Brief Contents

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Preface

This book began as a series of lesson notes for a financial accounting theory course of the Certified General Accountants' Association of Canada (CGA). The lesson notes grew out of a conviction that we have learned a great deal about the role of financial accounting and reporting in our society from securities markets and information economics-based research conducted over many years, and that financial accounting theory comes into its own when we formally recognize the information asymmetries that pervade business relationships.

The challenge was to organize this large body of research into a unifying framework and to explain it in such a manner that professionally oriented students would both understand and accept it as relevant to the financial accounting environment and, ultimately, to their own professional careers.

This book seems to have largely achieved its goals. In addition to being part of the CGA program of professional studies for a number of years, it has been extensively used in financial accounting theory courses at the University of Waterloo, Queen's University, and numerous other national and international universities, both at the senior undergraduate and professional master's levels. We are encouraged by the fact that, by and large, students accept the material, and may object if the instructor follows it too closely in class. This frees up class time to expand coverage of areas of interest to individual instructors and/or to motivate interest in particular topics by means of articles from the financial press and professional and academic literature.

Despite its theoretical orientation, the book does not ignore the institutional structure of financial accounting and standard-setting. It features considerable coverage and critical evaluation of financial accounting standards and regulations, such as fair value accounting, financial instruments, reserve recognition accounting, management discussion and analysis, employee stock options, impairment tests, hedge accounting, derecognition, consolidation, and comprehensive income. The structure of standard-setting bodies is also described, and the role of structure in helping to engineer the consent necessary for a successful standard is evaluated. While the text discussion concentrates on relating standards to the theoretical framework of the book, the coverage provides students with exposure to the main features of the standards themselves.

This material has also been successfully used in Ph.D. seminars, concentrating on the research articles that underlie the text discussion. Students appreciate the framework of the book as a way of putting specific research papers into perspective. Indeed, the book proceeds in large part by selecting important research papers for description and commentary and provides extensive references to other research papers underlying the text discussion. Assignment of the research papers themselves could be especially useful for instructors

who wish to dig into methodological issues that, with some exceptions, are downplayed in the book itself.

This edition continues to orient the coverage of accounting standards to those of the International Accounting Standards Board (IASB). As in previous editions, some coverage of major U.S. accounting standards is also included.

We have retained the outline of the events leading up to the 2007–2008 securities-market meltdowns since these events raised significant questions about the validity of many economic models and continue to have significant accounting implications. Ramifications of these events are interwoven throughout the book. For example, one outcome of the meltdowns is severe criticism of the efficient market hypothesis. Nevertheless, we continue to maintain that investors are, on average, rational and that securities markets in developed economies, while not fully (semi-strong) efficient, are sufficiently close to efficiency (except during periods of bubble and subsequent liquidity pricing) that the implications of the theory continue to be relevant to financial reporting. Critical evaluation of these various criticisms and arguments is given.

The 2018 IASB Conceptual Framework is an important component of this book. Over time, it will be an important aspect of the financial accounting environment. Its relationships to the theory developed here are critically evaluated. While we retain extensive discussion of alternate theories of investor behaviour, this book continues to regard the theory of rational investors as important to helping accountants prepare useful financial statement information.

The book continues to maintain that motivating responsible manager behaviour and improving the working of managerial labour markets is an equally important role for financial reporting in a markets-oriented economy as enabling good investment decisions and improving the working of securities markets.

We have updated references and discussion of recent research articles, revised the exposition as a result of comments received about earlier editions, and added some new problem material. We also continue to suggest optional sections for those who do not wish to delve too deeply into certain topics.

What's New

Below is a comprehensive list of major changes made to the eighth edition of *Financial Accounting Theory*:

- The text reviews recent academic accounting research, with updated explanations and discussion of important papers added throughout the text. The text represents the current state of accounting-related theories, as published in major research journals up to about mid-2018.

- We have revised all chapters to improve the understandability of the exposition, discarding some redundant material, and further clarifying the discussion of numerous topics.
- The coverage of the Conceptual Framework (Chapter 3) has been updated to the 2018 IASB version, with references to it incorporated throughout the text. We have also updated references to new accounting standards (Chapter 7), several of which were at the exposure draft stage in the seventh edition.
- We have added numerous real-world examples to illustrate the theory. These are mostly Theory in Practice vignettes with some related problem material. They include Toshiba Corp. (Chapter 1), Home Capital Group (Chapters 3, 4, 6), vulture funds (Chapter 3), SEC EDGAR (Chapter 4), Inco. Ltd. (Chapter 7), Broadwind Energy Inc. (Chapter 7), Health South Corp. (Chapter 10), Barrick Gold Corp. (Chapter 10), Valeant Pharmaceuticals (Chapter 11).
- Theory in Practice vignette 3.2, regarding evidence that tone of MD&A predicts future earnings, is rewritten to bring out artificial intelligence implications. Additional examples of computerized textual analysis are added, including of analyst written reports (Chapter 5), effects of tone and sentiment on attribute framing (Chapter 6), and qualitative statements in earnings announcements (Chapter 12).
- We have updated problem material, changed numerical solutions, and added new problems.
- The discussion and illustration of reserve recognition accounting (Chapter 2), management discussion and analysis (Chapter 3), and the RBC compensation plan (Chapter 10) are updated.

Users of previous editions should take note that we have updated some terminology, adopting wording that we believe will be more easily understood. The most important is the change from "measurement approach" to "valuation approach," when referring to the standard-setting approach that emphasizes current values (Chapter 7). In addition, we previously used the term "clean surplus" to describe both Ohlson's (1995) theoretical model and various valuation techniques that derive from it (Chapter 6). In this edition, we use "residual income" for the valuation techniques. We have also replaced the term "late timing" with "backdating" in relation to employee stock options (Chapter 8).

FEATURES

- **Theory in Practice:** These vignettes provide real-world cases that illustrate the theoretical concepts. Some are pursued further in end-of-chapter Questions and Problems.
- **Examples:** Numerical examples with detailed commentary about the method of solution make the theory more concrete, reinforcing students' learning.
- **Figures:** Each chapter begins with a schematic figure. The figure at the start of Chapter 1 shows the design of the book, and each subsequent chapter starts with a figure showing the design of that chapter.
- **Questions and Problems:** Each chapter except Chapter 1 ends with questions and problems that allow students to test, and sometime extend, their understanding of the chapter's contents.

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We thank the large number of researchers whose work underlies this book in our descriptions and discussions of research papers. We have not referenced many other worthy papers. This implies no disrespect or lack of appreciation for the contributions of these authors to financial accounting theory. Rather, it is simply impossible to include them all, both for reasons of space and the boundaries of our own knowledge.

Bill remains grateful to Carolyn Holden for skilful, timely, and cheerful typing of the original manuscript in the face of numerous revisions, and to Jill Nucci for very valuable assistance on previous editions.

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William Scott

Patricia O'Brien

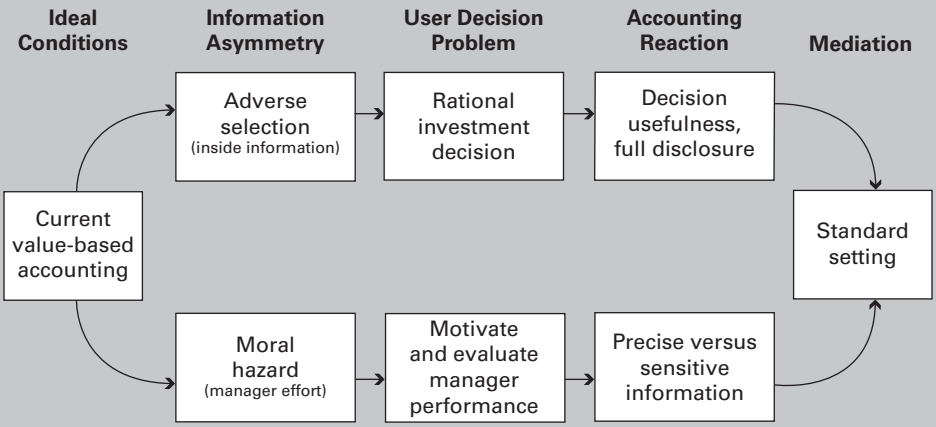
About the Authors

William Scott received his B. Comm. from Carleton University, and his M.B.A and Ph.D. from the School of Business, University of Chicago. He is a Fellow of Chartered Professional Accountants Ontario. His research has been published in the *Journal of Accounting Research*, *Contemporary Accounting Research*, *Journal of Business Finance & Accounting*, and several other academic journals. He has served on the editorial boards of *Journal of Accounting Research*, *Contemporary Accounting Research*, and *The Accounting Review*; and served a term as Editor of *Contemporary Accounting Research*. Professor Scott received the 1988 CAAA Award for Distinguished Contribution to Accounting Thought and the CAAA 2005 L.S. Rosen Award for Outstanding Contribution to Canadian Accounting Education. He has taught at Carleton University, University of Chicago, Queen's University at Kingston, University of British Columbia, and University of Waterloo and is now Distinguished Emeritus Professor at University of Waterloo.

Patricia C. O'Brien is the EY Professor at the School of Accounting & Finance, University of Waterloo. Her research, on topics concerning financial analysts, financial reporting standards, and information in capital markets, is published in many of the premier accounting journals. In 2009, Professor O'Brien received the CAAA Haim Falk Award for Distinguished Contribution to Accounting Thought. She currently serves on the Academic Advisory Council to Canada's Accounting Standards Board. She has served as Editor-in-Chief of *Contemporary Accounting Research* (*CAR*), and on the editorial boards of *CAR*, the *Journal of Accounting Research*, *The Accounting Review*, and the *Journal of Accounting and Public Policy*. She holds an A.B. degree *cum laude* in mathematics from Cornell University, and earned her M.B.A. and Ph.D. degrees at the University of Chicago. Prior to joining Waterloo, Professor O'Brien was a faculty member at the University of Rochester, Massachusetts Institute of Technology, the University of Michigan, London Business School, and York University. She has held visiting appointments at the Helsinki School of Economics, the University of Chicago, Stanford University, and the University of Amsterdam, as well as in the Office of the Chief Economist of the Ontario Securities Commission.

Chapter 1
Introduction

Figure 1.1 Organization of the Book



1.1 THE OBJECTIVE OF THIS BOOK

This book is about the theory of accounting, not about how to account. It argues that accounting students, having been exposed to the methodology and practice of accounting, now need to examine the broader implications of financial accounting for the fair and efficient working of our economy. Our objective is to give the reader a critical awareness of the current financial accounting and reporting environment, taking into consideration the diverse interests of both external users and management.

1.2 SOME HISTORICAL PERSPECTIVE

Accounting has a long history. Our perspective begins with the double entry bookkeeping system. The first complete description of this system appeared in 1494, authored by Luca Paciolo, an Italian monk/mathematician.[1] Paciolo did not invent this system—it had

developed over a long period of time. Segments that developed first included, for example, the collection of an account receivable. "Both sides" of such a transaction were easy to see, since cash and accounts receivable have a physical and/or legal existence, and the increase in cash was equal to the decrease in accounts receivable. The recording of other types of transactions, such as the sale of goods or the incurring of expenses, however, took longer to develop. In the case of a sale, it was obvious that cash or accounts receivable increased, and that goods on hand decreased. But, what about the difference between the selling price and the cost of the goods sold? Profit has no physical or legal representation, and so it was necessary to create *abstract* concepts of income and capital. By Paciolo's time these concepts had developed, and a complete double entry system-quite similar to the one in use today-was in place. The abstract nature of this system, including the properties of capital as the accumulation of income, and income as the rate of change of capital,[2] attracted the attention of mathematicians of the time. The "method of Venice," as Paciolo's system was called, was frequently included in mathematics texts in subsequent years.

Following 1494 the double entry system spread throughout Europe, where another sequence of important accounting developments took place. The Dutch East India Company, established in 1602, was the first company to issue shares with limited liability for all its shareholders. Shares were transferable and could be traded on the Amsterdam Stock Exchange, also established in 1602. In subsequent years the concept of a joint stock company with permanent existence, limited liability, and shares traded on a stock exchange, became an important form of business organization.

Obviously, investors needed financial information about the firms whose shares they were trading. Thus began a long transition for financial accounting, from a system to enable merchants to control their own operations to a system to inform investors who were not involved in the day-to-day operations of the firm. To serve the joint interests of the firm and investors, financial information provided by the firm needed to be trustworthy. This laid the groundwork for developing an auditing profession and government regulation of financial reporting.

