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BARTER: DEVELOPMENT OF ACCOUNTING PRACTICE AND THEORY

Abstract: John Mair, in 1752, stated, "Barter, or the exchange of goods for goods, is nothing else but buying and selling blended together." This statement, for all its seeming simplicity, is an excellent expression of the confusion which has accompanied the practice and theory of recording this most basic commercial transaction. Can one accounting transaction be both a sale and a purchase at one and the same time and for the same accounting entity?

The proper recording of the barter transaction has occupied the attention of accounting text book authors, beginning in 1494 with Pacioli, with various authors expounding different solutions for almost 500 years. It was not until 1971 that a sound theoretical solution was presented.

Barter, or the exchange of one good for another, was the oldest form of commercial transaction. Although this primitive transaction, without the complication of monetary or credit instruments, may seem a very simple one, in fact it presents unexpected difficulties for the accountant. The basic question that arose concerned the nature of a barter transaction. Is it a purchase, a sale, or possibly, as one author characterizes it, a simultaneous purchase and sale? The recommended recording methods varied considerably, and no logical theoretical basis existed for the accounting practices presented.

In attempting to trace the development of accounting theory and practice with respect to the recording of barter transactions we must infer them from the writings of early authors by reference to the demonstrations given in their books. In addition, it may be unjustified to conclude that the methods demonstrated were common bookkeeping practices of the time. Within these limitations, an attempt will be made to deduce the early development of the practice and theory underlying the recording of barter transactions.

Pacioli To the 19th Century

Pacioli, in discussing the accounting treatment for barter, stated: "first enter it (the barter transaction) in the memorandum book,

stating in detail all about it . . . then at the end you shall put a money value on it; you shall put down such price in accordance with the current value which the things you have traded have. . .”¹ Unfortunately, it is not quite clear what “things you have traded” meant, the goods given, the goods received, or both. In his first example (Chapter 20) Pacioli uses an example of the receipt of ginger for sugar given in exchange. He states, “I value the sugar 24 ducats per hundred,” thus using the value of the goods sacrificed and treating the transaction as a purchase of ginger. In Chapter 36 he offers another example, wool given in exchange for pepper received. He treats this transaction as a sale, saying, “I have sold 1,000 pounds of English wool in exchange for . . . 2,000 pounds of pepper. . . Estimate what the value of the pepper is, at your discretion, in cash.” He debited the pepper at this value and credited wool for the same value.

Pacioli, then did establish the principle of using market value but did not establish of which good, that received or that given up.

Jan Christoffels Ympyn also gave attention to barter in his 1547 text. He emphasized the need for the record of a barter transaction to reflect the economic realities of the transaction, but was inconclusive as to the exact method which would accomplish this desired end. He stated that the barter recording should be done in such a way that:

. . .by which doynge ye shall always perceive whether ye gayned or lost by your Bartryng, because it shall apere what every ware stode you in.²

Perhaps the last phrase can be interpreted as indicating the use of the cost value of the goods sacrificed, and of market value for the goods received.

Ympyn was particularly concerned with the business ethics of the practice, for he stated that a barter transaction:

. . .is made with a purpose on both parties, the one to deceive and beguyle the other, the which may rightly be called bartryng. . .³

He continued with a warning that in:

. . .this thyng is speciall heede to bee taken, for in this manner of choppyng and chaungyng lieth greate hasard and daungier, and no little deceite . . . for commonly the one partie either for lacke of makyng his reconyng or for not havyng knowledge of the wares or prices of the same,

or dooth not consider the tyme whiche passeth and commeth, bee it long or short . . . is ever driven to the worsse.⁴

James Peele, in his 1553 text, when explaining this type of transaction, assumed an equal value for both goods bartered, and treated only the mechanics of recording.

Bartryng one ware for another, the sommes beeyng equall.

You shall make the wares received, debitour to the wares, delivered. . .

As touchyng barter, there be other wayes to enter it (but all of one effect) as to conveye it to accompt of goodes chaunged, . . . though I have nothing spoken thereof, for I thinke one way in the teaching, is enough to instruct at the first enteraunce into any matter.⁵

No mention was made of the method of arriving at a value for the goods bartered but his examples clearly used an estimated value which could have been the market value of each good.

