1.1 THE OBJECTIVE OF THIS BOOK

This book is about accounting, not how to account. It argues that accounting students, having been exposed to the methodology and practice of accounting, need to critically 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 account the divergent interests of both external users and management.

1.2 SOME HISTORICAL PERSPECTIVE

Accounting has a long history. The first complete description of the double entry bookkeeping system appeared in 1494, authored by Luca Paciolo, an Italian monk/mathematician. 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? There is no physical or legal representation of the profit on the sale. For the double entry system to handle transactions such as this, 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, and Paciolo's work was translated into English in 1543. It was in England that another sequence of important accounting developments took place.

By the early eighteenth century, the concept of a joint stock company had developed in England to include permanent existence, limited liability of shareholders, and transferability of shares. Transferrability of shares led in turn to the development of a stock market where shares could be bought and sold. Obviously, investors needed financial information about the firms whose shares they were buying. Thus began a long transition for financial accounting, from a system enabling a merchant to control his/her own operations to a system to inform investors who were not involved in the day-to-day operations of the firm. It was in the joint interests of both the management and the investors that financial information provided by the firm was trustworthy, thereby laying the groundwork for the development of an auditing profession and government regulation. In this regard, the 1844 Companies Act was notable. It was in this Act that the concept of providing an audited balance sheet to shareholders first appeared in the law, although this requirement was dropped in subsequent years\(^2\) and not reinstated until the early 1900s. During the interval, voluntary provision of information was common, but its effectiveness was hampered by a lack of accounting principles. This was demonstrated, for example, in the controversy of whether amortization of capital assets had to be deducted in determining income available for dividends (the courts ruled it did 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 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 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 investors are supplied with adequate information.

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

Regulations to control disclosure would reduce monopoly power by better enabling potential entrants to identify high-profit industries. Presumably, if voluntary disclosure was adequate, the government would not feel that regulated disclosure was necessary. Thus, informing investors was not the main motivation for disclosure. Instead, investors were "protected" by a "two-tiered" market structure whereby prices were set by knowledgeable insiders, subject to a self-imposed "moral regulation" to control misleading reporting. Unfortunately, moral regulation was not always effective, and MN referred 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 can then be regarded as a movement away from an avoidance-of-regulation rationale for disclosure towards one supplying better-quality information to investors as a way to control manipulative financial practices.\(^4\)

One of the practices of the 1920s that received criticism was the frequent appraisal of capital assets, the values of which came crashing down in 1929. A major lesson learned by accountants as a result of the Great Depression was that values were fleeting. The outcome was a strengthening of the historical cost basis of accounting. 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. This 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 of realization. As a result, the income statement shows the current "instalment" of the firm's earning power. The income statement replaced the balance sheet as the primary focus of financial reporting.

It is sometimes claimed that the Paton and Littleton monograph was too persuasive, in that it shut our 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. However, if assets are impaired, they are frequently written down to a lower value. Ceiling tests for capital assets and the lower-of-cost-or-market rule for inventories are examples. Under International Accounting Standards Board standards, capital assets can sometimes be written up over cost if their value has increased. Generally speaking, standard setters have moved steadily towards current cost alternatives to historical cost accounting over the past number of years.

There are two main current cost alternatives to historical cost for assets and liabilities. One is value-in-use, such as discounted present value of future cash flows. The other is fair value, also called exit price or opportunity cost, the amount that would be received or paid should the firm dispose of the asset or liability. These valuation bases will be discussed 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 the historical cost lesson learned by accountants from the Great Depression may be in the process of being forgotten by standard setters, another lesson remains: how to survive in a disclosure-regulated environment. In the United States, for example, the SEC has the power to establish the accounting standards and procedures used by firms under its jurisdiction. If the SEC chose to use this power, the prestige and influence of the accounting profession would be greatly eroded, possibly to the point where financial reporting becomes a process of "manual thumbing," with little basis for professional judgement and little influence on the setting of accounting standards. However, the SEC usually chose to delegate most standard setting to the profession. To retain this delegated authority, however, the accounting profession had to retain the SEC's confidence that it was a satisfactory job of creating and maintaining a financial reporting environment that protects and informs investors and encourages the proper working of capital markets. Thus began the search for basic accounting concepts, those underlying truths on which the practice of accounting is, or should be, based. This was seen as a way to improve practice by reducing inconsistencies in the choice of accounting policies across firms and enabling the accounting for new reporting challenges to be deduced from basic principles rather than developing in an ad hoc and inconsistent way.

Accountants have laboured long and hard to find these basic concepts, but with relatively little success. Indeed, they have never fully agreed on a definition of what accounting concepts are, let alone a list of them.

As a result, accounting theory and research up to the late 1960s consisted largely of a priori reasoning as to which accounting concepts and practices were "best." For example, should the effects of changing prices and inflation on financial statements be taken into account, and, if so, how? This debate can be traced back at least as far as the 1920s. Some accountants argued that the current values of specific assets and liabilities held by the firm should be recognized, with the resulting unrealized holding gains and losses included in net income. Other accountants 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 the effects of both specific and inflation-induced changes in prices should be taken into account. Others, however, often including firm management, resisted these suggestions. One argument, based in part on experience from the Great Depression, was that measurement of inflation was problematic, and current values were very 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, in the United States, Statement of Financial Accounting Standards No. 33 (SFAS 33) required supplementary disclosure of the effects on earnings of specific and general price level changes for property, plant and equipment, and inventories. SFAS 33 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 there was little theoretical basis for choosing among the various alternatives, particularly since, as mentioned, accountants were unable to 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 a perfect or true accounting concepts, since, for example, investors will prefer different accounting concepts than managers. Arrow's theorem demonstrates that no set of concepts will be fully satisfactory to both parties. Instead, concepts must be hammered out strategically through negotiation and compromise to the point where both parties are willing to accept them even though they are not perfectly satisfactory to either side. The difficulties that accountants have had in agreeing on basic concepts are thus not surprising. Without a set of basic concepts, accounting standards, which 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)  monograph, A Statement of Basic Accounting Theory, in
1966. The draft joint Conceptual Framework of the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) (2008), which is the most recent statement of basic accounting concepts, is based on decision usefulness. That is, it states that the objective of financial statements is to provide information to assist investors to make investment decisions. Henceforth, we will usually refer to this document as the IASB/FASB Framework, or, if the context is clear, the Framework. It is discussed in Section 3.8.

Equally important was the development of the economics of imperfect information, a branch of economics that formally 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 the answer to which way, if any, to account for changing prices outlined above will be found in the extent to which they lead to good investment decisions. Furthermore, any resolution will have to take the concerns of management into account.

