



BECAUSE VALUE MATTERS

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BUSINESS VALUATION » INVESTMENT BANKING

No. 4

Volume 19 » 2007

## HEADQUARTERS

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## Reasonable Valuation of Illiquid Mortgage-Backed Securities

An unprecedented wave of home mortgage defaults has triggered a widely publicized fallout in the subprime lending market in recent months. As a result, uncertainty has dampened investor enthusiasm for all mortgage-backed securities. While such securities trade in a dealer market that was relatively liquid just a few months ago, bids are now rare for many issues, making it difficult for companies to estimate and report relevant and reliable values for accounting purposes

### CONCEPT OF FAIR VALUE

Current accounting rules require companies to report such securities on the basis of fair value, which is defined in SFAS 157 as “the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date.” Two elements of the fair value definition – “market participants” and “an orderly transaction” – specifically pertain to the determination of the fair value of suddenly illiquid securities. In SFAS 157, a market participant is defined as 1) an unrelated party, 2) knowledgeable of the subject asset, 3) able to transact, and 4) motivated but not compelled to transact. When liquidity drains from the market for a given asset (in other words, when there are fewer market participants), “real-world” market evidence becomes more scarce and the fair value presumption of an orderly transaction necessarily becomes more hypothetical. In other words, fair value is not always exactly the same thing as the widely-held notion of “current value” espoused in the popular business media.

To minimize input risk and increase “consistency and comparability” in fair value measurements, SFAS 157 introduces a fair value hierarchy that prioritizes fair value measurement inputs into three broad levels, giving highest priority to quoted prices in active markets for identical securities (Level 1) and lowest priority to unobservable inputs (Level 3). Level 2 inputs include

observable inputs that require some adjustment for the fair value measurement. When a security is traded in an active market, its fair value is the current observable market price, a Level 1 input; however, the process of fair value determination becomes trickier when there is no active market for a given security.

### MARKET INDICATIONS OF VALUE

In the United States, there is no centralized exchange for mortgage-backed securities; the secondary market is comprised by a network of brokers dealing in a particular security, and therefore is not as transparent as the public equity or corporate debt markets. When securities are actively traded in orderly transactions among a large number of market participants, these markets provide reasonable indications of fair value. Unfortunately for financial managers charged with reporting fair value, the markets for many securities have become illiquid.

The recent market illiquidity has exacerbated the structural opacity of the mortgage-backed market, rendering many market-based indications of valuations unreliable at best, meaningless at worst. A *Wall Street Journal* article from August 2007 quotes one vexed manager: “Someone says they’re worth 50, and someone else says 90, and you can’t sell at 30 because there aren’t any bids.” The valuation problem born of the current illiquidity is not that the markets are reliably providing low indications of value, but rather that they aren’t reliably providing any indications of value.

### RELIABILITY OF VALUATION MODELS

In the absence of reliable market evidence, companies and funds have begun using valuation models to measure the fair value of these securities using Level 2 and Level 3 inputs. According to the FASB conceptual framework, accounting information should be “relevant

# Value Added

While preparation of fair value measurements by a reporting company's own staff is not prohibited, retaining an outside valuation specialist can facilitate reliability by ensuring proficiency in the process of fair value determination many securities

and reliable.” Fair value measurements based on lower-level inputs are certainly relevant to users of financial statements; financial managers and auditors must focus on maintaining the reliability of these estimates.

Recent news stories in the popular business media have decried the reliability of these estimates, citing cases of earnings manipulation by management and the inherent subjectivity in the determination of accounting estimates. Fair value accounting did not introduce these risks. Beyond simply decrying these risks, they should be accepted, disclosed, and appropriately managed—after all, “it is better to be approximately right than precisely wrong.”

Two important factors that influence the overall reliability of fair value measurements using Level 2 and 3 inputs are proficiency and independence. Proficiency is grounded in a thorough knowledge of the relevant accounting guidance, as well as the requisite valuation expertise and experience to make appropriate valuation judgments. While preparation of fair value measurements by a reporting company's own staff is not prohibited, retaining an outside valuation specialist can facilitate reliability by ensuring proficiency in the process of fair value determination many securities.

Independence in accounting measurements has traditionally been the auditor's task. Fair value measurements, however—especially those of complex illiquid derivative securities—have put auditors in a strange position due to the significant valuation judgments required. In situations characterized by significant scrutiny and investor uncertainty related to the reliability of estimates (i.e. the current MBS situation), use of an independent outside specialist can enhance the credibility of fair value measurements.

