

CHAPTER 1

Fair Value Accounting

Welcome to the new world of accounting! Where once financial statement preparation involved primarily the use of historical cost information, accounting now involves the use of judgment as to the current value of assets and liabilities. Fair value—or as it is sometimes referred to, market-to-market accounting—has become the preeminent issue in financial reporting today. The concepts introduced by fair value accounting change the way financial information is presented. An increasing amount of information in financial reporting is presented at current or market values on the reporting date rather than historical costs, which has been the bedrock of traditional accounting.

Advocates of fair value accounting believe that this presentation best represents the financial position of the entity and provides more relevant information to the users of the financial information. Detractors of fair value accounting point to its complexity and inherent use of judgment. Either way, fair value accounting is becoming more prominent in financial statement presentation and will continue to be the fundamental basis for accounting in the future.

Introduction

Fair value has been a standard of measurement in financial reporting for decades. The Financial Accounting Standards Board (FASB) has issued more than three dozen statements that use the term *fair value* as the measurement of value. Most prominent among these pronouncements is the recently issued revised FASB ASC 805, *Business Combinations* (SFAS No. 141(R)),¹ which incorporates fair value as the fundamental standard of measurement in accounting for business combinations. Fair value is also the standard of measurement used in subsequent testing for impairment of the acquired assets under FASB ASC 350, *Goodwill and Other Intangible Assets* (SFAS 142) and SFAS 144, *Testing for Impairment of Long Lived Assets*. The

concept of fair value is interesting because each of these statements about the measurement of fair value is the value to the market as of the measurement date, not necessarily the value to the preparer of the financial statement. As such, measuring fair value for participants in those markets requires some judgment.

The FASB issued FASB ASC 820, *Fair Value Measurements and Disclosures* (Statement of Financial Accounting Standard (SFAS) No. 157), to clarify the concepts related to its measurement. According to the FASB, the purpose of the statement is to define fair value, establish a framework for measuring fair value, and expand disclosure about fair value measurements.² *Fair Value Measurements* does not introduce any new accounting per se. *Fair Value Measurements* was issued by the FASB to provide one uniform statement under which the concept of fair value in all financial reporting is more fully explained.

FASB ASC 820, *Fair Value Measurements and Disclosures* (SFAS No. 157), was not initially universally accepted without some controversy. The day before its scheduled implementation, the FASB delayed the full implementation date of the statement in response to concerns by certain preparers of financial statements. The statement was revised to become effective for just financial assets and liabilities for the first year. The statement became fully effective for all items, both financial and nonfinancial for fiscal years beginning after November 15, 2008. The reason provided by the FASB for the partial implementation was "to allow the Board and constituents additional time to consider the effect of various implementation issues that have arisen, or that may arise, from the application of Statement 157."³ Even the partial implementation did not allay all of the controversy. Some critics of fair value accounting claimed that the credit crisis that began in 2008 was at the very least exacerbated by the statement's implementation by financial institutions.

History of Fair Value in Financial Reporting

Even though it has become more prominent recently, fair value has been a standard of measurement in financial reporting for some time, particularly in measuring certain financial assets and liabilities. One of the first prominent accounting statements to use fair value as the standard of measurement in financial reporting is APB (Accounting Principles Board) 18, which was issued in the early 1970s. APB 18 introduced the equity method of accounting in financial statement reporting for investments. APB 18 described the financial statement treatment and measurement of investments losses considered other than temporary as requiring recognition if the investment's fair value declined below its carrying value. APB 29, *Accounting for Nonmonetary*

Transactions, introduced in early 1973, actually outlined ways to measure fair value in those types of transactions. Financial Accounting Standard 15 (FAS 15) in the late 1970s defined fair value as a willing buyer and willing seller and described market value and discounted cash flows in accounting in troubled situations. Fair value measurements were introduced in pension accounting in a couple of statements in the 1980s. In 1991 FAS 107, *Disclosures about Fair Value in Financial Instruments*, required the disclosure of fair value in financial instruments. FAS 115, *Accounting for Certain Investments in Debt and Equity Securities*, was introduced in 1999. FAS 115 requires fair value as the standard of measurement for many types of debt and equity securities. In 2000, the FASB introduced FAS 133, *Accounting for Derivative Instruments and Hedging Activities*, which required fair value as the measurement for derivative securities. SFAS 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115*, which allowed certain entities to elect to measure selected assets and liabilities at fair value, was implemented by the FASB in 2007. Although many accounting pronouncements refer to fair value and have been a part of financial reporting for a long time, the concept of what exactly is meant by fair value became most prominent in financial reporting in accounting measurements in business combinations.

During the technology boom in the late 1990s—brought on by the initial commercialization of the Internet—FASB began a project to update the Accounting Principles Board's Opinion No. 16, *Business Combinations* (APB 16). APB 16 was the accounting standard at that time for acquisitions and other business combinations. The FASB observed during the 1990s that many mergers and acquisitions were transactions where most of the economic value was created by the technology and other intangible assets of the acquired company. However, under the accounting at the time (APB 16) much of the value of the transaction showed up on the balance sheet as goodwill. The FASB's project was the result of the conclusion that APB 16 did not fairly represent the economic substance of those business combinations. The project concluded that the value of intangible assets in business combinations had dramatically increased, particularly when compared to the value of tangible assets. Yet these results were not being fairly presented on the resulting financial statements.

The board determined that under the old APB 16, companies had too much leeway in reporting the value of intangible assets in acquisitions, and financial statements were not fairly representing the allocation of the acquisition price to the acquired assets. Under the old accounting rules, most of the value in allocation of purchase price was being recorded as goodwill, which could then be amortized for up to 40 years.

On June 29, 2001, the FASB issued SFAS 141, *Business Combinations*, the original FASB standard on business combinations, which has since been

superseded by FASB ASC 805, *Business Combinations* (SFAS 141(R)). *Business Combinations* placed stricter requirements on the acquirer to recognize acquired intangible assets in the financial statements. Paragraph 39 in SFAS 141 requires that “An intangible asset shall be recognized as an asset apart from goodwill if it arises from contractual or other legal rights or, if not contractual, only if it is capable of being sold, transferred, licensed, rented or exchanged. An assembled and trained workforce, however, is not valued separately from goodwill.”⁴ Under SFAS 141, only purchase accounting was allowed. The pooling of an interests accounting method for acquisitions where one entity combines with another at book value, if the acquisition met certain criteria, was no longer allowed. The FASB believed that the purchase method of accounting provided a better representation of the true economics of the underlying transaction than the pooling method that presented the combined transaction on a pure historical cost basis.

As part of the convergence of U.S. Generally Accepted Accounting Principles (GAAP) with international accounting standards, the FASB revised SFAS 141 for fiscal years beginning after December 15, 2008. Under FASB ASC 805, *Business Combinations* (SFAS No. 141(R)), purchase accounting is replaced by the Acquisition Method. Under the Acquisition Method the fair value of acquired assets are no longer determined by an allocation of the purchase price. The fair value of those assets acquired in the business combination is independent of the price that was paid in the transaction.

FASB ASC 805, *Business Combinations* (SFAS 141(R)), still requires that the acquirer recognize the identifiable intangible assets acquired in a business combination separately from goodwill. SFAS 141 introduced a comprehensive list of intangible assets, and lists the criteria for recognition of intangible assets acquired, which was extended in FASB ASC 805, *Business Combinations*. An intangible asset is considered identifiable in a business combination if it meets either the separability criterion or the contractual-legal criterion. An intangible asset meets the separability criterion if it meets one of two criteria:

- (1) *Is separable, that is, capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset, or liability, regardless of whether the entity intends to do so*
- (2) *Arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations*⁵

In the initial 1999 exposure draft of SFAS 141, the FASB proposed that goodwill be identified in the business combination and amortized over its remaining life. However, in response to numerous comments to the

initial exposure draft suggesting that the useful life of goodwill would be difficult to determine thus difficult amortize, the FASB changed its mind and introduced an alternative to the amortization of goodwill. So, goodwill was not amortized under SFAS 141. Instead, goodwill received an alternative accounting treatment: It must be tested annually for impairment.

