Accounting Theory

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Fifth Edition

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Preface

This fifth edition, like its predecessors, is designed to provide a frame of reference for junior, senior, and graduate courses in financial accounting and financial accounting theory; seminars on financial accounting standards and issues; and seminars on the theory of income and asset valuation. Those who wish to obtain a good understanding of financial accounting standards or want a general survey of financial accounting theory and those who wish to study for the theory section of the Uniform CPA Examination should also find this book useful.

It is assumed that the reader has a knowledge of the basic structure of accounting. Experience has shown, however, that mature students who have not studied accounting can understand the subject matter with concurrent additional formal or independent study of this basic structure. A background in finance or economics can also lead into this book.

A general frame of reference has been used to evaluate the many areas of financial accounting theory and practice. The frame of reference includes a number of theories that are not necessarily consistent with each other and that may lead to different conclusions. Evaluations are made at three basic levels:

1. The structural level—the relationships between and within procedural systems and financial reports.
2. The semantic interpretation level—the relationships of descriptions and measurements to real-world phenomena.
3. The pragmatic level—the reactions of all individuals affected by accounting reports, including users (individually and in aggregate) and producers of accounting information.

Emphasis is placed on the inductive-deductive and the capital market approaches in the evaluations, although other approaches are discussed where appropriate. In some cases, the several viewpoints resulting from the different approaches are criticized without attempting to suggest a solution or the best alternative. In other cases, the authors have expressed their own views and presented supporting evidence based on a

priori logic and empirical findings where available. In all cases, suggested solutions are tentative and subject to change as new evidence becomes available.

The first eight chapters of this edition develop the foundations of accounting theory. They include an introductory chapter, including a section on methodology, two chapters on the development of accounting, a chapter on how generally accepted accounting principles have evolved, a chapter describing the elements of financial reporting, a chapter on capital market theory, another on decision theory, and one on accounting regulation.

The next three chapters examine the income statement. They include two chapters on income measurement and one on revenues and expenses. A chapter on reporting for price changes emphasizes their effect on income determination, but also discusses the problems of asset measurement under conditions of changing prices, including the use of current costs. This is followed by eight chapters on the statement of financial position, each growing more specific than the last. Assets are treated first, then liabilities, and finally equity. The final chapter discusses the disclosure of relevant information to investors, creditors, and other interested readers of financial statements.

A revolution has occurred in accounting in the years in which this book has appeared. Where once inductive-deductive reasoning was dominant, today empirical studies cast in a pragmatic framework are the rule. This edition has sought to reflect this change by expanding its coverage of recent research, while not neglecting the contributions of earlier researchers in accounting. Among the basic changes in this edition are:

1. Greater use of the FASB's Conceptual Framework to unify material throughout the book.
2. The addition of two chapters to cover the early history of accounting and the search for accounting principles, respectively.
3. The addition of a section on ethics to the chapter on decision making.
4. Added stress on the importance of cash flows by integrating it with the capital-maintenance approach to income measurement, allowing the revenue-expense approach to income measurement to be given its own chapter.
5. The combination in one chapter of the recognition and classification of assets and liabilities, permitting one to survey the statement of position as a whole before examining its components.
6. Giving asset measurement its own chapter, allowing the chapter on inventory to be folded into the chapter on current assets.
7. Separating pensions from income taxes, enabling each to be treated at more length.
8. The addition of much new end-of-chapter material, including a number of new cases.

At the close of each chapter is a list of selected readings on specific parts of the chapter. These articles and sections of books have been selected on the basis of their quality, accessibility, readability, and ability to present the several sides of controversial topics. Because of the rapid expansion of the literature relevant to these topics, the selections represent only a sample. Students are encouraged to make use of the many readings available including those that will become available after the publication of this book. There is no substitute for wide reading in the area of accounting theory to obtain an understanding and balanced evaluation of the many different points of view found in the literature.

Also at the end of each chapter is a group of questions classified by topic. Many of these were selected from the theory section of the Uniform CPA Examination. We wish to express our appreciation to the officers of the American Institute of Certified Public Accountants for their kind permission to reprint these questions. Other questions, especially some cases, are used by kind permission of their authors. Those authors are recognized in footnotes to these cases. The remaining questions and cases were prepared by the authors for this edition.