Management compensation structures are a common instigator of conflicts of interest in financial reporting. Management bonus structures are often directly tied to the value of securities held, and thus provide a significant incentive to inflate valuations of such securities. While this incentive to manipulate financial results is nothing new to accounting, the advent of fair value does increase the need for independence in the determination of accounting estimates. If management compensation depends on the value of illiquid securities, an internal estimation of fair value will rarely satisfy the standard for reliability, but outside support from an independent valuation specialist is one way to alleviate this conflict.

## THE VALUE OF REASONABLE ESTIMATES

Illiquid securities of any kind are by nature difficult to value, but accounting standards require companies to report the fair value of such securities in the most reliable fashion possible. Given the degree of regulator scrutiny and investor demands, companies should have valuation policies detailing practices to promote the most reliable fair value estimates. Having such policies not only promotes market transparency, but also carries pragmatic benefits for the company itself. The potential for misreporting fair value estimates carries significant risk to a company and management; a thorough plan to ensure the reliability of such estimates mitigates this risk significantly.

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## MERCER CAPITAL'S Understand the Value of...

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Written for business owners, each article in this series focuses on a particular industry, providing an overview of that industry and the issues that affect the value of businesses within the industry. Each article also reviews the basic concepts of value. Business owners should not miss this valuable resource.

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## FOCUS ON FINANCIAL REPORTING VALUATION

### 409A Compliance Case Study

#### OVERVIEW

Mercer Capital was engaged by a pre-revenue medical device start-up with a potentially revolutionary technology platform. The start-up needed a valuation of outstanding common stock for 409A compliance related to the issuance of employee stock options as compensation.

Typical of many start-up companies, the client had a complex capital structure that included common stock, several classes of convertible preferred stock, and a pool of options. Each equity class had a distinct set of ownership rights and economic attributes.

#### MERCER CAPITAL'S JOB

To determine the fair market value of the company's common shares, Mercer Capital:

- » Performed a due diligence process appropriate to the scope of the engagement
- » Analyzed internal financial information, company development progress since founding, the passage of significant milestones, the potential market for the product under development, as well as historical preferred stock offering transaction prices
- » Developed a properly specified discounted cash flow model to determine the total capital value of the enterprise
- » Modeled the economic attributes of the different equity classes through component security analysis using widely accepted option-pricing theory
- » Documented the information reviewed and valuation analyses performed with a full narrative report and detailed supporting exhibits

#### OUTCOME

The following objectives were completed by the end of the engagement:

- » The valuation opinion was consistent with all available 409A valuation guidance and reflected Mercer Capital professional judgment developed over 25 years of valuation experience
- » Confidence from the contemporaneous, independent valuation allowed the client to focus on immediate operational concerns and strategic planning, unencumbered by 409A compliance issues

#### KEY POINTS

There are several key points to take from this engagement experience:

- » The Mercer Capital professionals possess the knowledge and experience to identify the key valuation issues and to apply appropriate methods to provide a sound, contemporaneous valuation opinion that will stand up to scrutiny
- » The independence and diligence of the Mercer Capital professionals contributed to a final valuation opinion that will allow both the client company and its employees to safely exit the maze of 409A compliance

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The purchase price allocation report should demonstrate that the valuation specialist has a thorough understanding of the acquired business, the intangible assets to be valued, the company's historical financial performance, and the transaction giving rise to the purchase price allocation

## Reviewing a Purchase Price Allocation Report

Reviewing a purchase price allocation report can be a daunting task if you don't do it for a living - especially if you aren't familiar with the rules and standards governing the allocation process and the valuation methods used to determine the fair value of intangible assets. While it can be tempting as a financial manager to leave this job to your auditor and valuation specialist, it is important to stay on top of the allocation process. Too often, managers find themselves struggling to answer eleventh hour questions from auditors or being surprised by the effect on earnings from intangible asset amortization. This guide is intended to make the report review process easier while helping to avoid these unnecessary hassles.

Please note that a review of the valuation methods and fair value accounting standards is beyond the scope of this guide. Grappling with these issues is the responsibility of the valuation specialist, and a purchase price allocation report should explain the valuation issues relevant to your particular acquisition. Instead, this guide focuses on providing an overview of the structure and content of a properly prepared purchase price allocation report.

### GENERAL RULES

While every acquisition will present different circumstances that will impact the purchase price allocation process, there are a few general rules common to all properly prepared reports. From a qualitative standpoint, a purchase price allocation report should satisfy three conditions:

1. *The report should be well-documented.* As a general rule, the reviewer of the purchase price allocation should be able to follow the allocation process step-by-step. Supporting documentation used by the valuation specialist in the determination of value should be clearly listed and the report narrative should be sufficiently detailed so that the methods used in the allocation can be understood.
2. *The report should demonstrate that the valuation specialist is knowledgeable of all relevant facts and circumstances pertaining to the acquisition.* If a valuation specialist is not aware of pertinent facts related to the company or transaction, he or she will be unable to provide a reasonable purchase price allocation. If the report does not

demonstrate this knowledge, the reviewer of the report will be unable to rely on the allocation.

