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The Basic Concepts of Accounting

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ARTICLES**THE BASIC CONCEPTS OF ACCOUNTING**by **Jack J. Kempner***

Accounting is often described as the language of business, and although this definition lacks preciseness, it does imply that accounting is closely associated with an interpretation of the economic structure. Since so much of the practice of law is related to the industrial and financial aspect of society, it would seem that a clearer understanding of accounting should constitute a part of a lawyer's background. The purpose of this article is to delve briefly in to some of the underlying concepts of accounting so that the reader may obtain a better insight into its usefulness as a tool for interpreting the financial affairs of a business entity.

In order to grasp this aspect of financial reporting, there is no need to be concerned with the mechanics of bookkeeping nor other record-keeping techniques. Neither is it necessary to be concerned with the usefulness of accounting as a management control device in the day-to-day operations of a business. What is important, however, is an understanding of the nature of the items appearing on the financial statements: How are these accounts developed? What is their relationship to each other? What are the underlying postulates of accounting which give rise to these statements?

For example, what is net income? It is not simply the excess of cash received over cash expended. Revenue may be earned without an accompanying receipt of cash just as expenses may be incurred without a concurrent expenditure of cash. What then are the concepts which determine when revenue has been earned and when expenses have been incurred? With reference to the balance sheet, many (but unfortunately not all) readers of this statement recognize that asset values do not necessarily reflect current market prices. If such is not the case, what do these assets reflect? The answers to these and other perplexing questions will be attempted in the pages that follow.

The Function of Accounting

It should be easy to convince anyone that the definition of accounting as "the language of business" leaves much to be desired. Many years ago, the committee on terminology of the American Institute of Certified Public Accountants formulated the following definition:

*Montana Certified Public Accountant, Professor of Accounting, University of Montana, B.S., N.Y.U. 1943; M.S., University of Colorado 1953; Ph.D., The Ohio State University, 1965.

Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof.¹

Although this definition of accounting is perhaps more meaningful, it still falls short of expressing the function of accounting that is understandable to the layman. In its desire for brevity and elimination of any technical terms, it seems that the committee on terminology has provided nothing more than a stereotyped dictionary definition which is seldom adequate to describe any discipline.

More recently, Maurice Moonitz developed a definition of accounting in terms of its functions, which more vividly describes its purpose:

The function of accounting is:

- 1) To measure the resources held by specific entities;
- 2) To reflect the claims against and the interests in those entities;
- 3) To measure the changes in those resources, claims, and interests;
- 4) To assign the changes to specific periods of time; and
- 5) To express the foregoing in terms of money as a common denominator.²

The first two functions refer to the balance sheet where the resources (assets) of a firm are found on one side, with claims (liabilities) and ownership equities matched against the assets on the other side. A single balance sheet is a static statement measuring the financial position of the firm at a particular point in time. A comparative balance sheet, showing the position of the firm at the beginning and end of a period is more dynamic, therefore the third function refers to the need for recording the day-to-day changes of the organization brought about by its normal activities. Measuring these operating results is meaningless however, if no attempt is made to compare the performance of one period with another; the fourth function attempts to meet this objective and will be explored more fully later.

The last function is self-explanatory and somewhat axiomatic, although it does subtly point to one of today's weaknesses in financial accounting. Money may theoretically imply a constant yardstick, yet it would be impossible to defend it as a stable unit of measurement. Nevertheless accounting principles in the United States are based upon the premise that the dollar is a common denominator. The accounting profession is well aware of this dilemma, but has not yet devised a

¹Accounting Research and Terminology Bulletins—Final Edition, American Institute of CPAs, New York, 1961, Bulletin No. 1, p.9.

²Moonitz, Maurice, "The Basic Postulates of Accounting," Accounting Research Study No. 1, American Institute of CPAs, New York, 1961, p.23.

suitable solution. The sophisticated reader of financial statements must therefore recognize the distortions that sometimes result from wide fluctuations in the value of the dollar.

Accounting Concepts

In order to carry out the functions discussed above, certain basic concepts or postulates have been developed. There is considerable argument surrounding the proper wording for these underlying ideas. Should they be called concepts, postulates, principles, rules, or guide lines? The ideas themselves can be presented without becoming involved in a frustrating attempt to define terms. This writer proposes to identify the basic ideas as concepts, and the techniques or rules for carrying them out, as principles. In the discussion that follows, the basic concepts will be stressed with secondary emphasis given to principles as a means of illustration.