In his 1569 text, Peele gave a much more thorough treatment to barter. In a discussion between the "Schoolmaster" and a "Scholler" he explained both the mechanism and the method of arriving at the value of the goods.

Schoolmaster: The 107 example, teachethe howe to enter a parcell of wares delivered in Barter at their excessyve pryce.

Scholler: what you meane by this excessyve price I know not, . . .

Schoolmaster: . . . the goodes received and delivered at the excessyve price, are uniformelic charged and discharged, as if they had been bought and solde for readie monie.⁶

The meaning of "excessive price" was clarified in an example where the Schoolmaster debited the goods received (clothes whites) and credited the goods delivered (butts sakes):

. . . for that I mighte have sold the same sakes for . . . the which somme I have made the accompt of sakes Creditour.⁷

In this example Ympyn used the market price of the good sacrificed to place a value on the barter transaction.

Richard Dafforne, in *The Merchants Mirrour* (1660) made the very comfortable assumption that the value of both goods in barter was equal, without attempting to specify any method of determining the value. He busied himself with the accounts, debiting goods received and crediting goods delivered, but stated a preference for an entry through the accounts receivable account.

But if writing be not tedious unto us, or we are not paper-penurious, the best, and most uni-form booking. . .
is to have the received Wares Debtor to the Trucking man;
and then the Trucking Man Debtor to the Delivered Wares.⁸

In 1732 John Mair first published his remarkably successful *Book-keeping Methodiz'd* (later *Book-keeping Moderniz'd*) which ran through 20 editions over a period of more than one hundred years. Mair recognized the importance of barter in the commerce of his time and devoted considerable space to demonstrating the method for recording different types of such transactions. The 1752 edition demonstrated eight barter transactions involving pure barter and barter combined with cash or credit. Mair began by stating, "Barter, or the exchange of goods for goods, is nothing else but buying and selling blended together."⁹ In his illustrative entries for bartered goods he specified that the goods received and goods delivered be recorded for their respective values. The ledger account for Indian chintz gives some clue as to how their respective values were to be determined.

<i>Indian Chintz</i>	<i>contra</i>
1751	1751
1/1 To stock at 24 l. 10 s.	4/10 Del. in barter at 25 l.
	4/22 Del. in barter at 24 l. 15 s.
	4/30 Cash sale at 25 l. ¹⁰

The 1/1 inventory price may have been cost or an estimated market price. The credit entries are certainly not valued at cost but at an estimated value. The variation of this estimate on different days and the cash sales price would seem to indicate that the goods sacrificed were valued at market price. His other barter transactions are similarly treated. Each barter transaction illustrated assumed a higher price for the sacrificed goods than the original inventory value, thus each transaction recognized a gain. We cannot hypothesize Mair's practice with respect to losses because none was demonstrated.

It seems likely, then, that Mair followed Pacioli in using market price to place a value on barter transactions. He went beyond Pacioli in uniformly treating each barter transaction as a purchase by having the estimated (market) value of the sacrificed goods determine the transaction amount.

Mair's 1793 (6th) edition of *Book-keeping Moderniz'd* continued the same treatment for barter transactions as was followed in the 1752 edition. Mair's seeming use of market price of the goods sacrificed cannot be interpreted as conclusive evidence that book-keeping practice over this nearly fifty year period uniformly followed this method. Probably many variations were followed in actual practice. The strong influence which Mair's texts had during this period, however, might well suggest that his method was a preferred bookkeeping practice.

The American author, Chauncey Lee, in *The American Accountant*, (1797) did not discuss the barter transaction, but in a series of transaction examples bartered salt, which had been inventoried at 75¢ per bushel and which sold a few days before the barter at \$1.10 per bushel, for flaxseed. In this transaction, five days later, the salt was valued at \$1.12 per bushel and the flaxseed received in exchange at \$1.60 per bushel.¹¹ No explanation was given as to which value, that of the salt or that of the flaxseed, determined the value of the transaction. The similarity of the \$1.12 per bushel price of salt to its earlier cash selling price certainly indicates that market value was used and gives some strength to the assumption that the value of the goods sacrificed (salt) was used to determine the value of the transaction. Lee's inclusion of eight barter transactions out of only 55 demonstrations covering a period of 6 months indicates the importance of barter at the end of the eighteenth century.

