of the Securities and Exchange Commission, Edward A. Kracke, a partner in Haskins and Sells, and Roy B. Kester, head of the School of Business at Columbia University.
- <sup>36</sup>Firmin, p. 270.
- <sup>37</sup>American Institute of Accountants, Committee on Accounting Procedure, p. 198.
- <sup>38</sup>Powell v. United States.
- <sup>39</sup>Morrissey, p. 195.
- <sup>40</sup>Treasury Decision 4959.
- <sup>41</sup>McNair and Hersum, pp. 144-145.
- <sup>42</sup>Peloubet, 1940, pp. 447-448. See also Peloubet, 1929, p. 571.
- <sup>43</sup>Blough, p. 80.
- <sup>44</sup>McNair and Hersum, Chapter 9, especially pp. 164-196 present an excellent detailed history of the acceptance of LIFO-Retail.
- <sup>45</sup>Freudenthal, pp. 9-11.
- <sup>46</sup>American Institute of Accountants, Committee on Cooperation with Controllers' Congress of the National Retail Dry Goods Association.
- <sup>47</sup>Hutzler Brothers v. United States. The decision was not unanimous. Two judges dissented because there is no "physical matching of opening and ending inventory."
- <sup>48</sup>Treasury Decision 5605.
- <sup>49</sup>Basse v. Commissioner.
- <sup>50</sup>Treasury Decision 5756.
- <sup>51</sup>Kieso and Weygandt, pp. 408-409. Welsch, Zlatkovich, and Harrison, pp. 399-406. Davidson, Stickney, and Weil, Chapter 10.
- <sup>52</sup>Hoffman, pp. 153-157.
- <sup>53</sup>United States Tax Code, Section 473.
- <sup>54</sup>United States Tax Code, Section 473, (c)(2)(B)(i).

*Davis: History of LIFO*

- <sup>55</sup>The Secretary may set a shorter period.
- <sup>56</sup>Fremgen.
- <sup>57</sup>Cotter, October 9, 1939. Cotter did much to publicize the use of LIFO. In a series on inventories he had five articles on LIFO between October 9, 1939 and November 13, 1939.
- <sup>58</sup>McAnly.
- <sup>59</sup>Treasury Regulation 1.472-2(e) prior to 1/16/81 amendment by Treasury Decision 7756.
- <sup>60</sup>Weston.
- <sup>61</sup>McAnly.
- <sup>62</sup>American Institute of Accountants, Committee on Federal Taxation.
- <sup>63</sup>Revenue Procedure 72-29, 1972-1, CB 757.
- <sup>64</sup>Revenue Ruling 73-66, 1973-1, CB 218.
- <sup>65</sup>Revenue Procedure 75-10, 1975-1, CB 389 amplified by Revenue Procedure 76-3, 1976-1, CB 542.
- <sup>66</sup>Revenue Procedure 75-30, 1975-1, CB 756.
- <sup>67</sup>Revenue Procedure 75-36, 1975-2, CB 565. Revenue Procedure 76-36, 1976-2, CB 659.
- <sup>68</sup>Revenue Procedure 77-7, 1977-1, CB 540. Revenue Procedure 77-46, 1977-2, CB 579. Revenue Procedure 79-39, 1979-2, CB 501.
- <sup>69</sup>Revenue Ruling 79-139, 1979-1, CB 190.
- <sup>70</sup>Revenue Ruling 79-242, 1979-2, CB 219.
- <sup>71</sup>Treasury Decision 7756 modifying Treasury Regulation 1.472-2(e).
- <sup>72</sup>Treasury Regulation 1.472-2(e)(1)(i) and 1.472-2(e)(3). The latter section gives very detailed rules on what is allowed and what is disallowed. It even explains how management must answer questions at a meeting of financial analysts.