In Canada, the development of financial accounting and reporting has proceeded differently, although the end result is basically similar to that of the United States. 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, of the Canadian Institute of Chartered Accountants (CICA) 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. 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 in that the body with ultimate authority to set accounting standards has delegated this function to a private professional body.

Subsequently, several notable events had a major impact on financial accounting and reporting. These 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 the "hi-tech" industry, fell precipitously. For example, the share price of General Electric Corp., a large U.S. conglomerate firm, fell from a high of about $55 U.S. in August 2000 to a low of about $21 U.S. in October 2002, that of telecommunications firm Nortel Networks fell from a high of about $82 U.S. 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. In a study of 492 U.S. corporations that reported restatements of prior years' earnings during 1995-1999, Palmorese and Schols (2004) report that revenue restatements were the single most common type of restatement in their sample. In part, this problem is due to the vagueness and generality of revenue recognition criteria. For example, under International Accounting Standard 18 (IAS 18), revenue from the sale of goods can be recognized when the significant risks and rewards of ownership have been transferred to the buyer, the seller has control over the items, the revenue and related costs can be measured reliably, and collection is reasonably assured. Revenue from services is recognized as the work progresses. Revenue recognition criteria in the United States are broadly consistent with the above although, as present, they differ somewhat across industries. Revenue can be recognized when it is "realized or realizable" and earned, where earned means the firm has done what it has to do to be entitled to the revenues.

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.

Numerous other, even more serious, failures of financial reporting also came to light. Two of these 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 oil, natural gas, electricity, and weather futures. Its stock market performance was dramatic, rising to a high of about $90 U.S. per share in late 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.

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 notes 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 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%. 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 honor the service component over an extended period. Another tactic was to price services at cost, putting all profit into the equipment component, which was immediately recognized as revenue despite a continuing obligation to protect the customer from risk of obsolescence on the equipment. Yet another tactic was to recognize revenue from the sale of fibre-optic cable despite an inability 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.

In addition, Enron received fees for management and other services applied to its SPEs, and also investment income. This investment income is particularly worthy of note. 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 was able to include increases in the value of its own stock in its reported earnings! In 2006, financial media, reporting on a five-and-a-half-year jail sentence of Enron's chief accounting officer for his part in the Enron fraud, revealed that $85 million of Enron's 2000 reported operating earnings came from this source.

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, interest paid 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 December 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 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, passed by the U.S. Congress in 2002. This wide-ranging Act was designed to restore confidence by reducing the likelihood of accounting horror stories such as those just described. The Act did this by modifying corporate governance and tightening the audit function. One of its major provisions was to create the Public Company Accounting Oversight Board. This agency has the power to set auditing standards and to inspect and discipline auditors of public companies. The Act also restricts several of the non-audit services offered by auditing firms to their clients, such as information systems and valuation services. Furthermore, the auditor now reports to the audit committee of the client's board of directors, rather than to management. The audit committee must be composed of directors independent of the company.

Other provisions of Sarbanes-Oxley 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 Chief Executive Officer and Chief Financial Officer 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 auditor, to certify 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.) Similar regulations are in place in Canada, except that officers' certification of internal controls need not be attested to by an independent auditor.

Accounting standard setters also moved to restore public confidence. 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). These vehicles were often created by banks, mortgage companies, and other financial institutions, 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 sponsors. The SIV would...
pool them into asset-backed securities (ABSs), that is, into tranches of similar credit quality. Thus, a particular ABS would be a tranche of, say, residential mortgages of high quality, another ABS would be of lower quality, etc., down to "sub-prime" mortgages of lowest quality. These various ABS tranches would then be resold to investors or, particularly for the lowest quality tranche, retained by the SIV and its sponsor. As mortgage pools matured, cash flowed to the SIV and on to the tranche holders, after deduction of various fees. Holders of higher-quality (i.e., lower-risk) tranches received a lower return than holders of lower-quality tranches, since they were less subject to defaults by the original mortgage borrowers.

ABSs were frequently securitized as collateralized debt obligations (CDOs), which consisted of tranches of similar quality ABS tranches, a procedure that further increased diversification. Unlike ABSs, CDOs tended to be arranged and sold privately, and often consisted of riskier mortgages or other assets. Henceforth, when it is not necessary to distinguish them, we will refer to these securities collectively as ABSs.

ABSs were highly popular with investors, including many financial institutions, since they offered higher returns than, say, bonds, and were viewed (wrongly, as it turned out) as no riskier than bonds even though the return was higher. In part, this 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 diversification of credit risk created by the large underlying pools of mortgages or other financial assets that backed up ABSs, reinforced by high-quality ratings from investment rating agencies. Furthermore, investors could customize their investments by buying tranches of the particular risk and return that they desired.

To obtain cash to pay the sponsor for assets transferred, SIVs borrowed money, often by issuing asset-backed commercial paper (ABCP). ABCP paid higher interest rates than treasury bills but, like the underlying ABSs, typically received high ratings from investment rating agencies. Thus ABCP was popular with companies and other investors who wanted to invest surplus cash for a short term.

Alternatively, SIVs could retain ABSs rather than selling them on to investors. Since the ABSs generated higher returns than the cost of funds borrowed to acquire them, SIVs became "money machines."

Of course, since it resulted in high leverage, financing holdings of ABSs with borrowed money was a risky strategy for SIVs. The underlying reason is that borrowing and lending were "out of sync". That is, ABSs were long-term investments whereas ABCP borrowings were short term. Despite rising house prices and the inherent diversification of ABSs, credit losses could still occur, reducing the safety of ABCP and affecting the SIVs’ ability to roll over maturing ABCP. Consequently, some form of credit enhancement of ABSs was often necessary if the SIV was to be able to borrow at a low interest rate. One way to accomplish this was the "liquidity put," under which the sponsor agreed to buy back the SIV’s asset-backed securities should the market for them collapse. Other enhancements included retention of the lowest-quality tranche by the sponsoring institution, and various explicit and implicit guarantees to reimburse purchasers for losses. Also, SIVs could hedge their risk by purchasing credit default swaps (CDSs) from some intermediary, such as an insurance company. These were derivative financial instruments that would reimburse the SIV for all or part of credit losses on its ABSs. To obtain this protection, the CDS purchaser paid a fee (called the spread) to the CDS issuer. The belief that credit losses on the underlying ABSs were protected further increased the confidence of lenders that ABSs and ABCP were low risk.