To reinforce the impairment testing alternative, the FASB also issued FASB ASC 350, *Goodwill and Other Intangible Assets* (SFAS 142), in 2001. FASB ASC 350 (SFAS 142) provides guidance on determining whether goodwill recorded after the acquisition becomes impaired. FASB ASC 350 (SFAS 142) was introduced by the FASB as the result of comments by various respondents to the initial exposure draft of *Business Combinations*. Under FASB ASC 350 (SFAS 142), goodwill that is recorded as the result of a business combination is tested annually for impairment under a two-step test. The first step is to estimate the fair value of the appropriate reporting unit by comparing the fair value to its carrying value (book value). If the fair value is *greater* than book value, then goodwill is not impaired. If the fair value is *less* than the carrying value, then the goodwill may be impaired and a second step is required.

The second step is to estimate the fair values of all of the assets of the reporting unit as of the testing date. This step is similar to the allocation of purchase price under *Business Combinations*. The new goodwill is then compared to the current carrying value of the goodwill. If the fair value of the new goodwill is less than the fair value of the current goodwill, the difference is the amount of impairment and must be written off. As such, fair value is the standard of measurement in both tests under FASB ASC 350, *Goodwill and Other Intangible Assets*.

FASB ASC 805, *Business Combinations*, and FASB ASC 350, *Goodwill and Other Intangible Assets*, are the two statements where fair value measurements of assets other than financial instruments are most often seen in practice. Since these statements were introduced, both the accounting profession and the valuation profession have begun projects to determine the "best practices" in fair value measurements. Many of these projects are still in process.

Why the Trend toward Fair Value Accounting?

Fair value has been a standard of measurement in financial reporting for some time, but recently the trend has been toward an increased use of fair value accounting. There are a number of factors that are influencing the trend from traditional rules-based accounting under U.S. Generally Accepted Accounting Principles (GAAP) to more principles-based measurements, which include more fair value measurements in financial reporting. U.S. GAAP has been more historical cost-based in its measurements than

other accounting standards, which are more principles-based and have more of an emphasis on fair value accounting. However, certain trends are causing this emphasis in U.S. GAAP to change.

The first trend is the change in the general economic environment that impacted the relevance of accounting measurements in certain transactions. Over the last 25 years, the overall enterprise value of many entities is composed of more intellectual property and other intangible assets that have not been effectively measured under tradition GAAP. In addition, the entire global economy has become much more intertwined. Where once only the Fortune 1,000 or so were able to conduct business internationally, the advent of the Internet has allowed any size company to establish an international presence.

The globalization of the economy is an important factor in the trend toward more fair value measurements in accounting. Globalization has increased the need for standardization in accounting across national boundaries. The FASB and the International Accounting Standards Board (IASB) have begun a project to “converge” U.S. GAAP into international accounting standards. IASB accounting standards are considered principle-based, which requires more fair value measurements. As the accounting standards converge, U.S. GAAP will require more fair value accounting measures.

The Changing Economic

The economy in the United States has undergone tremendous changes over the last 25 years. One significant change in the economic environment was brought on by the commercialization of the Internet, which resulted in what some call the “information revolution.” The result was that a significant portion of the U.S. economy shifted from the “bricks and mortar”-based businesses to ones that were more information-based. Commercialization of the Internet has led to substantial advances in information technology that have had a profound impact on the U.S. and global economies.

Exhibit 1.1 demonstrates the increase in the percentage of the market capitalization of the S&P 500 attributable to intangible assets as compiled by the investment banking firm Ocean Tomo. Intangible assets only comprised 17 percent of the market capitalization of the S&P 500 in 1975. By 2008 this percentage had increased to 75 percent.

The change in the economic environment from the commercialization of the Internet and the globalization of the economy has created some challenges for the accounting profession. The relevance of financial statements became a concern of the FASB, as an increasing percentage of many companies’ values are generated by intangible assets. The increasing transnational nature of business has created a need for consistent accounting standards across national boundaries as well.

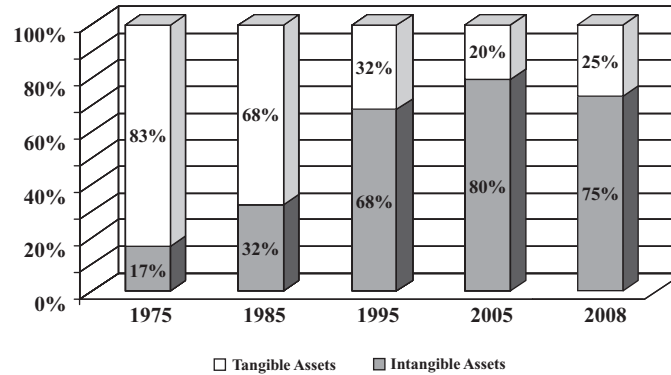


EXHIBIT 1.1 Components of S&P 500 Market Value

Source: Ocean Tomo.

The FASB and the IASB recognize that the users of financial statements would benefit from consistent standards. As a result, both organizations have jointly created a framework to bring U.S. accounting standards in line with international standards. The Securities and Exchange Commission in the U.S., which has been given the authority of setting standards by the U.S. Congress, has strongly signaled that it supports the convergence of U.S. GAAP into international standards.

The FASB and IASB Convergence Project

One issue that the FASB has heard from users of financial statements is that they are concerned about the differences in financial reporting in different countries. With the increase in the global economy and increasingly transnational businesses, investor and other users of financial statements require one standard set of financial information. "The FASB is committed to working toward the goal of producing high-quality reporting standards worldwide to support healthy global capital markets."⁶ To address this concern, the FASB and the IASB have "acknowledged their commitment to the development of high-quality, compatible accounting standards that could be used for both domestic and cross-border financial reporting."⁷

In September 2002 at a meeting in Norwalk, Connecticut, the FASB and IASB agreed to "use their best efforts to a) make their existing financial reporting standards fully compatible as soon as is practicable and b) to coordinate their work program to ensure that once achieved, compatibility is maintained."⁸ The project has become known as the Convergence Project.

In February 2006, the FASB and the IASB issued what has become known as a Memorandum of Understanding (MoU). The MoU was based on three joint principles:

1. Convergence of accounting standards can best be achieved through the development of high-quality, common standards over time.
2. Trying to eliminate the differences between two standards that are in need of significant improvement is not the best use of the FASB's and the IASB's resources—instead a new common standard should be developed that improves the financial information reported to investors.
3. Serving the needs of investors means that the boards should seek convergence by replacing standards in need of improvement with jointly developed new standards.⁹

A goal set by the International Accounting Standards Committee Foundation (IASCF) is one of *harmonization*. Harmonization will be achieved when companies around the world follow one set of international accounting standards. In a step toward convergence, the FASB and the ISAB have agreed to a timeline for harmonization of GAAP into IFRS, the international standards. Part of the timeline includes issuance of joint standards on an ongoing basis. The revised statement, FASB ASC 805, *Business Combinations* (SFAS No. 141(R)), is the first statement that was jointly issued by both bodies.

The Future of the Accounting Profession

One group advancing fair value accounting is the accounting profession itself. The changes in the global economic environment have created challenges for the accounting profession. The Global Public Policy Symposium is a series of conferences that has an “objective . . . to provide an international forum for the exchange of views on how we can collaborate in maintaining healthy global capital markets and contribute to improvements in the quality, reliability, and accessibility of financial and other information that stakeholders need.”¹⁰ The symposiums are sponsored by the six largest accounting and auditing firms: BDO International, Ernst & Young, Grant Thornton International, KPMG International, Deloitte, and PricewaterhouseCoopers. At one of the initial symposia, the CEOs of these international accounting firms issued a white paper, “Global Capital Markets and the Global Economy: A Vision from the CEOs of the International Audit Networks.” The intent of the paper was to provide and “stimulate a robust dialogue about how global financial reporting and public company auditing procedures could better serve capital markets around the world.”¹¹ The paper concluded that the accounting profession “has undergone a fundamental change from being largely self-regulated to regulated around the globe.” That change will require that “all stakeholders look to the future

and consider how investors' needs will change in a rapidly evolving global market."¹²

After the issuance of the initial white paper, the symposia conducted a series of roundtable discussions in various financial centers around the world. The discussions were held on a not-for-attribution basis in order to promote open discussion. In January 2008, a fourth symposium was held and another white paper was issued, titled "Global Dialogue with Capital Market Stakeholders: A Report from the CEOs of the International Audit Networks," summarizing the results from the roundtables. The discussions were organized into four categories in the white paper:

1. Global convergence: the need for consistency in financial reporting
2. Audit quality: the need for continuous improvement and greater consistency
3. Prevention and detection: a two-pronged approach to fraud
4. The future of business reporting¹³

One of the most discussed topics at the roundtables was the global convergence of accounting standards. The report concluded that there is a "near-universal support" for one set of high-quality international accounting standards. However, the report noted that there is not a consensus about what the single set of standards should be or how it should be established. Nonetheless, the users of global capital markets agree that a goal of the accounting profession should be one set of common standards.