We wish to express our appreciation to the many students and colleagues who have made comments on this and previous editions. We think especially of people like Willard J. Graham and Robert N. Anthony who contributed greatly to earlier editions. For this edition we are grateful to the Accounting Theory class at Southern Methodist University and its teaching assistants Melissa Chandler, David Kennedy, Mark Kohlbeck, and Mitch Mulvehill, who made many helpful comments on the manuscript. We are especially grateful to Professors Noel Addy, Tom Barton, Tom Burns, Michael Dugan, Joe Icerman, Gordon May, Lillian Mills, R. D. Nair, Thomas Sullivan, and Michael Vetsuypens, for commenting in detail on the manuscript. All their comments were most helpful, although for special reasons we may not have incorporated all of the ideas suggested. Whatever faults remain are our responsibility.

We wish to express particular gratitude to Dr. J. Leslie Livingstone for his encouragement over many years. Most of all, we are indebted to our wives, Kathleen and Nancy, for their patience and support.

Our hope is that you, our readers, will enjoy using this book as much as we have enjoyed writing it. We like to think that this book belongs to all of us. We would be delighted to hear from you so that we might continue to edit it in ways that you would find most helpful.

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Chapter 1

Introduction and Methodology of Accounting

CHAPTER OBJECTIVES

After studying this chapter, you will be able to:

Sketch various approaches to the development of accounting theories: tax, legal, ethical, economic, behavioral, and structural.

Explain the different levels of accounting theories: syntactic, semantic, and pragmatic.

Define various classifications of accounting theories: positive versus normative, empirical versus nonempirical, deductive versus inductive.

Outline the means of verifying accounting theories.

CHAPTER OVERVIEW

Approaches to Accounting Theory

Accountants have tried numerous approaches to solve questions like that of revenue recognition. Six approaches are outlined: tax, legal, ethical, economic, behavioral, and structural.

Classifying Accounting Theories

Accounting theory itself may be variously classified: by its level (syntactic, semantic, pragmatic); by its reasoning (deductive, inductive); or by its stance (normative, positive).

Theory Verification

Each approach to defining accounting theory requires a different method of verification.

Conclusion

Each of the approaches described in this chapter has its place in accounting theory and will be used in inquiring into the nature of accounting, providing a framework for evaluating, developing, explaining, and predicting practice.

Alleghany Beverages Corporation (ABC), a Maryland-based soft drink bottling company, found itself in the early 1970s locked in an acrimonious debate with its auditors over its financial reporting. The company had formed a fully owned subsidiary, Valu Vend, to install soft-drink vending machines. The company recorded the sale of these machines as they were delivered to Valu Vend's clients. More precisely, as ABC explained it in a footnote to the 10-K:

> Valu Vend sells its machines under conditional sales contracts. Under these contracts, a purchaser is required to make a $50 down payment and to pay the balance in equal monthly installments over a 48-month period after purchase. Under moratorium plans, the first of such monthly payments may begin 120 days or 210 days after the date of purchase, but all payments are completed within 48 months after purchase.
>
> The machines are sold to distributors and through the distributors to other purchasers, who may have their own locations for the machines. Each distributor appointee is required to warehouse and distribute beverages in his marketing territory and to establish sales and maintenance organizations.

A letter to the shareholders (slightly shortened here) tells the rest of management's side of the story:

> The Company has found it necessary to replace its auditors, Alexander Grant & Company. Our internal accounting staff had been working closely with Alexander Grant throughout the year, and had determined to adopt the accrual method of accounting, which is the method used in our industry. On March 2nd, we were informed by the Baltimore office of Grant that we must defer earnings from our Valu Vend subsidiary. During a long discussion, we were requested to provide supporting information from similar companies. This was done and our accounting method was substantiated.
>
> After much additional research and many meetings, on March 18, the Baltimore Grant office once again was prepared to return to the accrual method of accounting with substantially the same figures we had reported preliminarily. A meeting was held at the Grant main offices in Chicago on March 21st, and we were informed that they would not accept our accrual accounting and proposed a hybrid approach which was unacceptable to us. We had no choice but to recommend to our Board that Grant be terminated.

The issue at stake here is one of the most fundamental in accounting theory: When should revenue be recognized? The question the partici-

pants were forced to ask was a simple one, even if the answer was hard to come by. Could one treat the sale of a vending machine the same as one treated the sale of a bottle of pop? Is it appropriate to recognize a sale at the time of delivery when it is a conditional sale? Should the size of the deposit affect one's decision? And what does one do about the fact that the sales are not to the ultimate customer but to an intermediary?