The Entity Concept

Financial accounting concerns itself with a single business organization as contrasted to national income accounting which involves the entire society. Economists usually segment their discipline into a study of macro and micro-economics, and the entity concept of accounting is more closely allied to this micro concept.

In accounting for a corporation, the idea of a single entity is more easily discernible since the corporation is legally separate from its officers and stockholders. The division between owner and firm in a partnership or proprietorship is less distinct however, and is often non-existent in a small business. The personal financial interests of the owner are often intermingled with those of the business so that a proper determination of income and the financial position of the firm cannot be obtained until these personal interests are segregated—hence the entity concept. The firm must be held apart, with the assets of the entity accounted for separately from those of its owners. Similarly, only those obligations of the firm as distinct from those of the owner may be shown on the financial reports while the proprietor's specific equity in the firm must be isolated from any other interests he may have.

Dual Aspect Concept

The dual aspect concept³ logically follows from the entity theory, and it is no coincidence that the balance sheet must always balance. (The term "double entry system" is often used in referring to this concept.) If the firm is accounted for as a separate entity, and if all of its resources are shown on one side of the statement, then all of the claims against these resources must be shown on the other side.

³Anthony, Robert N., "Management Accounting: Text and Cases" (Richard D. Irwin,

Claims in this case have a broader meaning than one used in a strict legal sense in that they refer to prior claims of creditors as well as residual interests of owners. The total assets of a firm must always be equal to the total claims (liabilities and owners' equity) against these assets and the basic accounting equation, Assets = Equity, stems from these first two concepts.

A few simple transactions should serve to illustrate how these concepts are applied. An investment of \$50,000 by the stockholders of the Double Entry Corporation will result in an increase in assets on one side of the equation, and a corresponding increase in owners' equity on the opposite side.

ILLUSTRATION 1

Double Entry Corporation
Balance Sheet

| <i>Assets</i> | | <i>Stockholders' Equity</i> |
|---------------|-------------------|-----------------------------|
| Cash | \$50,000 | Capital Stock |
| | <u> </u> | <u>\$50,000</u> |

The purchase of equipment for \$20,000 in exchange for a note maturing in the future will again result in an increase in assets along with an equal increase in the claims of creditors.

ILLUSTRATION 2

Double Entry Corporation
Balance Sheet

| <i>Assets</i> | | <i>Liabilities and Equity</i> |
|-----------------|-------------------|-------------------------------|
| Cash | \$50,000 | Notes payable |
| Equipment | 20,000 | Capital stock |
| | <u> </u> | <u>50,000</u> |
| | <u>\$70,000</u> | <u>\$70,000</u> |

The payment of this note at maturity reduces the asset Cash, and reduces the claim, Notes Payable.

ILLUSTRATION 3

Double Entry Corporation
Balance Sheet

| <i>Assets</i> | | <i>Stockholders' Equity</i> |
|-----------------|-------------------|-----------------------------|
| Equipment | 20,000 | Capital stock |
| Cash | \$30,000 | <u>\$50,000</u> |
| | <u> </u> | <u> </u> |
| | <u>\$50,000</u> | <u> </u> |

Revenue earned will be represented by an increase in some asset, not necessarily cash, and an increase in owners' equity. In the following illustration it is assumed that services were rendered for a fee of \$4,000. No cash is received as yet but since the client has been billed, the asset Accounts Receivable is increased along with a corresponding increase in the owners' equity account, Retained Earnings.

ILLUSTRATION 4
 Double Entry Corporation
 Balance Sheet

| <i>Assets</i> | <i>Stockholders' Equity</i> |
|---------------------------|-----------------------------|
| Cash | Capital stock |
| \$30,000 | \$50,000 |
| Accounts Receivable | Retained earnings |
| 4,000 | 4,000 |
| Equipment | |
| 20,000 | <u>54,000</u> |
| <u>54,000</u> | <u><u>54,000</u></u> |

In a similar manner, expenses incurred will cause a decrease in cash or an increase in a liability with an off-setting decrease in owners' equity. Suppose that salaries amounting to \$1,000 were paid to employees. The balance sheet will reflect the transaction by showing a decrease in the asset Cash and a decrease in owners' equity, Retained Earnings.