While agreeing on the need for one set of common accounting standards across international boundaries, the participants also had other concerns related to these standards. The participants expressed a strong preference for principles-based rather than rules-based standards. The view was that rules-based standards created a level of complexity that was not necessary for proper financial reporting.

Another theme resulting from the roundtable discussions was the concern that there is not currently sufficient education and training in place to support the convergence to one set of standards. There was an acknowledgment that the convergence of standards would require a tremendous amount of training at every level for preparers and auditors. Participants also noted that there will have to be a significant change in technology, particularly software that is currently used in financial reporting.

A final issue related to one set of auditing standards was that the participants recognized that small and medium-sized businesses have unique needs and may have more difficulty transitioning to international standards (IFRS). In order for convergence to be effective, the process has to include consideration of the needs of these businesses.

SEC Recent Releases

The U.S. Congress has given authority for establishing accounting standards to the Securities and Exchange Commission (SEC). The SEC has delegated the authority for standard setting to the FASB. Even so, the SEC has still maintains active influence over the setting of standards through its oversight of public company registrants. Therefore, the SEC has tremendous influence in the trend toward increased usage of fair value accounting.

As an example of this influence, the SEC has issued two concept releases that provide additional incentive for international companies reporting in the United States to report using international accounting standards.

In July 2007, the SEC voted unanimously to eliminate reconciliation requirement for foreign issuers and issued Concept Release No. 33-8818, "Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Financial Reporting Standards without Reconciliation to U.S. GAAP." Likewise, on November 29, 2007, the EU Commissioner called on European regulators to eliminate the reconciliation requirement for U.S. GAAP issuers.

After a public comment period, the SEC issued a final ruling allowing foreign issuers of financial statements prepared under IFRS to file with the SEC without reconciliation to U.S. GAAP. Implementation required amendments to various regulations under the Securities Act and the Securities Exchange Act, which became effective March 4, 2008.¹⁴

The impact of this release is that in effect there is a dual reporting system in the United States. Foreign registrants can report under IFRS while domestic companies are required to report under U.S. GAAP.

In response to concerns by U.S.-based registrants, in August 2007, the SEC issued Concept Release No. 33-8831, "Concept Release on Allowing U.S. Issuers to Prepare Financial Statements in Accordance with International Financial Reporting Standards." This release explored allowing U.S.-based registrants to choose between current U.S. GAAP and International Accounting Standards. Supporting this release, the American Institute of Certified Public Accountants (AICPA) issued a comment letter that recommended the SEC to allow U.S. firms to report using IFRS. Although never finalized, the initial concept release evolved into another concept release that was issued in November of 2008, entitled "Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by U.S. Issuers," Concept Release No. 33-8982.¹⁵ Through this release, the SEC is demonstrating its support for the FASB and IASB's Convergence Project for the convergence of U.S. accounting standards with international accounting standards. The Roadmap identifies several milestones that, if achieved, would require U.S. issuers to use IFRS by 2014. The SEC recently extended the comment period for the Roadmap.¹⁶

The impact on financial reporting of these releases is that the SEC is furthering the emphasis on fair value accounting in U.S. financial reporting of publicly traded entities. However, SEC Chairman Mary Shapiro has given some indications that she may slow the convergence process.

SFAS 157, *Fair Value Measurements*

The FASB introduced FASB ASC 820, *Fair Value Measurements and Disclosures* (SFAS 157), to provide additional guidance and to provide additional information on issues related to the measurement of fair value. FASB ASC 820, *Fair Value Measurements*, technically does not create any new accounting, but rather provides preparers of financial statements additional information on how the FASB intends fair value be measured in any instance it is required in financial reporting. There are certain exceptions related to share-based payment transactions. One common share-based payment is discussed in SFAS 123 (R). The fair value measurement described in SFAS 123 (R) is generally considered consistent with the fair value definition under *Fair Value Measurements and Disclosures*; however, the FASB considers these transactions fair value-based measurements, not fair value measurements because they are transactions with employees that are consistent with the exit value under the definition of fair value.¹⁷ Some of the more important highlights of FASB ASC 820, *Fair Value Measurements and Disclosures*, introduced or expanded upon in the statement are:

- Revised definition of fair value
- Discussed the issue of price in the measurement
- Defined market participants
- Expanded on the concept of principal market or most advantageous market
- Introduced the concept of defensive value
- Described valuation technique
- Introduced the fair value hierarchy
- Expanded required disclosures

When first issued, FASB ASC 820, *Fair Value Measurements* (SFAS 157), was to be effective on fiscal years beginning after November 15, 2007. However, on November 14, 2007, the day before the statement was to become fully implemented, the FASB delayed implementation of part of the statement.¹⁸ The reason for the partial implementation and partial delay was that preparers of statements felt they did not fully understand the implications of implementation of the statement. So the FASB agreed to a partial implementation. Therefore, FASB ASC 820, *Fair Value Measurements* (SFAS

157), was partially implemented for financial assets and liabilities, as well as for any other assets and liabilities that are carried at fair value on a recurring basis in financial statements. Examples of assets and liabilities carried at fair value on a recurring basis provided by the FASB include derivatives, loan-servicing assets and liabilities, and some loans and debt linked to business combinations.

The board provided a one-year deferral for the implementation of FASB ASC 820, *Fair Value Measurements* (SFAS 157), for nonfinancial assets and liabilities. These nonfinancial assets and liabilities are related to goodwill, business combinations, and discontinued operations, as well as to some nonfinancial intangible assets. The statement is now fully implemented for fiscal years beginning after November 15, 2008. Although the FASB agreed to adopt the one-year delay, it had encouraged the earlier adoption of FASB ASC 820, *Fair Value Measurements* (SFAS 157), for nonfinancial assets and liabilities.

Background of Fair Value Measurements

Prior to the implementation of FASB ASC 820, *Fair Value Measurements* (SFAS 157), the application of fair value measurements in financial reporting varied among three dozen or more of the pronouncements that required a fair value measurement. These statements referred to different accounting concepts, so over time inconsistencies developed in applying fair value measurements under different statements. After the introduction of SFAS 141 and 142, one of the most common applications of fair value measurements was in business combinations and the subsequent testing of goodwill and other long-lived assets. These statements required the fair value measurements of assets that were not readily measurable by the market place. Preparers of financial statements were concerned about measuring fair value in the absence of quoted market prices. FASB ASC 820, *Fair Value Measurements* (SFAS 157), establishes a framework for applying fair value measurements. The FASB believes that the implementation of FASB ASC 820, *Fair Value Measurements* (SFAS 157), will provide improvements to financial reporting as a result of increased consistency, reliability, and comparability.

Concepts Introduced by SFAS 157

FASB ASC 820, *Fair Value Measurements* (SFAS 157), introduces several new concepts to clarify the measurement of fair value in financial reporting. These concepts include a new standard definition of fair value, which is used throughout financial reporting. The definition of fair value implies that the measurement is an exit price, meaning that the measurement is not necessarily what was paid for the asset or interest, but what it could be

sold for in the marketplace. As such, the statement introduces the concept of principal market or most advantageous market to measure fair value as to where the asset or interest in the business could be sold. Also the statement expands on the market participant concept that was introduced in the original version of SFAS 141, *Business Combinations*. The statement further describes that fair value measurement is based on the asset or interest's "highest and best use." Finally, the statement introduces the concept of defensive value that measures fair value of an asset that the acquirer may not ever directly use in the business operations.