In this regard, the English Joint Stock Companies Act of 1844 was notable. This Act introduced into law the concept of providing an audited balance sheet to shareholders, although this requirement was dropped in subsequent years[3] and not reinstated until the early 1900s. During the interval, companies commonly provided information voluntarily, but the effectiveness of such reporting was hampered by a lack of accounting principles. For example, controversy arose over whether or not amortization of capital assets must be deducted in determining income available for dividends. (The English courts ruled that it need not.)

In the twentieth century, major developments in financial accounting shifted to the United States, which was growing rapidly in economic power. The introduction of a corporate income tax in the United States in 1909 provided a major impetus to income measurement and, as noted by Hatfield (1927, p. 140), was influential in persuading business managers to accept amortization as a deduction from income.

Nevertheless, accounting in the United States continued to be relatively unregulated, with both financial reporting and auditing largely voluntary. However, the stock market

crash of 1929 and resulting Great Depression led to major changes by the U.S. government. The most noteworthy was the creation of the Securities and Exchange Commission (SEC) by the Securities Exchange Act of 1934, with a focus on protecting investors by means of a disclosure-based structure. The Act regulates dealing in the securities of firms that meet certain size tests and whose securities are traded in more than one state. As part of its mandate, the SEC has the responsibility to ensure that firms supply investors with adequate information.

Merino and Neimark (1982; MN) examine the conditions leading up to the creation of the SEC. In the process, they report on securities market practices of the 1920s and prior. Apparently, voluntary disclosure was widespread, as also noted by Benston (1973). However, MN claim that such disclosure was motivated by big business's desire to avoid disclosure regulations that would reduce its monopoly power.

Regulations to enforce disclosure would reduce monopoly power by better enabling potential entrants to identify high-profit industries. Presumably, if voluntary disclosure were adequate, the government would feel no need to regulate disclosure. Thus, investors were "protected" by a "two-tiered" market structure whereby prices were set by knowledgeable insiders, subject to a self-imposed "moral regulation" to avoid government regulation by controlling misleading reporting. Unfortunately, moral regulation was not always effective. MN refer to numerous instances of manipulative financial reporting and other abuses, which were widely believed to be major contributing factors to the 1929 crash.

The 1934 securities legislation, then, can be regarded as a movement away from an avoidance-of-regulation rationale for voluntary disclosure toward one of supplying investors with better-quality information as a way to control manipulative financial practices.[4]

One accounting practice of the 1920s that received criticism was appraisal valuation resulting in overstatement of capital assets, the values of which came crashing down in 1929.[5] A major lesson learned by accountants as a result of the Great Depression was that values are fleeting. The outcome was a strengthening of historical cost accounting, based on completed transactions. This basis received its highest expression in the famous Paton and Littleton (1940) monograph *An Introduction to Corporate Accounting Standards*. This document elegantly and persuasively set forth the case for historical cost accounting, based on the concept of the firm as a going concern. The going-concern concept justifies important attributes of historical cost accounting, such as waiting to recognize revenue until objective evidence of realization is available, the use of accruals to match realized revenues and the costs of earning those revenues, and the deferral of unrealized gains and losses on the balance sheet until the time comes to match them with revenues. In this view of accounting, the income statement shows the current "instalment" of the firm's ongoing earning power. The income statement replaced the balance sheet as the primary focus of financial reporting.

Some claim that the Paton and Littleton monograph was too persuasive, in that it shut out exploration of alternative bases of accounting. However, alternative valuation bases have become more common over the years, to the point where we now have a **mixed measurement system**. Historical cost is still the primary basis of accounting for important

asset and liability classes, such as capital assets, inventories, and long-term debt.[6] However, impairment tests (also called ceiling tests) for capital assets and the lower-of-cost-or-market rule for inventories, for example, introduce current valuations into historical cost. Under International Accounting Standards Board (IASB) standards, capital assets can sometimes be written up over cost. Since the 1970s, standard setters have generally moved toward current value alternatives to historical cost accounting.

Two main current value alternatives to historical cost for assets and liabilities are **value in use**, such as discounted present value of future cash flows, and **fair value**, also called **exit price** or **opportunity cost**, the hypothetical amount that would be received or paid should the firm dispose of the asset or liability. We discuss these valuation bases in Chapter 7. When we do not need to distinguish between them, we shall refer to valuations that depart from historical cost as **current values**.

While standard setters may be in the process of forgetting the historical cost lesson learned by accountants from the Great Depression, another lesson remains: how to survive in a disclosure-regulated environment. In the United States, for example, the SEC has authority to establish the accounting standards and procedures used by firms under its jurisdiction. However, the SEC usually has chosen to delegate standard setting to the accounting profession. If the SEC chose to exercise its power, this would greatly erode the prestige and influence of the accounting profession, by eliminating professional judgment and giving accountants little influence over accounting standards.[7] To retain this delegated authority, however, the accounting profession must retain the SEC's confidence, by creating and maintaining a financial reporting environment that protects and informs investors and encourages **well-working capital markets**. By "well-working," we mean markets where the market values of assets and liabilities equal, or reasonably approximate, their real underlying fundamental values. We explore this in greater detail in Chapter 4.

Thus began the search for basic accounting concepts, those underlying truths on which the practice of accounting is, or should be, based. The accounting profession saw this as a way to convince regulators that private-sector standard-setting bodies could produce high quality accounting standards. It was also felt that identification of concepts would improve practice, by reducing inconsistencies in the choice of accounting policies across firms, and enabling accountants to deduce the accounting for new reporting challenges from basic principles, rather than developing accounting methods in an ad hoc and inconsistent way.[8] Despite great effort, however, accountants have never agreed on a set of accounting concepts.[9]

As a result of the lack of concepts, up to the late 1960s accounting theory and research consisted largely of *a priori* reasoning about which accounting concepts and practices were "best." For example, should we account for the effects of changing prices and inflation on financial statements, and if so, how? This debate can be traced back at least as far as the 1920s. Some accountants argued that firms should recognize the current values of specific assets and liabilities, and include the resulting unrealized holding gains and losses in net income.[10] Others argued that inflation-induced changes in the purchasing power of money should be recognized. During a period of inflation, the firm suffers a purchasing power loss on monetary assets such as cash and accounts receivable, since the amounts of goods and

services that can be obtained when they are collected and spent is less than the amounts that could have been obtained when they were created. Conversely, the firm enjoys a purchasing power gain on monetary liabilities such as accounts payable and long-term debt. Separate reporting of these gains and losses would better reflect real firm performance, it was argued. Still other accountants argued that firms should account for the effects of *both* specific and inflation-induced changes in prices. Others, however, often including firm management, resisted these suggestions. One argument, based in part on experience from the Great Depression, was that measuring inflation is problematic and current values are volatile, so that taking them into account would not necessarily improve the measurement of the firm's (and the manager's) performance.

Nevertheless, standard setters in numerous countries did require some disclosures of the effects of changing prices. For example, after a period of high inflation in the United States, Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards No. 33 (1979) required supplementary disclosure of the effects on earnings of specific and general price level changes for property, plant and equipment, and inventories. This standard was subsequently withdrawn. However, this withdrawal was due more to a reduction of its cost-effectiveness as inflation declined in later years, than to the debate having been settled.

The basic problem with debates such as how to account for changing prices was that we have no sound theoretical basis for choosing among the various alternatives, particularly since, as mentioned, accountants could not agree on a set of basic accounting concepts.

During this period, however, major developments were taking place in other disciplines. In particular, a theory of rational decision-making under uncertainty developed as a branch of statistics. This theory prescribes how individuals may revise their beliefs upon receipt of new information. The theory of efficient securities markets developed in economics and finance, with major implications for the role of information in capital markets.

Another development was the Possibility Theorem of Arrow (1963), which demonstrated that, in general, it is not possible to combine differing preferences of individual members of society into a social preference ordering that satisfies reasonable conditions. This implies that there is no such thing as perfect or true accounting concepts. For example, suppose that a standard setter is debating asset valuation, where historical cost, value in use, and fair value are alternatives, from which one is to be chosen. Different managers and investors will have different preferences for these alternatives. Arrow's theorem demonstrates that in general across the population of investors and managers no "winner" concept can emerge that meets the conditions for a socially most preferred alternative.[11] Instead, concepts must be hammered out strategically through negotiation and compromise to the point where investors and managers are willing to accept them even though they are not perfectly satisfactory to all individuals.[12] The difficulties that accountants have had in agreeing on basic concepts are thus not surprising. Without a complete set of basic concepts, accounting standards, which, ideally, are derived from the concepts, are subject to the same challenges.

These theories, which began to show up in accounting theory in the latter half of the 1960s, generated the concept of **decision-useful** (in place of true) financial statement information. This view of the role of financial reporting first appeared in the American Accounting Association (AAA)[13] monograph *A Statement of Basic Accounting Theory*, in 1966. The most recent statement of basic accounting concepts, the IASB's ***Conceptual Framework of Financial Reporting***, issued in 2018, is based on decision usefulness. It states that the objective of financial statements is to provide information to assist investors and creditors in making investment decisions. Henceforth, we will usually refer to this document as the Conceptual Framework, or, if the context is clear, the Framework. We discuss it in some detail in Section 3.7.

Equally important was the development of the economics of imperfect information, based on a theory of rational decision-making. The theory recognizes that some individuals have an information advantage over others. This led to the development of the theory of agency, which has greatly increased our understanding of the legitimate interests of business management in financial reporting and standard setting.

These theories suggest that we might decide the issue of accounting for changing prices outlined above by examining how different accounting choices lead to good investment decisions. Furthermore, any resolution would have to consider the concerns of management, as well as investors.

In Canada, the development of financial accounting and reporting has proceeded differently, although the end result is similar to that just described. Financial reporting requirements in Canada were laid down in federal and provincial corporations acts, along the lines of the English corporations acts referred to above. The ultimate power to regulate financial reporting rests with the legislatures concerned. However, in 1946, the Committee on Accounting and Auditing Research, now the Accounting Standards Board (AcSB) of the Canadian Institute of Chartered Accountants (CICA) (now, Chartered Professional Accountants Canada, or CPAC),[14] began to issue bulletins on financial accounting issues. These were intended to guide Canadian accountants as to best practices, and did not have force of law. In 1968, these were formalized into the *CICA Handbook*.[15] At first, adherence to these provisions was voluntary but, given their prestigious source, they were difficult to ignore. Over time, the *Handbook* gained recognition as the authoritative statement of Generally Accepted Accounting Principles (GAAP) in Canada. Ultimately, provincial securities commissions and the corporations acts formally recognized this authority. For example, in 1975, for federally regulated companies, the Canada Business Corporations Act required adherence to the *CICA Handbook* to satisfy reporting requirements under the Act. The end result, then, is similar to that in the United States and many other countries, in that the body with ultimate authority to set accounting standards has delegated this function to a private professional body.[16]

Subsequently, several notable events had a major impact on financial accounting and reporting. One such set of events followed from the stock market boom in the late 1990s and its collapse in the early 2000s. During the collapse, share prices of many firms, especially those in "hi-tech" industries, fell precipitously. For example, while the share

price of General Electric Corp., a large U.S. conglomerate firm, fell from a high of about US$55 in August 2000 to a low of about US$21 in October 2002, that of telecommunications firm Nortel Networks fell from a high of about US$82 to a low of 44 cents over the same period.

A contributing factor to the market collapse was the revelation of numerous financial reporting irregularities. Frequently, these involved revenue recognition, which has long been a problem in accounting theory and practice. During the boom of the late 1990s, many firms, especially newly established ones with little or no history of profits, attempted to impress investors and enhance their stock prices by reporting a rapidly growing stream of revenue. Subsequently, when the boom collapsed, much recognized revenue proved to be premature and had to be reversed. In a study of 492 U.S. corporations that reported restatements of prior years' incomes during 1995–1999, Palmrose and Scholz (2004) reported that revenue restatements were the single most common type of restatement in their sample. Eight years later, Badertscher, Collins, and Lys (2012) reported a similar result for their sample of firms reporting restatements of their annual reports.

Accounting principles tend to be vague, and their application requires judgment; this can contribute to reporting problems. For example, under International Accounting Standard 18 (IAS 18),[17] the standard in effect at the time of the above evidence, revenue from the sale of goods would be recognized when the significant risks and rewards of ownership had been transferred to the buyer, the seller had lost control over the items, the revenue and related costs could be measured reliably,[18] and collection was reasonably assured. Revenue recognition criteria in the United States were broadly consistent with those in IAS 18. In 2018, International Financial Reporting Standard 15 (IFRS 15) replaced IAS 18, with the intention of reducing ambiguity. This standard is converged with Accounting Standards Codification (ASC) 606 of the FASB.[19] The core principles of these standards are that there must be a contract between firm and customer, and that revenue should be recognized as the entity satisfies the **performance obligations** contained in the contract (e.g., a contract to sell merchandise to a customer is satisfied as the customer obtains control of that merchandise). However, it must also be the case that collection is probable.