The case raises a number of interesting points regarding accounting theory. First, it points out that theoretical issues are not just matters of "theory." They have very practical implications for both management and the auditors. In this case, the refusal to recognize Valu Vend's revenues at the point of delivery would have meant a 30 percent drop in sales for ABC. This might have prevented them from raising a loan in the marketplace, which would have stymied their expansion plans. From the auditors' point of view, an unjustifiable refusal to provide an unqualified opinion could lead to a breach of contract suit from the company; an agreement to provide an unqualified opinion could lead to a class action suit from irate shareholders, if things turned sour. In every case, the lives and the livings of a variety of people are intimately affected by the outcome of questions such as these. In short, the application of theory can matter.

Second, the case demonstrates that accounting theory is often a matter of professional judgment made by individuals involved with specific cases. It is not only the members of the Financial Accounting Standards Board (FASB) who are obliged to theorize; practicing accountants are often required to exercise their own judgments in theoretical issues. Theoretical issues are seldom completely settled by accounting authorities. Some of their guidelines, it is true, are quite detailed, but many leave a great deal of discretion to management and to the local auditors. Many theoretical issues, therefore, are decided at the local level. As the FASB put it:

> Accounting choices are made at two levels at least. At one level they are made by the Board or other agencies that have the power to require business enterprises to report in some particular way or, if exercised negatively, to prohibit a method that those agencies consider undesirable. . . . Accounting choices are also made at the level of the individual enterprise. As more accounting standards are issued, the scope for individual choice inevitably becomes circumscribed. But there are now and will always be many accounting decisions to be made by reporting enterprises involving a choice between alternatives for which no standard has been promulgated or a choice between ways of implementing a standard.[1]

Revenue recognition is a classic example of a broad rule which requires professional judgment at the local level. As one textbook defined the rule:

> Revenue should be recognized in the earliest period in which (1) the entity has performed substantially what is required in order to earn income and (2) the amount of income can be reliably measured.[2]

In many industries, the first part of this definition is assumed to occur at the time of delivery. In the case of Alleghany Beverages, the vending machines had been delivered. The second requirement was clearly met in management's judgment. Why then the dispute? Apparently, Alexander Grant was uncomfortable with the claim that delivery in this case was substantial performance. Who was right? And who should determine who is right?

Should the FASB or the SEC provide more specific guidelines to avoid cases like this? Arguments go both ways. Some argue strongly, as we shall see later, that managers, left to themselves, will come to resolutions that are perfectly satisfactory to all concerned. Others feel that it is the role of the accounting professional to make judgments like these. Take choice away, they say, and accountants are just clerks. Still others feel that the case makes it patently clear that managers and auditors cannot be left to set rules on their own. Managers will want to manipulate earnings, they say; accountants need the sanction of accounting standards to resist. A laissez-faire approach, they argue, results either in a proliferation of alternatives or in the selection of the weakest of several alternatives.* The jury is still out on who has the best of these arguments.

Arguments aside, the imposition of accounting procedures by an official body seems to be the direction in which most countries are moving, particularly the United States, with the Financial Accounting Standards Board. For example, in the case of real estate accounting, revenue recognition rules have been stated in almost excruciating detail in *SFAS 66*.

APPROACHES TO ACCOUNTING THEORY

Numerous approaches have been taken in an attempt to resolve knotty problems in accounting like the one raised by ABC. The paragraphs which follow outline some of the more common: tax, legal, ethical, economic, behavioral, and structural. Several of these approaches are enlarged on in subsequent chapters. Exhibit 1-1 on page 10 summarizes the points made in this section.

A Tax Approach

The approach favored by many newcomers to accounting is to ask what the Internal Revenue Service (IRS) has to say on the subject. For instance, one might ask whether the IRS would permit ABC to recognize revenue at this point; alternatively, would it prohibit it?

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* This is said to follow Gresham's Law, named after the 16th century English financier, Sir Thomas Gresham, who suggested that good money tends to drive out bad.

The first and most obvious dilemma with this approach is that it begs the question of how the IRS arrived at its conclusion. When one explores the theoretical origins of tax accounting, one rapidly finds that the objectives of tax accounting are very different from those of financial reporting. The IRS is not so much interested in measuring the income of a company as establishing a base for tax purposes. As a result, the conclusions of tax accounting are irrelevant for our purposes.