Definition of Fair Value

SFAS 157 provides one standard definition of fair value, which is required to be used throughout financial reporting. Fair value is defined in SFAS 157 as:

*the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.*¹⁹

This definition of fair value has introduced some interesting concepts that impact the measurement. Since fair value is the price to sell an asset, it is considered an exit price rather than an entry price. Exit price is what one could sell the asset for, not necessarily what one paid for the asset. This definition "presumes the absence of compulsion"²⁰ and that buyers and sellers are independent and knowledgeable, which is similar to the standard definition of fair market value for tax matters. Since fair value is a price that an asset could be sold to a market participant, the statement further describes how fair value measurement is for a transaction assumed to occur in what is described as a principal market. A principal market is "the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability."²¹ If a principal market as described earlier does not exist, then fair value is measured by a sale to a market participant in the most advantageous market.²² The statement describes the most advantageous market as one in "which the reporting entity would sell the asset or transfer the liability with the price that maximizes the amount that would be received for the asset or minimizes the amount that would be paid to transfer the liability."²³

A fair value measurement under FASB ASC 820, *Fair Value Measurements* (SFAS 157), is for a particular asset or liability. The definition of fair value primarily relates to individual assets and liabilities. The reason provided by the FASB is that assets and liabilities are a primary subject of accounting measurement.²⁴ A common example of this concept is in

business combinations where the assets and liabilities of the acquired entity are measured at individual fair values as of the date of the change of control in the acquisition. The definition of fair value is also applied to interests that are considered part of invested capital of the enterprise. Invested capital is commonly considered to be the shareholder's equity plus interest-bearing debt. Invested capital is how the enterprise is financed over the long term. An example of fair value measurement of this type of interest is the reporting unit described in SFAS 142, which is used for the testing of goodwill for impairment.

The statement notes that the measurement of fair value should consider attributes that are specific to that asset or liability. However, there are two alternatives in considering the specific attributes of the asset or liability. The first alternative is that the asset or liability may be recognized on a stand-alone basis. An example may be a building or unique technology. The second alternative is that the measurement may consider the attributes of a group of assets and/or liabilities. An example would be customer relationships that are valued along with technology used in the production of goods sold to those customers. Another example of a group would be an entire reporting unit.

Whether the asset or liability is measured on a stand-alone basis or as part of a group depends on what is sometimes described as its unit of account. The unit of account determines what is being measured by referring to the level at which the asset or liability is aggregated.²⁵

One issue addressed by the statement is how to measure fair value when the business enterprise holds a significant position in another company. Suppose that in a business combination the acquired corporation owns marketable securities, which includes 5 percent of another corporation's publicly traded common stock. If the shares were sold at one time, the introduction of these shares to the market would likely depress the per share price because of the change in the level of trading volume. Financial theory suggests that the value of the shares would decrease. However, paragraph 27 of FASB ASC 820, *Fair Value Measurements* (SFAS 157), states that the "quoted price shall not be adjusted because of the size of the position relative to trading volume."²⁶ Thus, fair value measurements should not consider a "blockage factor." The FASB sometimes refers to the issue as the *aggregation problem* or as *specifying the unit of account*.²⁷

Breaking Down the Definition of Fair Value

In applying the definition of fair value to the measurement of individual assets and liabilities, it is important to understand certain concepts that are part of the definition. These specific concepts within the definition of fair value have meaning that impacts how fair value is measured. The specific

concepts of price, principal market, and/or most advantageous market, and market participant are discussed in the next sections.

PRICE FASB ASC 820, *Fair Value Measurements* (SFAS 157), describes the concept of price in the definition of fair value:

A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants who wish to sell the asset or transfer the liability at the measurement date. An orderly transaction is one in which there has been exposure to the market for a period prior to the measurement date to allow for the usual and customary marketing activities involved in transactions for such assets or liabilities. An orderly transaction is not a forced transaction, such as a forced liquidation or a distress sale. From the perspective of a market participant that holds the asset or owes the liability, the transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date. Therefore the objective of a fair value measurement is to determine the price needed to sell the asset or that must be paid to transfer the liability at the measurement date (an exit price).²⁸

Fair value measurement as described earlier is an exit price. An exit price is what the assets could be sold for or what must be paid to transfer liabilities to any market participant. Therefore, *fair value is not necessarily the value to the acquiring entity*. Nor is it necessarily, although it could be, the price that the acquiring entity actually paid for the asset. The same is true with liabilities: Fair value may not be the obligation for the liability of the specific entity itself.

The concept of “price” in the definition of fair value is an exit price. Fair value measurements may not necessarily be based on historical prices or even on expected future prices. Fair value is the price as of the date of measurement that the asset could be sold or the liability transferred to a market participant.

The concept of exit value in the definition of fair value also assumes that both the buyer and the seller are independent and that both have all the relevant information to make a prudent decision about buying and selling the asset or transferring the liability. The concept also assumes that the buyer and the seller are presumed to be independent, with equal knowledge, that the parties are unrelated, and that no party has a price advantage with respect to the transaction. The concept of exit price also assumes that the buyer and seller are willing, not compelled, to either buy or sell.²⁹

The concepts are similar to the definition of fair market value as promulgated in tax reporting under Revenue Ruling 59-60, which refers to:

... the price at which property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and latter is not under any compulsion to sell and both parties having reasonable knowledge of relevant facts.

The FASB actually considered using this definition of fair market value as the definition of fair value in financial reporting, but noted the extensive tax case law relating to this definition and did not want to inadvertently introduce that case law into financial reporting. Even so, while similar, the definition of fair value introduced by FASB ASC 820, *Fair Value Measurements* (SFAS 157), has the additional concept of principal or most advantageous market and the concept of market participants, which creates some differences in the two definitions.

PRINCIPAL OR MOST ADVANTAGEOUS MARKET A natural question in thinking about the definition of fair value introduced by FASB ASC 820, *Fair Value Measurements* (SFAS 157), is that if fair value is an exit price to a market participant, what market should be considered? The FASB introduces two concepts to answer that particular question. First, the principal market is defined as the market that has the most volume or most activity for that particular asset or for the transfer of that particular liability. If there is no principal market then the market would be where a prudent investor would obtain the highest price for the assets or best benefit for transferring the liability. FASB ASC 820, *Fair Value Measurements* (SFAS 157), refers to these concepts as:

A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The principal market is the market in which the reporting entity would sell the asset or transfer the liability with the greatest volume and level of activity for the asset or liability.

The most advantageous market is the market in which the reporting entity would sell the asset or transfer the liability at a price that maximizes the amount that would be received for the asset, or minimizes the amount that would be paid to transfer the liability, considering transaction costs in the respective market(s).

In either case, the principal or most advantageous market and, thus, market participants should be considered from the perspective of the reporting entity. This perspective allows for differences between and among

*entities with different activities. If there is a principal market for the asset or liability, the fair value measurement must represent the price in that market whether that price is directly observable or otherwise determined using a valuation technique. This is true even if the price in a different market is potentially more advantageous at the measurement date.*³⁰

However, FASB ASC 820, *Fair Value Measurements* (SFAS 157), also says that the price in the principal or most advantageous market used to estimate the fair value measurement of the asset or liability should *not* contain any transaction costs for that particular asset or liability. Transaction costs are the direct costs that would be incurred to sell the asset or transfer the liability in the principal or most advantageous market for the asset or liability. The FASB decision to not include transactions cost is based on the idea that transaction costs are not a part of the asset or liability. Transaction costs are typically unique to a specific transaction and may differ depending on the transaction not the asset or liability. However, fair value measurement may include the costs of transportation of the asset or liability to or from its principal or most advantageous market. FASB ASC 820, *Fair Value Measurements* (SFAS 157), notes that “the price in the principal or most advantageous market used to measure the fair value of the asset or liability must be adjusted for any costs that would be incurred to transport the asset or liability to or from its principal or most advantageous market.”³¹ As an example, in estimating the fair value of a piece of machinery that is used in a production line one would consider the costs that would be incurred to transport the piece of equipment to the plant of the reporting entity. However, fair value would not include the cost of a machinery and equipment broker that may have been used to acquire the equipment.

Under the acquisition method, the fair value of assets acquired and liabilities assumed are measured on the balance sheet at each of its respective fair values as of the date of change in control in a business combination. As discussed earlier, fair value is not necessarily the price for which the asset was acquired or the liability assumed, but is an exit price for which the asset can be sold or the liability transferred to a market participant. Market participants operate in either the principal market or in absence of a principal market, the most advantageous market.