Bryant Sheys in *The American Book-keeper* (1818) included a section entitled "Of Bartering Goods or Merchandise"¹² in which he illustrated various barter transactions stating that each good should be debited and credited for its value. The method of determining value and the use of goods delivered or goods received to value the transaction were not discussed. In a barter transaction later in the book,¹³ oil with a cost of \$100 per ton and which had been sold for \$150 cash price on April 11th was valued at \$200 per ton when bartered for Canary wine priced at \$120 per pipe on April 13th. On April 25th Canary wine was sold for \$150 per pipe. These widely varying values for oil and Canary wine in such a short period of time indicate the use of a very rough estimated value for both

rather than a market value. However, it would seem certain that an estimated value was used but whether of the goods delivered or the goods sold cannot be determined.

After this early part of the 19th century the subject of barter gradually disappeared from bookkeeping texts, even as illustrative examples. From the time of Pacioli until the early 19th century there seems to have been general agreement that an estimated value be used for the goods given and received. This estimated value, in most cases, was closely related to market value. There was less agreement on the use of the price of the good sacrificed to value the transaction. There is some evidence of this preference but most of the early texts consulted were silent on the subject, assuming that the estimated value of goods received and delivered were the same.

Emergence of Cost Basis Valuation of Barter Transactions

It would appear that the practice of using market value to record barter transactions changed sometime after 1800 and that the strong cost convention which grew up over the later part of the 19th century changed barter recording practice to valuation of the transaction through the cost of goods sacrificed rather than market price.

In 1939, Kenneth MacNeal wrote about the then current accounting practice for recording barter transactions.

If a business exchanges one asset for another through a process of barter, accounting convention ordinarily prescribes that the asset acquired shall be valued at the figure at which the asset exchanged was formerly carried on the books.¹⁴

Although MacNeal took exception to this practice as will be discussed later, others defended it.

In 1939 Canning expressed reluctance for the use of estimated values, market price or otherwise.

A direct valuation is possible when, and only when, a realized money income exists and is statistically determinable.¹⁵

Gilman, in the same year, took a strong position in favor of the use of book value of the sacrificed good to establish the value of a barter transaction, thus precluding any recognition of gain or loss.

In presenting an illustration of an automobile dealer exchanging a used car with a cost of \$200 and a sales price of \$250 for shares of General Motors stock, he stated:

This illustration emphasizes what appears to be the important concept of realization; when an entity exchanges one asset for another asset, no income is realized unless the new asset is a claim to cash which, in the normal course of events, will be converted into actual cash without the necessity of any subsequent sales transaction.¹⁶

Gilman further clarified his position.

If, on the other hand, the automobile dealer had exchanged the car for office equipment or for gasoline or for shop tools, there would be no realization of income, and these new assets, regardless of their market value and regardless of how quickly they might be disposed of, would take the same value on the dealer's books as the automobile which they replaced, namely \$200.¹⁷

Robert H. Montgomery, in his auditing text stated:

In this book, as in former editions, I present what, in my opinion, constitutes good auditing and accounting practice and procedure, all of which has stood the hard usage of the school of practical experience.¹⁸

Because of his eminence in the accounting profession he must be considered an authoritative interpreter of American accounting practice of the early 20th century. In speaking of fixed assets acquired in trade (barter) he stated:

Occasionally business concerns acquire property in exchange for other property. The usual rule requires that such assets be valued at the carrying value of the property disposed of, plus or minus any boot. . . . When the acquired property has been recently appraised or has a readily obtainable market value, such value may indicate the real basis for the exchange.¹⁹

While the "general rule" called for the use of cost of property given in exchange as the basis for determining value, Montgomery did recognize that there were circumstances which could make the use of cost improper.

Discrediting the Cost Basis

Kenneth MacNeal disagreed with Gilman, and favored using current market value to quantify barter transactions because it most accurately reflected economic realities.

Moreover, if the transaction was by barter, the original cost may have represented neither an economic value nor a private price, but merely an accounting convention obtained through the exchange of one going value for another.²⁰

Paton and Littleton took the position that in an exchange of one asset for another the acquired asset should be valued at the selling (exit) value of the asset sacrificed.²¹ Paul Grady in *Accounting Research Study No. 7* agreed that the good received in barter should be valued according to the market value of the good sacrificed.²²

Chambers offered an economic justification for the use of the value of the goods sacrificed as a basis for valuation of a barter transaction.