Sales contracts that involve more than one performance obligation have often been subject to revenue recognition abuses. A common example of such contracts involves sale of a product plus an obligation to maintain the product for a period of time. IAS 18 and ASC 606 require separation of the two performance obligations, with the contract price allocated to each based on their stand-alone prices (or an estimate thereof if such prices are not available). It must also be possible to reasonably measure progress over time in satisfying each obligation, so that revenue recognized during the period is consistent with the physical maintenance effort exerted during the period. No revenue would be recognized until the maintenance term expires, if progress is not reasonably measurable.

Theory in Practice 1.1 illustrates some of the revenue recognition problems that the new standards confront. Time will tell whether they reduce the frequency of misreported revenue.

Theory in Practice 1.1

In July 2002, Qwest Communications International Inc., a large provider of Internet-based communications services, announced that it was under investigation by the SEC. Its share price immediately fell by 32 percent. In February 2003, the SEC announced fraud charges against several senior Qwest executives, alleging that they had inflated revenues during 2000 and 2001 in order to meet revenue and earnings projections.

One tactic used was to separate long-term sales of equipment and services into two components. Full revenue was immediately recognized on the equipment component despite the obligation to honour the service component over an extended period. A related tactic was to price services at cost, putting all profit into the equipment component, which, as just mentioned, was immediately recognized as revenue, despite a continuing obligation to protect the customer from risk of obsolescence on the equipment "sold." Yet another tactic was to recognize revenue from the sale of fibre-optic cable despite an ability of the purchaser to exchange the cable at a later date. In retrospect, Qwest's revenue recognition practices were premature, to say the least.

In June 2004, the SEC announced settlements with some of the officers charged. One officer, for example, repaid $200,000 of "ill-gotten gains," plus a penalty of $150,000, and agreed to "cease and desist" from any future violations.

Of the many serious failures of financial reporting that came to light following the boom of the 1990s, two are particularly notable. Enron Corp. was a large U.S. corporation with initial interests in natural gas distribution. Following substantial deregulation of the natural gas market in the United States during the 1980s, Enron successfully expanded its operations to become an intermediary between natural gas producers and users, thereby enabling them to manage their exposures to fluctuating natural gas prices. For example, it offered long-term fixed-price contracts to public utilities and natural gas producers. Subsequently, Enron extended this business model to a variety of other trading activities, including steel, natural gas, electricity, and weather futures. Its stock market performance was dramatic, rising from US$20 in early 1998 to a high of about US$90 per share in September 2000. To finance this rapid expansion, and support its share price, Enron needed both large amounts of capital and steadily increasing earnings. Meeting these needs was complicated by the fact that its forays into new markets were not always profitable, creating a temptation to disguise losses.[20]

In the face of these challenges, Enron resorted to devious tactics. One tactic was to create various special purpose entities (SPEs). These were limited partnerships formed for specific purposes, and effectively controlled by senior Enron officers. These SPEs were financed largely by Enron's contributions of its own common stock, in return for notes receivable from the SPE. The SPE could then borrow money using the Enron stock as security, and use the borrowed cash to repay its note payable to Enron. In this manner, much of Enron's debt did not appear on its balance sheet—it appeared on the books of the SPEs instead.

In addition, Enron received fees for management and other services supplied to its SPEs, and also investment income. The investment income is particularly noteworthy. By applying current value accounting to its holdings of Enron stock, the SPE included increases in the value of this stock in its income. As an owner of the SPE, Enron included its share of the SPE's income in its own earnings. In effect, Enron included increases in the value of its own stock in its reported earnings! Financial media reported that $85 million of Enron's 2000 reported operating earnings of $979 million came from this source, and also that Enron's chief accounting officer received a five-and-a-half-year jail sentence for his part in the Enron fraud.

Of course, if the SPEs had been consolidated with Enron's financial statements, as they should have been, the effects of these tactics would disappear. The SPE debt would then have shown on Enron's consolidated balance sheet, fees billed would have been offset against the corresponding expense recorded by the SPE, and Enron's investment in its SPEs would have been deducted from its shareholders' equity.

However, the SPEs were not consolidated, seemingly with the agreement of Enron's auditor. But, in late 2001, Enron announced that it would now consolidate, apparently in response to an inquiry from the SEC. This resulted in an increase in its reported debt of some $628 million, a decrease in its shareholders' equity of $1.1 billion, and large reductions in previously reported earnings. Investors quickly lost all confidence in the company. Its share price fell to almost zero, and it filed for bankruptcy protection in 2001.

A second major abuse involved WorldCom Inc., a large U.S. telecommunications carrier. During the years 1999 to 2002, the company overstated its earnings by about $11 billion. Almost $4 billion of this amount arose from capitalization of network maintenance and other costs that should have been charged to expense as incurred—a tactic that overstated both reported earnings and operating cash flow. Another $3.3 billion of overstatement arose from reductions in the allowance for doubtful accounts. Again, when these abuses came to light, investor confidence collapsed and WorldCom applied for bankruptcy protection in 2002.

These, and numerous other, reporting abuses took place regardless of the fact that the financial statements of the companies involved were audited and certified as being in accordance with GAAP. As a result, public confidence in financial reporting and the working of capital markets was severely shaken.

One result of the reduction of public confidence was increased regulation. The most notable example is the Sarbanes-Oxley Act (SOX), passed by the U.S. Congress in 2002. This wide-ranging Act was designed to restore confidence by reducing the probability of accounting horror stories such as those just described. In this regard, the Act strengthened the audit function, thereby improving corporate governance. By corporate governance we mean policies that align the firm's activities with the interests of its investors and society. For example, a goal of SOX was to improve corporate governance by giving the audit committee of the Board of Directors greater powers. The audit committee must be composed of directors independent of management. The auditor now reports directly to the committee, and can bring concerns about the manager's operation of the firm's accounting and reporting system to the committee rather than to management.

To further improve corporate governance, a major SOX provision created the Public Company Accounting Oversight Board (PCAOB). This agency has the power to set auditing standards and to inspect and discipline auditors of U.S. public companies. In Canada, the Canadian Public Accountability Board (CPAB), created in 2003 by federal legislation, has a similar role. The Act also restricts several non-audit services previously offered by auditing firms to their clients, such as information systems and valuation services.

Other SOX provisions include a requirement that firms' financial reports shall include "all material correcting adjustments" and disclose all material off-balance-sheet loans and other relations with "unconsolidated entities." Furthermore, the CEO and Chief Financial Officer (CFO) must certify that the financial statements present fairly the company's results of operations and financial position. The Act required these two officers, and an independent

Theory in Practice 1.2

Corporate governance is important, since severe consequences can result when it is lacking. For example, consider Toshiba Corporation, a large Japan-based multinational company headquartered in Tokyo. Its products range from industrial power and energy systems and information technology to home appliances and computers. Its shares are traded on the Tokyo and Nagoya stock exchanges.

In 2015, following a report order from Japan's Securities and Exchange Surveillance Commission (SESC), Toshiba established an Independent Investigation Committee. Its report documented widespread accounting fraud during 2008–2014. Over this period, Toshiba overstated its pre-tax profits by ¥151.8 billion ($US 1.22 billion). This triggered the resignation from the company of its current and two former Chief Executive Officers (CEOs) and 6 directors. Toshiba's share price fell by 32 percent. Other consequences included multiple lawsuits from investors, banks, and pension funds. Also, in 2017, Toshiba agreed to pay a fine of ¥1.37 billion ($US 60 million) to the SESC.

There were many sources of overstatement. A major source was the overstatement of profits to date on long-term contracts.[21] Others included delayed recognition of operating expenses, inventory overstatements, delayed impairment writedowns, and stuffing the channels.[22]

Toshiba's investigation committee pointed out several reasons for this fraudulent behavior. One reason originated in the global recession that arose following the securities market meltdowns of 2007–2008 (see Section 1.3), which made it difficult to maintain past performance. Perhaps the major reason, however, was the corporate culture of Toshiba, which demanded complete obedience to superiors in the organization. This culture also included a "challenge" policy, under which sales and profit targets were set higher than what could reasonably be achieved. Lower-level managers knew that there was no point in submitting results lower than target, since higher-level managers would reject them. This created intense pressure to meet the targets, including, if necessary, by fraudulent accounting.

The investigation committee made several recommendations to improve corporate governance. One was to change the mindset of top management, including adopting a longer-term managerial perspective, dropping the expectation of complete obedience, and dropping the challenge policy. Other recommendations included improved internal controls, adopting a whistleblower system, rotation of personnel, and including more outside directors on the company board.

auditor, to certify in each annual report the proper operation of the company's internal controls over financial reporting, with deficiencies, and their remediation, publicly reported. (These requirements were relaxed somewhat in 2007, particularly for smaller companies.) Similar regulations are in place in several other countries, although in the European Union, the U.K. and Canada, officers' certification of internal controls need not receive attestation by an independent auditor.

Accounting standard setters also moved to restore public confidence. As we discuss later, one move was to tighten the rules surrounding SPEs, so that it was more difficult to avoid their consolidation with the financial statements of the parent entity.

1.3 THE 2007–2008 MARKET MELTDOWNS

Despite these new regulations and standards, however, the use of SPEs did not decline, particularly by financial institutions, where they were frequently called **structured investment vehicles** (SIVs). Banks, mortgage companies, and other financial institutions created SIVs to **securitize** their holdings of mortgages, credit card balances, auto loans, and other financial assets. That is, the institution would transfer large pools of these assets to the SIVs it sponsored. The SIV would then issue **asset-backed securities** (ABSs), often separated into tranches of different credit quality.[23] A first-tranche ABS might, for example, be promised the first rights to cash flows, and hence be regarded as very low risk. A second-tranche ABS would be somewhat riskier and therefore of lower quality, and so forth. The various ABS tranches would be sold to investors, and the proceeds used to pay the sponsor for the assets. Generally, the tranches that were sold to investors were marketed as having very low risk, to maximize the proceeds. Often, the SIV or its sponsor would retain the riskiest tranche, to help convince investors that the firm stood behind the investments it sold. As mortgagors made payments, cash flowed to the SIV and on to the tranche holders, after deduction of various fees.

ABSs were highly popular with investors, including many financial institutions, because they offered higher returns and appeared to be no riskier than, say, bonds. As it turned out, this perception of low risk was mistaken. In part, the perception of ABS safety was fuelled by a belief that house prices, the ultimate security underlying mortgages, would continue to rise. Perceived safety was also enhanced because of the apparent diversification of **credit risk**, where credit risk is the risk that a party to a financial contract, such as a mortgage, will be unable to meet its financial obligations. This diversification was created by pooling together many mortgages or other financial assets: while some mortgages may go bad, it was felt that these would be a small proportion, and that these losses would be absorbed either by insurers or by the riskiest tranches. High ratings from investment rating agencies aided this perception of low risk. Furthermore, investors could customize their investments by buying tranches of the particular risk and return that they desired.

ABSs were frequently further securitized as **collateralized debt obligations** (CDOs), which consisted of tranches of various ABS tranches, a procedure that further increased both diversification and leverage. Unlike ABSs, CDOs tended to be arranged and sold privately, and often consisted of riskier mortgages or other assets.

To increase the perceived safety, SIVs often added various **credit enhancements**, which amounted to purchased insurance against losses. Financial institutions subject to capital adequacy regulations found it attractive to issue enhancements on their SIVs, since enhancements had little effect on capital adequacy—the regulations put low weight on such off-balance sheet obligations when calculating adequacy ratios.

In addition to adding leverage to the SIV, this further layer of CDO securitization diminished the reputational benefit of having the sponsor hold the riskier tranches of the SIV, and made it difficult to establish a clear priority of claims within the SIV.

Issuing multiple tranches of debt securities meant that SIVs were usually highly levered. Compounding the risk-increasing property of leverage, the borrowing was often short-term asset-backed commercial paper (ABCP). Investors usually perceive commercial paper to be lower risk than long-term loans to the same entity, because they receive their payoff sooner; they therefore would demand a lower interest rate to hold the securities. For the issuing SIVs, however, this meant the timing of borrowing and lending were "out of sync." For example, if the SIV securitized home mortgages with ABCP, it would receive cash flows from mortgagors gradually over periods up to 30 years, but be obliged to meet ABCP within one year. Despite rising house prices and the inherent diversification of ABSs, some credit losses could still occur, leaving the SIV **refinancing risk** in the maturing ABCP.