ILLUSTRATION 5
 Double Entry Corporation
 Balance Sheet

| <i>Assets</i> | <i>Stockholders' Equity</i> |
|---------------------------|-----------------------------|
| Cash | Capital stock |
| \$29,000 | \$50,000 |
| Accounts receivable | Retained earnings |
| 4,000 | 3,000 |
| Equipment | |
| 20,000 | <u>3,000</u> |
| <u>53,000</u> | <u><u>53,000</u></u> |

In all cases, the equation is kept in balance.

Going Concern Concept

A business entity is accounted for as if it had perpetual life, and although the accountant recognizes that no firm will last forever, there is no way of knowing just when it will terminate. Consequently, "The continuity postulate (going concern concept) assumes that the accounting entity will continue in operation long enough to carry out its existing commitments."⁴ With this assumption in mind, the reader of a balance sheet is cautioned to appreciate the fact that many assets on this statement do not purport to show current or market values. Land, buildings, equipment, permanent investment, are all recorded at their original costs with no attempt made to reflect current values. These assets are not for sale, they are intended for use in the business; current or potential market prices are irrelevant.

Cost Concept

Since the purpose of accounting is to reflect the financial affairs of a going concern rather than to account for a firm that is liquidating

its resources, and since it would be difficult to determine market values objectively, original cost is used as the basis for assigning values to all assets. "Its special position (cost) rests largely on its supposed quality of objectivity, a quality which results, it is usually argued, from the fact that historical cost normally originates from an exchange transaction in which the mutual valuation of the buyer and seller as at the moment of exchange is expressed."⁵

Adherence to the cost concept is essential for another important reason. One of the primary objectives of financial accounting is to determine the profit of an enterprise during a specified period of time. In order to accomplish this goal, a comparison must be made between the revenue earned from the sale of its products, and the costs incurred in acquiring and developing these products. Consider a manufacturing concern which acquires material, fabricates this material into a finished product, finally deriving revenue from its sale. Aggregate costs must be accumulated so that they can be matched eventually against the revenue obtained. These costs are not confined to the purchase price of the raw material, but in addition include direct labor costs and a myriad of manufacturing overhead charges which become necessary adjuncts to the completed product.

One of these significant overhead charges is depreciation; others include supervisory salaries, insurances, taxes, maintenance and repairs, supplies, etc. All of these costs attach themselves to the material being fabricated as they move through the manufacturing process. Unless original cost records are maintained, it will be impossible to accumulate the total costs that will later be matched against total revenues. As a result, many of the assets on the balance sheet reflect unexpired costs, i. e., costs that have not yet been consumed through the operating process. Inventories such as raw materials, work in process, and finished goods are examples of assets valued at cost, awaiting their sale or consumption through the normal operating cycle. The undepreciated cost of plant and equipment assets represents another important segment of unexpired costs that are held on the balance sheet at these values until they are consumed.

If it were not for the "going concern" concept, it might be difficult to justify asset valuations on the basis of cost rather than market values. Since the firm is not liquidating, however, the usefulness of the balance sheet is not impaired and it is more important to match original costs against revenues in order to measure the income of the entity. "The net income from operations for a specific period is determined by matching against the revenues for the period those costs that are considered applicable thereto."⁶ In spite of the justification

⁵Solomons, David, "Modern Accounting Theory" Edited by Morton Backer, (Prentice Hall, 2nd Ed., 1966) p.118.

⁶Simons and Karrenbrock, "Intermediate Accounting, Comprehensive Volume," (Southwestern Publishing Co., 4th Ed., 1964) p.7.

for using cost, the reader of the balance sheet can easily be misled unless he is familiar with these concepts.

Assume the Lock-Tite Manufacturing Co. has just incorporated, using the proceeds from the sale of stock and its ability to obtain credit, to acquire machinery and equipment, raw materials, and factory supplies. Its first balance sheet is presented below :

ILLUSTRATION 6
Lock-Tite Manufacturing Co.
Balance Sheet
January 1, 19x1

| <i>Assets</i> | <i>Liabilities and Equity</i> |
|------------------------------------|----------------------------------|
| Cash\$ 70,000 | Accounts payable*\$ 40,000 |
| Raw materials 80,000 | Notes payable 135,000 |
| Factory supplies 10,000 | Capital stock 225,000 |
| Machinery & equipment 240,000 | \$400,000 |
| \$400,000 | |

*Accounts payable represent invoices received from suppliers which have not yet been paid.