MARKET PARTICIPANTS FASB ASC 820, *Fair Value Measurements* (SFAS 157), clarifies that “the transaction to sell the asset or transfer the liability is a hypothetical transaction . . . considered from the perspective of a market participant that holds the asset or owns the liability.”³² Market participants are willing and able to transact in the most advantageous market. Fair value is defined as an exit price that is based on a concept of a market participant’s, not necessarily entity-specific, assumptions. The FASB defines market

participants as buyers and sellers in the principal or most advantageous market for the asset or liability who are:

- Independent of the reporting entity—that is, they are not related parties
- Knowledgeable, having a reasonable understanding about the asset or liability and the transaction based on all available information, including information that might be obtained through due diligence efforts that are usual and customary
- Able to transact for the asset or liability
- Willing to transact for the asset or liability—that is, they are motivated but not forced or otherwise compelled to do so³³

The fair value measurement of an asset or liability is based on the assumptions that market participants would use in pricing the asset or liability, not the owner of the asset or the party responsible for the liability. As a practical measure, management does not have to identify specific market participants in measuring fair value. However, in measuring fair value, the reporting entity should identify characteristics of market participants considering factors specific to (a) the asset or liability, (b) the principal or most advantageous market for the asset or liability, and (c) market participants with whom the reporting entity would transact in that market.³⁴ Market participants would likely include other potential buyers that also initially bid for the assets when estimating fair value in a business combination.

ENTRY PRICE VERSUS EXIT PRICE Under the definition of fair value as presented in FASB ASC 820, *Fair Value Measurements* (SFAS 157), fair value is again defined as “. . . the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” Under this definition, fair value might not necessarily be the price that the asset was acquired. Fair value is the price that the asset could be sold to a market participant. This concept is referred to as an exit price. An exit price differs from an entry price, which is the price paid to acquire the asset or the price received to assume the liability. There are some important distinctions between entry prices and exit prices. Sometimes a business may pay more for an asset because it can utilize that asset in a way other businesses cannot. For example, a business may acquire some proprietary technology that it can use in conjunction with its own technology to develop a new product line. The acquired proprietary technology may be worth more to the acquirer in that circumstance and the acquisition price may reflect its potential use by the acquirer. Entities may not necessarily be able to sell assets at the prices paid to acquire them. Similarly, entities may not necessarily have the ability to transfer liabilities at the prices received to assume them.³⁵

In many cases, the transaction price will equal the exit price and, therefore, represent the fair value of the asset or liability at initial recognition. In determining whether a transaction price represents the fair value of the asset or liability at initial recognition, the reporting entity must consider factors specific to the transaction and to the asset or liability. For example, a transaction price might not represent the fair value of an asset or liability at initial recognition if any of the following four criteria are met:

1. The transaction is between related parties.
2. The transaction occurs under duress or the seller is forced to accept the price in the transaction. For example, if the seller is experiencing financial difficulty, he might be forced to accept a lower price.
3. The unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value.
4. The market in which the transaction occurs is different from the market in which the reporting entity would sell the asset or transfer the liability; that is, the principal or most advantageous market.³⁶

HIGHEST AND BEST USE APPLICATION CRITERIA A fair value measurement as described by FASB ASC 820, *Fair Value Measurements* (SFAS 157), assumes “the highest and best use” of the asset by market participants. Highest and best use considers the use of the asset that is physically possible, legally permissible, and financially feasible. The highest and best use is the use that maximizes the value of the asset, or the group of assets within which the asset would be used by a market participant rather than by the reporting entity. As such, assumptions in the fair value measurements as to the highest and best use of an asset or group of assets are determined by how the asset or group of assets would be used by market participants, even if the intended use of the asset by the reporting entity is different.³⁷

As an example, suppose a reporting entity acquires a telecommunications company in a business combination. The telecommunications company had developed some viable technology that is outside its core business. Consequently, the technology had not been implemented in the company’s existing services. The acquiring reporting entity also does not have any intention of exploiting the technology. However, if the technology would be exploited by other market participants, the fair value of the technology would be based on its highest and best use. The fair value would be determined as though it would be utilized by other market participants and reported as such on the reporting entity’s financial statements.

FASB ASC 820, *Fair Value Measurements* (SFAS 157), introduces the concept of valuation premise when discussing the highest and best use of an asset. The valuation premise can be either highest and best use as part of a group of assets, which is referred to in the statement as “in-use,” or its

highest and best use can be on a stand-alone basis, which is referred to in the statement as “in-exchange.”

FASB ASC 820, *Fair Value Measurements* (SFAS 157), describes in-use and in-exchange as follows:

The highest and best use of the asset is in-use if the asset would provide maximum value to market participants principally through its use in combination with other assets as a group, as installed or otherwise configured for use. That might be the case for certain nonfinancial assets. If the highest and best use of the asset is in-use, the fair value of the asset must be measured using an in-use valuation premise. When using an in-use valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset, assuming that the asset would be used with other assets as a group, and assuming that those assets would be available to market participants. Generally, assumptions about the highest and best use of the asset should be consistent for all of the assets of the group within which it would be used.

The highest and best use of the asset is in-exchange if the asset would provide maximum value to market participants principally on a stand alone basis. That might be the case for a financial asset. If the highest and best use of the asset is in-exchange, the fair value of the asset must be measured using an in-exchange valuation premise. When using an in-exchange valuation premise, the fair value of the asset is determined based on the price that would be received in a current transaction to sell the asset standalone.

Because the highest and best use of the asset is determined based on its use by market participants, the fair value measurement considers the assumptions that market participants would use in pricing the asset, whether using an in-use or an in-exchange valuation premise.³⁸

The following examples illustrate the FASB’s concepts of highest and best use “in-use” or “in-exchange.” Additional examples can also be found in Appendix A of FASB ASC 820, *Fair Value Measurements* (SFAS 157).

EXAMPLE OF HIGHEST AND BEST USE BY A MARKET PARTICIPANT A strategic buyer of a technology consulting company acquires another similar company in a business combination. Assume that the acquired entity has only three assets: (1) developed technology, (2) a trade name, and (3) customer relationships. The developed technology was created by the acquired entity for its own use in conjunction with providing services to its customers. Under the acquisition method of accounting, the acquiring company measures the fair value of each of the assets individually, taking into consideration

the specified unit of account for the assets. The acquiring company assumes that each of the three assets would provide the most value to market participants through its use in combination with the two other assets as a group. In other words, the highest and best use premise is in-use.

In a business combination, the acquiring company assumes that the market in which the assets could be sold is the same market in which it acquired the assets. The exit price under the definition of fair value (the price at which the assets could be sold to a market participant) may be the same as the entry price (the price at which the assets were acquired). However, the acquiring company would have to consider the most likely market participants to which the assets could be sold. The acquiring entity determines that there are two broad groups of potential market participants for these assets: financial buyers and strategic buyers.

The acquiring company performs an analysis to measure the fair value of each of these assets to both broad groups of market participants, strategic buyers and financial buyers. The results of their analysis are presented in Table 1.1.

The acquiring company determines that to a strategic buyer, the fair value of the customer relationships are \$1,250, the fair value of the developed technology is \$2,000, and the fair value of the trade name is \$500. To a financial buyer, the acquiring company determines that the fair value of the customer relationships is \$800, the fair value of the developed technology is \$1,750, and the fair value of the trade name is \$750. The total fair value of the three assets to a strategic buyer is \$3,750 but only \$3,300 to a financial buyer. What is the fair value of the three assets that the acquiring entity should record on its balance sheet?

First, what would be the likely differences in fair values for each asset between the two groups of market participants? The fair value of the technology and customer relationships may be more to the market participant who is a strategic buyer because any market participant within this group would likely integrate the technology and customer relationships with their own product lines, which would create more value for them in a business combinations than it would for a market participant who is a financial buyer who may not have the opportunity to integrate those assets with

TABLE 1.1 Strategic versus Financial Buyers

Asset	Strategic Buyer	Financial Buyer
Customer relationships	\$1,250	\$ 800
Developed technology	2,000	1,750
Trade name	<u>500</u>	<u>750</u>
Totals	\$3,750	\$3,300

others. However, the fair value of the trade name to a market participant who is a strategic buyer may not be as great as it would be for a market participant who is a financial buyer because the strategic buyer may already have an established trade name while a financial buyer may not.