This is not to say that the various income tax acts have not had a major impact on accounting practice in many areas. They were important in bringing the average accounting practice up to the standards of the better companies at the time. This created an improvement in general accounting practices and in maintaining consistency. Also, the provision for depreciation included in the 1909 Excise Act and in subsequent acts gave rise to the use of systematic depreciation methods, the search for better depreciation concepts, and the use of more appropriate methods for calculating depreciation costs.

In addition, the requirements in the 1918 Act making inventories mandatory where necessary for the determination of income brought about widespread discussion relating to the appropriate methods of valuation. The acceptance in the early regulations of cost or market, whichever is lower, in the valuation of inventories led to a general adoption of this procedure and to discussions regarding the propriety of the concept. Finally, as the next section shows, court cases regarding tax law have had considerable influence upon the development of accounting concepts.

Regrettably, income tax rules have had adverse effects on accounting theory and principles in many areas. The tendency to accept income tax provisions as accepted accounting principles and practices is unfortunate. The following are examples:

1. Any depreciation method acceptable for tax purposes is acceptable for accounting purposes also, regardless of whether or not it follows good accounting theory in the situation.

2. LIFO must be used for financial reporting purposes if it is used in the tax return.

3. Items that otherwise might be capitalized in financial reports are charged to expense following the treatment in the tax return where the company seeks to obtain the earliest possible tax deduction.

4. Since the tax law does not permit it, no provision is generally made in financial reports for "accruing" repair and maintenance expenses except indirectly and haphazardly through accelerated depreciation.

In summary, the effect on accounting of taxation of business incomes in the United States and in other countries has been considerable, but it has been primarily indirect in nature. The tax laws themselves have not pioneered in accounting thought. While the revenue acts did hasten the adoption of good accounting practices and thus brought about a more critical analysis of accepted accounting procedures and concepts, they have also been a deterrent to experimentation and the acceptance of good theory.

CHECKPOINTS

1. List three positive influences tax accounting has had on financial reporting.
2. Give one example of where tax accounting and financial reporting differ, and one where they are the same.
3. What negative influences has tax accounting had on financial reporting?

A Legal Approach

A second common approach of newcomers to accounting to analyzing situations such as that in the ABC case is to suggest getting a legal opinion. Surely, some say, a sale should be recognized when legal title passes. Unfortunately, this does not solve the problem as easily as one might hope since generally title passes when the court litigating a particular case decides that it has. A case in point is the litigation in which Pennzoil claimed that Texaco had snatched Getty Oil away from them after a legal sale between Getty and Pennzoil had been concluded. Texaco responded that a handshake did not constitute a legal sale or, in other words, a passage of legal title. Most observers of the case seemed to agree with Texaco. The Texas courts, however, continued to find for Pennzoil. Eventually, Texaco settled out of court for $3 billion. Had there been a sale? Arguments still rage on both sides in this case.

Much case law involves the nature of income. Consider, for instance, the case of Eisner v. Macomber heard in the U.S. Supreme Court in 1920. The issue was whether a stock dividend was income or not. Charles Evans Hughes, appearing for the defendant, declared that:

> It is of the essence of income that it should be realized. Potentiality is not enough. . . . Income necessarily implies separation and realization. The increase of the forests is not income until it is cut. The increase in the value of lands due to the growth and prosperity of the community is not income until it is realized. Where investments are concerned, there is no income until there has been a separate, realized gain. . . .[3]

Since there was no cash, he argued, there was no income. The argument was accepted by a majority of the Court.*

Another intriguing case was James v. United States. This involved a man who embezzled $738,000 from his employer over the years 1951

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* Justice Brandeis, in his dissent, pointed out that, if stock dividends were to go tax free, management would issue all dividends in stock, leaving stockholders to cash them in.

through 1954. The IRS took him to court because he failed to pay income tax on his ill-gotten gains.[4] Justice Whittaker took James's side, arguing that he had no income, since an embezzler acquires "not a semblance of right, title, or interest in his plunder." What he took, said the judge, was more in the nature of a loan! Following this logic, does this mean that a company involved in drug smuggling earns no income because it obtains no legal right to the monies it acquires? Should it, therefore, be exempt from income tax?*

The FASB, in establishing a Conceptual Framework for accounting, investigated the use of law to establish accounting principles. They noted that in many situations there are economic as well as legal issues. "Lawyers and judges look at property and related concepts in much the same way that accountants and businessmen look at assets and have many of the same difficulties with definition."[5] That they do not always arrive at the same conclusion often reflects the fact that lawyers are usually interested in income available for tax or income available for dividends and not income in the sense of an increment in value or a measure of operational efficiency.[6] In summary then, while law certainly provides numerous examples that can stimulate thinking on questions of accounting theory, it is seldom the deciding factor.†

CHECKPOINTS

1. Define the term *legal title*. When does legal title pass when you purchase a car? When is a sale typically taken?
2. Define the term *realization*. Why might attorneys have placed so much emphasis on realization as a measure of profit?