Direct exchange is the interpersonal transfer of the ownership of goods for the ownership of other goods. It is a process by which each person, taking account of the marginal valuations of the goods he holds at any time and the goods offered in exchange by others, endeavors to arrange that the marginal valuations of his holdings approach equality. — *The sacrifice of the satisfaction which is expected to be obtained from the possession or use of the goods given is the cost of the goods received.* (italics added).²³

Elsewhere Chambers advocates the use of fair market value as the best means of measuring economic values. His conclusion, then, is that barter transactions best reflect economic realities when recorded at the current market value of the goods given in exchange. This, of course, would recognize a gain or loss on the exchange if the current market value of the sacrificed goods was different from original cost.

In 1963, Moonitz and Jordan advocated treating barter as both a sale and a purchase with the use of the fair market values of both the article sacrificed and the article received.

An exchange of one unit for another may be . . . handled

. . . by treating the transaction as a sale of the old unit at its fair market value, recognizing any book gain or loss on the deal, followed by a purchase of the new unit at its fair value.²⁴

Accounting Principles Board Opinion No. 29 indicated that by 1973 accounting practice with respect to barter transactions had reverted to that proposed by John Mair in 1752. The basic principle for recording nonmonetary exchanges was stated to be:

Accounting for nonmonetary exchanges should be based upon the fair values of the assets (or services) involved which is the same basis as that used for monetary transactions. Thus the cost of a nonmonetary asset acquired in exchange for another nonmonetary asset is the fair value of the asset surrendered to obtain it, and a gain or loss should be recognized on the exchange.²⁵

Two modifications were stated:

1. The fair value of the asset received should be used to measure the cost if it is more clearly evident than the fair value of the asset surrendered.
2. If the exchange is not essentially the culmination of an earning process, accounting for an exchange of a nonmonetary asset between an enterprise and another entity should be based on the recorded amount . . . of the non-monetary asset relinquished.²⁶

Nonmonetary exchanges not resulting from the culmination of the earning process were of two types:

- a. An exchange of a product or property held for sale in the ordinary course of business for a product or property to be sold in the same line of business, to facilitate sales to customers other than the parties to the exchange, and
- b. An exchange of a productive asset not held for sale in the ordinary course of business for a similar productive asset.²⁷

Modification (1), the use of the fair value of the asset received if more clearly ascertainable than that of the asset sacrificed, is evidence of the pragmatic nature of accounting practice of that period.

U.S. Federal Income Tax Treatment of Barter Transactions

The U.S. Federal income tax regulations with respect to barter transactions stated that as a general rule, the fair market value of the *property received* in exchange for property (other than productive assets) shall determine the amount received by the taxpayer. The difference between this value and the tax base of the property given in exchange will result in a taxable gain or deductible loss.²⁸ Labor barter is also covered by the regulations. When compensation for labor is received in the form of property, the taxable wages are valued at the fair market value of the property received.²⁹ In general, federal income tax regulations treat a barter transaction of property or services for other property or services as a sale by both parties and a taxable transaction for both. Actual tax practice as evidenced by court cases discloses no clear principle of valuing barter transactions except that fair market value be used. The Prentice-Hall tax service stated:

Recent cases and rulings measure the cost of the property received in exchange, by its fair market value at receipt. Other decisions measure the cost of the property received, by the fair market value of the property exchanged for it . . . in most cases the result will be the same under both methods.³⁰

Thus, U.S. federal income tax practice, as is often true, does not follow either accounting practice or accounting theory.

An Accounting Theory For Barter

Accounting authors have presented different methods for accounting for the barter transaction, and no author, from Pacioli until 1971, supported a practice with a theoretical account of logical relationships with other generally accepted accounting practices.

There are two basic questions involved in the accounting treatment of barter transactions. First, what value shall be established for recording the transaction: cost, book, market or other estimated value? Second, should this value be that of the good received or the good sacrificed? Critical to this consideration, if we are to seek a logical solution consistent with other generally accepted accounting principles, is the question of whether the barter transaction is basically a purchase or a sales transaction.