Note that if an SIV was consolidated into the financial statements of its sponsor, the high SIV leverage would show up on the sponsor’s consolidated balance sheet. Despite the apparent safety of ABSs, sponsors would be penalized by the market if their leverage became sufficiently high. This was particularly so for financial institutions, many of which are subject to capital adequacy regulations. Consequently, firms that sponsored SIVs had an incentive to avoid consolidation of their SIVs into their own financial statements. Then, leverage could be further exploited by remaining off-balance sheet.

However, as mentioned, 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) (FIN 46) (2003) expanded requirements for consolidation of a particular form of SIVs, called variable interest entities (VIEs). These are SIVs under which the ownership interest varies with the fair value of the SIV’s net assets. The primary beneficiary of the VIE (e.g., a bank or other financial institution) must consolidate its financial statements with the VIEs it sponsors. A primary beneficiary was the entity that absorbed a majority of the VIE’s expected losses and received a majority of its expected gains. Thus, the primary beneficiary did not need to actually control the VIE (the usual criterion for consolidation) in order for consolidation to be required. It was felt that by mandating consolidation when a sponsor’s exposure to their VIEs’ risks and returns was significant (thereby bringing VIE assets and liabilities onto its sponsors’ balance sheets), the financial reporting for financial institutions, particularly with respect to their overall liquidity and capital adequacy, would be improved.

Nevertheless, sponsors were able to avoid consolidation by creating expected loss notes (ELNs). These were securities sold by sponsors to outside parties under which the purchasers contracted to absorb a majority of a VIE’s expected losses and receive a majority of expected net returns. Thus, the holder of the ELN became the primary beneficiary under FIN 46, and consolidation would be with the financial statements of the ELN holder, not with the sponsor. Freed from consolidation, the sponsor could then exploit VIE leverage as much as it wanted. Typically, the balance of net returns would go to the sponsor. In addition, sponsors would receive 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 leverage 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 be if they had intended to retain the mortgages. As a result, a major advantage of ABSs from an investor’s perspective (diversification of credit risk
across many similar assets) turned out to be their greatest weakness: asset-backed securities lacked transparency. This was particularly so for CDOs, which tended not to be publicly traded. As concern about mortgage defaults and housing prices increased, investors were unable to (or neglected to) determine how many mortgages associated with a specific ABS were likely to go bad. Valuing ABSs was particularly difficult due to their complexity. As a result, valuation models based on well-working underly ing market variables, which have been used for years to value securities such as options, were not available for ABSs. Instead, valuations were based on projected interest rates and historical default rates. These estimates 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 called liquidity risk. Note that liquidity risk can result in a market value less than its value in-use. To illustrate 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) were suffering severe losses on their large holdings of ABSs. This was followed in August 2007 with a suspension by BNP Paribas, a large France-based bank, of 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.

There was another major contributing factor to the market collapse, however. Above, we mentioned that SILVs could purchase CDSs to insure any losses suffered on their ABSs. If so, why did investors lose confidence? The answer lies in counterparty risk. As mentioned, many SILVs purchased CDSs to reduce the credit risk of their ABSs. However, as concern about mortgage defaults grew, concern also grew that CDS issuers (i.e., counterparties) would no longer be able to meet their obligations.

Counterparty risk was greatly enhanced due to a significant CDS feature—it was not necessary for the purchaser of a CDS to own the underlying assets secured by that CDS. Anyone could buy a CDS that protected against losses on a specific reference ABS. Such a CDS would protect an investor who had no insurable interest in that ABS but wanted to hedge against the possibility of, say, a downturn in the housing market. If the housing market was to deteriorate, the value of ABSs based on that market would also decline. A CDS that pays off if an ABS declines in value would thus increase in value. Thus, in addition to providing insurance, CDSs became a vehicle for speculators, since any event that lowered the value of ABS securities would raise the value of CDSs written on those securities.

The demand for CDSs became very high, and their issuance quickly spread from insurance companies to other financial institutions, attracted by the spread that they generated. Indeed, CDSs were often packaged into synthetic CDOs, that is, tranches of CDSs, for sale to investors and speculators. As a result, the face value of CDSs written on specific asset-backed securities could be many times their value (estimates ranged as high as five times). Also, like CDOs, CDSs and synthetic CDOs were not traded on an organized exchange, or even settled through clearing houses, where regulations would be in place to standardize, publicize, and protect the integrity of trade transactions. Instead, CDOs were bought and sold privately. These huge amounts of private trading of CDOs and CDSs, combined with the off-balance sheet nature of many VIEs, became known as the shadow banking system. A consequence of shadow banking was that it was difficult to know how many CDSs were outstanding against specific ABSs, except that if a reference ABS was to decline in value, insurance payouts could be huge. For example, the liquidity, credit rating, and share price of American International Group, Inc. (AIG), a major U.S. issuer of CDSs, rapidly declined as it became apparent that it was unable to meet its obligations. In 2008, AIG had to be rescued by the U.S. government to prevent a complete collapse of the financial system. In sum, counterparty risk was a major contributing factor to the ABS market collapse.

Since asset-backed securities often secured ABCP, the ABCC market also was threatened with collapse. Thus SILVs faced several problems simultaneously. They were unable to roll over maturing ABCP from the proceeds of issue of fresh ABCP (no one would buy them due to the collapse of ABS market liquidity), their holdings of ABSs themselves were difficult or impossible to value or sell, and the ability of CDS issuers to reimburse losses was doubtful. In the face of this collapse of liquidity and severe counterparty risk, SILVs 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 SILVs to its balance sheet, recouping a writedown of $1.1 billion in the process.

These blowbacks had severe consequences, however. Paying for them lowered sponsors' liquidity 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. Further writedowns were frequently required as the fair value of these assets continued to deteriorate. 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 reduction in market liquidity spread to the real economy, leading to worldwide recession including drastic falls in share prices.

The underlying causes of these catastrophic events, which are rooted in global imbalances in consumption, trade, and foreign exchange markets, will be debated by economists and politicians for years. However, blame for the initial collapse of the market for asset-backed securities is usually laid at the feet of lax mortgage lending practices and inadequate regulation. The lack of transparency of the complex financial instruments created by the finance and investment communities was also at fault. Of greater significance for accountants, however, was sponsors' failure to adequately control the risks of excessive leverage in the quest for leverage profits. Firm managers were encouraged/enabled to take on excessive risk since, as described above, financial accounting standards allowed sponsor firms to avoid SIL consolidation, resulting in large amounts of off-balance sheet leverage. Accountants and auditors that allowed this avoidance were arguably meeting the letter of FN 46 while avoiding its intent.
Another result of the meltdown was severe criticism of fair value accounting, particularly by financial institutions. They claimed that the requirement to write down the carrying values of financial instruments made matters worse by creating huge losses that threatened their capital adequacy ratios and eroded investor confidence. 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, under which market value is less than the value-in-use, which 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. Since investors could not separate the good from the bad, all such securities became suspect. Returning to historical cost accounting, or at least allowing institutions to value these assets using their own internal estimates, it was claimed, would eliminate these excess writedowns. Of course, allowing firms 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 did relax some requirements. In October 2008, the IASB and FASB issued similar guidance on how to determine fair value when markets are inactive (i.e., melted down, in terms of our terminology). The guidance was that 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.