Note that if an SIV were consolidated into the financial statements of its sponsor, the high SIV leverage would show up on the sponsor's consolidated balance sheet. The sponsor's equity investors would demand a higher return to compensate for the leverage risk. Since most financial institutions are subject to capital adequacy regulations that cap their leverage, firms that sponsored had an incentive to avoid consolidating the SIVs into their own financial statements.[24]

Post-Enron, standard setters had moved to tighten up the rules for consolidation of off-balance sheet vehicles. In the United States, FASB Interpretation No. 46(R) (2003; FIN 46) expanded requirements for consolidation of a particular form of SIVs, called **variable interest entities** (VIEs), and required additional supplementary disclosures by firms with significant interests in VIEs.[25] Variable interests are those that absorb the expected losses and gains of the VIE—that is, they bear the risks. As noted above, VIEs tend to be very thinly capitalized, so that often the lower tiers of debt would bear significant risk of loss.

FIN 46 changed the criterion for consolidation from control - the previous definition - to beneficial ownership. The primary beneficiary of the VIE, the entity that absorbed a majority of the VIE's expected losses and received a majority of its expected gains, must consolidate it. It was felt that mandating consolidation when a sponsor's exposure to their VIEs' risks and returns was significant would improve the financial reporting for financial institutions, particularly with respect to their overall solvency and capital adequacy.

Nevertheless, many sponsors avoided consolidation by creating new securities such as **expected loss notes** (ELNs). These were securities sold by sponsors to an outside party, under which that party contracted to absorb a majority of a VIE's expected losses and receive a majority of expected net returns, thereby becoming the primary beneficiary under FIN 46.

Freed from consolidation, the sponsor could then continue to exploit off-balance sheet VIE leverage. In addition, sponsors often received fees for various services rendered to VIEs.

Beginning in 2007, this whole structure came crashing down. It had become increasingly apparent that because of lax lending practices to stoke the demand for more and more ABSs to feed leveraged profits, many of the mortgages underlying ABSs were unlikely to be repaid. It seems that when mortgage lenders knew that the mortgages they originated would be securitized and sold, they were less careful about evaluating borrowers' credit quality than they would have been if they had intended to retain the mortgages. Further, the complex repackaging that allowed diversification of credit risk also created a lack of transparency, so that investors in a particular tranche did not know what these instruments contained, or who else had claims to the same underlying asset pool. As concern about mortgage defaults and housing prices increased, investors were unable to (or neglected to) determine likely default rates associated with a specific ABS. Valuation models based on market variables from well-working underlying markets were not available for ABSs. Instead, valuations were based on projected interest rates and historical default rates, which did not anticipate the high default rates that began to appear.

The rational reaction to growing suspicion about the value of a security is to lower the price offered, or not to buy at all, leading to further declines in market value. The risk of a continuing decline in demand due to skeptical investors' lack of buying is an example of **liquidity risk**.[26] Note that liquidity risk can result in a market value less than value in use. Illustrating the effects of liquidity risk, financial media reported in July 2007 that two mutual funds of Bear Stearns (at the time, a large U.S. investment bank) suffered severe losses on their large holdings of ABSs. In August 2007, BNP Paribas, a large bank based in France, temporarily suspended subscriptions to and redemptions of several of its investment funds, on grounds that market values of their holdings of ABSs were impossible to determine. Other U.S. and European financial institutions reported similar problems. In effect, the market for these securities collapsed.

Another major contributing factor to the market collapse was **counterparty risk**. Above, we mentioned that SIVs purchase credit enhancements to insure any losses suffered on their ABSs. Credit enhancement contracts, of which the dominant type was **credit default swaps** (CDSs), were privately arranged and traded. The lack of an organized exchange or clearing house, where regulations would be in place to standardize, publicize, and protect the integrity of transactions, made it difficult to know how many contracts were outstanding against specific ABSs, or who held them.

Counterparty risk was greatly compounded due to a significant CDS feature—it was not necessary for the purchaser of a CDS to own the underlying assets securing that CDS. Anyone could buy and sell a so-called "naked" CDS that protected against losses on a specific reference ABS. Thus, naked CDSs became a vehicle for speculators wishing to bet on a downturn in the housing market. The CDS market grew to immense size, meaning that if a reference ABS were to decline in value, insurance payouts could be huge.

As housing prices fell in many U.S. cities and mortgage defaults increased, it became apparent that American International Group, Inc. (AIG), a major U.S. issuer of CDS

contracts, was unable to meet its obligations, which reportedly reached $85 billion. AIG suffered rapid declines in solvency, credit rating, and share price. In 2008, the U.S. government rescued AIG to prevent a complete collapse of the financial system. In sum, counterparty risk was a major contributing factor to the ABS market collapse.

SIVs faced several problems simultaneously. Their holdings of ABSs themselves were difficult or impossible to value or sell. The ability of CDS issuers such as AIG to reimburse losses was doubtful. The ABCP market weakened as investors became wary, and SIVs were unable to roll over maturing ABCP using the proceeds of a fresh issue of ABCP. In the face of this market collapse and severe counterparty risk, SIVs faced either insolvency or the necessity for their sponsors to buy back their impaired assets. For example, the *Financial Times* (November 19, 2008) reported that Citigroup returned the last $17.4 billion of assets of its sponsored SIVs to its balance sheet, recording a writedown of $1.1 billion in the process.

These buybacks had severe consequences. Paying for them lowered sponsors' solvency and required writedowns of the "toxic" assets thus acquired. These writedowns were in addition to writedowns of CDSs, and of asset-backed securities held directly by the sponsors. Weakness in the sponsors caused further deterioration in markets for these assets, necessitating further writedowns. Many sponsors failed, raised additional capital at distressed prices, or were rescued by governments, resulting in a major contraction of the financial system. The resulting security market collapse spread to the real economy, leading to worldwide recession, including drastic falls in share prices.

The underlying causes of these catastrophic events are rooted in both wealth inequality and global imbalances in consumption, trade, and foreign exchange markets. Economists and politicians will debate these issues for years. However, many blame the initial collapse of the market for asset-backed securities on lax mortgage lending practices, inadequate regulation, and the lack of transparency of the complex financial instruments created by parties in this market. Of greater significance for accountants, however, was the failure of sponsors to adequately control the risks of excessive leverage in the quest for securitization profits. Firm managers were encouraged/enabled to take on excessive risk because, as described above, financial accounting standards allowed sponsor firms to avoid SIV consolidation, resulting in large amounts of off-balance sheet leverage. Accountants and auditors who allowed this avoidance were arguably meeting the letter of FIN 46, while avoiding its intent.

Another result of the meltdown was severe criticism of fair value accounting, since accounting standards required fair valuation for many financial instruments. Much of this criticism came from financial institutions. They claimed that the requirement to write down the carrying values of financial instruments as fair values fell created huge losses that threatened their capital adequacy ratios and eroded investor confidence. In effect, fair value accounting was claimed to be procyclical—it made the recession worse by contributing to a downward spiral. Writedowns were further criticized because inactive markets often meant that fair values had to be estimated by other means. For example, fair value of asset-backed securities could be estimated from the spreads charged by CDS issuers. Since these spreads became very high as underlying ABS values fell, the resulting fair value estimates reflected **liquidity pricing** in the market. Liquidity pricing is an outcome of liquidity risk

(see Note 26), under which market value is less than the value in use that the institutions felt they would eventually realize if they held these assets to maturity.

Management's concerns about excessive writedowns had some validity. As mentioned above, ABSs lacked transparency. Because investors could not separate the good from the bad, all such securities became suspect, and all became valued as if they were bad. In Chapter 4, we will discuss this sort of market failure, which arises from severe information asymmetry. In the aftermath of the financial crisis, some believed that allowing institutions to value these assets using their own internal estimates would eliminate excessive writedowns. Of course, allowing managers to use their own internal valuations creates the possibility of manager bias.

Accounting standard setters attempted to hold their ground in the face of these criticisms of fair value. However, faced with threats that governments would step in to override fair value accounting, they relaxed requirements. For example, in October 2008, the IASB and FASB issued similar guidance on how to determine fair value when markets are inactive (i.e., melted down). Specifically, when market values did not exist and could not be reliably inferred from values of similar items, firms could determine fair value based on value in use.

Collectively, the events described above raise fundamental questions about the role of regulation in a markets-based economy. It seems that relatively unregulated capital markets (e.g., the CDS market described above) are subject to catastrophic market failure. This came as a shock to many economists and politicians, who believed that markets would always properly price assets, so that regulation could be confined to maintaining an orderly marketplace. Furthermore, it was felt that, in addition to imposing a costly bureaucracy, regulators were inferior to markets in determining what market price should be, and that the consequences of failures by regulators could prove more costly to society than some of the excesses of unfettered markets. These theories, based on underlying economic models of rational investor behaviour and asset pricing, have come under intense criticism following their failure to predict the market meltdowns. Some of these criticisms, and possible responses to them, are discussed in Chapter 12.

Market failures have in the past typically led to increased regulation. The question then is how and to what extent should regulation be increased as a result of failures? This question is heightened in recent years by the globalization of capital markets, which causes the effects of failures to quickly spread worldwide, while regulation remains at the national or sub-national level.

Regulators, economists, and politicians continue to debate responses to the 2007–08 market failure. One response was to increase global banking regulation, such as requiring financial institutions to hold more capital reserves. Many U.S. financial institutions paid large fines for their part in leading investors to invest so heavily in mortgage-based securities. Of more direct interest in this book were several new or expanded accounting and disclosure standards, some of which we outline in Section 7.5.

Another regulatory response was to require increased compensation disclosures, and more shareholder participation in management compensation. Suspicion arose that

existing compensation practices, including large amounts of stock options, contributed to the meltdowns by encouraging managers to indulge in excessive off-balance sheet leverage. This leverage increased current profits of sponsoring institutions but also increased their risk. For whatever reason, the market did not fully appreciate this risk, bid up share prices of financial institutions, thus increasing the value of executive stock options for those institutions. To the extent that stock-based compensation practices encouraged short-run, risk-taking behaviour, this effect was opposite to their intended purpose, which was to align manager and shareholder interests by encouraging managers' longer-run decision horizons. New regulations, such as the Dodd-Frank Act in the United States, include increased disclosure and explanation of how companies determine manager compensation, so that investors can see for themselves the extent to which managers may be tempted to repeat the activities leading up to the recession. We discuss this further in Section 10.6.

Nevertheless, the question of the socially desirable amount of additional regulation remains unresolved. Regulation is costly and is itself subject to failure. Over time, objections by bankers and others to the costs of the new regulations may lead to their gradual relaxation. We hope, however, that the lessons learned from the great recession will not be completely forgotten.

In sum, four points relevant to accountants stand out from the events just described. First, financial reporting must be transparent, so that investors can properly value assets and liabilities, and the firms that possess them. With respect to complex financial assets and liabilities, transparency includes full reporting of models used to determine value, disclosure of all related obligations or enhancements, and explanations of risk exposures and risk-management strategies. Second, because fair value accounting is based on market value or estimates thereof, it may understate value in use when markets collapse due to liquidity pricing, as discussed above. This leads to management, and even government, objections to fair value accounting. It also creates a need for research into the causes of liquidity pricing and how financial reporting may help to control it. Third, off-balance sheet activities should be fully reported, even if not consolidated, since they can encourage excessive risk-taking by management. Finally, substantial changes to accounting standards and other regulations, including increased disclosures of manager compensation, have taken place.

1.4 EFFICIENT CONTRACTING

Many standard setters apparently feel that fair value accounting is the best way to implement the decision-usefulness concept that, as described in Section 1.2, originated during the 1960s. For example, we mentioned in Section 1.3 that many financial instruments are valued at fair value. However, the severe criticisms of fair value accounting arising from the security market meltdowns have strengthened an alternative view of financial reporting, namely the **efficient contracting** approach to financial reporting. Efficient contracting argues that the **contracts** that firms enter into (e.g., debt contracts and managerial compensation contracts) create a primary source of demand for accounting information.

In this view, the role of accounting information is to help maximize contract efficiency or, more generally, to aid in efficient corporate governance.

Debt and compensation contracts are discussed in later chapters. For now, it is sufficient to note that these contracts usually depend on accounting variables, such as net income. The role of financial reporting for debt and compensation contract purposes is to generate *trust*. Trust is needed if lenders are to be willing to lend to the firm and if shareholders (represented by Boards of Directors) are to be willing to delegate managerial responsibilities to managers. An efficient contract generates this trust at lowest cost. Thus, covenants in debt contracts, which, for example, restrict the borrowing firm from paying dividends if its working capital falls below a specified level, increase lender trust in the security of their loans.