Under generally accepted accounting principles, purchase and sales transactions receive quite different accounting treatments. A

purchase is recorded at a value established by the cost of the item given in exchange, and no gain or loss is recognized. A sale, on the other hand, is recorded at a value determined by the market value of the item received, and any gain or loss on the transaction is recognized.

Sterling and Flaherty have provided a persuasive theoretical construct for the accounting treatment of a barter transaction, which may be summarized:³¹

- a) An exchange is a two-way flow of goods.
- b) Neither good has a value attached, but one must be assigned by the accountant.
- c) When the value of one of these goods has been assigned it can be used to impute the value of the other.
- d) One good (the first valued) is "independently valued and the other dependently valued."
- e) Had cash been received or given as one side of the barter, cash would have been the independent value because of its liquidity.
- f) Therefore, either the good given or received should determine the independently valued item, depending upon which good is the most liquid.
- g) If the good received is independently valued, the transaction is basically a sale and would result in realization of a gain or a loss.
- h) If the good sacrificed is independently valued, the transaction is basically a purchase and no gain or loss should be recognized (record transaction at book value of the sacrifice).

To follow this approach would permit the treatment of a barter transaction in uniformity with related generally accepted principles. This is made possible by first determining whether the transaction is a sale or a purchase. Sterling and Flaherty provide the logical means of making this determination by the use of a liquidity concept (on the basis of a value preference array established with cash first and retained earnings last).

Summary

Accounting for barter began, surprisingly, in agreement with today's accepted practice. Pacioli and his followers recommended methods which today appear theoretically sound. During the years when historical cost dominated accounting, barter accounting

changed to record barter transactions at the book value of the goods given in exchange. Beginning with Kenneth MacNeal in 1939, these practices were strongly challenged and generally accepted accounting practice changed to a basis more theoretically defensible.

Valuation at current market value, and a strong preference for determining the transaction price by the use of the value of the goods sacrificed, is currently recognized by the accounting profession, through generally accepted accounting principles, as meeting the requirements of sound accounting theory. Practice acknowledges some modifications, such as using fair market value of the goods acquired if it is more clearly evident than that of the goods sacrificed. This slight departure may be necessary to adapt accounting theory to particular situations.

Sterling and Flaherty indicated that current accounting practice for barter does not fully meet the test of consistency with other generally accepted accounting practices. The use of fair market value of the good received (a sale) to record the transaction requires recognition of gains and losses when that value differs from the originally recorded cost basis of the good. This is in agreement with the generally accepted practice for a sale of goods, but if the transaction is basically a purchase no gain or loss should be recognized. Sterling and Flaherty have presented a practical and logical method for determining whether a barter transaction is a sale or a purchase.

FOOTNOTES

¹Pacioli, p. 57.

²Ympyn, Chapter XVII (pages unnumbered).

³Ympyn, Chapter XVII (pages unnumbered).

⁴Ympyn, Chapter XVII (pages unnumbered).

⁵Peele, 1553, Chapter III, The Instructions, parcell 63.

⁶Peele, 1569, Schoolmaster and the Scholler, example 107.

⁷Peele, 1569, Schoolmaster and the Scholler, example 108.

⁸Dafforne: Qu 71, p. 22.

⁹Mair, p. 26.

¹⁰Mair, p. 127.

¹¹Lee, pp. 253 to 256.

¹²Sheys, p. 17.

¹³Sheys, p. 124.

¹⁴MacNeal, p. 159.

¹⁵Canning, p. 207.

¹⁶Gilman, p. 103.

¹⁷Gilman, p. 104.

¹⁸Montgomery, p. iii.

- ¹⁹Montgomery, pp. 237 & 238.
²⁰MacNeal, p. 160.
²¹Paton & Littleton, p. 27.
²²Grady, p. 254.
²³Chambers, p. 64.
²⁴Moonitz & Jordan, p. 361.
²⁵AICPA - APBO # 29 ¶ 18.
²⁶AICPA - APBO #29 ¶ 18.
²⁷AICPA - APBO #29 ¶21.
²⁸Prentice-Hall, 31; 037.
²⁹Prentice-Hall, 7071
³⁰Prentice-Hall, 31:197.
³¹Sterling & Flaherty, p. 443.