In April 2009, faced with urging from the U.S. Congress, the FASB issued additional guidance on how to determine if a market is inactive. If a market is inactive, market prices are assumed to be distorted unless there is evidence to the contrary. If prices are distorted, fair value of a financial asset can be determined based on its value-in-use, using a risk-adjusted interest rate and other assumptions designed to reflect the “orderly transaction between market participants.” In effect, management was allowed to put its own values on melted-down assets.

The FASB also weakened rules that require certain debt and equity securities to be written down to fair value with losses included in net income. Such writedowns were not required if the decline in value was felt to be temporary and there was a reasonable probability that the company would hold the asset until the temporary decline in value was over.

The IASB also relaxed somewhat the extent of its fair value requirements by allowing certain financial instruments to be reclassified from full fair value to less volatile valuation bases, in a manner consistent with existing FASB standards. These changes are described in Section 7.3.

Collectively, the events described above raise fundamental questions about the extent of regulation in a markets-based economy. It seems that relatively unregulated capital markets (e.g., the shadow banking system) are subject to catastrophic market failure. This came as a shock to many economists and politicians. The prevailing theory was that markets would always properly price assets, so that regulation could be confined to maintaining an orderly market place. 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 unregulated markets.

Nevertheless, market failures have in the past typically led to increased regulation. The question then is, To what extent should regulation be increased as a result of this most recent failure? This question is heightened by the globalization of capital markets, which causes the effects of such failures to quickly spread worldwide.

Responses to this most recent failure are currently being debated by regulators, economists, and politicians. One response is a flurry of new or expanded accounting and disclosure standards. Some of these are outlined in Section 7.5. Another response is to limit or modify the managerial compensation practices of financial institutions, since suspicion arose that existing compensation practices, including large amounts of stock options, contributed to the meltdown by encouraging managers to indulge in excessive off-balance sheet leverage. This leverage increased the profits, and share prices, of sponsoring institutions but also increased their risk. Yet, for whatever reason, the market did not fully appreciate this risk, bidding up share price and thus increasing the value of executive stock options. To the extent that stock-based compensation practices encouraged short-run, risk-taking behavior, they had the opposite effect to their intended purpose, which was to align manager and shareholder interests by encouraging managers’ longer-run decision horizons.

Nevertheless, the extent to which additional regulations are desirable is not obvious, since, as mentioned, regulation is costly and also subject to failure. Furthermore, alternative mechanisms to help inhibit market failure, such as the legal system, are available. 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 any repurchase obligations, and explanations of risk exposures and risk-management strategies, including use of credit default swaps. Second, fair value accounting, being based on market value or estimates thereof, may underestimate value-in-use when markets collapse due to liquidity pricing that results from a severe decline in investor confidence. This leads to management, and even government, objections. Third, off-balance sheet activities should be fully reported, even if not consolidated, since they can encourage excessive risk taking by management. Finally, since accounting standards are a form of regulation, substantial changes to existing standards are taking place.

1.4 CONSERVATIVE ACCOUNTING

Earlier in this chapter, we noted that one of the effects of the stock market crash of 1929 was a strengthening of the historical cost basis of accounting. This raises the question of whether more recent crashes, not to mention accounting abuses and criticisms of fair
Theory in Practice 1.2

New Century Financial Corp., formed in 1995, 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 up to a year after transfer.

In addition, New Century would retain some mortgages for itself (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 the mortgage transfer. These policies required numerous estimates and management judgments, especially for retained interests (since a secondary market for these assets did not exist). These policies contrasted with a more conservative policy of recognizing revenues as cash flows from retained interests were received and servicing responsibilities rendered.

The company’s share price increased dramatically, to a high of $64 U.S. in 2004. Its reported net income reached $1.4 billion in 2005. 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, investor concerns rose. These concerns added to concerns about early revenue recognition from retained interests and servicing. New Century, which was highly leveraged, was soon unable to borrow money to finance buybacks. In March 2007, it announced that it would no longer accept new mortgage applications. Its shares lost 90% of their value, and the company was delisted from the New York Stock Exchange. In April 2007, it filed for bankruptcy protection.

New Century’s auditor (KPMG) was drawn into the lawsuits that followed. In April 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. In December 2009, the SEC filed civil fraud charges against 3 former executives of New Century, seeking damages and return of bonuses.

historical cost unless a decline in value below cost has occurred, in which case a lower-of-cost-or-market rule or ceiling test is applied.

Indeed, there is evidence of increasing conservatism in recent years. For example, standard setters extended ceiling tests to include purchased goodwill in 2001. Also, it seems that managers are becoming more conservative in applying accounting standards. Thus, Lobo and Zhou (2006) documented a decrease in aggressive accounting practices subsequent to the passage of the Sarbanes-Oxley Act, and Graham, Harvey, and Rajgopal (2005), in a post-Enron survey of chief financial officers of U.S. public companies, report evidence that managers were now more likely to manage earnings using real variables (e.g., cutting R&D) than risk the legal and reputation consequences of aggressive accounting policies.

As a result of developments such as these, some accountants are giving greater attention to the usefulness of conservatism. Time will tell whether an increased understanding of its role will moderate standard setters’ movements towards a current value approach to financial reporting.

These various developments set the stage for the current financial accounting and reporting environment that is the subject of this book.

1.5 A NOTE ON ETHICAL BEHAVIOUR

The collapse of Enron and WorldCom and subsequent collapse of public confidence, as well as the more recent market meltdowns, raise questions about how to restore and maintain public confidence in financial reporting. One response is increased regulation, including new accounting standards, as just discussed. However, ethical behaviour by accountants and auditors is also required, since numerous accountants designed, were involved in, or at least knew about the various reporting irregularities. Also, the financial statements of the firms involved were certified by their auditors as being in accordance with GAAP. It seems that conforming to GAAP is not sufficient to prevent financial reporting failures.