At the end of the first month's operation, the company has incurred labor costs, used some of its raw material and factory supplies, and incurred other overhead charges in order to begin manufacturing its product, lock fasteners. These various expenses are listed below :

| | |
|--|----------|
| Raw materials used in the manufacturing process | \$30,000 |
| Labor costs incurred in production | 25,000 |
| Factory supplies used | 2,000 |
| Rent paid for factory building | 5,000 |
| Depreciation on machinery and equipment ⁷ | 2,000 |
| Total manufacturing costs | \$64,000 |

It is further assumed that no sales have been made during this first month's operation so that \$64,000 represents the *cost* of the Finished Goods Inventory. A balance sheet prepared at this time would reflect the existence of this new asset, Finished Goods Inventory, and the reduction of any other assets that have been used to create this inventory, i.e., cash has been reduced by the payment of wages and rent, \$30,000, and raw materials and factory supplies have been reduced to reflect the flow of these resources into the finished product, \$32,000. Note that the Finished Goods Inventory has also been increased by the \$2,000 depreciation charge against Machinery and Equipment while this latter account has been reduced by the same amount. Although there is no tangible flow of part of the machinery or equipment into the inventory, the cost of the finished fasteners must include a portion

⁷The depreciation on machinery and equipment is based upon a periodic write-off of 10% per year since it is estimated that the equipment will be used for 10 years.
($1/12 \times 10\% \times \$240,000 = \$2,000$)

of the cost of machinery and equipment that was "used up" during the month.

ILLUSTRATION 7

Lock-Tite Manufacturing Co.

Balance Sheet

January 31, 19x1

| <i>Assets</i> | | <i>Liabilities and Equity</i> | |
|--------------------------|------------------|-------------------------------|----------------|
| Cash | \$ 40,000 | Accounts payable | \$ 40,000 |
| Raw materials | 50,000 | Notes payable | 135,000 |
| Factory supplies | 8,000 | Capital stock | 225,000 |
| Finished goods inventory | 64,000 | | <u>400,000</u> |
| Machinery & equipment .. | 238,000 | | |
| | <u>\$400,000</u> | | |

It may be observed from the above balance sheet that the *total* assets (\$400,000) remain unchanged but that many individual assets have been reduced in order to reflect their conversion into the Finished Goods Inventory. Original costs have been preserved in the inventory so that they may be matched against the revenue earned when these fasteners are eventually sold. A meaningful understanding of the above balance sheet requires that the reader recognize that these assets are stated at their unexpired costs; not at their realizable or market values. The \$50,000 and \$8,000 amounts representing Raw Materials and Factory Supplies are recorded at their *unexpired* costs. The Finished Goods Inventory of \$64,000 represents the cost to produce these fasteners; not their sale value. The Machinery and Equipment has been reduced by \$2,000, an amount which is based upon a one-month write-off of its original cost, and is not related to its replacement cost or any other value.

Assume that during the month of February, 75 per cent of the finished fasteners were sold on account for \$55,000. For the sake of simplicity, further production or other operational activities in February have been ignored. A balance sheet reflecting the sale of these fasteners is presented below.

ILLUSTRATION 8

Lock-Tite Manufacturing Co.

Balance Sheet

February 28, 19x1

| <i>Assets</i> | | <i>Liabilities and Equity</i> | |
|----------------------------|------------------|-------------------------------|------------------|
| Cash | \$ 40,000 | Accounts payable | \$ 40,000 |
| Accounts receivable | 55,000 | Notes payable | 135,000 |
| Raw materials | 50,000 | Capital stock | 225,000 |
| Factory supplies | 8,000 | Retained earnings | 7,000 |
| Finished goods inventory | 16,000 | | <u>\$407,000</u> |
| Machinery & equipment | 238,000 | | |
| | <u>\$407,000</u> | | |

The revenue received from these fasteners has now been matched against their cost—75 per cent of the \$64,000 inventory (\$48,000) was sold for \$55,000—resulting in a profit of \$7,000. The asset Accounts Receivable has been increased by \$55,000, the asset Finished Goods Inventory has been reduced by \$48,000, and the equity account Retained Earnings has been increased by the profit of \$7,000.