An Ethical Approach

A third approach asks whether there is an ethical solution to the ABC dilemma? Is there something management *ought* to be doing? Is this something more than just following a set of generally accepted accounting procedures? In asking these questions in a separate section, there is no implication that other approaches have no ethical content, nor does it imply that ethical theories necessarily ignore all other concepts. Fundamental ethical questions are at the heart of all modern theory building.[7]

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* The question is actually moot since the government has the right to impose taxes on anything it chooses.

† Organizations governed by regulatory accounting are exceptions to this general rule.

The ethical approach to accounting theory places emphasis on the concepts of justice, truth, and fairness. Interestingly, every one of these concepts has found its way into the Conceptual Framework created by the FASB. Considerations such as the absence of bias and representational faithfulness are both considered necessary characteristics of a reliable accounting system. Neutrality, meaning that information should not be colored so as to influence behavior in a particular direction, is an essential feature of standard setting. Ethical considerations, in other words, have a pervasive influence on all of accounting.

In this particular case, one might begin by asking whether management was being fair to the shareholders by recording these transactions at this point. Or, one might ask the reverse question: Would management have been fair not to recognize revenue at this point? One might also ask whether the management of ABC was being truthful, although truth in accounting is difficult to define and apply.

Many seem to use the term *truth* to mean "in accordance with the facts," which is equivalent to the concept of "representational faithfulness," defined in Chapter 5. However, not all who refer to truth in accounting have in mind the same definition of facts. Some refer to accounting facts as data that are objective and verifiable. Thus, historical costs represent accounting facts to them. For others, the term *truth* is used to refer to the valuation of assets and expenses in current economic terms. For example, one practitioner claimed that financial statements display the truth only when they disclose the *current* value of assets and the profits and losses accruing from changes in values, although the increases in values should be designated as realized or unrealized.[8]

Many associate the term *truth* with propositions or statements that they believe to be established principles. For example, many consider the recognition of a gain at the time of the sale of an asset to be a reporting of "true" conditions. These same people feel that reporting an appraisal increase in the value of an asset, prior to sale as ordinary income, lacks truthfulness. Thus, the established rule regarding revenue recognition is used as a guide to determine the truth—not the other way around. This makes the truthfulness of the financial reports depend on the fundamental validity of the accepted rules and principles on which the statements are based. This is an inadequate foundation for measuring truthfulness.

CHECKPOINTS

1. What does the term *fair* mean in an auditor's report? Does this correspond with the term *fair* in ordinary discourse?
2. What do you mean by the word truthful in ordinary discourse? Does this correspond with the way you think about truth in accounting?

Economic Approaches

In hopes of settling issues like those raised by ABC, accountants have long attempted to interpret accounting concepts in terms of economic concepts. In recent years, there has been a veritable explosion of research exploring the correspondence between economic interpretations and accounting data. The following sections lay out three different avenues in taking an economic approach to accounting: the macroeconomic, the microeconomic, and the corporate social.

Macroeconomics. A macroeconomic approach attempts to explain the effect of alternative reporting procedures on economic measurements and economic activities at a level broader than the firm, such as an industry or the national economy. What effect, if any, would there be on the economy if every company recognized revenue at the point that ABC's management would like to?

Some want to go further than explanations and argue that one of the objectives of accounting should be to direct the behavior of firms and individuals toward the implementation of specific national economic policies. For example, some argue that national economic objectives require accounting reports that will permit and even encourage higher dividends and larger capital expenditures during slack economic periods and discourage investments during periods of inflation.

While most countries implement macroeconomic policies through monetary and fiscal policies and direct controls, some countries, notably Sweden, do attempt to base accounting concepts and practices on macroeconomic goals.[9] One of the effects of this approach is that the objective of reporting stable earnings from year to year legitimizes the use of reserves and flexible depreciation policies. How this would help ABC's management is unclear.

