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PERSPECTIVES AND ISSUES

What Is GAAP?

The FASB Accounting Standards CodificationTM (ASC) is the:

... source of authoritative generally accepted accounting principles (GAAP) recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. In addition to the SEC's rules and interpretive releases, the SEC staff issues Staff Accounting Bulletins that represent practices followed by the staff in administering SEC disclosure requirements, and it utilizes SEC Staff Announcements and Observer comments made at Emerging Issues Task Force meetings to publicly announce its views on certain accounting issues for SEC registrants. (ASC 105-10-05-1)

In the absence of authoritative guidance, the FASB Codification (the Codification) offers the following approach:

If the guidance for a transaction or event is not specified within a source of authoritative GAAP for that entity, an entity shall first consider accounting principles for similar transactions or events within a source of authoritative GAAP for that entity and then consider nonauthoritative guidance from other sources. An entity shall not follow the accounting treatment specified in accounting guidance for similar transactions or events in cases in which those accounting principles either prohibit the application of the accounting treatment to the particular transaction or event or indicate that the accounting treatment should not be applied by analogy. (ASC 105-10-05-2)

GAAP establishes:

- The measurement of economic activity,
- The time when such measurements are to be made and recorded,
- The disclosures surrounding this activity, and
- The preparation and presentation of summarized economic information in the form of financial statements.

GAAP develops when questions arise about how best to accomplish those items. In response to those questions, GAAP is either prescribed in official pronouncements of authoritative bodies empowered to create it, or it originates over time through the development of customary practices that evolve when authoritative bodies fail to respond. Thus, GAAP is a reaction to and a product of the economic environment in which it develops. As such, the development of accounting and financial reporting standards has lagged the development and creation of increasingly intricate economic structures and transactions.

There are two broad categories of accounting principles—recognition and disclosure.

Recognition Principles Recognition principles determine the timing and measurement of items that enter the accounting cycle and impact the financial statements. These are reflected in quantitative standards that require economic information to be reflected numerically.

Disclosure Principles Disclosure principles deal with factors that are not always quantifiable. Disclosures involve qualitative information that is an essential ingredient of a full set of financial statements. Their absence would make the financial statements misleading by omitting information relevant to the decision-making needs of the reader. Disclosure principles also complement recognition principles by dictating that disclosures

- expand on some quantitative data,
- explain assumptions underlying the numerical information, and
- provide additional information on accounting policies, contingencies, uncertainties, etc., which are essential to fully understand the performance and financial condition of the reporting enterprise.

DEFINITIONS OF TERMS

See Appendix A, *Definitions of Terms*, for terms related to this topic: Conduit Debt Securities, Financial Statements Are Available to Be Issued, Nongovernmental Entity, Nonpublic Entity, Not-for-Profit Entity, and Public Business Entity.

CONCEPTS, RULES, AND EXAMPLES

History of GAAP

From time to time, the bodies given responsibility for the promulgation of GAAP have changed, and indeed more than a single such body has often shared this responsibility. In response to the stock market crash of 1929, the AICPA appointed the Committee on Accounting Procedure. This was superseded in 1959 by the Accounting Principles Board (APB) created by the AICPA. Because of operational problems, in 1972 the profession replaced the APB with a three-part organization consisting of the Financial Accounting Foundation (FAF), Financial Accounting Standards Board (FASB), and the Financial Accounting Standards Advisory Council (FASAC). Since 1973 the FASB has been the organization designated to establish standards of financial reporting.

GAAP Codification

In 2009, FASB's Codification became the single official source of authoritative, non-governmental U.S. generally accepted accounting principles. It superseded all nongrandfathered (see ASC 105-10-70-2 for a list of grandfathered guidance), non-SEC accounting guidance. Only one level of authoritative GAAP exists, excluding the guidance issued by the Securities and Exchange Commission (SEC). All other literature is nonauthoritative.

Other and Nonauthoritative Sources Not all GAAP resulted from the issuance of pronouncements by authoritative bodies, and not all GAAP is found in the codification. For example, depreciation methods such as straight-line and declining balance have long been accepted. There are, however, no definitive pronouncements that can be found to state this. Furthermore,

there are many disclosure principles that evolved into general accounting practice because they were originally required by the SEC in documents submitted to them. Much of the content of statements of financial position and income statements has evolved over the years in the absence of adopted standards.

The Codification lists some possible nonauthoritative sources:

- Practices that are widely recognized and prevalent either generally or in the industry,
- FASB Concepts Statements,
- American Institute of Certified Public Accountants (AICPA) Issues Papers,
- International Financial Reporting Standards of the International Accounting Standards Board,
- Pronouncements of professional associations or regulatory agencies,
- Technical Information Service Inquiries and Replies included in AICPA Technical Practice Aids.
- Accounting textbooks, handbooks, and articles. (ASC 105-10-05-3)

SEC Guidance in the Codification To increase the utility of the Codification for public companies, relevant portions of authoritative content issued by the SEC and selected SEC staff interpretations and administrative guidance are included for reference in the Codification. The sources include:

- Regulation S-X,
- Financial Reporting Releases (FRR)/Accounting Series Releases (ASR),
- Interpretive Releases (IR), and
- SEC staff guidance in:
 - Staff Accounting Bulletins (SAB),
 - EITF Topic D and SEC Staff Observer comments.

The Codification does not, however, incorporate the entire population of SEC rules, regulations, interpretive releases, and staff guidance. SEC guidance not incorporated in the codification includes content related to auditing or independence matters or matters outside of the basic financial statements, including Management's Discussion and Analysis (MD&A).

The Standards-Setting Process

The FASB has long adhered to rigorous "due process" when creating new guidance. The goal is to involve constituents who would be affected by the newly issued guidance so that the standards created will result in information that reports economic activity as objectively as possible without attempting to influence behavior in any particular direction. Ultimately, however, the guidance is the judgment of the FASB, based on research, public input, and deliberation.

Accounting Standards Updates The Board issues guidance through Accounting Standards Updates (ASU), which describe amendments to the Accounting Standards Codification. Once issued, the provisions become GAAP after the stated effective date. Accounting Standards Updates (ASUs) are composed of:

- A summary of the key provisions of the project that led to the changes,
- The specific changes to the Codification, and
- The Basis for Conclusions.

The title of the combined set of new guidance and instructions is *Accounting Standards Update YY-XX*, where YY is the last two digits of the year and XX is the sequential number for each update. All authoritative GAAP issued by the FASB is issued in this format.

The content from updates that is not yet fully effective for all reporting entities appears in the Codification as boxed text and is labeled "pending content." The pending content text box includes the earliest transition date and a link to the related transition guidance, also found in the Codification.

Maintenance Updates As with any publishing practice, irregularities occur. To make necessary corrections, the FASB staff issues Maintenance Updates. These are not addressed by the Board and contain nonsubstantive editorial changes and link-related changes.