By ethical behaviour, we mean that accountants and auditors should “do the right thing.” In our context, this means that accountants must behave with integrity and independence in putting the public interest ahead of the employer’s and client’s interests, should these conflict. It is important to realize that there is a social dimension to integrity and independence. That is, a society depends on shared beliefs and common values. This notion goes back to Thomas Hobbes, a seventeenth-century philosopher and author of The Leviathan. Hobbes argued that if people acted solely as selfish individuals, society would collapse to the point where force, or the threat of force, would prevail—there would be no cooperative behaviour. 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. What is needed, in addition, is that people must recognize that it is in their joint interests to cooperate.
The force of Hobbes' arguments can be seen, for example, 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 bent so as to conform to its letter but not its intent. Cooperative behaviour broke down because certain individuals behaved in a manner that broke the rules—they did not behave with integrity and independence. This was good for them, at least in the short run, but bad for society. Hobbes' prediction is that increased regulation will not suffice to prevent a repetition of these reporting disasters. What is also needed is ethical behaviour.

Note, however, that there is a time dimension to ethical behaviour. An accountant can act in his/her own self-interest and still behave ethically. This is accomplished by taking a broader view of the consequences of one's actions. For example, suppose that an accountant is instructed to understatement a firm's environmental liabilities. In the short run, doing so will 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 confidence in financial reporting lowers the prices of all shares. The accountant will suffer through dismissal, professional discipline or expulsion, and reduced compensation due to reduced stature of all accountants. By taking account of these longer-run costs, the accountant is motivated to behave ethically. In effect, in the longer run, self-interested behaviour and ethical behaviour merge.

In this book, we will often cast our discussion in terms of full disclosure, usefulness of financial statements, cooperative behaviour, and reputation, all of which benefit society. However, in acting so as to meet these desirable characteristics of financial reporting, the accountant is, in effect, acting ethically.

1.6 RULES-BASED VERSUS PRINCIPLES-BASED ACCOUNTING STANDARDS

These longer-run considerations 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 to detailed rules, however, is to lay down general principles only, and rely on auditor professional judgement to ensure that application of the standards is not misleading. For example, in Section 1.3 we described FASB Interpretation No. 46 (FIN 46). This standard imposed rules for consolidation of variable interest entities, following the abuse by Enron of earlier rules. However, the new rules were in turn circumvented by many financial institutions through the creation of expected loss notes. A principles-based standard for consolidation would require that consolidation be required when failure to do so would be misleading. Thus, if the accountant/auditor felt that excessive financial leverage was otherwise being disguised, he/she 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. Although, Ball (2009) argues that U.S. financial reporting is inherently principles-based, because the U.S. judicial system punishes misleading financial statement reporting even if the financial statements are technically in accordance with GAAP. Ball 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 seriousness of the 2007–2008 market meltdown raises 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 principles-based behaviour, though 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 Sarbanes-Oxley Act ... (2003)," recommends that the FASB adopt a principles-based approach to accounting standards. The SEC study is in clear agreement with the FASB's own 2002 "Proposal for a Principles-Based Approach to U.S. Standard-Setting." Furthermore, a stated goal of the IASB/FASB 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 towards principles-based standards. Even with a strong conceptual framework, however, such standards will face pressures from managers, and even governments, to bend financial reporting to their desires. 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 reaction to the same information. For example, a sophisticated investor may prefer the valuation of certain firm assets and liabilities at value-in-use on grounds that this will help to predict future firm performance. Other investors may prefer fair value accounting on grounds that this better reports on manager stewardship (to be discussed in Chapter 7). Others may be less positive towards any form of current value accounting, perhaps because they feel that current value information is unreliable, or simply because they are used to historical cost information.
Furthermore, managers, who will have to report the current values, might react quite negatively. Management typically objects to inclusion of 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, management's objections remain. As a result, accountants quickly get caught up in whether reported net income should fulfill a primary role of reporting useful information to investors or reporting on management's stewardship of the firm's resources.

Another reason for the complexity of information is that it does more than affect 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. By "working well," we mean market prices should reflect the real underlying values of securities and managers.

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 book 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 are constantly changing and evolving.

1.8 THE ROLE OF ACCOUNTING RESEARCH

A book about accounting theory must inevitably draw on accounting research, much of which is contained in academic journals. There are two complementary ways that we can view the role of research. The first is to consider its effects on accounting practice. For example, a decision usefulness approach underlies the IAS/IFASB Framework. The essence of this approach is that investors should be supplied with information to help them make good investment decisions. One has only to compare the current annual report of a public company with those issued in the 1960s and prior to see the tremendous increase in disclosure over the 40 years or so 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 the accountant in what information is useful. Furthermore, 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 it affects current practice, however, there is a second important view of the role of research. This is to improve 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' interest in accounting policy choice and why they may want to bias or otherwise 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 the accountant is 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 simply refer to research papers on which our discussion is based. The interested reader can pursue the discussion in greater depth if desired.

1.9 THE IMPORTANCE OF INFORMATION ASYMMETRY

This book is based on information economics. This is a unifying theme that formally recognizes that some parties to business transactions may have an information advantage over others. When this happens, the economy is said to be 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 know more about the current condition and future prospects of the firm than outside investors. There are various ways that managers and other insiders can 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 selected investors or analysts, enabling insiders, including themselves, to benefit at the expense of ordinary investors. Such tactics are adverse (hence the term) to the interests of ordinary investors, since it reduces their ability to make good investment decisions. Then, investors' concerns about the possibility of biased information release and favoritism will make them wary of buying firms' securities, with the result that capital markets will not function as well as they should.

We can then think of financial accounting and reporting as a mechanism to control adverse selection by timely and credible conversion of inside information into outside information.

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. Moral hazard exists in many situations. A medical doctor may give a patient a cursory examination. A trustee for a bond issue may shirk his/her duties, to the disadvantage of the bondholders. In our context, moral hazard occurs because of the separation of ownership and control that characterizes most large business entities. It is effectively impossible for shareholders and creditors to observe directly the extent and quality of top manager effort on their behalf. Then, the manager may be tempted to shirk on effort, blaming any deterioration of firm performance on factors beyond his/her control, or biasing reported earnings to cover up. Obviously, if this happens, there are serious implications both for investors and for the efficient working of the economy. We can then view accounting net income as a measure of managerial performance. This helps 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 market value in the longer run.