Second, what is premise for the fair value measurement, in-use or in-exchange? The fair value of these particular assets is likely to be enhanced in conjunction with the use of the other two assets. For example, the value of customer relationships on its own would likely not be as great as it is with developed technology and an established trade name. The acquiring company's analysis indicates that the fair value of these three assets is maximized by strategic market participants using an in-use premise of value.

The fair value of the three assets under the acquisition method and recorded on the balance sheet would be:

Customer relationships	\$1,250
Developed technology	2,000
Trade name	500

Even though the fair value of the trade name is higher to a financial buyer market participant, the maximum value of these assets would be in-use to a strategic buyer market participant.

ANOTHER EXAMPLE OF HIGHEST AND BEST USE OF IN-USE VERSUS IN-EXCHANGE

A pharmaceutical company acquires another similar smaller pharmaceutical in a business combination. The acquired pharmaceutical company owns the building, which it uses as both its headquarters and a manufacturing plant to produce its product. The building is considered state of the art and was built by a developer so that it could have multiple uses. Similar buildings nearby have recently been developed for commercial use as sites for high-end shopping centers. The acquiring pharmaceutical company determines that the building could easily be converted for use as a retail shopping center.

The highest and best use of the building would be determined by having a real estate appraiser estimate (a) the value of the building in its current use as a manufacturing operation (in-use), and (b) the value of the building as converted to a retail shopping center, considering the costs to convert (in-exchange). The highest and best use of the building is the higher of those values.

DEFENSIVE (OR LOCKED-UP) VALUE An interesting concept that is recognized by FASB ASC 820, *Fair Value Measurements* (SFAS 157), is one of defensive value. Defensive value is the concept that in some circumstances acquisitions are made to prevent the acquired company and/or its assets from

competing with the acquirer. The value to the acquirer is the competitive enhancement of its own products and resulting cash flow. FASB ASC 820, *Fair Value Measurements*, recognizes that the value from a defensive acquisition should be measured at the fair value, taking into consideration how the acquired asset would be used by marketplace participants. An example of how fair value is measured from a defensive acquisition can also be found in Appendix A of FASB ASC 820, *Fair Value Measurements* (SFAS 157).³⁹

In Appendix A, the FASB example describes the acquisition of an in-process research and development (IPR&D) project in a business combination. IPR&D is a technology that is under development, is not currently feasible, and has no alternative use. The acquiring company makes the acquisition for defensive purposes and does not intend to complete the IPR&D project because the acquired project would compete with one of the company's own internal IPR&D projects. Instead, the acquiring company intends to lock up the acquired IPR&D project to keep its competitors from gaining access to the technology. The IPR&D project provides a defensive value to the acquiring company by improving the outlook for the acquiring company's own technology.

The fair value of the acquired IPR&D project is based on the highest and best use of the IPR&D by use of market participants. The FASB describes the process of determining fair value as the highest and best use by marketplace participant as:

a) The highest and best use of the IPR&D project would be in-use if market participants would continue to develop the IPR&D project and that use would maximize the value of the group of assets in which the IPR&D project would be used. That might be the case if market participants do not have similar technology (in development or commercialized). The fair value of the IPR&D project, measured using an in-use valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D project, assuming that the IPR&D would be used with its complementary assets as a group and that those complementary assets would be available to market participants.

b) The highest and best use of the IPR&D project also would be in-use if, for competitive reasons, market participants would lock up the IPR&D project and that use would maximize the value of the group of assets in which the IPR&D project would be used (as a locked-up project). That might be the case if market participants have technology in a more advanced stage of development that would compete with the IPR&D project (if completed) and the IPR&D project would be expected to provide defensive value (if locked up). The fair value of the IPR&D project, measured using an in-use valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D

project, assuming that the IPR&D would be used (locked up) with its complementary assets as a group and that those complementary assets would be available to market participants.

c) The highest and best use of the IPR&D project would be in-exchange if market participants would discontinue the development of the IPR&D project. That might be the case if the IPR&D project is not expected to provide a market rate of return (if completed) and would not otherwise provide defensive value (if locked up). The fair value of the IPR&D project, measured using an in-exchange valuation premise, would be determined based on the price that would be received in a current transaction to sell the IPR&D project standalone (which might be zero).⁴⁰

Application of Fair Value to Liabilities

Fair value measurement also applies to liabilities. Fair value of a liability assumes that the liability is transferred to a market participant at the measurement date. Fair value also assumes that the liability continues in existence to the counterparty. The liability is not assumed to be settled as of the measurement date. Since the liability is assumed not to be settled, the measurement of its fair value also assumes that the nonperformance risk does not change before and after its transfer. The statement defines nonperformance risk as the risk that the obligation will not be fulfilled. Nonperformance risk may affect the value at which the liability is transferred since the ability to fulfill the obligation may change. Nonperformance risk may include the reporting entity's own credit risk among the risk factors. The reporting entity must consider the effect of its credit risk (credit standing) on the fair value of the liability in all periods in which the liability is measured at fair value. Liabilities may be obligation to deliver cash, which is referred to as a financial liability, or the liabilities may be an obligation to deliver goods or services, which are referred to as nonfinancial liabilities.

A common method to measuring the fair value of a particular liability is to adjust the discount rate to current market rates when computing the present value of the future cash flows related to the liability. The adjusted discount rate would be higher than the implied interest rate of the liability if nonperformance risk was judged to be greater. The impact on the fair value of the liability would be to lower the value of the liability to be recorded on the balance sheet. If nonperformance risk is judged to be lower than the opposite, impact occurs.

The accounting treatment of this measurement aspect of the fair value of liabilities seems a bit counterintuitive. As the credit risk of the reporting entity increases, the fair value of the liability declines. As the credit risk of the reporting entity decreases, the fair value of the liability increases. However, if

one considers this treatment of fair value measurement from the perspective of the market participant, then it begins to make a bit more sense. If one were counterparty to a liability and that liability is transferred to another entity whose credit risk was greater than the original entity's credit risk, the likelihood of repayment decreases. If the likelihood of repayment decreases, then the value of the liability to the counterparty decreases. A higher credit rating would increase the probability of repayment and increase the value to the counterparty.

An example of a disclosure about the impact of a change in credit risk on the fair value of liabilities can be found in a recent financial report from Merrill Lynch.

Merrill Lynch elected the fair value option for certain short-term and long-term borrowings that are risk managed on a fair value basis, including structured notes, and for which hedge accounting under SFAS No. 133 had been difficult to obtain. The changes in the fair value of liabilities for which the fair value option was elected that was attributable to changes in Merrill Lynch credit spreads were estimated gains of \$91 million and \$2.2 billion for the three and six months ended June 27, 2008, respectively. The changes in the fair value of liabilities for which the fair value option was elected that were attributable to changes in Merrill Lynch credit spreads were not material for the three and six months ended June 29, 2007. Changes in Merrill Lynch specific credit risk is derived by isolating fair value changes due to changes in Merrill Lynch's credit spreads as observed in the secondary cash market.⁴¹

As Merrill Lynch disclosed, a change in the credit spread (Merrill Lynch had become riskier) resulted in a gain of \$91 million for the six months ended June 27, 2007, and a gain of \$2.2 billion for the six months ended June 27, 2008. A couple of observations about this and similar disclosures: First, of course analysts knew that these gains were the result of the deterioration of Merrill Lynch's own financial position, which caused its outstanding financial instruments to become more risky; second, the change in credit risk was from observations in the secondary market, thus a market participant assumption.

The FASB recently issued Accounting Standards Update No. 2009-05, *Measuring Liabilities at Fair Value*, which clarifies the measurement of the fair value of liabilities under ASC 820, *Fair Value Measurements and Disclosures*. One issue related to liabilities that concerned preparers of financial statements is how the concept of exit price is impacted when there is a lack of observable markets or observable inputs to measure the fair value in an assumed transfer. In many situations an entity would likely settle the obligation with the counterparty rather than pay for another entity to assume the

obligation. In these situations, preparers are concerned that they are asked to assume a transfer that would not occur.

Another issue that the FASB seeks to clarify is how to measure the fair value of a liability when there is a contractual restriction on the liability's transfer. And finally, the FASB addresses whether the prices of debt instruments traded in the market place as assets represent the fair value of the instrument from the issuer's perspective.