BIBLIOGRAPHY

- AICPA Opinion #29, *Accounting for Nonmonetary Transactions*, Accounting Principles Board. New York: American Institute of Certified Public Accountants, May 1973.
- Canning, John B., *The Economics of Accountancy, 1st Edition*, New York: Ronald Press Co., 1929.
- Chambers, Raymond J., *Accounting, Evaluation and Economic Behavior*, Houston, Texas: Scholars Book Co., 1974.
- Dafforne, Richard, *The Merchants Mirrour or Directions For the Perfect Ordering and Keeping of His Accounts*, published by R. H. and F. G. for Nicholes Brown, London, 1660. In *Ancient Double-entry Bookkeeping*, by John B. Geijsbeck, Denver, Colorado: 1914. Facsimile by Xerox, University Microfilms, Ann Arbor, Michigan, 1975.
- Gilman, Stephen, *Accounting Concepts of Profit*, New York: Ronald Press Co., 1939.
- Grady, Paul, Accounting Research Bulletin #7, *An Inventory of Generally Accepted Accounting Principles for Business Enterprises*, New York: American Institute of Certified Public Accountants, 1965.
- Lee, Chauncey, *The American Accountant, Landisburg*: William W. Wands, 1797. Facsimiled in Vol. 1 of Yushodo American Literature Series, Tokyo, Japan: Yushodo Booksellers Ltd., 1982.
- MacNeal, Kenneth, *Truth in Accounting*, Philadelphia: University of Pennsylvania Press, 1939.
- Mair, John, *Book-keeping Methodiz'd*, 4th Edition, Edinburgh: W. Sands, A. Murray and J. Cochran, 1752.
- Montgomery, Robert L., *Auditing: Theory and Practice*, 6th Edition, New York: Ronald Press Co., 1940.
- Moonitz, Maurice and Jordan, L. H., *Accounting: An Analysis of Its Problems*, Vol. 1, Revised Edition, New York: Holt, Rinehart and Winston, Inc., 1963.
- Pacioli, Luca, *Summa de Arithmetica, Proportioni et Proportionalita*. 1st Edition, 1494. In *Ancient Double-entry Bookkeeping*. Published by John D. Geijsbeck, Denver, Colorado: 1940. Facsimile by Xerox, University Microfilms, Ann Arbor, Michigan, 1975.
- Paton, W. A. and Littleton, A. C., *An Introduction to Corporate Accounting Standards*, Chicago, Illinois: American Accounting Association, 1940.

- Peele, James, *The Manner and fourme how to keep a perfect Reconyng, after the order of the most worthie and notable accompte, of Debitour and Creditour*, London: Richard Grafton, 1553.
- Peele, James, *The Pathways to perfectiones, in the accomptes of Debitour and Creditour in a manner of a Dialogue, very pleasaunte and proffitable for Marchauntes and all other that minde to frequente the same: once agayne set forth muche enlarged*, London: Thomas Purfoote, August 1569. The Institute of Chartered Accountants in England and Wales. Microfilmed Collection of Rare Books on Accounting and Related Subjects: 15th-19th Centuries, London: World Microfilms Publications, 1975.
- Prentice-Hall Federal Income Tax Regulations*, New York: Prentice-Hall Inc., 1979.
- Sheys, Bryant, *The American Book-keeper*, 2nd Edition, New York: Collins and Co., 1815. Facsimilied in Vol. 4 of Yushodo American Literature Series, Tokyo, Japan: Yushodo Booksellers Ltd., 1982.
- Sterling, Robert R. and Flaherty, Richard E., "The Role of Liquidity in Exchange Valuation." *Accounting Review*, pp. 441-449, (July, 1971).
- Ympyn, Jan Christoffels, *A notable and very excellent worke, expressing and declaryng the manner and forme how to kiepe of accoptes or reconynges verie expediente and necessary to All Marchantes, Receivers, Auditors, Notaries and all other. Translated with great diligence out of Dutche into Frenche, and now out of Frenche into Englishe*, London: 1547. The Institute of Chartered Accountants in England and Wales. Microfilmed Collection of Rare Books on Accounting and Related Subjects: 15th-19th Centuries, London: World Microfilms Publications, 1975.