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

### 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 motivate manager performance, that is, to control moral hazard. This was recognized by Gjedigl (1981). Investors’ interests are best served by information that enables better investment decisions and better-operating capital markets. Providing it is reasonably reliable, current value accounting fulfills this role, since it provides up-to-date information about assets and liabilities, hence of future firm performance, 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. This is the stewardship role of financial reporting, one of the oldest concepts in accounting. While fair value accounting can improve reporting on stewardship, it can also interfere. Current values are very volatile in their impact on reported earnings, and can even increase earnings volatility beyond the real volatility faced by the firm. Also, unless market values are readily available, current values may be more subject to bias and manipulation by the manager than historical cost-based information. Both of these effects reduce the informativeness of earnings about manager stewardship. Thus, from a managerial perspective, 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 and losses, 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 the investor-informing and manager performance-evaluating roles for accounting information.

Some policies require tradeoffs between these roles, as in current value versus historical cost accounting just described. Other policies, such as expanded disclosure, may facilitate both roles. In this regard, a 2008 IASB discussion paper, "Preliminary Views on Financial Presentation," proposes to dichotomize the balance sheet, income statement, and statement of cash flows into separate components for operating, financing, investing, and tax activities. One purpose is to improve investor decision-making. However, separate subtotals for operations and other important manager activities may also improve the reporting on stewardship. The proposed format also includes a separate income statement section for other comprehensive income.

A statement of other comprehensive income was originally created in the United States by SFAS 130 (1997). Other comprehensive income includes gains and losses from adjustments to fair value of certain securities, foreign currency translation adjustments, some pension expense components, and several other types of unrealized gains and losses. Other comprehensive income is reported following net income. As these gains and losses are realized or amortized, they are transferred to net income. The sum of net income and other comprehensive income is called comprehensive income. IASB standards (IAS 1, revised) imposed a statement of other comprehensive income in 2009.

The extent to which modifications to the financial statement format will resolve the fundamental problem remains to be seen. For now, it is largely correct to say that there is only one bottom line.

### 1.11 REGULATION AS A REACTION TO THE FUNDAMENTAL PROBLEM

There are two 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, for 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, there is a surprising number of ways for managers to credibly supply information. 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 firm and manager value.

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 are coming on line. Indeed, new standards and extensions of existing standards are currently underway following the 2007–2008 market meltdowns. Consequently, it may seem that society is resolving the question of extent of regulation for us.

Yet, past years have witnessed substantial deregulation of major industries such as transportation, telecommunications, financial services, and electric power generation, where deregulation was once thought unthinkable. The reason is important to question the extent of regulation in accounting is that regulation has a cost—a fact often ignored by standard setters. Again, the answer to the question of whether the benefits of regulation outweigh the costs is not known. However, we shall pursue this issue later in the book.

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, and we will outline each 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 is on the basis of expected present values of future cash flows (i.e., value-in-use). Arbitrage ensures that present values and market values are equal. Investors and managers would 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 of financial accounting theory.

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. For example, we will see that there are numerous instances of the actual use of current value-based accounting techniques in financial reporting. Reserve recognition accounting for oil and gas companies is an example. Furthermore, the use of such techniques is increasing, as in standards requiring fair value accounting for financial instruments. A study of accounting under ideal conditions is useful not only because practice is moving to increased use of current values, but, more importantly, it helps us to see what the real problems and challenges of current value accounting are 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. As discussed in Section 1.9, this is the problem of communication from the firm to outside investors. Here, the accounting role is to provide a “level playing field” through full disclosure of useful 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. This is because knowledge of investor decision processes is essential if the accountant is to know what information they need. The study of investment decision-making is a large topic, since 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 this book is to assume that investors are rational on average; that is, the average investor makes decisions so as to maximize his/her 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 all investors make decisions this way. Indeed, there is increasing recognition 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.

The reporting of information that is useful to rational investors is called the decision usefulness approach. As suggested in Section 1.2, this approach underlies the pronouncements of major standard setting bodies, such as the IASB/FASB Framework.

There are two versions of decision usefulness. One is called the information approach. This perspective takes the view that the form of disclosure does not matter—it can be in notes, or in supplementary disclosures such as reserve recognition accounting and
management discussion and analysis, in addition to the financial statements proper. Rational investors are regarded as sufficiently sophisticated on average that they can digest the implications of public information from any source.

Recent years, however, have seen a considerable increase in the use of current values, including for leases, pensions, postretirement benefits, and financial instruments. This version is called the measurement approach to decision usefulness. Under this perspective, accountants expand their approach to decision usefulness by taking more responsibility for incorporating measurements of current asset and liability values into the financial statements properly. Whether this means that accountants have forgotten the lessons of the 1920s and 1930s, or whether improvements in measurement tools, such as statistical analysis of large databases and the use of mathematical models to estimate fair values, and new regulations such as Sarbanes-Oxley, will help to avoid the reporting abuses discussed in Sections 1.2 and 1.3, is difficult to say. Only time will tell if these developments will slow down or reverse the measurement approach.

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’s decision problem is to decide on 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 of financial accounting theory more clearly. Current values of assets and liabilities are potentially of greater interest to investors than their historical costs, since current values provide the best available indication of future firm performance and investment returns. However, as mentioned, managers may feel that unrealized gains and losses from adjusting the carrying values of assets and liabilities to current value do not reflect their 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, the setting of accounting concepts and standards requires negotiation and compromise. Also, 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, assuming standard setting responsibility from a predecessor body, the International Accounting Standards Committee. This earlier body was created in 1973 by agreement between accountancy bodies in Australia, Canada, France, Germany, Japan, Mexico, the Netherlands, the United Kingdom and Ireland, and the United States.

The IASB is supported financially by an oversight body, the International Accounting Standards Committee Foundation (IASCF). As a result, the IASB itself is independent from professional accounting bodies and business organisations in countries that have adopted IASB standards.

The basic objective of the IASB is to develop a single set of high-quality, understandable, and enforceable global accounting standards, now called International Financial Reporting Standards (IFRS). These standards are developed by a board of 16 individuals, most of whom serve on a full-time basis. They must possess technical skills and suitable international business and market experience, and are chosen to represent different world regions.

A majority of 10 of 16 votes is required to pass new standards, a requirement called super-majority voting. Super-majority voting decreases the possibility of approval of a standard that is only marginally acceptable to the Board, and also tends to produce a process of negotiation and compromise in the creation of a new standard. Dismissing members will be in a stronger position than they would be if only a simple majority was required and thus would be less likely to feel that their views and concerns had been ignored.