## BIBLIOGRAPHY

- American Accounting Association. Report of the Committee on Accounting History. Supplement to Volume XLV of *Accounting Review* (1970), pp. 52-64.
- American Institute of Accountants. Committee on Accounting Procedure. "Accounting Research Bulletin Number 29." *Journal of Accountancy* (September 1947), p. 198.
- \_\_\_\_\_. Committee on Cooperation with Controllers' Congress of the National Retail Dry Goods Association. "Last-in, First-out Inventory Basis." *Journal of Accountancy* (February 1942), pp. 146-154.
- \_\_\_\_\_. Committee on Federal Taxation. "Last-in, First-out Inventory Method." *Journal of Accountancy* (November 1938), pp. 310-314.
- \_\_\_\_\_. Committee on Federal Taxation. *Journal of Accountancy* (December 1952), p. 720.
- \_\_\_\_\_. Special Committee on Inventories. "Valuation of Inventories." *Journal of Accountancy* (August 1936), pp. 122-132.
- American Petroleum Institute. "Uniform System of Accounts for the Oil Industry." (June 1936). Available in library of American Institute of Certified Public Accountants in New York.
- "Base Stock Inventories and Federal Income Taxation." *Harvard Law Review*, Vol. 51 (June 1938), pp. 1430-1442.
- Basse v. Commissioner, 10 Tax Court 328, 1948.
- Blough, Carman G. "Applicability of the 'Last-in, First-out' Method to Different Types of Industry." In American Institute of Accountants. Papers on Auditing Procedure and Other Accounting Subjects. (1939), pp. 78-81.

- Butters, J. Keith and Niland, Powell. *Inventory Accounting and Policies*, Vol. I, *Effects of Taxation*. Mass.: Riverside Press, 1949.
- Carson, Edward G. "Base Stock and LIFO Inventory Methods." *Lybrand Ross Brothers and Montgomery Journal*, Vol. 34 (February 1953), pp. 8-15.
- Cotter, Arundel. *Fool's Profits*. New York: Barron's Publishing Company, 1940.
- \_\_\_\_\_. "Scotching the Inventory Bugaboo." *Barron's*, October 9, p. 9; October 23, p. 7; October 30, p. 13; November 6, p. 20; November 13, p. 7, 1939.
- Davidson, Sidney, Stickney, Clyde P. and Weil, Roman L. *Intermediate Accounting: Concepts Methods and Uses*. Hinsdale, Illinois: Dryden Press, 1980.
- Devine, Carl T. *Inventory Valuation and Periodic Income*. New York: n. p., 1942. Available in library of American Institute of Certified Public Accountants in New York.
- Dittmer, A. J. "Last-in, First-out Inventory." *Illinois Manufacturers' Costs Association Monthly Bulletin* (November 1940), pp. 1-2.
- Firmin, Peter A. "Dollar-Value LIFO: Legitimate or Not?" *Accounting Review*, Vol. 38 (April 1963), pp. 270-277.
- Fremgen, James M. "Involuntary Liquidation of Inventories Priced by LIFO." D.B.A. dissertation, Indiana University, 1961.
- Freudenthal, David M. "History of the LIFO Case and a Summary of the Findings." *Balance Sheet*, Vol. 16 (April 1948), pp. 9-11.
- Great Britain, Ministry of Reconstruction, Committee on Financial Risks Attaching to the Holding of Trading Stocks: Report, 1919. Available in library of American Institute of Certified Public Accountants in New York.
- Hoffman, Raymond A. *Inventories—A Guide to Their Control, Costing, and Effect Upon Income and Taxes*. New York: Ronald Press Company, 1962.
- Hutzler Brothers v. United States, 8 Tax Court 14, 1947.
- Iglauer, Jay. "'LIFO' Method of Inventory." *Balance Sheet* (January 1942), pp. 4-11.
- Kieso, Donald E. and Weygandt, Jerry J. *Intermediate Accounting*. Third Edition. New York: John Wiley and Sons, 1980.
- Lucas v. Kansas City Structural Steel Company, 281 United States 264, 1930.
- McAnly, H. T. "Need for Agreement on a Uniform Basis of Inventory Valuation." *Controller*, Vol. 19 (August 1951), pp. 347-351, 382-383.
- May, George O. "LIFO and FIFO." 1950. (Typewritten.) Available in library of American Institute of Certified Public Accountants in New York.
- McNair, Malcolm P. and Hersum, Anita C. *The Retail Inventory Method and LIFO*. New York: McGraw-Hill Book Company, Inc., 1952.
- Most, Kenneth S. *Accounting Theory*. Ohio: Grid Inc., 1977.
- Morrissey, Leonard E. "LIFO Method of Determining Cost; History of LIFO; Mechanics of LIFO." In his *Contemporary Accounting Problems—Text and Cases*. Englewood Cliffs, New Jersey: Prentice-Hall, 1963, pp. 194-199.
- Nickerson, Clarence B. *Cost Accounting*. New York: McGraw-Hill Book Company, Inc., 1954.
- Palmer, Ernest O. "Last-in, First-out Inventories." *Illinois Manufacturers' Costs Association Monthly Bulletin* (November 1939), pp. 1-3.
- Paton, William A. "Last-in, First-out." *Journal of Accountancy* (May 1940), pp. 354-360.
- Peloubet, Maurice. "Valuation of Normal Stocks at Fixed Prices." Paper presented at the International Congress on Accounting, Hotel Commodore, New York. September 9-14, 1929. New York: Knickerbocker Press, 1930. Available in library of Price Waterhouse in New York.
- \_\_\_\_\_. "Last-in, First-out Once More: A Discussion of Certain Points Raised by Professor Paton." *Journal of Accountancy* (June 1940), pp. 446-450.