American Institute of Certified Public Accountants (AICPA) Although it currently plays a greatly reduced standard-setting role, the AICPA has authorized the Financial Reporting Executive Committee (FinREC) to determine the AICPA's policies on financial reporting standards and to speak for the AICPA on accounting matters. FinREC, formerly the Accounting Standards Executive Committee (AcSEC), is the senior technical committee at the AICPA. It is composed of seventeen volunteer members, representative of industry, analysts, and both national and regional public accounting firms.

Codification Terminology The FASB standardized on the term "entity" to replace terms such as company, organization, enterprise, firm, preparer, etc. So, too, the Codification uses "shall" throughout to replace "should," "is required to," "must," etc. The FASB believes these terms all represent the same concept—the requirement to apply a standard. "Would" and "should" are used to indicate hypothetical situations. To reduce ambiguity, the Codification also eliminated qualifying terminology, such as *usually, ordinarily, generally*, and similar terms.

Researching GAAP Problems

These procedures should be refined and adapted to each individual fact situation.

Codification Structure The FASB Codification is located on fasb.org. The site is intended to be easily searchable for research purposes. This section provides an overview of the site's contents and search functionality.

Areas On all pages of the site, all categories of the Codification are listed down the vertical menu bar on the left side of the page, revealing the following Areas, and the numbering series for each one:

- General Principles (100). (Establishes the Codification as the source of GAAP.)
- Presentation (200). (Topics in this area relate only to presentation matters; they do not address recognition, measurement, and derecognition matters. Examples of these topics are income statement, balance sheet, and earnings per share.)
- Assets (300).
- Liabilities (400).
- Equity (500).
- Revenue (600).
- Expenses (700). (Clusters all types of expense-related GAAP into five broad categories, which are cost of goods sold, research and development, compensation, income taxes, and other expenses.)
- Broad Transactions (800). (Contains the major transactional topics, such as business combinations, derivatives, and foreign currency matters.)

- Industry (900). (Itemizes GAAP for specific industries, such as entertainment, real estate, and software.)
- · Master Glossary.

Topics Areas are further divided by topics, subtopics, sections, and subsections. FASB has developed a classification system specifically for the Codification. The following is the structure of the classifications system: XXX-YY-ZZ-PP, where:

- XXX = topic,
- YY = subtopic,
- ZZ = section, and
- PP = paragraph.

An "S" preceding the section number denotes SEC guidance. At the most granular level of detail, the Codification has a two-digit numerical code for a standard set of categories.

The Codification Taxonomy can be found in the section that precedes Chapter 1.

Subtopics Subtopics represent subsets of a topic and are typically identified by type or by scope. For example, lessees and lessors are two separate subtopics of leases in Topic 842. Each topic contains an "overall subtopic" (designated "-10") that generally represents the pervasive guidance for the topic, which includes guidance that applies to all other subtopics. Each additional subtopic represents incremental or unique guidance not contained in the overall subtopic.

Exhibit-Sections					
Title	Number	Description			
Status	00	Includes references to the Accounting Standards Updates that affect the subtopic.			
Overview and background	05	Provides overview and background material.			
Objectives	10	States the high-level objectives of the topic.			
Scope and scope exceptions	15	Outlines the transactions, events, and other occurrences to which the subtopic guidance does or does not apply.			
Glossary	20	Contains definitions for terms found within the subtopic guidance.			
Recognition	25	Defines the criteria, timing, and location for recording an item in the financial statements.			
Initial measurement	30	Provides guidance on the criteria and amounts used to measure a transaction at the initial date of recognition.			
Subsequent measurement	35	Provides guidance on the measurement of an item after the recognition date.			
Derecognition	40	Relates almost exclusively to assets, liabilities, and equity. Provides criteria, the method to determine the amount of basis, and the timing to be used when derecognizing a particular item for purposes of determining gain or loss.			
Other presentation matters	45	Provides guidance on presenting items in the financial statements.			
Disclosure	50	Provides guidance regarding disclosure in the notes to or on the face of the financial statements.			

Title	Number	Description
Implementation guidance and illustrations	55	Contains illustrations of the guidance provided in the preceding sections.
Relationships	60	Contains links to guidance that may be helpful to the reader of the subtopic.
Transition and Open Effective Date Information	65	Contains references to paragraphs within the subtopic that have open transition guidance.
Grandfathered Guidance	70	Contains descriptions, references, and transition periods for content grandfathered after July 1, 2009, by an Accounting Standards Update. ¹
XBRL Elements	75	Contains the related XBRL elements for the subtopic.
SEC Materials	S99	Contains selected SEC content for use by public companies.

Sections Sections represent the nature of the content in a subtopic—for example, recognition, measurement, and disclosure. The sectional organization for all subtopics is the same. In a manner similar to that used for topics, sections correlate closely with sections of individual International Accounting Standards. Sections are further broken down into *subsections*, *paragraphs*, and *subparagraphs*, depending on the specific content of each section.

Finding information By drilling down through the various topics and subtopics in the sidebar of the online Codification, a researcher can eventually locate the relevant GAAP information. When searching for specific words or phrases, the best search tool is the Codification search function.

Research Procedures

Step 1: Identify the Problem Incorrect answers commonly flow from improper definition of the actual question to be resolved. Consider the following:

- Gain an understanding of the problem or question.
- Challenge the tentative definition of the problem and revise, as necessary.
- Problems and research questions can arise from new authoritative pronouncements, changes in a firm's economic operating environment, or new transactions, as well as from the realization that the problem had not been properly defined in the past.
- If proposed transactions and potential economic circumstances are anticipated, more
 deliberate attention can be directed at finding the correct solution, and certain proposed
 transactions having deleterious reporting consequences might be avoided altogether or
 structured more favorably.
- If little is known about the subject area, it may be useful to consult general reference sources
 to become more familiar with the topic, that is, the basic what, why, how, when, who, and
 where. Web-based research vastly expands the ability to gather useful information.
- Determine whether the issue you are researching is a GAAP issue or an auditing issue so that your search is directed to the appropriate literature.

Certain accounting standards allowed for the continued application of superseded accounting standards for transactions that have an ongoing effect in an entity's financial statements. That superseded guidance has not been included in the Codification is considered grandfathered and continues to remain authoritative for those transactions after the effective date of the Codification. (ASC 105-10-70-2)

Step 2: Analyze the Problem

- Identify critical factors, issues, and questions that relate to the research problem.
- What are the options? Brainstorm possible alternative accounting treatments.
- What are the goals of the transaction? Are these goals compatible with full and transparent disclosure and recognition?
- What is the economic substance of the transaction, irrespective of the manner in which it appears to be structured?
- What limitations or factors can affect the accounting treatment?

Step 3: Refine the Problem Statement

Clearly articulate the critical issues in a way that will facilitate research and analysis.