In designing standards, the IASB follows due process. This includes broad consultation with interested parties before admitting a topic to the Board’s agenda, an investor outreach program, and the issuing of exposure drafts of new standards, possibly preceded by a discussion paper. These procedures enable interested parties, including management, to react and comment. Public hearings may also take place. Comments are analyzed and a revised standard is prepared. A statement of basis for conclusions is issued to explain the standard. Representation of diverse constituencies and regions on the Board and super-majority voting also contribute to due process. Note that the following of due process is consistent with a need for compromise and negotiation in setting accounting standards.

Many countries, including Canada from 2011, have adopted IASB standards, as has the European Union. Some countries, such as China, have adopted most of them. Other countries, notably the United States, and Canada prior to 2011, prefer to use their own accounting standards, with the ultimate goal of integrating with IASB standards.

The Financial Accounting Standards Board (FASB) The FASB was established in 1973 to assume from earlier bodies the role of standard setting in the United States. Similar to the IASB, the FASB is supported financially by an oversight body, the Financial Accounting Foundation (FAF).
The FASB’s mission is to establish and improve standards of financial accounting and reporting for the guidance and education of the public. To accomplish this, it develops accounting concepts, strives to improve the usefulness of financial reporting, keeps standards current to reflect changes in the business and economic environment, addresses financial reporting deficiencies, improves the understanding of the nature and purpose of information contained in financial reports, and promotes international convergence of accounting standards.

The FASB consists of five board members, appointed for a maximum of two five-year terms. They must have knowledge and experience in investing, accounting, finance, business, education and research, and a concern for the investor and the public interest. Unlike the IASB, simple majority voting is required, with three of the five members in favour required to pass a new standard.

The FASB, like the IASB, is independent of other business and professional organizations. For example, the FASB is distinct from the American Institute of Certified Public Accountants (AICPA), the major American professional accounting body. While the AICPA is one of the sponsoring bodies and endorses FASB standards, many other bodies are also involved in sponsoring the FASB.

In 2002, the FASB established a User Advisory Council. This is a group of over 40 investment professionals to assist the FASB in raising awareness of how investors, analysts, and rating agencies use financial information and how to better design accounting standards to meet their needs.

In setting and updating accounting and reporting concepts and standards, the FASB, like the IASB, places heavy emphasis on due process. Procedures for initiating and adopting new standards are broadly similar to those of the IASB outlined above.

The Canadian Accounting Standards Board (AcSB) The AcSB is the Canadian accounting standard setting body. It is authorized by the Board of Governors of the Canadian Institute of Chartered Accountants to publish reports “on its own responsibility,” to give it a measure of independence from the CICA itself and reduce the possibility of interference in its deliberations. This organizational structure differs from that of the IASB and FASB, which, as mentioned, are independent of related professional organizations.

The AcSB consists of a maximum of nine members, chosen to represent diverse constituencies. Unlike the IASB and FASB, most members serve on a voluntary basis. That is, with the exception of the Chairperson, these are not full-time, salaried positions. Prior to adoption of IASB standards in 2011, the AcSB’s own accounting standards for public accountability enterprises were contained in the CICA Handbook. The origins and authority of the Handbook were outlined in Section 1.2. To pass a new standard, a super-majority of two-thirds of Board members voting in favour is required.

With its adoption of IASB accounting standards from 2011, the activities of the AcSB will change somewhat. The Board will give increased attention to special problems of financial reporting for non-publicly accountable enterprises (who do not necessarily report under GAAP) and to not-for-profit enterprises. Also, the Board will continue to take part in the setting of international standards, through IASB representation and contributions to the development of concepts and new IFRSs.

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, securities markets and managerial labour markets are important contributors to responsible reporting. When these motivates 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 SEC in the United States. Its creation, and its delegation of standard setting to the FASB, were outlined 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 Canadians and other foreign firms whose shares are traded 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 include reserve recognition accounting for oil and gas firms, management discussion and analysis, and disclosures of management compensation, all of which will be discussed in later chapters.

In Canada, securities regulation is a 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 the protection of investors, ensuring the proper working of capital markets, and reducing risk. One of its regulations is National Instrument 52-109, imposing 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).

The International Organization of Securities Commissions (IOSCO) represents the world’s securities regulators, including Canadian regulators and the SEC. It recommends to its members that they 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 IASB GAAP or with U.S. GAAP.

Unlike domestic securities commissions, IOSCO does not have the authority to enforce IASB standards. Enforcement is up to the authorities in the respective jurisdictions that adopt these standards. Consequently, analysis of financial statements from foreign jurisdictions should include careful awareness of local customs and 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 (i.e., IASB standards),
the quality of financial reporting varies across countries. Some of this research is discussed
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 account-
ing theory. However, this book also recognizes an obligation to convince you that the the-
ory is relevant to accounting practice. This is accomplished in two main ways. First, the
various theories and research underlying financial accounting are described and explained
in plain language, and their relevance is demonstrated by means of numerous 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 IASB/FASB Framework. Also, the book contents numerous instances where
accounting standards are described and critically evaluated. 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. A con-
centrated attempt has been made to select relevant problem material to illustrate and
motivate 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 some information about Paciolo, a translation of his bookkeeping treatise, and a copy of an

2. Readers with a mathematical background will recognize these relationships as related to the funda-
mental theorem of calculus.

3. The dropping of these requirements did not mean that firms should not supply information to share-
holders, but that the amount and 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, this 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. This is to say that the SEC stands aloof from accounting standards. If it perceives that standards
as set by the profession are straying too far from what it wants, the SEC can bring considerable pres-
sure to bear short of taking over the process. In this regard, see Note 6. However, the SEC reaffirmed
its delegation of standard-setting to the FASB in 2003.

6. The controversy over the investment tax credit in the United States provides an excellent example. The
1962 Revenue Act promised firms with a credit against taxes payable of 7% 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 APB 40, which
preferred the latter alternative. The SEC, however, objected and issued its own standard, allowing greater flexi-
bility in accounting for the credit. The Accounting Principles Board backed down and issued APB 84 in
1964 allowing either alternative. The basic problem, as seen by the standard setters, was the lack of a set of basic accounting concepts from which the correct accounting for the credit could be deduced.

7. 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 Stoney and Stoney (1998).

8. 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."

9. The American Accounting Association is an association of academic accountants. It does not have
standard setting authority like the FASB. Nevertheless, professional accountants later picked up on
the decision usefulness concept. See Study Group on the Objectives of Financial Statements (1973),
also called the Truthfulness Committee report.

10. IASB standards are called International Financial Reporting Standards (IFRS), beginning with IFRS 1
effective in 2004. Standards issued prior to that time were called International Accounting Standards
(IAS), and still retain their original titles and numbers. We will use both terms, as appropriate, in sub-
sequent discussions.