Accrual Concept

As was illustrated in preceding sections, profits are not measured by simply determining the excess of cash receipts over disbursements. Cash is received for many purposes; not all of them necessarily associated with revenues. Short-term borrowings, the sale of a corporation's own stock or bonds may result in large increments of cash, yet no revenue has been earned. Cash is also expended for many reasons; often with no expense involved. Examples are repayment of loans and distribution of dividends.

The above examples are clearly non-operating transactions. Cash has flowed in or out of the entity, and although essential to the continued functioning of the enterprise, these transactions do not bear directly on its primary objective; that of manufacturing and selling a product. Even when cash flows directly as a result of an operating transaction, revenue and expense are not necessarily recognized at the same time that cash moves into or out of the business. The postulate that divorces the flow of cash from the recognition of revenue and expense is known as the accrual concept.

Before exploring the process of revenue and expense recognition further, it might be helpful to explain more fully some of these terms. Revenue may be defined as “. . . the aggregate of values received in exchange for the goods and services of an enterprise,”⁸ or simply, an operating transaction which results in an increase in the owners' equity together with an increase in the firm's assets, which may or may not include cash. Expenses have the opposite effect in that owners' equity and net asset⁹ are decreased. From the above definitions, it can be deduced that income or net income is the excess of revenues over expenses. During a specific accounting period, the flow of cash has no direct bearing on the measurement of revenue, expense, or income.

Another term—cost—has been used repeatedly in this article and is often confused with expense. Cost is the aggregate price paid, or the total value of assets or services sacrificed in exchange for another asset. As long as this asset is capable of benefiting the entity now or in the future, it will continue to be recorded at cost. When the asset is used or consumed in whole or in part, the portion has been

⁸Backer and Bell, *op. cit.*, Modern Accounting Theory, p.69.

⁹It is necessary to specify net assets because a liability may be incurred as a result of the expense, which in effect results in a decrease in net assets.

consumed becomes an expense. The Finished Goods Inventory and Raw Material accounts that were used in the Lock-Tite Manufacturing Co. illustration are examples of assets that continued to be recorded at cost until they were consumed as a result of a sale. While the assets were still held by the company their cost continued to be recorded in their respective asset accounts although part of the Raw Materials and Factory Supplies flowed into the Finished Goods inventory account. When the fasteners were sold, the portion of the Finished Goods that represented the cost of goods sold became an expense and was matched against the revenue.

Returning now the measurement of revenue and expense, revenues earned will be equal to cash collected from operations, and expenses incurred will be equivalent to cash expended for operations only under *one particular set of circumstances*. If no attempt were made to measure income until a firm terminated its business life, the necessary circumstances would be met. At this time it would be a simple task to measure income by adding up all of the cash collected from operations, and deducting from this total, the cash expended for operations. Unfortunately, net income computed at this late date would be useless and the accountant is obliged to subdivide the life of an entity by arbitrarily segregating it into periods of equal length; usually one year. Under these conditions, it is unlikely that the revenue earned in any one year will coincide with the cash collected in that same year. Some of the cash collected will relate to revenue of a prior period while much of the current year's revenue will not realize any cash until a subsequent period. In a similar manner, several expenses will be incurred before or after cash is expended. The problem then is one of measuring the revenues earned during a specific period, and matching against these revenues the expenses incurred during this same period. The result is called net income for the period and the accrual concept is the term used to describe the practice of divorcing the flow of cash from the measurement of accounting net income.

Invoicing a client for services rendered may be illustrated as a typical example of recognizing revenue in one period even though the cash may not be received until the next period. The revenue has been earned when the services are performed, and it is recorded at the time the client is billed. Refer to the example of the Double Entry Corporation in Illustration 4, *supra*. A client was billed \$4,000 for services rendered and although no cash was received at this time, stockholders' equity was increased by this amount through the device of increasing the Retained Earnings account. While it is true that cash was not received when the revenue was recognized, the asset Accounts Receivable was increased instead. Carrying this example a step further, assume that the services were rendered and billed in December whereas cash was received in January of the following year. For convenience, the

balance sheet in Illustration 4 is repeated below as it would exist on December 31st with revenue recognized in the year 19x1.