Step 4: Identify Plausible Alternatives

- Plausible alternative solutions are based upon prior knowledge or theory.
- Additional alternatives may be identified as Steps 5–7 are completed.
- The purpose of identifying and discussing different alternatives is to be able to respond to key accounting issues that arise out of a specific situation.
- The alternatives are the potential methods of accounting for the situation from which only one will ultimately be chosen.
- Exploring alternatives is important because many times there is no single cut-and-dried financial reporting solution to the situation.
- Ambiguity often surrounds many transactions and related accounting issues and, accordingly, the accountant and business advisor must explore the alternatives and use professional judgment in deciding on the proper course of action.

Step 5: Develop a Research Strategy

- Determine which literature to search.
- Generate keywords or phrases that will form the basis of an electronic search.
- Consider trying a broad search to:
 - Assist in developing an understanding of the area,
 - o Identify appropriate search terms, and
 - Identify related issues and terminology.
- Consider trying very precise searches to identify whether there is authoritative literature directly on point.

Step 6: Search Authoritative Literature (Described in Additional Detail Below) This step involves implementation of the research strategy through searching, identifying, and locating applicable information in the Codification and other sources.

Step 7: Evaluation of the Information Obtained

- Analyze and evaluate all of the information obtained.
- This evaluation should lead to the development of a solution or recommendation. Again, it is important to remember that Steps 3-7 describe activities that will interact with each other and lead to a more refined process in total, and a more complete solution. These steps may involve several iterations.

Search Authoritative Literature (Step 6)—Further Explanation

The following sections discuss in more detail how to search authoritative literature as outlined in Step 6.

Researching *Wiley GAAP* This publication can assist in researching GAAP for the purpose of identifying technical answers to specific inquiries. You can begin your search by using the contents page at the front of this book or by using the index at the back of this publication. The path chosen depends in part on how specific the question is. An initial reading of the chapter or relevant section will provide a broader perspective on the subject. However, if one's interest is more specific, it might be more efficient to search the index.

Each chapter in this publication is organized in the following manner:

- Table of contents on the first page of the chapter.
- Perspective and Issues, providing an overview of the chapter contents (noting any current controversy or proposed GAAP changes affecting the chapter's topics), scope of the topic, and a list of major topics and subtopics in the FASB Accounting Standards Codification relevant to the chapter's topics.
- Concepts, Rules, and Examples, setting forth the detailed guidance and examples.

The appendices in this publication are *Definitions of Terms* and *Disclosure and Presentation Checklist for Commercial Businesses* (www.wiley.com/go/GAAP2022). After reading the relevant portions of this publication, the list of major topics and subtopics in the Codification can be used to find the sections in the Codification that are related to the topic, so that these can be appropriately understood and cited in documenting your research findings and conclusions. Readers familiar with the professional literature can use the Codification Taxonomy that precedes this chapter to quickly locate the pages in this publication relevant to each specific pronouncement.

Researching Nonpromulgated GAAP Researching nonpromulgated GAAP consists of reviewing pronouncements in areas similar to those being researched, reading accounting literature mentioned in ASC 105-10-05-3 and earlier in this chapter as "other and nonauthoritative sources," and carefully reading the relevant portions of the FASB Conceptual Framework (summarized later in this chapter). Concepts and intentions espoused by accounting experts offer essential clues to a logical formulation of alternatives and conclusions regarding problems that have not yet been addressed by the standard-setting bodies.

Both the AICPA and FASB publish a myriad of nonauthoritative literature. FASB publishes the documents it uses in its due process: Discussion Papers, Invitations to Comment, Exposure Drafts, and Preliminary Views as well as minutes from its meetings. It also publishes research reports, newsletters, and implementation guidance. The AICPA publishes Technical Practice Aids, Issues Papers, Technical Questions and Answers, Audit and Accounting Guides, as well as comment letters on proposals of other standard-setting bodies, and the monthly periodical, *Journal of Accountancy*. Technical Practice Aids are answers published by the AICPA to questions about accounting and auditing standards. AICPA Issues Papers are research documents about accounting and reporting problems that the AICPA believes should be resolved by FASB. They provide information about alternative accounting treatments used in practice.

The Securities and Exchange Commission issues Staff Accounting Bulletins and makes rulings on individual cases that come before it. These rulings create and impose accounting standards on those whose financial statements are to be submitted to the Commission.

Governmental agencies such as the Government Accountability Office, the Federal Accounting Standards Advisory Board, and the Cost Accounting Standards Board have certain publications that may assist in researching written standards. Also, industry organizations and associations may be other helpful sources.

Certain publications are helpful in identifying practices used by entities that may not be promulgated as standards. For example, refer to Wiley Financial Statement Disclosures Manual for disclosure examples. In addition EDGAR (Electronic Data Gathering, Analysis, and Retrieval) publishes the SEC filings of public companies, which includes the companies' financial statements. Through selection of keywords and/or topics, this service can provide information on how other entities resolved similar problems.

Internet-Based Research Sources There has been and continues to be an information revolution affecting the exponential growth in the volume of materials, authoritative and non-authoritative, that are available on the Internet. A listing of just a small cross-section of these sources follows:

	Accounting Websites						
AICPA	www.aicpa.org	Includes the Financial Reporting Center for accounting and assurance information and resources; CPE information; Professional Ethics and Peer Review releases and information; information on relevant congressional/ executive actions; online publications, such as the Journal of Accountancy; also has links to other organizations; includes links to standard-setting bodies and their authoritative standards for nonissuers including auditing standards, attestation standards, and quality control standards					
FASB	www.fasb.org	Information on FASB; Access to the Codification and ASUs, Project Status reports with EDs, research papers, and meeting notes; webcasts					
FASB Codification	asc.fasb.org/ home	Database using the accounting Codification; includes cross-referencing and tutorials					
GASB	www.gasb.org	Information on GASB; new GASB documents; summaries/ status of all GASB statements; proposed Statements; Technical Bulletins; Interpretations					
International Accounting Standards Board (IASB)	www.ifrs.org	Information on the IASB; lists of Pronouncements, Exposure Drafts, project summaries, and conceptual framework					
PCAOB	www.pcaobus.org	Sections on rulemaking, standards (including the auditing, attestation, quality control, ethics, and independence standards), enforcement, inspections and oversight activities					
SEC	www.sec.gov	SEC digest and statements; EDGAR searchable database; information on current SEC rulemaking					

Descriptions of Materiality

Materiality has great significance in understanding, researching, and implementing GAAP and affects the entire scope of financial reporting. Disputes over financial statement presentations often turn on the materiality of items that were, or were not, recognized, measured, and presented in certain ways.