Microeconomics. A microeconomic approach to accounting theory attempts to explain the effect of alternative reporting procedures on economic measurements and economic activities at the level of the firm. Modern accounting theory, which is founded in microeconomics, therefore focuses on the enterprise as an economic entity with its main activities affecting the economy through its operations in markets. This is the view adopted by the FASB in its Conceptual Framework. This approach takes as its fundamental premise that financial information has inevitable *economic consequences*. The exact form these consequences take is not always easy to determine and is subject to some dispute.[10]

More is said on this approach in Chapters 6 through 8. Suffice it to say for now that accounting theorists in this area tend to argue that, as long as the full facts *are* disclosed, it matters little *how* they are disclosed. They would probably feel that the recognition issues in the ABC case were

irrelevant to the marketplace, because there had been full disclosure of the facts. Any remaining interest in the issue would revolve around why management was interested in a higher rather than a lower income number. What, they would wonder, was management's real motivation?

Corporate Social Accounting. The microeconomic view of accounting does not necessarily encompass all the effects companies have on society. The costs of environmental pollution, unemployment, unhealthful working conditions, and other social problems are not normally reported by a firm, except to the extent that their costs are borne directly by the firm through taxation and regulation. Corporate social accounting seeks to address these issues.

One prominent example of an attempt to include both social accounting and macroeconomic objectives within a theory of corporate reporting is provided in the *Corporate Report,* a discussion paper published by the Institute of Chartered Accountants in England and Wales.[11] One of the report's proposals is the publication of a value-added statement which allocates revenues, net of the cost of materials, to employees, creditors, and shareholders.[12] These groups are often referred to collectively as the *stakeholders* of the company. Proponents of stakeholder analysis argue, with some justification, that orthodox accounting with its emphasis on shareholders, is really a subset of social accounting with its emphasis on the broader group of stakeholders.

Recognition of the wider role that corporations play is also found in the enterprise theory of equity discussed in Chapter 19. In addition, the FASB formally recognized in their Conceptual Framework that there are many parties other than present owners interested in financial informa-

EXHIBIT 1-1 Questions to Ask

Tax	What is the tax situation?
Legal	What is required by law? Are there any specific regulations covering this industry?
Ethical	What is the right thing to do? Is this fair presentation?
Economic	What effect will this accounting procedure have on the economy? What effect will this choice of accounting procedure have on shareholders? Is there full disclosure of the facts behind the procedure? What effect will this have on other stakeholders?
Behavioral	Why does management want to make this choice?
Structural	Is there a specific rule covering this situation? What is the definition of revenue? What is GAAP? What are others doing in the industry?

tion. They include creditors, consumers, labor unions, trade unions, teachers, and, yes, students. Modern accounting theory too, as will be discussed in Chapter 8, recognizes that information itself is a public good with many of the same qualities as externalities, such as pollution. Financial statements and unwanted noise, for example, are both free goods to the recipients. A market for each is difficult, if not impossible, to establish.

Much work, though, remains to be done in developing a complete theory of social accounting. Interest has been relatively low in the past, perhaps because organized labor, although a major stakeholder in companies, has not played a large role in the United States in the establishment of accounting policy. This situation might change in the future if America moves more in line with European experience.[13] Additionally, as theorists come to terms with the public-good nature of financial information, they may well develop techniques to deal with other public goods that form the basis for the concerns of social accounting.

Note that here, as elsewhere, ethics play an important role. The entity approach favored by the FASB assumes not only that firms *do,* but also that they *should,* maximize their profits. The reason for the latter is the economic theorem that, in a market economy, this leads to an ethically desirable outcome known as *Pareto Optimality.** Social accountants respond with the claim that public goods invalidate this result, requiring a broader ethical approach to be taken. The point at this stage is not to take sides but to make the reader aware that ethical issues confront the accounting theorist at every point.

CHECKPOINTS

1. Contrast macroeconomics with microeconomics.
2. Why is it not unreasonable to describe traditional accounting as a subset of social accounting?
3. Define the term *stakeholder* and contrast it with the term *shareholder.*

A Behavioral Approach

An alternative to the economic approach is to rely on the insights of psychology and sociology in the development of accounting theories. The focus in this approach is on the relevance of information being communicated to decision makers and the behavior of different individuals or

* This is described in Chapter 4.

groups as a result of the presentation of accounting information. In the case of ABC, the question might concern what impact the early recognition of profit, together with the disclosure of the controversy, might have on decisions being made by shareholders.