Under the proposed Accounting Standards Update, the FASB reiterates that the quoted market price for an identical liability is the best evidence of fair value, and it would represent a Level 1 measurement. The FSP further explains that in absence of a quoted price for an identical liability, fair value would be measured using an approach maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs, and makes use of one of the following approaches:

- a. The quoted price of an identical liability when traded as an asset.
- b. The quoted prices for similar liabilities or similar liabilities when traded as an asset.
- c. Another valuation technique such as the income or market approach based on the amount the entity would receive if the entity were to transfer the liability or enter into an identical liability at the measurement date.

The FSB states that the fair value of liabilities measured using the price of the liability when traded as an asset is also represents a Level 1 measurement. The board recognizes that quoted prices for liabilities traded as assets may require adjustments for factors specific to asset that are not applicable to the liability. Those factors include the condition or location of the asset, the degree of comparability and the level of volume and activity in the market. Adjustments to the quoted price of the asset will cause the fair value measurement to be lower than Level 1.

The FASB also states that the contractual restriction on the transfer of a liability is already included in the transaction price because both creditor and obligor accepted the transfer price with full knowledge of the restriction. Therefore, an adjustment to inputs based on a contractual restriction on the transfer of the liability is not warranted.⁴²

Example of Fair Value of Debt

Suppose a term loan was acquired as part of a business combination on June 30, 20X1. The terms of the loan are \$1,000,000 in principal due in

three years, with 8 percent annual interest payments due on June 30th of each year. If current interest rates are 10 percent as of the date of the business combination, the fair value of the note is calculated as follows:

The interest payment on June 30, 20X2 of \$80,000, discounted for one year at 10 percent is \$72,727.

The interest payment on June 30, 20X3 of \$80,000, discounted for two years at 10 percent is \$66,116.

The final payment on June 30, 20X4 of \$1,080,000 (\$80,000 interest plus \$1,000,000 principal), discounted for three years at 10 percent is \$811,420.

The fair value on June 30, 20X1, is the sum of the three amounts, or \$950,263. The fair value is less than the \$1,000,000 principal amount because the obligation has a favorable interest rate compared to market rates. Fair value is measured using the entity's nonperformance risk, regardless of the loan's contractual interest terms.

Valuation Approaches in Fair Value Measurements

FASB ASC 820, *Fair Value Measurements* (SFAS 157), identifies what is referred to in the statement as valuation techniques that are consistent with the market approach, income approach, and the cost approach. Valuation specialists (also as indicated in *Fair Value Measurement*) believe that in some circumstances a single valuation technique is appropriate. In other circumstances, more than one valuation technique will be more appropriate. If more than one valuation technique is used, the reporting entity should evaluate the indications of fair value for reasonableness. The fair value is the indication from the valuation technique that is most reasonable under the circumstances whether it is one of the indications or some weighing of the indications within the range of indications.

FASB ASC 820, *Fair Value Measurements and Disclosures*, highlights the three basic approaches or techniques that are commonly used to measure fair value: (1) the cost approach, (2) the market approach, and (3) the income approach.

COST APPROACH FASB ASC 820, *Fair Value Measurements and Disclosures*, describes the cost approach to valuation as an approach:

based on the amount that currently would be required to replace the service capacity of an asset (often referred to as current replacement cost). From the perspective of a market participant (seller), the price that would be received for the asset is determined based on the cost to a market participant (buyer) to acquire or construct a substitute asset

of comparable utility, adjusted for obsolescence. Obsolescence encompasses physical deterioration, functional (technological) obsolescence, and economic (external) obsolescence and is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (based on specified service lives).⁴³

The notion behind the cost approach is that the fair value of an asset or even an entire business is estimated by the current replacement cost of the asset or the entire business less any adjustments for obsolescence related to the subject asset or assets that comprise the business. The replacement cost of the asset is what it would cost as of the measurement date to replace the asset or an entire business with an asset or group of assets of comparable utility. The cost approach is often used to estimate the value of specific assets, such as a building or machinery and equipment, or certain intangible assets, such as customer relationships or an assembled workforce. Because of its nature, the cost approach is difficult to apply in estimating the fair value of an entire operating business; however, an example in financial reporting would be the estimate of the fair value of assets acquired in a business combination under FASB ASC 350, *Goodwill and Other Intangible Assets* (SFAS 142).

MARKET APPROACH FASB ASC 820, *Fair Value Measurements and Disclosures*, describes the market approach as one that:

uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business). For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might be in ranges with a different multiple for each comparable. The selection of where within the range the appropriate multiple falls requires judgment, considering factors specific to the measurement (qualitative and quantitative).

Valuation techniques consistent with the market approach also include matrix pricing. Matrix pricing is a mathematical technique used principally to value debt securities without relying exclusively on quoted prices for the specific securities, but rather by relying on the securities' relationship to other benchmark quoted securities.⁴⁴

The market approach estimates fair value by comparing a financial measurement such as cash flow or earnings or some other metric of the entity to a multiple of similar financial measurement or metric of a similar guideline entity whose shares are transacted in the market place. Commonly

used financial measurements are multiples of prices to earnings, or the P/E ratio, or multiple of invested capital to earnings before depreciation and amortization (EBITDA). The market approach conceptually is easily understood because the approach estimates fair value through transactions of similar assets or business interests in the market. The difficulty in applying the market approach in measuring fair value, particularly in estimating the fair value of intangible assets, is in identifying guideline assets or business interests similar enough to support a determinative comparison.

INCOME APPROACH FASB ASC 820, *Fair Value Measurements*, describes the income approach as one using:

*valuation techniques to convert future amounts (for example, cash flows or earnings) to a single present amount (discounted). The measurement is based on the value indicated by current market expectations about those future amounts. Those valuation techniques include: present value techniques; option-pricing models, such as the Black-Scholes-Merton formula (a closed-form model) and a binomial model (a lattice model), which incorporate present value techniques; and the multiperiod excess earnings method, which is used to measure the fair value of certain intangible assets.*⁴⁵

Methods under the income approach can be equally applied to estimate the fair value of an entire entity or reporting unit or they can be applied to estimate the fair value of a specific asset, particularly an intangible asset. The income approach is generally used to estimate the fair value of a business or an asset of the business such as an intangible asset through the risk-adjusted cash flows that the entity or specific intangible asset is expected to generate for the life of the entity or intangible asset. There are several common methods that can be used to estimate fair value under this approach. One method commonly used under the income approach is the discounted cash flow analysis. The discounted cash flow method estimates fair value through the sum of expected future cash flows that the entity or intangible asset will generate, discounted to the present at a risk-adjusted rate of return commensurate with the risk of actually receiving the cash flows.

A version of the discounted cash flow method can also be used to estimate the fair value of a specific intangible asset by estimating cash flows that can be generated by the entire business and deducting fair returns on all of the other assets that contribute to the generation of the cash flow. This method is sometimes also referred to as the multiperiod excess earnings method. The residual cash flow after deducting returns on all of the other contributory assets is the cash flow generated by the specific intangible

asset. The present value of this residual cash flow is then discounted at a rate reflective of the risk of the intangible asset in order to estimate the fair value of the specific intangible asset.

Inputs

FASB ASC 820, *Fair Value Measurements*, provides an additional new term, inputs, to guide preparers in developing assumptions in measuring fair value. Inputs are the assumptions that market participants would use when pricing the individual asset or liability. For example, when estimating the fair value of a debt instrument, a risk-related input would be the yields on similar types of debt as observed in the market place. Another example of an input would be the growth rate in expected cash flows of a reporting unit over a particular forecast period. As with any type of assumption, inputs vary greatly depending on the type of asset or liability.

Inputs can be either observable or unobservable:

- Observable inputs are those that market participants may use in pricing an asset and are derived from information in the market place. The inputs are therefore verifiable by independent market-based information. An example would be the yield on a similar debt instrument.
- Unobservable inputs are those that are unique to the entity itself. They are not observable by independent market-derived data. An example may be the growth in expected cash flows prepared internally by management described earlier.

Observable or unobservable inputs may be used in a fair value measurement. However, the FASB has expressed a strong preference for observable inputs over unobservable inputs whenever available.