11. According to the draft IASB/FASB Framework, financial statement information should "faithfully rep-
resent" 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 expects the term "representative" to mean different things to different people, and the term "faithful representation" reduces ambiguity. In this book, we will usually use
the term "representative" as a synonym for "faithful representation", because the term is shorter and because
of its familiarity from past usage. Further discussion of representability is given in Sections 2.2 and 3.8.

12. The IASB and FASB are currently engaged in a joint revenue recognition project, intended to simplify
and unify the recognition of revenue. In 2008, the project issued a discussion paper, proposing an
"income recognition" approach. Specifically, the proposal is for a model, under which a contract generates
an asset (i.e., contract price) and an equal liability (performance obligation to fulfill contract). These
amounts are equal at inception, and, apparently, are not adjusted so that no asset or liability appears on
the balance sheet. Revenue is recognized as the performance obligation is met. Further discussion of revenue is given in Sections 2.2 and 3.8.
transfer control as construction progresses, which seems strange, this would significantly delay revenue recognition.

The proposed model is subject to a type of ceiling test. If the contract becomes "enormous," that is, it looks like a loss will be incurred, the liability to complete the contract is increased and a loss is recorded.

In adopting this model, the discussion paper rejects an alternative, fair-value-based model under which the obligation to fulfill the contract is valued at exit price, that is, at the amount the firm would receive if it off-loaded completion of the contract to an outside party. Fair value would be updated each period. Under this model, the firm would record a gain at contract inception to the extent that the contract price exceeds the exit value of the contract liability.

The exit price model was rejected due to concerns about its reliability. However, the proposed model also suffers from reliability concerns. For example, if market prices do not exist for the components of a multiple component contract, allocation of the contract price across components runs into many of the concerns about early revenue recognition under present standards. Whether the proposed model is intended as a first step towards the fair value model, or will be the last word on the matter, is unclear.

13. For further discussion of Ercor’s business model, see Healy and Palepu (2003).

14. Asset-backed securities can be backed by several asset types such as mortgages (mortgage-backed securities), commercial real estate, credit card debt, student loans, and other receivables.

15. SIVs that issued ARCP were called "conduits."

16. The incentive would be reduced to the extent that the market looked through the lack of consolidation and valued the sponsor and its VIEs as one entity. Landsman, Pearsall, and Shaffer (2008) report evidence that the market did do this. Also, Niss 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.

17. In Canada, Accounting Standard 15, "Consolidation of Variable Interest Entities" (2004), was similar to FAS 46. Consolidation under IAS standards was governed by the Board of Interpretations Committee Interpretation 12, (ASC) "Consolidation-Special Purpose Entities" (1998). Since the market meltdown of asset-backed securities originated in the United States, we concentrate on FAS 46 here.

18. This argument derives from the folk theorem of game theory. In its simplest form, the theorem states that for a non-cooperative game that is repeated indefinitely, without discounting of future payoffs, a cooperative solution can be obtained if the players adopt a rational strategy. In our context, the rational strategy is for the accountant to forego a short-term gain resulting, say, from bonding or violating GAAP to please the client. The accountant will forego the short-term gain if the strategy of the other player is to cooperate, standard setters, lawmakers, courts); is sufficiently punished the accountant for deviating from the cooperative strategy. That is, in this broader perspective, the accountant's payoffs are higher if she acts cooperatively.

The folk theorem originated in the 1960s. It is so named because it is not known who established it first. Subsequently, game theorists have strengthened the theorem, for example by deriving conditions under which the theorem can be extended to finite periods, and with some discounting. See, for example, Friedan (1966), pp. 109-124. See also Robert Aumann's 1981 Nobel Prize Lecture (http://nobelprize.org/nobel_prizes/economics/laureates/2005/aumann-lecture.html).

It should be noted, however, that while the folk theorem can produce ethical behavior, the two mindsets are different. Ethical behavior is driven by a desire to do the right thing. Folk theorem is driven by a rational calculation by the players that if they deviate from the cooperative solution they will be sufficiently punished.

19. By full disclosure, we do not mean that the financial statements should disclose "everything." This could be very costly, by, for example, revealing valuable information to competitors and/or generating uncertainty about how different individuals or groups may react. Rather, by full disclosure we mean disclosure that does not create a wrong impression. Wrong impressions can be created by, for example, hiding information, delaying its release, biasing valuations, or using overly complex and ambiguous wording.

20. Indeed, the constitution of the IASC commits this body to principles-based standards. While IASB and FASB standards often seem similar, IASB standards are typically accompanied by a mass of detailed underlying rules and guidance, unlike IASC standards.

21. This argument is based on the 1969 court case U.S. v. Simon, under which the auditors of Continental Vending Machine Corporation were charged with certifying financial statements that they knew were false. As Ball describes, Continental's balance sheet included an uncollectible account receivable from an affiliated company. Some disclosure was provided in the financial statement notes, and the auditor argued that the financial statements were thus in accordance with GAAP. However, the disclosure was ambiguous. The courts ruled that technical accordance with GAAP was not sufficient to relieve the auditor of liability if the financial statements did not fairly represent financial position.

22. FASB accounting standards are now included in the Accounting Standards Codification (2009) (ASC). When we refer to a FASB standard as originally introduced, we will describe 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. For example, SFAS 130 is now contained in ASC 220.

23. The FASB standard allows comprehensive income to be reported either in conjunction with an earnings statement or included in a separate statement of changes, in shareholders' equity. Most U.S. firms use this latter alternative. Inclusion in a statement of changes in shareholders' equity is not allowed under IAS standards. While there is some evidence that other comprehensive income affects share value (Chambers, Linsmeier, Shaffer, and Sougiannis (2007)), it has little predictive power for future firm performance since its components are mainly of a transitory nature. It is still reasonable to claim that net income is the main "bottom line."

24. Strictly speaking, the term "financial statements" includes the notes to the statements. When we refer to disclosure within the financial statements themselves, we will use the term "financial statements proper." Thus, if a firm values an asset at current value in its accounts and reports the resulting number on the balance sheet, it reports current value in the financial statements proper. If it discloses current value only in a note, this would be reported in the financial statements but not in the financial statements proper.

25. In Canada, IASC-based financial statements of foreign firms are accepted without the need to reconcile to Canadian GAAP, under National Instrument 52-107 of the CSA. For Canadian firms with shares traded in the United States, the Multi-jurisdictional Disclosure System allows them to file SEC reports using the documents they file in Canada, and vice versa. Canadian firms taking advantage of the Multi-jurisdictional Disclosure System must meet the requirements of the Sarbanes-Oxley Act, however.