- \_\_\_\_\_. "Last-in, First-out: The Businessman's Inventory Method." *Canadian Chartered Accountant*, Vol. 62 (June 1953), pp. 244-253.
- \_\_\_\_\_. "The Struggle for LIFO." *Price Waterhouse Review*, Vol. 16 (Spring 1971), pp. 54-61.
- Powell v. United States. United States District Court, South District Ohio, West Division, Number C-1-78-610, May 14, 1981.
- Revenue Procedures 72-29, 1972-1, CB 757; 75-10, 1975-1, CB 389; 75-30, 1975-1, CB 756; 75-36, 1975-2, CB 565; 76-3, 1976-1, CB 542; 76-36, 1976-2, CB 659; 77-7, 1977-1, CB 540; 77-46, 1977-2, CB 579; 79-39, 1979-2, CB 501.
- Revenue Rulings 73-66, 1973-1, CB 218; 79-139, 1979-1, CB 190; 79-242, 1979-2, CB 219.
- Sanders, T. H. "Some Variations in Inventory Valuations." *Journal of Accountancy* (December 1926), pp. 429-438.
- Senate Finance Committee, Hearings on the Revenue Act of 1938, 75th Congress, 3rd Session, on H.R. 9682 (Government Printing Office, 1938).
- Treasury Decisions 4959, 5605, 5756, 7756.
- Treasury Regulations 94, Article 22(c)-2 and 1.472-(2)(e).
- United States Tax Code Section 473.
- Warshaw, H. T. "Inventory Valuation and the Business Cycle." *Harvard Business Review*, Vol. 3 (October 1924), pp. 27-34.
- \_\_\_\_\_. "Inventory Valuation or the Normal Stock Method of Inventory Valuation." In *The Control and Valuation of Inventories*, pp. 242-53. Edited by National Association of Cost Accountants. New York: J. J. Little and Ives, 1941.
- Welsch, Glenn A., Zlatkovich, Charles T., and Harrison, Walter T., Jr. *Intermediate Accounting*. Fifth Edition. Homewood, Illinois: Richard D. Irwin, 1979.
- Weston, Frank T. "A Few Thoughts on Cost or Market Under LIFO." *Arthur Young Journal*, Vol. 1 (October 1953), pp. 1-8.