The most important users of accounting reports presented to those outside the firm are generally considered to include stockholders, other investors, creditors, and government authorities; however, behavioral theories can also take into consideration the effects of external reports on the decisions of management and the feedback effect of the actions of accountants and auditors. Thus, behavioral theories attempt to measure and evaluate the economic, psychological, and sociological effects of alternative accounting procedures and reporting media.

The behavioral approach to accounting theory has stimulated a search among both academic and practicing accountants for basic objectives of accounting and for answers to questions such as: Who are the users of published financial statements? What is the nature of the specific information wanted by the several user groups? Can common needs be found for the presentation of general-purpose statements or should specific needs be met?* How do investors, creditors, and managers react to different accounting procedures and presentations?

CHECKPOINTS

1. Define the behavioral approach to accounting theory. Contrast it with the microeconomic approach.
2. List questions asked by accounting behavioralists.

A Structural Approach

The classical approach in accounting to solve problems like those raised by ABC might be called "structural" because it focuses on the structure of the accounting system itself. Most reasoning in this approach, particularly at the local level, is by analogy. It attempts to treat like with like. The judgment as to the most appropriate point at which to recognize a particular event is typically based on the moments chosen to record other events. In other words, accountants attempt to classify similar transactions similarly or, more formally, to seek *consistency* in recording and reporting transactions. It is only when they encounter a transaction which

* Technically, no information is needed to make a decision, but information might be wanted because of uncertainties. The term *needs* is used here because of common usage.

does not fit into a previous mold that they are forced back to more basic principles.

The whole process is reminiscent of the first week in Principles of Accounting. Most readers will be able to recall the anxious search, in those early days of learning accounting, for what names to put on journal entries. How should one classify a purchase of pencils? Should it be treated the same way as the purchase of widgets? What should go into supplies and what into inventory?

It is clear from the ABC case that both auditors and management took a structural approach. Consistency was the first line of argument for the company and its critics. They had used delivery as the point at which they recognized sales in all their previous dealings. They planned to continue to use it in the belief that the new sales were similar to the old. The arguments from the auditors seem to have been that the transactions were different enough that a parallel could not be drawn. The principle of consistency was not disputed, simply the specific application.

This process of classifying like data with like and then summarizing them "in specific groupings (accounts and ledgers) and further summarizing the groupings into reports and statements" has been called "compacting."[14] Illinois professor A. C. Littleton described this process as similar to that of statisticians.[15] Both accountants and statisticians aggregate numbers to arrive at totals or averages. Both must be concerned with classifying things correctly. It is senseless to average temperatures over a year when one is trying to establish the average summer temperature. Similarly, accountants should classify economic events correctly to arrive at meaningful financial statements.

In 1941, the Committee on Terminology of the American Institute of Accountants (AIA), the forerunner of the American Institute of Certified Public Accountants (AICPA), captured this compacting process in a widely quoted definition:

> 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.[16]

Broader definitions of accounting are in vogue today, but the process of "recording, classifying, and summarizing" is still the heart of accounting.

CHECKPOINTS

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1. The AIA defined accounting as an art. How do you distinguish art from science? Why do you think they did not speak of the science of accounting?
2. Think back on the accounting you learned before entering this class. How much of it was based on a structural approach to accounting?

How much of it was based on economic theory? How much on the behavior of users? Provide an example of each approach from your own experience.

CLASSIFYING ACCOUNTING THEORIES

Regardless of the approach one takes to solving accounting problems, one is always left with the question: How can one tell whether one's solution is correct? That leads to a second question: What does one mean by a correct solution in this context? Answers to these questions depend not only on the approach one has taken, but also on the form one's reasoning has taken. Three ways of classifying the way people reason are discussed in the sections that follow. They are followed by a discussion of how one might determine correctness given the pattern of reasoning. More formally, we discuss how theories might be classified and then verified.* Exhibit 1-2 on page 19 summarizes the classification of accounting theories.

Theory as Language

A first classification relies on the notion that accounting is a language. Many call it the language of business. Theorists suggest that there are three questions that should be asked about a language and the words and phrases that make up that language:

1. What *effect* will the words have on listeners?
2. What *meaning,* if any, do the words have?
3. Do the words make *logical* sense?