Basing manager compensation on net income increases investor trust by helping to align manager and shareholder interests. That is, net income can be used as a measure of manager performance. Alignment of manager and investor interests is the **stewardship** role of financial reporting, one of the oldest concepts in accounting.

Efficient contracting emphasizes trustworthiness in accounting numbers, especially those used in contracts. In contrast, the valuation approach emphasizes timeliness in accounting information conveyed to investors. This difference in emphasis leads to some major accounting policy differences between these approaches. One difference is an increased emphasis, relative to current value accounting, on **reliability** of accounting information. Reliability of accounting information benefits lenders by increasing their trust that the firm manager will not take actions that harm their interests (e.g., disguising deteriorating earnings). Reliability also benefits compensation contracting by increasing shareholders' trust that managers cannot cover up poor performance by opportunistically manipulating reported net income and balance sheet values upwards.

A second major difference between the contracting and valuation approaches is the role of **conservatism** in financial reporting. Under conservatism, unrealized losses from declines in value are recognized promptly, but gains from increases in value are not recognized until they are realized. Accounting standards include numerous instances of conservatism, such as lower-of-cost-or-market for inventories, and impairment tests for capital assets and many financial instruments.

While most adherents to both the valuation and the efficient contracting views recognize that some conservatism is desirable, they differ in the reasons why. Arguably, the valuation view is that conservatism reduces the probability of lawsuits that invariably result when firms report major unexpected losses. The contracting view is that conservatism improves contract efficiency by providing investors, particularly debt investors, with an "early warning system" of financial distress. It also serves a stewardship role by preventing managers from overstating their performance and compensation through unrealized gains.

In this book, we view the valuation and efficient contracting roles of financial reporting as equally important. Although, as just mentioned, valuation adherents (including many standard setters) see a role for conservatism, they would point out that fair value accounting is, in effect, conservative when fair values fall, but can also serve a useful investor-informing role when fair values rise. Contract theory adherents, however, are willing to accept low

Theory in Practice 1.3

New Century Financial Corp. illustrates the serious consequences that can result from lack of conservatism. Formed in 1995, New Century became the second-largest sub-prime mortgage lender in the United States. Its lending was in large part based on automated credit-granting programs, and reflected a belief that house prices would continue to rise. Many of these mortgages were securitized and transferred to investors. New Century accounted for these transfers as sales, thereby derecognizing them from its balance sheet. Gross profit was then the difference between the sales revenue received from investors and the cost of the mortgages transferred. Of course, reported earnings should allow for credit losses, since New Century committed to buy back mortgages that became troubled within one year after transfer.

In addition, New Century would retain some portions of the securitized mortgage pools (called retained interests), from which it would receive future cash flows. Also, the transfer agreements included the right to service the mortgages, for which New Century charged a fee. The retained interests and servicing rights assets were valued at current value, based on their discounted expected future cash flows. Thus, revenue from retained interests was recognized when the decision to retain was made, and servicing revenue was recognized at the time of mortgage transfer. These policies required numerous estimates and management judgments, especially for retained interests (since no secondary market exists for these assets). These policies contrasted with a more conservative policy of recognizing revenues as cash flows from retained interests were received and servicing responsibilities rendered.

However, through error or design, New Century seriously underestimated the extent of its mortgage buybacks and resulting credit losses. Of $40 billion of mortgages granted in the first three quarters of 2006, it provided only $13.9 million for repurchases. As the number of subprime mortgages in default increased greatly in the fourth quarter of 2006, New Century should have revalued its retained interests, and increased its provision for buybacks. As concerns grew, the company was soon unable to borrow money to finance buybacks. In February 2007, New Century announced that it would restate net income for the first three quarters of 2006 to substantially lower amounts, and would delay filing its 2006 annual report. In March 2007, it announced that it would no longer accept new mortgage applications. Its shares lost 90 percent of their value, and the company was delisted from the New York Stock Exchange. In 2007, it filed for bankruptcy protection.

New Century's auditor (KPMG) was drawn into the lawsuits that followed. In 2009, financial media reported a lawsuit of $1 billion, claiming that the auditor had allowed the serious understatement of provisions for buybacks. KPMG denied that it was responsible, claiming that the provisions were deemed adequate at the time, and blaming New Century's failure on the market meltdowns of 2007–2008. Later in 2009 the SEC filed civil fraud charges against three former executives of New Century, seeking damages and return of bonuses. Several other lawsuits followed. In 2010, financial media reported final settlement of a class action lawsuit that included a payment of over $65 million by former company officers and directors, and a payment of $44.75 million by auditor KPMG.

reliability of unrealized fair value losses, which provide benefits of contract efficiency and good corporate governance. Unreliable unrealized fair value gains, however, work against conservatism, contract efficiency, and governance. How best to fulfill the important but conflicting roles of valuation and contract efficiency is, arguably, *the* fundamental problem for financial accounting theory. We discuss this problem further in Section 1.10, and throughout this book.

1.5 A NOTE ON ETHICAL BEHAVIOUR

The collapse of Enron and WorldCom and subsequent collapse of public trust in financial reporting, as well as the more recent market meltdowns, raised questions about how to restore and maintain this public trust. One response was increased regulation, including new accounting standards, as discussed in Sections 1.2 and 1.3. However, while increased regulation may help to increase trust, it is not enough. Individuals may figure out ways to work around regulations, or may actually violate them if they feel the benefits outweigh the expected costs of being caught. For example, numerous accountants designed, were involved in, or at least knew about the various reporting irregularities at Enron and WorldCom. The auditors certified the firms' financial statements as being in accordance with GAAP. These safeguards were not sufficient to prevent catastrophic financial reporting failures.

What else is needed, beyond regulation, to establish and maintain trust? First note that a society's welfare depends on *cooperation*, based on shared beliefs and common values. This notion goes back to Thomas Hobbes, a seventeenth-century philosopher and author of *Leviathan*. Hobbes argued that if people acted solely as selfish individuals, society would collapse into anarchy. He also argued that rules, regulations, and the courts were not enough to restore cooperative behaviour, since no set of rules could possibly anticipate all human interaction. Hobbes believed that people will agree to cooperate if they recognize that cooperation is in their joint interests.

The force of Hobbes's arguments can be seen in the Enron and WorldCom disasters. We have a set of rules governing financial reporting (e.g., GAAP). However, GAAP was not followed and/or was distorted so that the accounts conformed to its letter but not its intent. Cooperative behaviour broke down because certain individuals behaved in a manner that broke the rules. This was good for them, at least in the short run, but bad for society. Hobbes's prediction would be that increased regulation would not suffice to ensure cooperation and prevent a repetition of these reporting disasters.

To establish the mutual self-interest needed for people to cooperate requires a longer-run view. For example, suppose that an accountant is instructed to understate a firm's environmental liabilities. In the short run, doing so may benefit the accountant through job retention, promotion, and higher compensation. In the longer run, though, future generations will suffer through increased pollution, shareholders will suffer from reduced share price when the extent of environmental liability becomes known, and investors as a whole will suffer when reduced public trust in financial reporting lowers the prices of all shares. If the long run is not too long, the accountant may suffer dismissal, professional discipline or expulsion, and reduced compensation due to reduced stature of all accountants. Taking account of these longer-run costs motivates the accountant to behave cooperatively, thereby enjoying the benefits of public trust, while investors enjoy the benefits of fewer financial reporting failures. In Hobbes's view, compensation and trust are driven by perceived self-interest. Consistent with this, our discussions in this book of investor and manager behaviour are based on rational self-interest; with markets, regulations, and courts providing an environment within which self-interested individuals act.

However, Hobbes's self-interest alone is a rather incomplete, even depressing, concept upon which to base a theory of human behaviour. A broader concept is that some people have a concern for others and are willing to help even if this is costly to them, summarized in sayings such as "do unto others as you would have others do unto you." Under our example above, the accountant could refuse to understate environmental liabilities even if the perceived costs outweighed the longer run benefits, because the accountant would want the benefit of others doing likewise. This is an example of **ethical behaviour**. By ethical behaviour, we mean that individuals "do the right thing," despite potential adverse consequences to themselves. In our context, this means that accountants and auditors behave with integrity and independence, putting the public interest ahead of that of the employer and client, should these interests conflict. Otherwise, the trust that is so important to the workings of an economy is compromised.

It should be apparent that the self-interest and ethical views of human nature can merge into similar implications for quality financial reporting when we consider longer-run implications, even though the mindsets may be different. When considering accounting issues in this book, we will usually cast our discussion in terms of full disclosure, usefulness and quality of financial statements, cooperative behaviour, and reputation. As discussed above, these can be justified by both self-interest and ethical arguments. We urge accountants to keep the ethical mindset foremost when implementing these desirable characteristics of financial reporting.

1.6 RULES-BASED VERSUS PRINCIPLES-BASED ACCOUNTING STANDARDS

Longer-run considerations like those discussed in Section 1.5 lead directly to the question of rules-based versus principles-based accounting standards. Rules-based standards attempt to lay down detailed rules for how to account. An alternative is for accounting standards to lay down general principles only, and rely on auditor professional judgment to ensure that application of the standards is not misleading. For example, in Section 1.3 we described FASB Interpretation No. 46(R). This standard imposed rules for consolidation of variable interest entities, following the abuse by Enron of earlier rules. However, many financial institutions circumvented the new rules in turn, through the creation of expected loss notes. A principles-based standard for consolidation would, for example, require that consolidation be required when failure to do so would be misleading. Thus, an accountant/auditor who felt that excessive financial leverage would otherwise be disguised, would insist on consolidation or, at least, clear supplementary disclosure.

It is often stated that IASB standards are more principles-based than those of the United States. Indeed, the IASB constitution commits the IASB to principles-based standards. Since the early 2000s, FASB standards are often similar to, or even converged with, those of the IASB. The difference often lies in the mass of detailed underlying rules and guidance that accompany FASB standards. Ball (2009) attributes the rules-based nature of U.S. financial reporting to its high degree of regulation and possible punishment, which produces a

"rule-checking" mentality. Undoubtedly, punishment is a powerful deterrent to fraud. But, the events described in Sections 1.2 and 1.3 demonstrate that the prospect of punishment is not always effective. Furthermore, the serious impacts of the 2007–2008 market meltdowns raise the question of whether the world can afford to wait until the wheels of justice grind to their conclusion. It would be preferable to prevent misleading reporting in the first place.

Principles-based standards are seen as a way to accomplish this, since detailed rules do not seem to work. Of course, professional accounting bodies already encourage principled behaviour, through codes of professional conduct, discipline committees, and the process of standard setting. However, Ball points out that such codes have been widely ignored. Nevertheless, the SEC, in "Study Pursuant to Section 108(d) of the SOX . . . (2003)," recommends that the FASB adopt a principles-based approach to accounting standards. The SEC study is in broad agreement with the FASB's own 2002 "Proposal for a Principles-Based Approach to U.S. Standard-setting." Furthermore, a stated goal of the Conceptual Framework introduced in Section 1.2 is to create a foundation for principles-based standards. Without such a foundation, it is unclear just what principles are to be upheld.

It thus seems that the world is moving toward principles-based standards. Yet, even with a strong conceptual framework, such standards will face pressures from managers, and even governments, to bend financial reporting to their wishes. To resist such pressures, auditors and accountants will have to adopt the longer-term view of their responsibilities advocated in Section 1.5.

1.7 THE COMPLEXITY OF INFORMATION IN FINANCIAL ACCOUNTING AND REPORTING

It should now be apparent that the environment of accounting is both very complex and very challenging. It is complex because the product of accounting is information—a powerful and important commodity. The main reason for this complexity is the absence of perfect or true accounting concepts and standards, as discussed in Section 1.2. As a result, individuals will not be unanimous in their reactions, even to the same information. For example, a sophisticated investor may prefer to value certain assets and liabilities at value in use, on grounds that this will help to predict future firm performance. Debt investors, such as bondholders, may prefer conservative accounting on grounds that understating assets and earnings protects lenders' interests by making it more difficult for managers to reduce their security by, for example, paying excessive dividends to shareholders. Others may prefer historical cost accounting, perhaps because they feel that current value information is unreliable, or simply because they are used to historical cost information. Furthermore, managers might react quite negatively to being required to report current values. Management typically objects to including unrealized gains and losses resulting from changes in asset and liability values in net income, arguing that these items introduce excessive volatility into earnings, do not reflect their performance, and should not be included when evaluating the results of their efforts. These arguments may be somewhat self-serving, since part of management's job is to anticipate changes in values and take steps to protect the firm from adverse

effects of these changes. For example, management may hedge against increases in prices of raw materials and changes in interest rates. Nevertheless, managements' objections remain, and accountants quickly get caught up in whether reported net income should fulfill a primary role of reporting useful information to equity investors or to debt investors, or to report information that motivates responsible manager performance.