Materiality is described by the FASB in Statement of Financial Concepts 8 (CON 8),

Qualitative Characteristics of Accounting Information:

Information is material if omitting it or misstating it could influence decisions that users make on the basis of the financial information of a specific reporting entity. In other words, materiality is an entity-specific aspect of relevance based on the nature or magnitude or both of the items to which the information relates in the context of an individual entity's financial report.

The Supreme Court has held that a fact is material if there is:

a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available.

Due to its inherent subjectivity, the FASB definition does not provide specific or quantitative guidance in distinguishing material information from immaterial information. The individual accountant must exercise professional judgment in evaluating information and concluding on its materiality. Materiality as a criterion has both quantitative and qualitative aspects, and items should not be deemed *immaterial* unless all potentially applicable quantitative and qualitative aspects are given full consideration and found not relevant.

In the following paragraphs, CON 8 discusses how materiality differs from relevance and that materiality assessments can be properly made only by those with an understanding of the entity's facts and circumstances.

QC11. Relevance and materiality are defined by what influences or makes a difference to an investor or other decision maker; however, these two concepts can be distinguished from each other. Relevance is a general notion about what type of information is useful to investors. Materiality is entity specific. The omission or misstatement of an item in a financial report is material if, in light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item.

QC11A. A decision not to disclose certain information or recognize an economic phenomenon may be made, for example, because the amounts involved are too small to make a difference to an investor or other decision maker (they are immaterial). However, magnitude by itself, without regard to the nature of the item and the circumstances in which the judgment has to be made, generally is not a sufficient basis for a materiality judgment.

QC11B. No general standards of materiality could be formulated to take into account all the considerations that enter into judgments made by an experienced reasonable provider of financial information. This is because materiality judgments can properly be made only by

those that understand the reporting entity's pertinent facts and circumstances. Whenever an authoritative body imposes materiality rules or standards, it is substituting generalized collective judgments for specific individual judgments, and there is no reason to suppose that the collective judgments always are superior.

SAB Topics 1.M (SAB 99) and 1.N (SAB 108) contain guidance from the SEC staff on assessing materiality during the preparation of financial statements. That guidance references the Supreme Court opinion and the definition in CON 2, which has been superseded by CON 8. The SEC in Staff Accounting Bulletin (SAB) Topics 1.M (SAB 99) and 1.N (SAB 108) provides useful discussions of this issue. SAB Topic 1.M indicates that:

a matter is material if there is a substantial likelihood that a reasonable person would consider it important.

Although not strictly applicable to nonpublic preparers of financial statements, the SEC guidance is worthy of consideration by all accountants and auditors. Among other things, Topic 1.M.1 notes that deliberate application of nonacceptable accounting methods cannot be justified merely because the impact on the financial statements is deemed to be immaterial. Topic 1.N also usefully reminds preparers and others that materiality has both quantitative and qualitative dimensions, and both must be given full consideration.

Quantitative Factors Quantitatively, materiality has been defined in relatively few pronouncements, which speaks to the great difficulty of setting precise measures for materiality. For example, in ASC 280-10-50-12, a material segment or customer is defined as representing 10% or more of the reporting entity's revenues (although, even given this rule, qualitative considerations may cause smaller segments to be deemed reportable). The Securities and Exchange Commission has, in several of its pronouncements, defined materiality as 1% of total assets for receivables from officers and stockholders, 5% of total assets for separate balance sheet disclosure of items, and 10% of total revenue for disclosure of oil and gas producing activities.

Qualitative Factors In addition to quantitative assessments, preparers should consider qualitative factors, such as company-specific trends and performance metrics. Information from analysts' reports and investor calls may provide an indication of what is important to reasonable investors and should be considered.

Although materiality judgments have traditionally been primarily based on quantitative assessments, the nature of a transaction or event can affect a determination of whether that transaction or event is material. Examples of items that involve an otherwise immaterial amount but that would be material include:

- A transaction that, if recorded, changes a profit to a loss or changes compliance with ratios in a debt covenant to noncompliance,
- A transaction that might be judged immaterial if it occurred as part of routine operations
 may be material if its occurrence helps meet certain objectives. For example, a transaction that allows management to achieve a target or obtain a bonus that otherwise would
 not become due would be considered material, regardless of the actual amount involved,
- Offers to buy or sell assets for more or less than book value, and
- Litigation proceedings against the company pursuant to price-fixing or antitrust allegations, and active negotiations regarding their settlement.

Degree of Precision Another factor in judging materiality is the degree of precision that may be attained when making an estimate. For example, accounts payable can usually be estimated more accurately than a possible loss from the incurrence of an asset retirement obligation. An error amount that would be material in estimating accounts payable might be acceptable in estimating the retirement obligation.

The Conceptual Framework

The conceptual framework is designed to prescribe the nature, function, and limits of financial accounting and reporting and is to be used as a guideline that will lead to consistent standards. FASB has issued eight pronouncements (five of which remain extant) called Statements of Financial Accounting Concepts (CON). These conceptual statements do *not* establish accounting standards or disclosure practices for particular items and are not enforceable under the AICPA Code of Professional Conduct. CON do not amend, modify, or interpret existing GAAP, nor do they justify departing from GAAP based upon interpretations derived from them.

The conceptual framework is a set of interrelated principles that are deduced from a set of foundational assumptions. The objective of financial reporting is the most important because until standards setters know what financial reports are intended to do, they cannot create any other aspect of the framework in a meaningful way. Once standards setters have an objective, then there is a need for other foundational concepts, for example, the going concern assumption. The conceptual framework directs measurement and recognition principles in a particular way. With assumptions in place, the principle can be deduced. Principles are the tools that the Board uses in deciding what items belong in the financial statements; what items should be recognized, presented, and disclosed; and for defining the boundaries of the reporting entity. Using those principles in the creation of accounting standards produces financial reports that meet the objectives of financial reporting.

CON#	Title	Status ²
1	Objectives of Financial Reporting by Business Enterprises	Replaced by CON 8, Ch. 1
2	Qualitative Characteristics of Accounting Information	Replaced by CON 6 & CON 8, Ch. 3
3	Elements of Financial Statements of Business Enterprises	Replaced by CON 6, paragraph 2
4	Objectives of Financial Reporting by Nonbusiness Organizations	Extant
5	Recognition and Measurement in Financial Statements of Business Enterprises	Extant
6	Elements of Financial Statements—A Replacement of FASB Concepts Statement No. 2 (incorporating an amendment of FASB Concepts Statement No. 2)	Extant

² The FASB currently has three projects related to the Conceptual Framework on:

[•] Elements in Exposure Draft Redeliberations, with a final chapter expected fourth quarter 2021

[·] Measurement in Initial Deliberations, and

[•] Presentation in Final Stage with a final chapter expected fourth quarter 2021.