Answers to each of these questions form part of the study of a language. *Pragmatics* is the study of the effect of language; *semantics* is the study of the meaning of language; and *syntactics* is the study of the logic or grammar of the language. Both the behavioral and the economic approaches alluded to above are primarily pragmatic in style, while the structural approach is primarily syntactic. Although it is fair to say that almost all current research into accounting is pragmatic in its orientation, semantics and syntactics are also important in accounting theory. Semantics is important because ideally financial information has economic or physical content that is agreed to by both the producers and the users of the

* This section draws heavily on the "Report of the Committee on Accounting Theory Construction and Verification," *The Accounting Review* (Supplement 1971), pp. 37–45.

information. Syntactics is important in accounting because ideally one piece of financial information relates logically to another.

Accounting numbers and classifications vary with respect to the degree of interpretation that can be inferred by the reader of accounting reports. For example, the item *cash* in the statement of financial condition is fairly well understood to mean what accountants intend it to mean. On the other hand, the classification *deferred charges* has no specific interpretation apart from the structural processes that gave rise to it. The role of theories that emphasize semantics is to find ways to improve the interpretation of accounting information in terms of human observations and experience. The FASB, in particular, is working steadily to rid the balance sheet of items lacking in semantic content.

Despite the efforts of the FASB, and hard as it is for newcomers (and the general public) to accept, many accounting concepts still have no semantic content. Consider again the ABC case and the question of when they should recognize revenue. Realize that no flashing light goes off in the real world telling accountants that the great moment of recognition has arrived. A signature on a contract is a real event, the delivery of a vending machine is a real event, the payment for the machine is a real event, but the moment of a "sale" is simply the moment at which a bookkeeper decides to record the transaction, no more and no less. Recognition of sales, expenses, assets, and liabilities are all syntactic in origin. There is no semantic counterpart to which one can point.

CHECKPOINTS

1. Define the terms *syntactic*, *semantic*, and *pragmatic* as they apply to theory.
2. Consider one element in a balance sheet, such as inventory or accounts payable, and define it syntactically, semantically, and pragmatically.
3. Assets are sometimes said to be possessions of the company. What level of definition is this?

Theory as Reasoning

The second means of classifying the form of the theoretical debate is to ask whether the arguments flow from generalizations to specifics (deductive reasoning) or whether they flow from specifics to generalizations (inductive reasoning). In accounting, the generalizations are often termed *postulates*. From these, accountants hope to deduce *accounting principles* that will provide a basis for concrete or practical *applications*. With

the deductive method, practical applications and rules are deduced from the postulates and not from observing practice. With the inductive method, principles are induced from best current practice.

Deductive Reasoning. Objectives are an important part of the deductive process, because different objectives can require entirely different structures and result in different principles. For instance, the basic objectives of tax accounting are different from those of financial accounting. This is one of the main reasons why rules for determining taxable income are different in many respects from the generally accepted practice for the determination of financial income. Sometimes, though, despite differences in objectives, cost-benefit considerations demand a compromise. For instance, it is likely that individual users have different objectives in mind when using accounting data. It does not seem feasible, though, to set up an entirely different set of principles for every user! Instead, as a compromise, a general-purpose statement is produced.

A more precise method of formulating the logic in deductive reasoning is found in the *axiomatic* or mathematical approach to accounting theory. In this method, mathematical symbols are given to certain ideas and concepts. The framework is provided in the form of mathematical models utilizing matrix algebra or symbolic logic. Constraints can be applied in the form of mathematical expressions. Therefore, starting with basic postulates and rules of logical inference, theorems can be formulated and tested through mathematical operations. Thus, the axiomatic method can provide a very rigorous application of the deductive method.

One of the main disadvantages of the deductive method is that, if any of the postulates and premises are false, the conclusions may also be false. Also, it is thought to be too far removed from reality to be able to derive realistic and workable principles or to provide the basis for practical rules. But these criticisms generally stem from a misunderstanding of the purpose and meaning of theory. It is not necessary for theory to be entirely practical for it to be useful in establishing workable procedures. The main purpose of theory is to provide a framework for the development of new ideas and new procedures and to help in making choices among alternative procedures. If these objectives are met, it is not necessary that theory be based completely on practical concepts or that it be restricted to the development of procedures that are completely workable and practical in terms of current technology. In fact, many of the currently accepted principles and procedures are general guides to action rather than specific rules that can be followed precisely in every applicable case.

Inductive Reasoning. The process of induction consists of drawing generalized conclusions from specifics. A typical inductive argument begins with a set of particular examples, claims that these examples are representative of some greater whole, and infers some generalization about