Another reason for the complexity of information is that it affects more than individual decisions. In affecting decisions it also affects the working of markets, such as securities markets and managerial labour markets. It is important to the efficiency and fairness of the economy itself that these markets work well.

The challenge for financial accountants, then, is to survive and prosper in a complex environment characterized by conflicting preferences of different groups with an interest in financial reporting. This text argues that the prospects for survival and prosperity will be enhanced if accountants have a critical awareness of the impact of financial reporting on investors, managers, and the economy. The alternative to awareness is simply to accept the reporting environment as given. However, this is a very short-term strategy, since environments constantly change and evolve.

1.8 THE ROLE OF ACCOUNTING RESEARCH

A book about accounting theory must inevitably draw on accounting research. We can view the role of research in two complementary ways. The first is to consider its effects on accounting practice. For example, the essence of the decision-usefulness approach that underlies the Conceptual Framework is that financial reports should supply investors and creditors with information to help them make good investment decisions. One has only to compare the current annual report of a public company with a similar report issued in the 1960s or earlier to see the tremendous increase in disclosure over the years since decision usefulness formally became an important concept in accounting theory.

Yet, this increase in disclosure did not "just happen." It, as outlined in Section 1.2, is based on fundamental research into the theory of investor decision-making and the theory of capital markets, which have guided accountants in deciding what information is useful. Furthermore, as we will see, the theory has been subjected to extensive empirical testing, which has established that, on average, investors use financial accounting information much as the theory predicts.

Independently of whether research affects current practice, however, a second important view of research is that it improves our *understanding* of the accounting environment, which we argued above should not be taken for granted. For example, fundamental research into models of conflict resolution, in particular agency theory models, has improved our understanding of managers' interests in financial reporting, of the role of executive compensation plans in motivating and controlling management's operation of the firm, and of the ways in which such plans use accounting information. This in turn leads to an improved understanding of managers' interests in accounting policy choice and why they may want to manipulate reported net income, or, at least, to have some ability to manage the "bottom line." Research

such as this enables us to better understand corporate governance issues such as the boundaries of management's legitimate role in financial reporting. It also helps us understand why accountants are frequently caught between the interests of investors and managers.

In this book, we use both of the above views. Our approach to research is twofold. In some cases, we choose important research papers, describe them intuitively, and explain how they fit into our overall framework of financial accounting theory and practice. In other cases, we briefly refer to research papers on which our discussion is based. The interested reader can refer to the papers, which are listed in the bibliography at the end of the book, to pursue the discussion in greater depth.[27]

1.9 THE IMPORTANCE OF INFORMATION ASYMMETRY

This text is based on information economics, a unifying theme that formally recognizes that some parties to business transactions may have an information advantage over others or may take actions that are unobservable to others. When this happens, we say that the economy is characterized by information asymmetry. We shall consider two major types of information asymmetry.

The first is **adverse selection**. For our purposes, adverse selection occurs because some persons, such as firm managers and other insiders, will have better information about the current condition and future prospects of the firm than outside investors, and exploit their information advantage at the expense of outsiders. For example, managers may behave opportunistically by biasing or otherwise managing the information released to investors, perhaps to increase the value of stock options they hold. They may delay or selectively release information early to certain investors or analysts, enabling informed parties, including themselves, to benefit at the expense of ordinary investors. Such tactics are *adverse* (hence the term) to the interests of ordinary investors, since they reduce investors' ability to make good investment decisions. Then, investors' concerns about the possibility of biased information release and favouritism will make them wary of buying firms' securities, with the result that capital markets will not function as well as they should. We can think of financial accounting and reporting as a mechanism to control adverse selection by timely and credible conversion of inside information into outside information, where "credible" means that financial statement users know that the firm and manager have an incentive to reveal the information truthfully.

> ***Adverse selection*** *is a type of information asymmetry whereby one or more parties to a business transaction, or potential transaction, have an information advantage over other parties.*

The second type of information asymmetry is **moral hazard**, which arises when one party can take actions that are unobservable to other parties, who are affected by the action. Moral hazard exists in many situations. A medical doctor may give a patient a cursory examination when a thorough one would better diagnose the patient's problem. A corporate board member may shirk the duty to act in shareholders' interests. In our context,

moral hazard occurs because ownership and control are separate in many business entities. It is effectively impossible for shareholders and lenders to observe directly the extent and quality of top manager effort on their behalf. Then, managers may be tempted to shirk on effort, blaming any deterioration of firm performance on factors beyond their control, or biasing reported earnings to cover up. Obviously, if this happens, there are serious implications both for the contracting parties and for the efficient working of the economy. Accounting net income, viewed as a measure of managerial performance, can help to control moral hazard in two complementary ways. First, net income can serve as an input into executive compensation contracts, to motivate manager performance. Second, net income can inform the managerial labour market, so that a manager who shirks will suffer a decline in income, reputation, and personal market value in the longer run.

> ***Moral hazard*** *is a type of information asymmetry whereby one or more parties to a contract can observe their actions in fulfillment of the contract but other parties cannot.*

Note that both adverse selection and moral hazard result from information asymmetry. The difference, in our context, is that adverse selection involves inside information about matters affecting future firm performance and resulting security returns. Moral hazard involves information about manager effort—managers know how hard they are working, but investors do not.

1.10 THE FUNDAMENTAL PROBLEM OF FINANCIAL ACCOUNTING THEORY

Given the absence of perfect or true accounting concepts, it turns out that the most useful measure of net income to inform investors—that is, to control adverse selection—need not be the same as the best measure to measure and motivate manager stewardship—that is, to control moral hazard.[28] Investors' interests are best served by information that enables better investment decisions and better operating capital markets. Provided that it is reasonably reliable, current value accounting fulfills this role, since it provides up-to-date information about assets and liabilities, and reduces the ability of insiders to take advantage of changes in asset and liability values.

Managers' legitimate interests are best served by information that is highly informative about their performance in running the firm, since this enables efficient compensation contracts and better working of managerial labour markets. Fair value accounting can improve reporting on stewardship since, ultimately, the manager is responsible for everything, including current value gains and losses. If the manager cannot earn an acceptable return on the fair value of net assets, these assets (or the manager) should be disposed of.

However, current value accounting can also interfere with reporting on stewardship. Current values can be volatile, and can even increase earnings volatility beyond the real volatility faced by the firm. Also, when current values require estimates and models, they may be more subject to bias and manipulation by the manager than historical cost-based

information. If so, as noted in Section 1.4, contract efficiency is decreased. Both excess volatility and manipulation reduce the informativeness of earnings about manager stewardship. Thus, a less volatile and more conservative income measure, such as one based on historical cost, or at least a measure that excludes certain unrealized gains, may better fulfill a role of motivating and evaluating managers.

Given that there is only one bottom line, the fundamental problem of financial accounting theory is how to design and implement concepts and standards that best combine two competing roles for accounting information: informing investors, and improving contracting efficiency by motivating and evaluating manager performance. In future, we will refer to combining these two roles of financial reporting as the **fundamental problem**.

Some policies require tradeoffs between these roles. For example, as described in Section 1.4, the investor-informing role of financial reporting puts less emphasis on reliability and conservatism than the manager-motivating role envisaged by contract theory. Other policies, such as expanded disclosure, may facilitate both roles. In 2017, the IASB published a discussion paper, "*Disclosure Initiative—Principles of Disclosure*," with the aim of promoting clearer, more useful disclosure. The general principles it identifies, such as that disclosure should be "entity-specific," "clear and simple," "organized to emphasize important matters," and "linked to related information," are consistent with both informing investors and improving contracting efficiency.

Theory in Practice 1.4

Many companies incurred substantial costs as a result of the September 11, 2001, terrorist attacks in the United States. For example, airlines were unable to fly for two days, and air traffic declined substantially for some time afterward.

The resulting reductions in revenue and profits could hardly be regarded as management's responsibility. Consequently, manager performance would best be measured by earnings *excluding* the unavoidable costs of these catastrophic events. Yet, from the standpoint of investors who are interested primarily in *future* firm cash flows, earnings *including* these events have greater relevance.

In a 2001 news release, the FASB decided against allowing costs resulting from the attacks to be reported in a separate section of earnings. The FASB had originally considered allowing at least some costs to be reported separately, but came to the conclusion that it would be impossible to reliably separate direct costs resulting from the attack (e.g., airlines' losses of revenue during the two-day shutdown) from operating costs, some of which would be reduced and some which were fixed. Also, some of these costs would be recovered through insurance and government assistance. Consequently, the FASB concluded that all costs resulting from September 11 be included in income from continuing operations, with any government assistance reported as a separate line item.

Thus, separate reporting of earnings best suited to evaluation of manager performance and best suited to investors foundered on concerns about reliability. Nevertheless, from a conceptual standpoint, these events illustrate the fundamental problem. Management performance and prospects for future firm performance are not necessarily best measured by the same net income number.

Other comprehensive income (OCI) is another approach to reconciling the two roles of income. A statement of OCI was originally created in the United States by FASB's Statement of Financial Accounting Standards 130 (SFAS 130; 1997), now included in ASC 220-10-45. As mentioned earlier, standard setters have moved increasingly to current value accounting. However, we noted in Section 1.7 that management typically objects to including unrealized gains and losses resulting from current value accounting in net income. OCI began as a compromise to secure manager acceptance of current value standards, because it excluded these gains and losses from net income. Thus OCI includes unrealized current value gains and losses resulting from fair value accounting for many securities, foreign currency translation adjustments, changes in some pension expense components, and several other items. As these gains and losses are realized or amortized, they are generally transferred to net income. The sum of net income and other comprehensive income is called **comprehensive income**.

Internationally, IAS 1 imposed a statement of other comprehensive income in 2009. It requires that other comprehensive income be included below net income in a single statement of comprehensive income, or immediately following net income if net income is shown as a separate statement. FASB standards now contain a similar requirement.

The extent to which modifications to the financial statement format will resolve the fundamental problem remains to be seen.

1.11 REGULATION AS A REACTION TO THE FUNDAMENTAL PROBLEM

There are two more basic reactions to the fundamental problem. One is, in effect, to ask, "What problem?" That is, why not keep regulation to the minimum needed to provide a stable environment for trade, resolution of disputes, and punishment for wrongdoing? Then, let market forces determine how much and what kinds of information firms should produce. We can think of investors and other financial statement users as demanders of information and of managers as suppliers. Just as in markets for apples and automobiles, the forces of demand and supply can determine the quantity produced.

This view argues, in effect, that market forces can sufficiently control the adverse selection and moral hazard problems so that investors are protected, and managerial labour markets and securities markets will work reasonably well. Indeed, as we shall see, managers have a surprising number of ways to supply information credibly. Furthermore, investors as a group are surprisingly sophisticated in ferreting out the implications of information for future firm performance. Consequently, according to this view, unregulated market prices reasonably reflect both firms' and managers' values.

The second reaction is to turn to regulation to protect investors, on the grounds that information is such a complex and important commodity that market forces alone fail to adequately control the problems of moral hazard and adverse selection. This leads directly to the role of standard setting, which is viewed in this book as a form of regulation that lays down generally accepted accounting concepts and standards.

Of course, consistent with the theorem of Arrow (Section 1.2) and the arguments of Hobbes (Section 1.5), we cannot expect regulation to completely protect investors. Consequently, the rigorous determination of the right amount of regulation is an extremely complex issue of social choice. At the present time, we simply do not know which of the above two reactions to the fundamental problem is on the right track. Certainly, we witness lots of regulation in accounting, and there appears to be no slowing down in the rate at which new standards come on line. Society constantly tinkers with the extent of regulation.

Yet, past years witnessed substantial deregulation of major industries such as transportation, telecommunications, financial services, and electric power generation, where deregulation was once thought unthinkable. It is important to question the extent of regulation, because regulation imposes costs on firms, their managers, and society—a fact often ignored by standard setters. We cannot pretend to answer the question of when the benefits of regulation outweigh the costs, but we shall pursue the issue in Chapter 13.

1.12 THE ORGANIZATION OF THIS BOOK

Figure 1.1 at the beginning of this chapter summarizes how this book operationalizes the framework for the study of financial accounting theory outlined above. There are four main components of the figure, which we outline in turn.