ILLUSTRATION 9
 Double Entry Corporation
 Balance Sheet
 December 31, 19x1

| <i>Assets</i> | <i>Liabilities and Equity</i> |
|---------------------------|-------------------------------|
| Cash | Capital stock |
| \$30,000 | \$50,000 |
| Accounts receivable | Retained earnings |
| 4,000 | 4,000 |
| Equipment | |
| 20,000 | <u>\$54,000</u> |
| <u>\$54,000</u> | |

If the client remits \$4,000 in January 19x2, a balance sheet prepared on January 31st would reflect the conversion of the asset Accounts Receivable for the asset Cash. However, no change is reflected in Retained Earnings during January since it was incremented in December when the services were rendered.

ILLUSTRATED 10
 Double Entry Corporation
 Balance Sheet
 January 31, 19x2

| <i>Assets</i> | <i>Liabilities and Equity</i> |
|-----------------|-------------------------------|
| Cash | Capital stock |
| \$34,000 | \$50,000 |
| Equipment | Retained earnings |
| 20,000 | 4,000 |
| <u>\$54,000</u> | <u>\$54,000</u> |

Similarly a manufacturing enterprise bills its customers when the merchandise is shipped. Revenue is thus recognized at the point of sale even though cash may not be received until the following period.¹⁰ In the case of the Lock-Tite Manufacturing Co., Illustration 8, the asset Accounts Receivable, and the equity account Retained Earnings were increased by \$7,000 when the fasteners were sold. When the cash is subsequently collected (possibly in the following period), only the assets Cash and Accounts Receivable will reflect this transaction. Revenue had been recognized previously and there will be no further change in the equity of the owners.

In some instances, cash is received before revenues are earned. Subscribers may pay for magazine subscriptions in advance, and the publisher will not recognize the revenue until the magazines have been delivered. In other instances, a customer may deposit certain sums of money with a supplier when an order is placed. The vendor will refrain

¹⁰There are rare occasions when revenue may be recognized before the point of sale, however an exploration of these unusual circumstances would be beyond the scope of the present discussion.

from treating this transaction as revenue since nothing has been earned until the merchandise has been fabricated and delivered.

Suppose the Lock-Tite Manufacturing Co. received a \$25,000 advance deposit on March 1st from a customer to cover the set-up costs of a new type of fastener that is to be manufactured to the customer's specifications. Using the figures from Illustration 8, *supra*, note that if a balance sheet were prepared on March 1st, cash would increase \$25,000, and a liability, Advances from Customers, would increase by a like amount. Although Lock-Tite does not intend to repay its customer in cash, there is an obligation to eventually deliver merchandise worth \$25,000 or more.

ILLUSTRATION 11
Lock-Tite Manufacturing Co.
Balance Sheet
March 1, 19x1

| <i>Assets</i> | <i>Liabilities and Equity</i> |
|----------------------------------|------------------------------------|
| Cash\$ 65,000 | Advances from customers..\$ 25,000 |
| Accounts receivable 55,000 | Accounts payable 40,000 |
| Raw material 50,000 | Notes payable 135,000 |
| Factory supplies 8,000 | Capital stock 225,000 |
| Finished goods inventory 16,000 | Retained earnings 7,000 |
| Machinery & equipment .. 238,000 | \$432,000 |
| \$432,000 | |

The following discussion will illustrate contrasting situations where cash is *expended* in one period while the expense will not be recognized until a subsequent period. The purchaser of machinery represents a common situation where a significant amount of cash¹¹ may be expended in one year whereas the consumption of this machinery through wear and tear and obsolescence will take place over a period of years. The cost of the machinery is treated as an asset when acquired since it would be inequitable to charge the cost of this equipment against the revenue of the year in which it was purchased. Instead, its cost is allocated systematically over the future years to be benefited, and depreciation is the familiar but often misunderstood term used to describe this technique.

Depreciation accounting has been defined by the committee on accounting procedure of the American Institute of Certified Public Accountants as “. . . a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, . . . over the estimated useful life of the unit . . . in a systematic and rational manner.

¹¹Although cash may not be expended simultaneously with the purchase, in most cases the cash will be remitted long before the equipment has been used up. In any event, the eventual disbursement of cash is in no way related to the recognition of the expense.

It is a process of allocation, not of valuation."¹² The depreciation expense in itself does not provide funds or cash for the replacement of the machine; only revenue can eventually provide funds. Depreciation is simply a process of systematically charging off the cost of an asset over its useful life, and is only one of the many expenses that is matched against revenue during an accounting period. The fact that depreciation is usually a significant item that does not require an outlay of cash in the same period that it is charged against revenue, often leads to the mistaken belief that it is not valid expense. Bear in mind however, that the cash *had been* expended in an earlier period; the actual expense is being recognized later as the asset is gradually consumed.