CON#	Title	Status
7	Using Cash Flow Information and Present Value in Accounting Measurement	Extant
8	Ch. 1—The Objective of General Purpose Financial Reporting	Extant
	Ch. 2—Reserved for a chapter on the reporting entity	Reserved
	Ch. 3—Qualitative Characteristics of Useful Financial Information	Extant

FASB's conceptual framework is intended to serve as the foundation upon which the Board can construct standards that are both sound and internally consistent. The fact that the framework was intended to guide FASB in establishing standards is embodied in the preface to CON 8, which states:

The Board itself is likely to be the most direct beneficiary of the guidance provided by Concepts Statements. They will guide the Board in developing accounting and reporting standards by providing the Board with a common foundation and basic reasoning on which to consider merits of alternatives.

The conceptual framework is also intended for use by the business community to help understand and apply standards and to assist in their development. This goal is also mentioned in the preface to CON 8:

However, knowledge of the objectives and concepts the Board will use in developing new guidance also should enable those who are affected by or interested in generally accepted accounting standards (GAAP) to understand better the purposes, content, and characteristics of information provided by financial accounting and reporting.

That knowledge is expected to enhance the usefulness of, and confidence in, financial accounting and reporting. The objectives and fundamental concepts also may provide some guidance in analyzing new or emerging problems of financial accounting and reporting in the absence of applicable authoritative pronouncements.

The FASB Special Report, *The Framework of Financial Accounting Concepts and Standards* (1998), states that the conceptual framework should help solve complex financial accounting or reporting problems by:

- Providing a set of common premises as a basis for discussion;
- Providing precise terminology;
- Helping to ask the right questions;
- Limiting areas of judgment and discretion and excluding from consideration potential solutions that are in conflict with it; and
- Imposing intellectual discipline on what traditionally has been a subjective and ad hoc reasoning process.

Components of the Conceptual Framework The components of the conceptual framework for financial accounting and reporting include objectives, qualitative characteristics, elements, recognition, measurement, and disclosure concepts.

Elements of financial statements are the components from which financial statements are created. They include assets, liabilities, equity, investments by owners, distributions to owners, comprehensive income, revenues, expenses, gains, and losses. In order to be included in financial statements, an element must meet criteria for recognition and possess a characteristic that can be reliably measured. Reporting or display considerations are concerned with what information should be provided, who should provide it, and where it should be displayed. How the financial statements (financial position, earnings, and cash flow) are presented is the focal point of this part of the conceptual framework project.

Of the five extant Concepts Statements, the fourth, *Objectives of Financial Reporting by Nonbusiness Organizations*, is not covered here due to its specialized nature. Because the topics in CON 8 are foundational, this discussion begins with CON 8.

CON 8 is a result of a joint FASB/IASB project to improve and converge their frameworks.

CON 8—Chapter 1: The Objective of General Purpose Financial Reporting

Chapter 1 identifies the objective of financial reporting and indicates that this objective applies to all financial reporting. It is not limited to financial statements. The objective is to provide information that is useful in making decisions about providing resources to the entity. Users of financial information are identified as existing and potential investors, lenders, and other creditors. Chapter 1 is directed at general-purpose external financial reporting by a business enterprise as it relates to the ability of that enterprise to generate favorable cash flows.

Investors and creditors need financial reports that provide understandable information that will aid in predicting the future cash flows of an entity. The expectation of cash flows affects an entity's ability to meet the obligations of loans and other forms of credit and to pay interest and dividends, which in turn affects the market price of that entity's stocks and bonds.

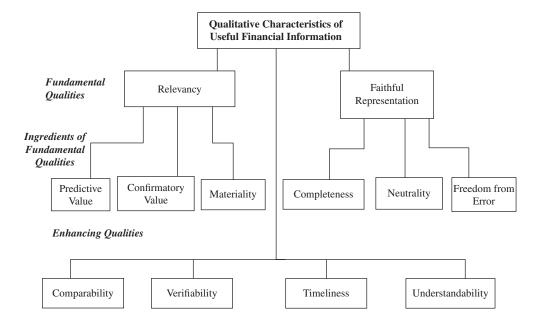
To assess cash flows, financial reporting should provide information relative to an enterprise's economic resources, the claims against the entity, and the effects of transactions, events, and circumstances that change resources and claims to resources. A description of these informational needs follows:

- Economic resources, claims against the entity, and owners' equity. This information provides the users of financial reporting with a measure of future cash flows and an indication of the entity's strengths, weaknesses, liquidity, and solvency.
- Economic performance and earnings. Past performance provides an indication of an entity's future performance. Furthermore, earnings based upon accrual accounting provide a better indicator of economic performance and future cash flows than do current cash receipts and disbursements. Accrual basis earnings are a better indicator because a charge for recovery of capital (depreciation/amortization) is made in determining these earnings. The relationship between earnings and economic performance results from matching the costs and benefits (revenues) of economic activity during a given period by means of accrual accounting. Over the life of an enterprise, economic performance can be determined by net cash flows or by total earnings since the two measures would be equal.
- Liquidity, solvency, and funds flows. Information about cash and other funds flows from borrowings, repayments of borrowings, expenditures, capital transactions, economic

- resources, obligations, owners' equity, and earnings may aid the user of financial reporting information in assessing a firm's liquidity or solvency.
- Management stewardship and performance. The assessment of a firm's management with respect to the efficient and profitable use of the firm's resources is usually made on the basis of economic performance as reported by periodic earnings. Because earnings are affected by factors other than current management performance, earnings may not be a reliable indicator of management performance.
- Management explanations and interpretations. Management is responsible for the efficient use of a firm's resources. Thus, it acquires knowledge about the enterprise and its performance that is unknown to the external user. Explanations by management concerning the financial impact of transactions, events, circumstances, uncertainties, estimates, judgments, and any effects of the separation of the results of operations into periodic measures of performance enhance the usefulness of financial information.

CON 8—Chapter 3: Qualitative Characteristics of Useful Financial Information

The purpose of financial reporting is to provide decision makers with useful information. Individuals or standard-setting bodies should make accounting choices based upon the usefulness of that information to the decision-making process. CON 8—Chapter 3 identifies the qualities or characteristics that make information useful in the decision-making process. It also establishes a terminology to provide a greater understanding of the characteristics.



Fundamental Qualitative Characteristics Information must be useful to be beneficial to the user. To be useful, accounting information must both be *relevant* and *faithfully represent* what it claims to represent.

Relevance Information is relevant to a decision if it makes a difference to the decision maker's ability to predict events or to confirm or correct expectations. Relevant information will reduce the decision maker's assessment of the uncertainty of the outcome of a decision even

though it may not change the decision itself. Information is relevant if it provides knowledge concerning:

- Past events (confirmatory value). Disclosure information is relevant because it provides information about past events.
- Future events (predictive value) and if it is timely. The predictive value of accounting information does not imply that such information is a prediction. The predictive value refers to the utility that a piece of information has as an input into a predictive model.