Fair Value Hierarchy

The FASB also provided additional guidance as to what they consider the relative reliability of the inputs by providing a Fair Value Hierarchy in FASB ASC 820, *Fair Value Measurements and Disclosures* (SFAS 157). The purpose of the hierarchy is “to increase consistency and comparability in fair value measurements and related disclosures.”⁴⁶ The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, with Level 1 having the highest priority and Level 3 having the lowest. The three levels within the hierarchy are:

- Level 1.* Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets

- Level 2.* Inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly
- Level 3.* Unobservable inputs (e.g., a reporting entity's own data)⁴⁷

In many situations, more than one input is used to measure fair value. In these circumstances the inputs may fall into different levels within the fair value hierarchy. The level with the fair value hierarchy in which the fair value measurement is classified as a whole is based on the significance of the lowest level of the input of the measurement. The significance of the input to the fair value measurement is based on judgment. The classification of the level within the fair value hierarchy is important not only from a perceived reliability standpoint; it is important because the classification impacts disclosures as to how the fair value was measured.

EXAMPLES OF MEASUREMENTS WITHIN THE FAIR VALUE HIERARCHY Some examples of typical inputs within the fair value hierarchy include:

Level 1

- Price listed on the New York Stock Exchange prices for securities
- List futures contract prices on the Chicago Board of Exchange

Level 2

- A rate on a debt instrument that is tied to a market rate such as LIBOR
- A dealer quote for a security that may not be traded on a public market; however, the dealer is willing and able to transact

Level 3

- Inputs obtained from broker quotes that are indicative such as a quote for certain machinery and equipment
- Valuation models that are based on management assumptions such as cash flow forecasts that cannot be corroborated with observable market data

SFAS 159, *Fair Value Option*

The FASB furthered the goal of eventually allowing the measurement of all financial assets and liabilities at fair value in financial reporting through the issuance of FASB ASC 825-10-25, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115* (SFAS 159). SFAS 159, *Fair Value Option*, expands the fair value measurements of financial instruments, both assets and liabilities, which are consistent with the board's long-term accounting measurement objectives for financial instruments. The *Fair Value Option* permits entities to choose

to measure most financial assets and liabilities and certain other items at fair value. The FASB noted in the implementation of SFAS 159 that the objective of the statement is to improve financial reporting “by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions.”⁴⁸

The *Fair Value Option* is interesting from a financial accounting standpoint because it may be applied on an instrument-by-instrument basis, rather than to all financial assets or liabilities. The financial instruments covered by the statement are fairly broad, the one major exception is financial instruments that otherwise are accounted for by the equity method. The *Fair Value Option* is an election. Once an election is made to measure an instrument at its fair value under FASB ASC 825-10-25 (SFAS 159), the election is irrevocable (unless a new election date occurs). The fair value election is applied only to entire financial instruments and not to portions of an instrument.

All entities may elect the *Fair Value Option*, although in practice the majority of entities electing the fair value option to date are in the financial services industry, primarily commercial and investment banks. The statement lists examples of items that may be eligible for the fair value option.

- A financial asset and financial liability.
- A firm commitment that involves only financial instruments and would otherwise not be recognized at inception. The statement provides an example of a forward purchase contract for a loan that is not readily convertible to cash.
- A written loan commitment.
- An insurance contract that is to provide goods and/or services but not cash and is typically not classified as a financial instrument. However, the terms of the contract provide rights and obligations to permit the insurer to settle by paying a third party to provide those goods or services.
- A warranty that is not typically considered a financial instrument. But similar to the insurance contract described earlier, the terms permit the warrantor to settle by paying a third party to provide those goods or services.
- Certain financial instruments resulting from the separation of an embedded nonfinancial derivative instrument from a nonfinancial hybrid instrument. The underlying debt may be settled in cash, but the embedded feature may be settled in some other manner.⁴⁹

A business entity electing the *Fair Value Option* under FASB ASC 825-10-25 (SFAS 159) reports unrealized gains and losses on items for which the

fair value option has been elected in earnings at each subsequent reporting date.

Conclusion

The objective of financial reporting is to provide information that investors and other stakeholders find useful about a company's net assets and operating performance. Traditionally, accounting in the United States has been based on historical cost. However, financial reporting has been evolving toward fair value measurement that is based on current values rather than historical costs. Fair value has been a focus in measuring financial assets and liabilities in financial reporting for some time now. More recently, fair value has become the standard of measurement in business combination and the subsequent testing for impairment of assets acquired in a business combination. As such, the FASB issued FASB ASC 820, *Fair Value Measurements and Disclosures* (SFAS 157), to clarify the concept of measuring fair value in all of financial reporting.

Fair Value Measurements is not without controversy, however. The use of many fair value measurements requires some judgment within the measurement. The extended use of judgment is a fundamental change for those of us trained in historical cost-based measurements. The judgment aspect also creates a new dynamic between preparer, the entity's outside auditor, and possibly an outside valuation specialist who may actually perform the measurement. *Fair Value Measurements* was issued to provide clearer direction from the FASB for the application of the concept of fair value to financial reporting.

Notes

1. The references to the FASB Statements are presented in the FASB's new codification format. For additional information about codification see www.fasb.org.
2. SFAS 157, *Fair Value Measurements*, paragraph 1.
3. FASB FSP157-2, paragraph 1.
4. SFAS 141, paragraph 39.
5. FASB ASC 805, *Business Combinations* (SFAS 141(R)), paragraph 3k.
6. www.fasb.org/news/nr102902.shtml.
7. FASB-IASB, *Memorandum of Understanding*, "The Norwalk Agreement," www.fasb.org.
8. *Id.*
9. www.fasb.org/intl/MOU_09-11-08.pd.
10. www.globalpublicpolicysymposium.com/.
11. *Id.*

12. "Global Capital Markets and the Global Economy: A Vision from the CEOs of the International Audit Networks," November 2006, www.globalpublicpolicy.com/symposium.com/.
13. "Global Dialogue with Capital Markets Stakeholders: A Report from the CEOs of the International Audit Networks," January 2008, www.globalpublicpolicy.com/symposium.com.
14. Securities and Exchange Commission. Release No. 33-8879, "Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Financial Reporting Standards without Reconciliation to U.S. GAAP," www.sec.gov/rules/final/2008/33-8879fr.pdf.
15. Securities and Exchange Commission, Release No. 33-8982, "Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by U.S. Issuers," www.sec.gov/rules/proposed/2008/33-8982.pdf.
16. "Regulatory Actions Proposed Rules 2009 First Quarter 33-9905," February 3, 2009, www.sec.gov.
17. SFAS 157, paragraph C8.
18. FSP FAS 157-2, *Effective Date of FASB Statement No. 157*, www.fasb.org/pdf/fsp_fas157-2.pdf. See also, October 1, 2007, letter to the FASB from the Financial Executives International's Committee on Corporate Reporting and Small Public Company Task Force, www.financialexecutives.org/eweb/upload/FEI/FAS%20157%20101107.pdf.
19. SFAS 157, *Fair Value Measurements*, paragraph 5.
20. *Id.*, paragraph 6.
21. *Id.*, paragraph 8.
22. *Id.*, paragraph 10.
23. *Id.*, paragraph 8.
24. *Id.*, footnote 4.
25. *Id.*, paragraph 6.
26. *Id.*, paragraph 27.
27. *Id.*, paragraph 6.
28. *Id.*, paragraph 7.
29. *Id.*, paragraph 10.
30. *Id.*, paragraph 8.
31. *Id.*, paragraph 9.
32. FAS 157, *Fair Value Measurements*, p. 157–2.
33. *Id.*, paragraph 10.
34. *Id.*, paragraph 11.
35. *Id.*, paragraph 16.
36. *Id.*, paragraph 17.
37. *Id.*, paragraph 12.
38. *Id.*, paragraph 13.
39. *Id.*, paragraph A12.
40. *Id.*
41. Merrill Lynch & Company Form 10-Q, for the quarterly period ended June 27, 2008, page 63.

42. Financial Accounting Standards Board, Accounting Standards Update No. 2009-05, *Measuring Liabilities at Fair Value, to Topic 820*, Fair Value Measurements and Disclosures, August 2009, pp. 1-7, www.fasb.org.
43. SFAS 157 *Fair Value Measurements*, paragraph 18c.
44. *Id.*, paragraph 18a.
45. *Id.*, paragraph 18b.
46. *Id.*, paragraph 22.
47. *Id.*
48. SFAS 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115, 159-1*.
49. *Id.*, paragraph 7.

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