1.12.1 Ideal Conditions

Before considering the problems introduced into accounting by information asymmetry, it is worthwhile to consider what accounting would be like under ideal conditions. This is depicted by the leftmost box of Figure 1.1. By ideal conditions we mean an economy where firms' future cash flows and their probabilities are known. Also, the economy has perfect and complete markets or, equivalently, a lack of information asymmetry and other barriers to fair and efficient working of markets. Such conditions are also called "first-best." Then, asset and liability valuation on the basis of expected present values of future cash flows (i.e., value in use) provides everything investors need. Arbitrage ensures that present values and market values are equal. Investors and managers have no scope for disagreement over the role of financial reporting and no incentives to call for regulation. Under such conditions, there would be no fundamental problem.

Unfortunately, or perhaps fortunately, ideal conditions do not prevail in practice. Nevertheless, they provide a useful benchmark against which more realistic "second-best" accounting conditions can be compared. We can point to numerous instances of current-value-based accounting in financial reporting, such as reserve recognition accounting for oil and gas companies, and fair value accounting for many financial instruments. A study of accounting under ideal conditions is useful not only because of increased use of current values, but, more importantly, because it helps us to see the real problems and challenges of current value accounting when the ideal conditions that it requires do not hold.

1.12.2 Adverse Selection

The top three boxes of Figure 1.1 represent the second component of the framework. This introduces the adverse selection problem discussed in Section 1.9, that is, the problem of communication from the manager to outside investors. Here, accounting can help to "level the playing field" through full disclosure of useful, reliable and cost-effective information to investors and other financial statement users.

To understand how financial accounting can help to control the adverse selection problem, it is desirable to have an appreciation of how investors make decisions. The study of investment decision-making is a large topic. Investors undoubtedly make decisions in a variety of ways, ranging from intuition, to "hot tips," to random occurrences such as a sudden need for cash, to sophisticated computer-based models.

The approach we will take in most of this book is to assume that investors are rational on average; that is, the average investor makes decisions to maximize expected utility, or satisfaction, from wealth. This theory of rational investment decision has been widely studied. In making the rationality assumption we do not imply that every investor makes decisions this way. Indeed, academic research increasingly recognizes that many investors do not behave rationally in the sense of maximizing their expected utility of wealth. We do claim, however, that the theory captures the average behaviour of those investors who want to make informed investment decisions, and this claim is backed up by substantial empirical evidence. We discuss this further in Chapter 6.

Reporting information that is useful to rational investors is called the decision-usefulness approach. As suggested in Section 1.2, this approach underlies the pronouncements (in particular, the Conceptual Framework) of major standard-setting bodies.

1.12.3 Moral Hazard

The bottom three boxes of Figure 1.1 represent the third component of the book. Here, the information asymmetry problem is moral hazard, arising from the unobservability of the manager's effort in running the firm. That is, the manager must decide how much effort to devote to running the firm on behalf of the shareholders. Since effort is unobservable, the manager may be tempted to shirk on effort. However, since net income reflects manager performance, it operates as an indirect measure of the manager's effort decision. Consequently, the user decision problem is how to design financial reporting to motivate and evaluate manager performance. To be informative about performance, net income should be a precise and sensitive measure of this performance.

1.12.4 Standard Setting

We can now see the source of the fundamental problem more clearly. Current values of assets and liabilities are potentially of interest to equity investors because, if reliably reported, current values provide the best available indication of current investment returns.

However, managers may feel that unrealized gains and losses from adjusting the carrying values of assets and liabilities to current value do not reflect *the managers' own* performance. Accounting standard setters quickly get caught up in mediation between the conflicting preferences of investors and managers. This is depicted by the rightmost box in Figure 1.1.

1.12.5 The Process of Standard Setting

We have pointed out that, in practice, setting accounting concepts and standards requires negotiation and compromise, and their application must be enforced. We now give a brief description of the structure of accounting standard-setting bodies, to show how these requirements are operationalized.

The International Accounting Standards Board (IASB) The IASB was established in 2001, succeeding the International Accounting Standards Committee. The IASB's objective is to develop a single set of high-quality, understandable, and enforceable global accounting standards, now called International Financial Reporting Standards (IFRS). The IASB consists of up to 16 members (in 2017 it had 13 members), chosen to represent different world regions. Board members must possess technical knowledge and suitable international business and market experience.

The IASB is overseen by a governing organization, the International Financial Reporting Standards Foundation (IFRS Foundation), which in turn is overseen by a Monitoring Board with representatives from worldwide regulators of capital markets, such as the SEC, the European Commission, and IOSCO (the International Organization of Securities Commissions). In an effort to keep the IASB independent from professional accounting bodies and business organizations, the IFRS Foundation supports the IASB financially using funds provided primarily from voluntary contributions by jurisdictions that use the standards. In 2016, accounting firms provided 25 percent of its funding, and sales of publications provided a smaller proportion.

To pass a new standard requires a **super-majority vote** by 10 of the 16 IASB members (or 9, if the Board has 15 or fewer members). Super-majority voting decreases the possibility that a standard will be approved that is only marginally acceptable to the Board. It also tends to promote negotiation and compromise in the process of creating new standards. Dissenting members will be in a stronger position than they would be if only a simple majority were required, and thus are less likely to feel that their views and concerns have been ignored.

In designing standards, the IASB follows **due process**. This includes: broad consultation with interested constituencies before admitting a topic to the Board's agenda; an investor outreach program; discussion papers, which normally precede exposure drafts of new standards, each of which is open for comment from constituents; and assessment of the likely effects of new standards. The Board maintains a variety of advisory groups, including the IFRS Advisory Council. The council consists of representatives from a wide range of interest groups, such as investors, financial analysts, academics, regulators, and others, to provide input and advice on proposed new standards.

These various procedures enable interested constituencies, including managers, investors, and accountants, to react and comment. Based on feedback from public hearings, field tests, and calls for comment, the IASB prepares a revised standard, with a statement of basis for conclusions to explain the reasoning behind the standard. Representation of diverse constituencies and regions on the Board, super-majority voting, and post-implementation reviews of new standards all contribute to due process. Note that following due process is consistent with a need for compromise and negotiation in setting accounting standards. In particular, managers are an important constituency in this process, because a standard opposed by large numbers of managers will likely be ineffective.

Many countries, including Canada in 2011 and the European Union in 2005, have adopted IFRS for publicly accountable entities (generally, companies with traded securities). Other IFRS adopters include Australia, Israel, Mexico, Russia, South Korea, and many countries in South America and Southeast Asia. Other countries, such as Japan and Switzerland, permit but do not require IFRS. Still others, including the United States, China, and India, use national or regional standards, converged to varying degrees with IFRS.[29]

The Financial Accounting Standards Board (FASB) The FASB, established in 1973, assumed responsibility for U.S. standard setting from earlier bodies. The FASB's mission is to establish and improve standards of financial reporting for the guidance and education of the public. The FASB consists of seven board members, appointed for a maximum of two five-year terms. Collectively, they must have knowledge and experience in investing, accounting, finance, business, education, and research; and a concern for investors, other financial statement users, and the public interest.

Similar to the IASB, the FASB is supported financially by an oversight body, the Financial Accounting Foundation (FAF). This helps the Board to remain independent of business and professional organizations, including the American Institute of Certified Public Accountants (AICPA), the major American professional accounting body. The majority of the FASB's funding comes from "Accounting Support Fees," paid to the FAF by U.S. publicly traded companies. A smaller share comes from sales of publications.

In setting and updating accounting and reporting concepts and standards, the FASB, like the IASB, places heavy emphasis on due process and broad consultation. Procedures for initiating and adopting new standards are similar to those of the IASB outlined above, although unlike the IASB, the FASB requires a simple majority vote to pass a new standard.

In 2002, the IASB and FASB began working to converge their standards, through elimination of differences in existing standards, and coordinated development of new standards. The Boards had some notable successes, including issuing converged standards on Business Combinations in 2008, along with Fair Value Measurements, and Consolidation in 2011. Complete convergence proved elusive, however. The Boards failed to agree on a common Conceptual Framework, issued non-converged standards on Leases, and abandoned several other attempts at converged standards. We discuss convergence further in Chapter 13.

The Canadian Accounting Standards Board (AcSB) The AcSB is the Canadian accounting standard-setting body. Before 2011, the AcSB set accounting standards for all Canadian companies. Canada adopted IFRS in 2011 for "publicly accountable entities"-essentially, those with publicly traded equity or debt. Since that time, the role of the AcSB has been to provide input to the IASB, and to develop standards for non-public Canadian businesses and not-for-profit entities.

The AcSB was established by the CICA to publish reports "on its own responsibility." In 2000, the CICA formed the Accounting Standards Oversight Council, AcSOC, with representation from business, government, academia, financial analysts, and others, to oversee the AcSB's activities. This is intended to provide a measure of independence from the accounting profession, and to reduce the possibility of interference in its deliberations. CPA Canada, however, is the primary funding source for both the AcSB and AcSOC, and AcSB staff report to CPA Canada Vice President-Standards. This organizational structure differs from that of the IASB and FASB, which, as mentioned, are independent of related professional organizations.

In 2014, the AcSB was expanded to 11 members, from eight beforehand. Unlike the IASB and FASB, AcSB members, with the exception of the Chairperson, serve as unpaid volunteers. In general, this means that the members do not sever ties with their employers (businesses, universities, accounting firms), but obtain partial release from job responsibilities to serve on the Board. They are charged to work independently and serve the public interest. New standards require a two-thirds super majority in favour, similar to the IASB, and in contrast to the FASB's simple majority.

When providing input on IFRS, the AcSB participates in the IASB's due process, outlined above. This includes gathering and distilling input from Canadian stakeholders, and providing comments and advice to the IASB on potential new or revised standards. Technically, the AcSB must approve IFRSs before they become part of Canadian GAAP. By policy, however, AcSB has pledged to adopt IFRSs as written by the IASB, so failure to approve would be extraordinary.

In developing Canadian standards for non-publicly-accountable entities, the AcSB follows due process similar to that of the IASB and FASB, based on principles of transparency, consultation, and accountability. A fourth principle, "Different Sets of Standards," allows the AcSB to develop different sets of standards for private companies, private-sector not-for-profit organizations, and pension plans, all of them distinct from IFRS.

Securities Commissions If standard-setting bodies are to achieve their objectives, financial statements must adhere to GAAP. Adherence to GAAP is accomplished in a variety of ways. Ethical behaviour by managers and accountants is obviously desirable. Also, as we shall see throughout this book, securities markets and managerial labour markets contribute importantly to responsible reporting. When these motivations fail, enforcement takes over. Discipline committees of professional accounting bodies play an important enforcement role, as does the prospect of legal liability for reporting failures.

From our perspective, securities commissions are one of the most important enforcers of accounting standards. Notable among these is the Securities and Exchange Commission (SEC) in the United States. We outlined its creation, and its delegation of standard setting to the FASB, in Section 1.2. However, the SEC also fulfills an important enforcement role, by investigating firms and managers for failures to adhere to GAAP, and prosecuting and penalizing them if appropriate. The SEC's reach extends to many Canadian and other foreign firms whose shares trade in the United States. We shall see several examples of the SEC's enforcement activities in this book.

The SEC also issues accounting standards, mainly for disclosures outside of the financial statements. These disclosures include management's discussion and analysis, and disclosures of management compensation, which will be discussed in Chapters 3 and 10, respectively.

In Canada, securities regulation is under provincial jurisdiction. Consequently, Canada does not at present have a national securities regulator. However, the provincial and territorial securities regulators have created the Canadian Securities Administrators (CSA), a forum to coordinate and harmonize Canadian capital markets regulation. Its mission includes protecting investors, securing the proper working of capital markets, and reducing risk. One of its regulations, National Instrument NI 52-109, imposes management disclosures of internal control effectiveness similar to those of the Sarbanes-Oxley Act in the United States. Of the provincial securities commissions, the most important is the Ontario Securities Commission (OSC), due to its oversight of the nation's senior stock market, the Toronto Stock Exchange.

The International Organization of Securities Commissions (IOSCO) represents the world's securities regulators, including Canadian regulators and the SEC. It recommends that its members use IASB standards, although individual member countries may require reconciliation of IASB standards with their own GAAP. For example, foreign firms that wish to trade their securities in the United States must meet SEC requirements. These include filing financial statements with the SEC either in accordance with IFRS or with U.S. GAAP.[30]

Unlike domestic securities commissions, IOSCO, hence the IASB, does not have authority to enforce IASB standards. Enforcement is up to the authorities in the respective jurisdictions that adopt these standards.[31] Consequently, careful analysis of financial statements from foreign jurisdictions requires awareness of local customs, business practices, and the legal and other institutional characteristics of those jurisdictions. Research shows that even in the presence of the same set of accounting standards (e.g., IFRS), the quality of financial reporting varies across countries. We discuss some of this research in Chapter 13.