An item of information is material and should be reported if it is significant enough to have an effect on the decision maker. Materiality is entity specific. It is dependent upon the relative size of an item and nature of the item. Because materiality is evaluated in the context of an individual entity's financial report, the FASB could not offer quantitative standards of materiality.

Faithful representation Financial statements are an abstraction of the activities of a business enterprise. They simplify the activities of the actual entity. To be faithfully representative, financial statements must portray the important financial relationships of the entity itself. Information is faithfully representative if it is:

Complete,

Neutral, and

Free from errors.

Complete A complete representation contains all the information that would enable users to understand the information. In addition to quantitative information, a particular item may need to include a description and explanation.

Neutral Neutral means that accounting information should serve to communicate without attempting to influence behavior in a particular direction. This does not mean that accounting should not influence behavior or that it should affect everyone in the same way. It means that information should not favor certain interest groups.

Free from error Free from error does not mean perfectly accurate. However, it does mean that a description is:

- Accurately described,
- The explanation of the phenomenon is explained, and
- No errors have been made in selecting and reporting the process.

Enhancing Qualities Information that is relevant and faithfully represented can be enhanced by:

- · Comparability,
- · Verifiability,
- · Timeliness, and
- Understandability.

These enhancing characteristics also may be the determinative factors when considering how to present information that is equally relevant and faithfully represented.

Comparability To be useful, accounting information should be comparable. The characteristic of comparability allows the users of accounting information to assess the similarities and differences either among different entities for the same time period or for the same entity over different time periods. Comparisons are usually made on the basis of quantifiable measurements of a common characteristic. Therefore, to be comparable, the measurements used must be

reliable with respect to the common characteristic. Noncomparability can result from the use of different inputs, procedures, or systems of classification.

Related to comparability, consistency is an interperiod comparison that requires the use of the same accounting principles from one period to another. Although a change of an accounting principle to a more preferred method results in inconsistency, the change is acceptable if the effect of the change is disclosed. Consistency, however, does not ensure comparability. If the measurements used are not representationally faithful, comparability will not be achieved.

Verifiability Verifiability means that several independent measures will obtain the same accounting measure. An accounting measure that can be repeated with the same result (consensus) is desirable because it serves to detect and reduce measurer bias. Cash is highly verifiable. Inventories and depreciable assets tend to be less verifiable because alternative valuation methods exist. The direct verification of an accounting measure would serve to minimize measurer bias and measurement bias. The verification of the procedures used to obtain the measure would minimize measurer bias only. Finally, verifiability does not guarantee representational faithfulness or relevance.

Timeliness Although timeliness alone will not make information useful, information must be timely to be useful.

Understandability Financial reports must be understandable for users who have a "reasonable knowledge of business and economic activities and who review and analyze the information diligently" (CON 8, QC 32).

Trade-Offs Although it is desirable that accounting information contains the characteristics that have been identified above, not all of these characteristics are compatible. Often, one characteristic may be obtained only by sacrificing another. The trade-offs that must be made are determined on the basis of the relative importance of the characteristics. This relative importance, in turn, is dependent upon the nature of the users and their particular needs.

Cost Constraint The qualitative characteristics of useful accounting information are subject to a constraint: the relative cost-benefit of that information. Associated with the benefits to the user of accounting information is the cost of using that information and of providing it to the user. Information should be provided only if its benefits exceed its cost. Unfortunately, it is difficult to value the benefit of accounting information. It is also difficult to determine whether the burden of the cost of disclosure and the benefits of such disclosure are distributed fairly.

CON 8—Chapter 8: Notes to Financial Statements

In August 2018, the FASB added a new chapter to CON 8: Chapter 8, *Notes to Financial Statements*. Chapter 8 gives the Board a framework for setting disclosure requirements on individual standards-level projects. This new chapter is designed to improve the Board's process for setting requirements and describes

- the purpose of notes,
- the nature of appropriate content, and
- general limitations on disclosures, such as cost constraints and unintended consequences.

CON 5: Recognition and Measurement in Financial Statements of Business Enterprises

CON 5 indicates that financial statements are the principal means of communicating useful financial information. A full set of such statements contains:

- Financial position at end of the period
- Earnings for the period

- Comprehensive income for the period
- Cash flows during the period
- Investments by and distributions to owners during the period.

Financial statements result from simplifying, condensing, and aggregating transactions. Therefore, no one financial statement provides sufficient information by itself and no one item or part of each statement can summarize the information.

A statement of financial position provides information about an entity's assets, liabilities, and equity. Earnings are a measure of entity performance during a period. Earnings are similar to net income but exclude accounting adjustments from earlier periods such as cumulative effect changes in accounting principles. Comprehensive income comprises all recognized changes in equity other than those arising from investments by and distributions to owners. A statement of cash flows reflects receipts and payments of cash by major sources and uses including operating, financing, and investing activities. The investments by and distributions to owners reflect the capital transactions of an entity during a period.

Income is determined by the concept of financial capital maintenance, which means that only if the money amount of net assets increases during a period (excluding capital transactions) is there a profit. For recognition in financial statements, subject to both cost-benefit and materiality constraints, an item must meet the following criteria:

- 1. Definition—Meet the definition of an element in financial statements
- 2. Measurability—Have a relevant attribute measurable with sufficient reliability
- 3. Relevance
- 4. Reliability

Items reported in the financial statements are based on historical cost, replacement cost, market value, net realizable value, and present value of cash flows. Price level changes are not recognized in these statements and conservatism guides the application of recognition criteria.

CON 6: Elements of Financial Statements

CON 3 was replaced by CON 6. CON 6 carried forward essentially all of the concepts in CON 3 and added the elements unique to the financial statements of not-for-profit organizations. CON 6 defines ten interrelated elements that are used in the financial statements of business enterprises:

- 1. *Assets*—Probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.
- 2. *Liabilities*—Probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.
- 3. *Equity (Net Assets)*—The residual interest in the assets that remains after deducting its liabilities. In a business enterprise, equity is the ownership interest.
- 4. *Revenues*—Inflows or other enhancements of assets of an entity or settlement of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major and central operations.
- 5. *Expenses*—Outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major and central operations.

- 6. *Gains*—Increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from revenues or investments by owners.
- 7. *Losses*—Decreases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from expenses or distributions to owners.
- 8. *Comprehensive Income*—The change in equity of a business enterprise during a period from transactions and other events and circumstances from sources other than investments by owners or distributions to owners.
- 9. *Investments by Owners*—Increases in equity of a particular business enterprise resulting from transfers to it for the purpose of increasing ownership interests.
- 10. *Distributions to Owners*—Decreases in the equity of a particular business enterprise resulting from transferring assets, rendering services, or incurring liabilities to owners.