There are many additional cases where cash is expended for the acquisition of an asset, but no expense is recognized until the asset is used up. Inventories are an example of such a situation although the future periods to be benefited are not as long as is true with machinery and other capital assets. When raw materials are purchased, when labor costs are incurred during the manufacturing process, these costs are recorded as assets, and will remain in the asset category. When these inventories are consumed as a result of a sale, the cost of the finished product is realized as an expense and matched against the revenue derived from the sale. For a clearer understanding of the techniques employed in properly timing the measurement of these expenses, the reader is advised to refer to the Lock-Tite examples developed in Illustrations 7 and 8.

Certain other expenses are recognized as incurred before cash is expended. Office salaries are a typical example. The expense is recorded when employees have performed their services; not necessarily when the salaries are paid. Interest on borrowed funds may serve as another example. Interest expense is recognized during the time that the money is used; not when the payment is due.

In summary, this important accrual concept calls for the recognition of revenue and expense at the time it is earned or incurred. Occasionally, cash will flow simultaneously with the recognition of revenue or expense, but the criteria for determining when revenue and expense are to be recognized depend upon other factors.

The Income Statement

The first four concepts: entity, dual aspect, going concern, and cost, were related primarily to the balance sheet. Of the two major financial statements, the balance sheet and the income statement, the former is the basic statement although not the most important when analyzing a firm's financial activities. The balance sheet is considered basic how-

¹²Accounting Research and Terminology Bulletins, (American Institute of Certified Public Accountants, Final edition, 1961) p.76.
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ever, since the operating activities and financial position of the entity can all be incorporated into this one statement. It is really a statement of the basic equation, Assets = Equity, and is often referred to as a statement of financial position. It will be recalled that revenue transactions resulted in increased assets and equities while expense transactions had the opposite effect. Since asset and equity accounts all appear on the balance sheet, what need is there for an income statement?

Theoretically there is no need for such a statement. Assuming that the firm enjoyed a profit for the year, the increase in assets and owners' equity (as a result of this annual increment) has already been added to the balance sheet. If a complete disclosure of the revenue and expense items is wanted, it could be made on the balance sheet in the owners' equity section, with as much detail as desired. Although this unorthodox treatment could be theoretically justified, incorporating such a mass of detail on the balance sheet would make it extremely difficult to read. Consequently, the income statement has been developed to present the details pertaining to operations and has evolved into a major financial report.

Consider the balance sheet of the P & L Corporation at January 1, 19x7.

ILLUSTRATION 12
P & L Corporation
Balance Sheet
January 1, 19x7

| <i>Assets</i> | | <i>Liabilities and Equity</i> | |
|---------------------------|------------------|-------------------------------|------------------|
| Cash | \$130,000 | Accountants payable | \$100,000 |
| Accounts receivable | 275,000 | Bonds payable | 200,000 |
| Inventories | 160,000 | Capital stock | 500,000 |
| Plant and equipment | 300,000 | Retained earnings | 65,000 |
| | <u>\$865,000</u> | | <u>\$865,000</u> |

After completing its operations for the year, the P & L Corporation found that net income amounted to \$150,000. This profit will be reflected in its various asset accounts (not necessarily cash) and a balance sheet prepared at the end of 19x7 might appear as follows:

ILLUSTRATION 13
P & L Corporation
Balance Sheet
December 31, 19x7

| <i>Assets</i> | | <i>Liabilities and Equity</i> | |
|---------------------------|------------------|-------------------------------|------------------|
| Cash | \$160,000 | Accounts payable | \$ 45,000 |
| Accounts receivable | 300,000 | Bonds payable | 150,000 |
| Inventories | 180,000 | Capital stock | 500,000 |
| Plant and equipment | 270,000 | Retained earnings | 215,000 |
| | <u>\$910,000</u> | | <u>\$910,000</u> |

Note that not all of the \$150,000 profit was used to increase the assets. Cash, Receivables, and Inventories were increased, but Plant and Equipment shows a decrease which can be assumed to have resulted from the annual depreciation charge. Some of P & L's profits were also used to reduce the firm's outstanding debt; Accounts and Bonds Payable have both been reduced.