1.13 RELEVANCE OF FINANCIAL ACCOUNTING THEORY TO ACCOUNTING PRACTICE

The framework just described provides a way of organizing our study of financial accounting theory. However, this text also recognizes an obligation to convince you that the theory is relevant to accounting practice. This is accomplished in two main ways. First, we describe the various theories and research underlying financial accounting in plain language, and

demonstrate their relevance through references to accounting practice. For example, Chapter 3 describes how investors may make rational investment decisions, and then goes on to demonstrate that this decision theory underlies the Conceptual Framework. Theory in Practice vignettes, which illustrate the theories more explicitly, are scattered throughout the book. Also, the book contains numerous descriptions and critical evaluations of accounting standards. In addition to enabling you to learn some of the contents of these standards, you can better understand and apply them when you have a grounding in the underlying reasoning on which they are based. The second approach to demonstrating relevance is through assignment problems. We have made a concentrated attempt to select relevant problem material to illustrate, motivate, and extend the concepts.

Recent years have been challenging, even exciting, times for financial accounting theory. We have learned a tremendous amount about the important role of financial accounting in our economy from the information economics research outlined above. If this book enables you to better understand and appreciate this role, it will have attained its objective.

Notes

1. For more information about Paciolo, a translation of his bookkeeping treatise, and a copy of an Italian version, see *Paciolo on Accounting*, by R. Gene Brown and Kenneth S. Johnston (1963).
2. Readers with a mathematical background will recognize these relationships as related to the fundamental theorem of calculus.
3. The fact that the requirement was dropped did not mean that firms should not supply information to shareholders, but that the nature of the information supplied was a matter between the firm and its shareholders. In effect, it was felt that market forces, rather than a legal requirement, were sufficient to motivate information production.
4. Actually, MN posed a much deeper question. Widespread share ownership had long been seen as a way of reconciling increasingly large and powerful corporations with the popular belief in individualism, property rights, and democracy, whereby the "little guy" could take part in the corporate governance process. With the 1929 crash and subsequent revelation of manipulative abuses, a new approach was required that would both restore public confidence in securities markets and be acceptable to powerful corporate interest groups. MN suggest that the creation of the SEC was an embodiment of such a new approach.
5. As an example, Montgomery (1912, pp. 191–192) criticizes the common practice of valuing capital assets on the basis of appraisals, then using the recorded unrealized gains as a source of dividends. A related practice was **watered stock**, under which assets were valued at the par value of stock issued to acquire the assets, when the value of the acquired assets was much lower. For a critical discussion of watered stock, see Hatfield (1927, pp. 208–209). A third practice, also discussed by Hatfield (pp. 319–323), was the creation of **secret reserves**, under which assets were undervalued and/or liabilities overstated. Then, losses were charged

against the reserves (that is, charged against the asset or liability account) rather than to expense, typically without any disclosure to investors.

Perhaps surprisingly, however, May (1943, pp. 53–58) discusses the effects of accounting abuses leading up to the 1929 crash, and argues "inadequate or misleading reports played but a relatively unimportant part in causing the catastrophic losses that were sustained."

6. More correctly, Paton and Littleton's accounting should be described as "adjusted historical cost," as capital assets are amortized, and interest accrues on debt, among other adjustments. For consistency with decades of accounting scholarship, we refer to the system as "historical cost," confident that readers of this book will not interpret this literally.

7. This is not to say that the SEC stands aloof from accounting standards. If it perceives that standards as set by the profession stray too far from what it wants, the SEC can bring considerable pressure to bear, short of taking over the process, and has done so on several occasions. In this regard, see Note 8. The SEC reaffirmed its delegation of standard setting to the FASB in 2003.

8. The controversy over the investment tax credit in the United States provides an excellent example. The 1962 Revenue Act provided firms with a credit against taxes payable of 7 percent of current investment in capital assets. The controversy was whether to account for the credit as a reduction in current income tax expense, or to bring all or part of it into income over the life of the capital assets to which the credit applied. The Accounting Principles Board (the predecessor body to the FASB) issued APB2, requiring the latter alternative. The SEC, however, objected and issued its own standard, allowing greater flexibility in accounting for the credit. The Accounting Principles Board backed down and issued APB4 in 1964 allowing either alternative. The standard setters perceived the problem to be the lack of basic accounting concepts from which they could deduce the "correct" accounting for the credit.

9. For a detailed description of the search for basic accounting concepts in the United States from the inception of the SEC to the 1990s, see Storey and Storey (1998). Subsequently, the search for concepts changed to a search for a conceptual framework. We introduce the framework below, and discuss it more fully in Section 3.7.

10. IASB standards use the term "profit or loss" rather than "net income." In this book, we will use "net income" or, if the context is clear, "earnings."

11. An exception is the case of **single-peaked preferences**. That is, each member of the population must have a single most preferred alternative, with all other alternatives ranked below this one. Then, a simple voting scheme across the alternatives creates a valid social ordering. See Scott (1977). single-peaked preferences are characteristic of many economic decision models.

12. Amartya Sen's Nobel lecture, delivered when he received the Alfred Nobel Memorial Prize in Economic Sciences, discussed both the importance of Arrow's result as a foundation for theories of social choice, and the necessity of combining its formal axioms with informal elements to reach practical conclusions. Negotiation to trade off the interests of different parties is one such informal element. See Sen (1998).

13. The American Accounting Association is comprised of academic accountants. It does not have standard-setting authority as does the FASB. Nevertheless, professional accountants later picked up on the decision-usefulness concept. See American Institute of Certified

Public Accountants Study Group on the *Objectives of Financial Statements* (1973), also called the Trueblood Committee Report.

14. We will use the term CICA when this was the name in effect at the time implicit in our discussion. Otherwise, we use CPAC.

15. Now called the *CPAC Standards and Guidance Collection*. We refer to it by its former informal name CICA Handbook, or simply the *Handbook*, when this name was in effect at the time implicit in our discussion. Should we refer to it as it is currently, we will use *CPAC Handbook* or simply the *Handbook*.

16. The Canada Business Corporations Act in effect confers power on the AcSB to set accounting standards. This is somewhat different from the United States, where the SEC, not the FASB, has ultimate power (see Notes 7 and 8). However, the two situations are similar in that it is the elected governments that have ultimate power over accounting standards. In Canada, this became evident in the "PIP Grant" controversy of 1982. Several large Canadian oil companies disagreed with the deferred recognition of these grants as laid down in the *CICA Handbook*, demanding immediate recognition of the grants in earnings instead. They took their case to the government, which agreed with them. The government threatened legislation to override the provisions of the *Handbook*. The AcSB held its ground and the government eventually backed down. Nevertheless, it was clear where the ultimate power over accounting standards lay. For a detailed account of this controversy, see Crandall (1983).

17. IASB standards are called International Financial Reporting Standards (IFRS), beginning with IFRS 1 (2003). Standards issued prior to that time were called International Accounting Standards (IAS), and, unless replaced, still retain their original titles and authority. In May 2014, the IASB replaced IAS 18 with a new standard on revenue recognition, IFRS 15, effective as of 2018.

18. In this book, we will often use the word "reliable" in an intuitive sense. That is, reliable information is information that financial statement users can trust. This is the sense in which it is used in this chapter. However, standard setters prefer a different term. According to the Conceptual Framework, financial statement information should "faithfully represent" what it is intended to represent. That is, there should be a correspondence between the accounting valuation or description of an item and the real item the information represents. The Framework rejects the term *reliability*, explaining that reliability means different things to different people, and the term *faithful representation* reduces ambiguity. In this book, we will usually use the term *reliability* as meaning faithful representation, because the term is shorter and because of its familiarity from past usage. Further discussion of reliability is given in Sections 2.2 and 3.7.1.

19. FASB accounting standards are now organized in the *Accounting Standards Codification* (ASC; 2009). When we refer to a FASB standard as originally introduced, we denote it by its original title, as is the case here. When we refer to a FASB standard as it currently exists, we will give its ASC reference. Sometimes, we give both.

20. For further discussion of Enron's business model, see Healy and Palepu (2003).

21. Under the percentage of completion method of accounting for long-term contracts, profit earned to date is contract cost to date divided by total estimated contract cost, multiplied by expected total profit on contract. This requires an estimate of the costs to complete the contract, a calculation that is particularly difficult for an outside party, such as an auditor, to verify.

22. Stuffing the channels involves persuading customers to accept more product than they need, thereby increasing sales and gross profit for the period.

23. This topic is awash in acronyms. The conduits that firms set up to securitize assets are variously known as special purpose entities (SPEs), special purpose vehicles (SPVs), structured investment vehicles (SIVs), or variable interest entities (VIEs). The securities issued by either the sponsors or these conduits are variously called asset-backed securities (ABSs); mortgage-backed securities (MBSs) when the securitized assets are mortgages; collateralized debt obligations (CDOs) when the issued securities are debt; and asset-backed commercial paper (ABCP) when the issued securities are short-term commercial paper. Henceforth, when it is not necessary to distinguish them, we will refer to these securities collectively as ABSs.

24. This incentive would be reduced to the extent that the market looked through the lack of consolidation and valued the sponsor and its securitization vehicles as one entity. Landsman, Peasnell, and Shakespeare (2008) report evidence that the market did just that. Also, Niu and Richardson (2006) examined the relationship between off-balance sheet financing and the market's evaluation of firm risk. They found that more off-balance sheet financing was associated with higher risk. Both of these studies suggest that, at least to some extent, investors add back off-balance sheet financing to the firm's balance sheet even without consolidation. Despite these findings, avoiding consolidation would be of crucial importance to financial institutions facing capital adequacy regulations.

25. In Canada, Accounting Guideline 15, "Consolidation of Variable Interest Entities" (2004), was similar to FIN 46. Consolidation under IASB standards was governed by Standing Interpretations Committee Interpretation 12, (SIC 12) "Consolidation-Special Purpose Entities" (1998). Since the market meltdown of asset-backed securities originated in the United States, we concentrate on FIN 46 here.

26. A security's **liquidity** is the extent to which investors can quickly and at reasonable cost buy or sell any quantity of that security without affecting its market price. A **liquid market** is a market composed of liquid securities. The liquidity of a market is a matter of degree.

    Liquidity is a composite of market **depth**—the quantity of a security that investors can buy or sell without affecting its market price—and the **bid–ask spread**—the contemporaneous difference between the buying price and selling price of the security. Both of these components depend on information asymmetry. The greater is investor concern about their information disadvantage, the more likely they are to leave the market or, if they stay, the less they are willing to pay relative to the ask price.

    Liquidity risk is thus the risk that market depth and/or bid–ask spread change, thereby changing costs, or even ability, to buy or sell. Certainly, this risk materialized during the market meltdowns. When this happens, the market is said to be in a state of **liquidity pricing**.

27. Most empirical studies referenced in this book report associations, not causation. For example, suppose that a researcher, based on a study of several countries, finds that countries with large markets for debt tend to have greater conservatism in their financial reporting. Why might this be? One possibility is that most investors in such countries hold high amounts of debt securities, and demand conservative accounting standards to protect against firm managers overstating profits and assets to justify, for example, low interest rates. Conservatism provides such protection. In this case, causation goes from debt to conservatism.

However, another possibility is that countries whose inhabitants are cautious by nature tend to have conservative accounting, and also tend to favor debt financing over equity. In this case, causation derives from the risk-averse investors, and jointly determines conservatism and debt. In this book, we take the view that theory establishes the causal link. The theory of efficient contracting (Section 1.4) predicts that causation goes from debt to conservatism. Consequently, empirical evidence consistent with this prediction increases our acceptance of the theory.

28. Gjesdal (1981) recognized that investment decisions and evaluation of managers require different information. Gigler and Hemmer (1999) develop the idea further. They show that in an ideal environment for investors, where managers release verifiable information in a timely fashion, the reported net income serves a useful role in confirming and disciplining management's disclosures, but ironically provides no useful new information to investors.

29. Since 2008, the U.S. allows foreign entities to file using IFRS, but domestic companies must use U.S.-GAAP.

30. In Canada, financial statements using IFRS are accepted as meeting Canadian GAAP, under the CSA's National Instrument 52-107. Canadian firms with shares traded in the United States may file SEC reports using the documents they file in Canada, and vice versa, under the Multi-jurisdictional Disclosure System. Canadian firms taking advantage of the Multi-jurisdictional Disclosure System must meet the requirements of SOX.

31. However, through its 2002 Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information, IOSCO facilitates consultation, cooperation, and the exchange of information for the consistent enforcement of securities regulations. The Memorandum was enhanced in 2016.