Revenues are commonly distinguished from gains for three reasons. See the table below:

Revenues	Gains
Result from an entity's central operations	Result from incidental or peripheral activities of the entity
Are usually earned	Result from nonreciprocal transactions (such as winning a lawsuit or receiving a gift) or other economic events for which there is no earnings process
Are reported gross	Are reported net

Expenses are commonly distinguished from losses for three reasons:

Expenses	Losses
Result from an entity's central operations	Result from incidental or peripheral activities of the entity
Often incurred during the earnings process	Often result from nonreciprocal transactions (such as thefts or fines) or other economic events unrelated to an earnings process
Reported gross	Reported net

Definitions of Terms CON 6 also defines several significant financial accounting and reporting terms that are used in the Concepts Statements (and FASB pronouncements issued after the Concepts Statements).

An *event* is a happening of consequence to an entity. It can be an internal event (the use of raw materials) or an external event with another entity (the purchase of labor) or with the environment in which the business operates (a technological advance by a competitor).

A *transaction* is a particular kind of event. It is an external event that involves transferring something of value to another entity.

Circumstances are a condition, or set of conditions, that create situations that might otherwise not have occurred and might not have been anticipated.

Accrual is the accounting process of recognizing the effects of future cash receipts and payments in the current period. Accrual accounting attempts to record the financial effects on

an entity of transactions and of other events and circumstances that have consequences for the entity in the periods in which those transactions, events, and circumstances occur rather than in the periods in which cash is received or paid by the entity.

Deferral is the accounting process of recognizing a liability resulting from a current cash receipt or an asset resulting from a current cash payment.

Realization is the process of converting noncash assets into cash.

Recognition is the process of formally incorporating a transaction or other event into the financial statements.

Matching is the simultaneous recognition of the revenues and expenses that result directly and jointly from the same transaction or other event.

Allocation is the process of assigning expenses to periods when the transactions or events that cause the using up of the benefits cannot be identified or when the cause can be identified but the actual amount of benefit used up cannot be reliably measured.

Elements of Not-for-Profit Financial Statements Of the ten elements listed previously, seven are used by not-for-profit organizations. The three elements omitted are investments by owners, distributions to owners, and comprehensive income. The net assets (equity) of not-for-profit organizations is divided into three classes—unrestricted, temporarily restricted, and permanently restricted—based on the existence or absence of donor-imposed restrictions.

CON 7: Using Cash Flow Information and Present Value in Accounting Measurements

CON 7 provides a framework for using estimates of future cash flows as the basis for accounting measurements either at initial recognition or when assets are subsequently remeasured at fair value and for using the interest method of amortization. It provides the principles that govern measurement using present value, especially when the amount of future cash flows, their timing, or both are uncertain. However, it does not address recognition questions, such as which transactions and events should be valued using present value measures. Fair value is the objective for most measurements at initial recognition and for fresh-start measurements in subsequent periods. At initial recognition, the cash paid or received (historical cost or proceeds) is usually assumed to be fair value, absent evidence to the contrary. For fresh-start measurements, a price that is observed in the marketplace for an essentially similar asset or liability is fair value. If purchase prices and market prices are available, there is no need to use alternative measurement techniques to approximate fair value. However, if alternative measurement techniques must be used for initial recognition and for fresh-start measurements, those techniques should attempt to capture the elements that when taken together would comprise a market price if one existed. The objective is to estimate the price likely to exist in the marketplace if there were a marketplace fair value.

CON 7 states that the only objective of using present value in accounting measurements is fair value. It is necessary to capture, to the extent possible, the economic differences in the marketplace between sets of estimated future cash flows. A present value measurement that fully captures those differences must include the following elements:

- An estimate of the future cash flow, or in more complex cases, series of future cash flows at different times:
- 2. Expectations about possible variations in the amount or timing of those cash flows;
- 3. The time value of money, represented by the risk-free rate of interest;

- 4. The risk premium—the price for bearing the uncertainty inherent in the asset or liability;
- 5. Other factors, including illiquidity and market imperfections.

How CON 7 Measures Differ from Previously Utilized Present Value Techniques Previously employed present value techniques typically used a single set of estimated cash flows and a single discount (interest) rate. In applying those techniques, adjustments for factors 2 through 5 described in the previous section are incorporated in the selection of the discount rate. In the CON 7 approach, only the third factor listed (the time value of money) is included in the discount rate; the other factors cause adjustments in arriving at risk-adjusted expected cash flows. CON 7 introduces the probability-weighted, expected cash flow approach, which focuses on the range of possible estimated cash flows and estimates of their respective probabilities of occurrence.

Previous techniques used to compute present value used estimates of the cash flows most likely to occur. CON 7 refines and enhances the precision of this model by weighting different cash flow scenarios (regarding the amounts and timing of cash flows) by their estimated probabilities of occurrence and factoring these scenarios into the ultimate determination of fair value.

The difference is that values are assigned to the cash flows other than the most likely one. To illustrate, a cash flow might be \$100, \$200, or \$300, with probabilities of 10%, 50%, and 40%, respectively. The most likely cash flow is the one with 50% probability, or \$200. The expected cash flow is $$230 = ($100 \times .1) + ($200 \times .5) + ($300 \times .4)$.

The CON 7 method, unlike previous present value techniques, can also accommodate uncertainty in the timing of cash flows. For example, a cash flow of \$10,000 may be received in one year, two years, or three years, with probabilities of 15%, 60%, and 25%, respectively. Traditional present value techniques would compute the present value using the most likely timing of the payment—two years. The example below shows the computation of present value using the CON 7 method. Again, the expected present value of \$9,030 differs from the traditional notion of a best estimate of \$9,070 (the 60% probability) in this example:

Present value of \$10,000 in 1 year discounted at 5%	\$9,523	
Multiplied by 15% probability		\$1,428
Present value of \$10,000 in 2 years discounted at 5%	\$9,070	
Multiplied by 60% probability		5,442
Present value of \$10,000 in 3 years discounted at 5%	\$8,638	
Multiplied by 25% probability		2,160
Probability weighted expected present value		<u>\$9,030</u>

Measuring Liabilities The measurement of liabilities involves different problems from the measurement of assets; however, the underlying objective is the same. When using present value techniques to estimate the fair value of a liability, the objective is to estimate the value of the assets required currently to (1) settle the liability with the holder or (2) transfer the liability to an entity of comparable credit standing. To estimate the fair value of an entity's notes or bonds payable, accountants look to the price at which other entities are willing to hold the entity's liabilities as assets. For example, the proceeds of a loan are the price that a lender paid to hold the borrower's promise of future cash flows as an asset.

The most relevant measurement of an entity's liabilities should always reflect the credit standing of the entity. An entity with a good credit standing will receive more cash for its promise

to pay than an entity with a poor credit standing. For example, if two entities both promise to pay \$750 in three years with no stated interest payable in the interim, Entity A, with a good credit standing, might receive about \$630 (a 6% interest rate). Entity B, with a poor credit standing, might receive about \$533 (a 12% interest rate). Each entity initially records its respective liability at fair value, which is the amount of proceeds received—an amount that incorporates that entity's credit standing.