A financial analyst, by inspecting the Retained Earnings account on both balance sheets (January 1st and December 31st) might reasonably conclude that the firm enjoyed a profit of \$150,000 for the year. By comparing the asset and liability accounts at the beginning and end of the year, he can also determine how these profits were probably employed. However, there is no way for the analyst to find out how these profits were generated. What were the sources of revenue and at what amounts? What expenses were involved and at what amounts? A detailed listing of the revenues and expenses could be included in the equity section of the balance sheet as indicated in Illustration 14.

ILLUSTRATION 14

**P & L Corporation
 Balance Sheet
 December 31, 19x7**

Assets

| | |
|---------------------------|-----------|
| Cash | \$160,000 |
| Accounts receivable | 300,000 |
| Inventories | 180,000 |
| Plant and equipment | 270,000 |
| Total assets | \$910,000 |

Liabilities and Equity

Liabilities:

| | |
|-------------------------|-----------|
| Accounts payable | \$ 45,000 |
| Bonds payable | 150,000 |
| Total liabilities | \$195,000 |

Stockholders' equity:

| | |
|---------------------------------|-----------|
| Capital stock | \$500,000 |
| Retained earnings, 1/1/x7 | \$ 65,000 |
| Add: Net income for 19x7: | |
| Sales | \$710,000 |
| Less: Cost of goods sold | \$450,000 |
| Selling expenses .. | 75,000 |
| Administrative | |
| expenses | 35,000 |
| | 560,000 |
| Net income | 150,000 |

| | |
|--|------------------|
| Retained earnings 12/31/x7 | 215,000 |
| Total stockholders' equity | 715,000 |
| Total liability and stockholders' equity | <u>\$910,000</u> |

Even though the various revenue and expense items are very brief, the balance sheet has become more cumbersome. If the usual detailed listing of individual revenue and expense accounts were included on the balance sheet, it would certainly detract from the major asset, liability, and equity accounts. A much clearer presentation can be submitted to interested readers by preparing a separate income statement which may contain as much detail as necessary. The balance sheet would be identical to the one shown in Illustration 13, and the income statement, standing alone, will enable the reader to determine how a profit of \$150,000 was measured. Such a statement is illustrated below.

ILLUSTRATION 15

P & L Corporation

Statement of Income

For Year Ended, December 31, 19x7

| | |
|-----------------------------|------------------|
| Sales | \$710,000 |
| Cost of goods sold | 450,000 |
| Gross profit on sales | \$260,000 |
| Other expenses: | |
| Selling | \$75,000 |
| Administrative | 35,000 |
| Net income | <u>\$150,000</u> |

It should be realized that the above income statement has been presented in a highly condensed form. Ordinarily a much more detailed report would be prepared in practice, itemizing the various sources of revenue and segregating the manufacturing, selling, and administrative expenses into their several components.

From the viewpoint of financial analysis, the income statement is probably the most important of the two financial statements. In the long run, the success or failure of a business entity will depend upon its ability to earn a profit year after year, and the analyst will look to the income statement for the answer to this vital question. Not only is the single net income figure important, but equally important are the details of the various revenue and expense items which describe how the profit was generated. A sophisticated reader will also want to inspect the income statements for several years in order to determine the existence of any noticeable trends in revenues, expenses, and earnings.

Summary

While it is admitted that the income statement is the most important of the two financial reports discussed in the preceding pages, it may seem strange that so much space was devoted to explain the development of the balance sheet. It would almost appear that the income statement was included as an after-thought. Remember though that the balance sheet is basic. All of the necessary information can be summarized here as long as no concern is given to its readability. Once it has been decided to clarify the presentation of the financial data, an income statement evolves as a logical appendage to the balance sheet.

All of the accounting concepts described have been related to the basic statement of accounts, the balance sheet. In the illustrations that were provided, every financial transaction of the entity was conveniently reflected by changing the appropriate figures on this statement. If a firm were small enough, and the transactions few enough, there would be no need for any elaborate accounting system; a new balance sheet and income statement could be prepared after each transaction. Since situations as simple as this are seldom encountered in practice, it has become essential to devise an elaborate framework of information-flow and record-keeping techniques to retain pertinent data in a systematic manner. These data are then summarized in the balance sheet and income statement which are prepared periodically. Whereas the accountant must be familiar with these details, the consumer of financial information need only be concerned with understanding the basic concepts of accounting.