Present value techniques can also be used to value a guarantee of a liability. Assume that Entity B in the above example owes Entity C. If Entity A were to assume the debt, it would want to be compensated \$630—the amount that it could get in the marketplace for its promise to pay \$750 in three years. The difference between what Entity A would want to take the place of Entity B (\$630) and the amount that Entity B receives (\$533) is the value of the guarantee (\$97).

Interest Method of Allocation CON 7 describes the factors that suggest that an interest method of allocation should be used. It states that the interest method of allocation is more relevant than other methods of cost allocation when it is applied to assets and liabilities that exhibit one or more of the following characteristics:

- 1. The transaction is, in substance, a borrowing and lending transaction.
- 2. Period-to-period allocation of similar assets or liabilities employs an interest method.
- 3. A particular set of estimated future cash flows is closely associated with the asset or liability.
- 4. The measurement at initial recognition was based on present value.

Accounting for Changes in Expected Cash Flows If the timing or amount of estimated cash flows changes and the asset or liability is not remeasured at a fresh-start measure, the interest method of allocation should be altered by a catch-up approach. That approach adjusts the carrying amount to the present value of the revised estimated future cash flows, discounted at the original effective interest rate.

Application of Present Value Tables and Formulas *Present value of a single future amount.* To take the present value of a single amount that will be paid in the future, apply the following formula, in which PV is the present value of \$1 paid in the future, r is the interest rate per period, and n is the number of periods between the current date and the future date when the amount will be realized:

$$PV = 1/(1+r)^n$$

In many cases the results of this formula are summarized in a present value factor table:

(n) Periods	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091
2	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8265
3	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513
4	0.9239	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830
5	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209

Example of a Present Value Calculation

Suppose one wishes to determine how much would need to be invested today to have \$10,000 in 5 years if the sum invested would earn 8%. Looking across the row with n = 5 and finding the present value factor for the r = 8% column, the factor of 0.6806 would be identified. Multiplying \$10,000 by 0.6806 results in \$6,806, the amount that would need to be invested today to have \$10,000 at the end of 5 years. Alternatively, using a calculator and applying the present value of a single sum formula, one could multiply \$10,000 by $1/(1 + .08)^5$, which would also give the same answer—\$6.806.

Present value of a series of equal payments (an annuity) Many times in business situations a series of equal payments paid at equal time intervals is required. Examples of these include payments of semiannual bond interest and principal or lease payments. The present value of each of these payments could be added up to find the present value of this annuity, or alternatively a much simpler approach is available. The formula for calculating the present value of an annuity of 1 payments over 1 periodic payments at a periodic interest rate of 1 is:

$$PVAnnuity = \frac{\left(1 - \frac{1}{\left(1 + r\right)^n}\right)}{r}$$

The results of this formula are summarized in an annuity present value factor table:

(n) Periods	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091
2	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355
3	2.8839	2.8286	2.7751	2.7233	2.6730	2.6243	2.5771	2.5313	2.4869
4	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699
5	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908

Example of an Annuity Present Value Calculation

Suppose four annual payments of \$1,000 will be needed to satisfy an agreement with a supplier. What would be the amount of the liability today if the interest rate the supplier is charging is 6% per year? Using the table to get the present value factor, the n = 4 periods row, and the 6% column, gives you a factor of 3.4651. Multiply this by \$1,000 and you get a liability of \$3,465.10 that should be recorded. Using the formula would also give you the same answer with r = 6% and n = 4.

Caution must be exercised when payments are not to be made on an annual basis. If payments are on a semiannual basis, n = 8, but r is now 3%. This is because r is the periodic interest rate, and the semiannual rate would not be 6%, but half of the 6% annual rate. Note that this is somewhat simplified, since due to the effect of compound interest 3% semiannually is slightly more than a 6% annual rate.

Example of the Relevance of Present Values

A measurement based on the present value of estimated future cash flows provides more relevant information than a measurement based on the undiscounted sum of those cash flows. For example, consider the following four future cash flows, all of which have an undiscounted value of \$100,000:

- Asset A has a fixed contractual cash flow of \$100,000 due tomorrow. The cash flow is certain
 of receipt.
- 2. Asset B has a fixed contractual cash flow of \$100,000 due in 20 years. The cash flow is certain of receipt.
- 3. Asset C has a fixed contractual cash flow of \$100,000 due in 20 years. The amount that ultimately will be received is uncertain. There is an 80% probability that the entire \$100,000 will be received. There is a 20% probability that \$80,000 will be received.
- 4. Asset D has an expected cash flow of \$100,000 due in 20 years. The amount that ultimately will be received is uncertain. There is a 25% probability that \$120,000 will be received. There is a 50% probability that \$100,000 will be received. There is a 25% probability that \$80,000 will be received.

Assuming a 5% risk-free rate of return, the present values of the assets are:

- 1. Asset A has a present value of \$99,986. The time value of money assigned to the one-day period is $$14 [$100,000 \times .05/365 \text{ days}].$
- 2. Asset B has a present value of \$37,689 [$100,000/(1 + .05)^{20}$].
- 3. Asset C has a present value of $\$36,181 \left[(100,000 \times .8 + 80,000 \times .2)/(1 + .05)^{20} \right]$.
- 4. Asset D has a present value of $\$37,689 [(\$120,000 \times .25 + 100,000 \times .5 + 80,000 \times .25)/(1 + .05)^{20}]$.

Although each of these assets has the same undiscounted cash flows, few would argue that they are economically the same or that a rational investor would pay the same price for each. Investors require compensation for the time value of money. They also require a risk premium. That is, given a choice between Asset B with expected cash flows that are certain and Asset D with cash flows of the same expected amount that are uncertain, investors will place a higher value on Asset B, even though they have the same expected present value. CON 7 says that the risk premium should be subtracted from the expected cash flows before applying the discount rate. Thus, if the risk premium for Asset D was \$500, the risk-adjusted present values would be \$37,500 {[(\$120,000 × .25 + 100,000 × .5 + $80,000 × .25) - 500]/(1 + .05)^{20}$ }.

Practical Matters Like any accounting measurement, the application of an expected cash flow approach is subject to a cost-benefit constraint. The cost of obtaining additional information must be weighed against the additional reliability that information will bring to the measurement. As a practical matter, an entity that uses present value measurements often has little or no information about some or all of the assumptions that investors would use in assessing the fair value of an asset or a liability. Instead, the entity must use the information that is available to it without undue cost and effort when it develops cash flow estimates. The entity's own assumptions about future cash flows can be used to estimate fair value using present value techniques, as long as there are no contrary data indicating that investors would use different assumptions. However, if contrary data exist, the entity must adjust its assumptions to incorporate that market information.