3. *The report should make sense.* A purchase price allocation report will not make sense if it describes an unsound valuation process or if it describes a reasonable valuation process in an abbreviated, ambiguous, or dense manner. Rather, the report should be written in clear language and reflect the economic reality of the acquisition (within the bounds of fair value accounting rules).

### ASSIGNMENT DEFINITION

A purchase price allocation report should include a clear definition of the valuation assignment. For a purchase price allocation, the assignment definition should include:

- » *Objective* – The definition of the valuation objective should specify the client, the acquired business, and the intangible assets to be valued.
- » *Purpose* – The purpose explains why the valuation specialist was retained. Typically, a purchase price allocation is completed to comply with GAAP financial reporting rules.
- » *Effective Date* – The effective date of the purchase price allocation is typically the closing date of the acquisition.
- » *Standard of Value* – The standard of value specifies the definition of value used in the purchase price allocation. If the valuation is being conducted for financial reporting purposes, the standard of value will generally be fair value as defined in SFAS 157.
- » *Statement of Scope and Limitations* – Most valuation standards of practice require such statements that clearly delineate the information relied upon and specify what the valuation does and does not purport to do.

### BACKGROUND INFORMATION

The purchase price allocation report should demonstrate that the valuation specialist has a thorough understanding of the acquired business, the intangible assets to be valued,

the company's historical financial performance, and the transaction giving rise to the purchase price allocation.

#### *Company Overview*

Discussion related to the acquired company should demonstrate that the valuation specialist is knowledgeable of the company and has conducted sufficient due diligence for the valuation. The overview should also discuss any characteristics of the company that play a material role in the valuation process. The description should almost always include discussion related to the history and structure of the company, the competitive environment, and key operational considerations.

#### *Intangible Assets*

The intangible assets discussion should both provide an overview of all relevant technical guidance related to the particular asset and detail the characteristics of the asset that are significant to the valuation. The overview of guidance demonstrates the specialist is aware of all the relevant standards and acceptable valuation methods for a given asset.

After reading this section, the reviewer of the purchase price allocation report should have a clear understanding of how the existence of the various intangible assets contribute to the value of the enterprise (how they impact cash flow, risk, and growth).

#### *Historical Financial Performance*

The historical financial performance of the acquired company provides important context to the story of what the purchasing company plans to do with its new acquisition. While prospective cash flows are most relevant to the actual valuation of intangible assets, the acquired company's historical performance is a useful tool to substantiate the reasonableness of stated expectations for future financial performance.

This does not mean that a company that has never historically made money cannot reasonably be expected to operate profitably in the future. It does mean that management must have a compelling growth or turn-around story (which the specialist would thoroughly explain in the company overview discussion in the report).

#### *Transaction Overview*

Transaction structures can be complicated and specific deal terms often have a significant impact on value. Purchase agreements may specify various terms for initial purchase consideration, include or exclude specific assets and liabilities,

**CONTINUED ON PAGE SIX**

## Hot Topics in Financial Reporting

### **ESOARS RECEIVE TENTATIVE APPROVAL FROM SEC**

On October 17, the SEC approved the Zions Bancorporation ESOARS instrument and auction mechanism for use in determining the fair value of employee stock option grants. The ESOARS instrument tracks the value of a reference pool of ESOs by making payments to instrument-holders as reference options are exercised. While companies now have SEC approval to measure option expense with this market mechanism, several important caveats still remain. Auctions must still undergo company and external auditor evaluation to ensure the resulting fair value estimates comply with SFAS 123R. SEC Chief Accountant Conrad Hewitt notes in the letter to Zions, "while the objective of using a market instrument is not to replicate the value that would be derived from a modeling technique, so long as market-based approaches remain in the development stage, substantial deviations between the market price and a model-based price may indicated deficiencies in the auction process...." In short, companies are free to implement this market approach, but the measurement and auditing cost may likely prove more expensive and the ultimate recorded option expense not very different from traditional model-based approaches.

### **FASB PARTIALLY DEFERS IMPLEMENTATION OF SFAS 157**

On November 14, FASB voted to defer implementation of SFAS 157 for certain nonfinancial assets and liabilities for one year; the Standard is now currently effective for all other relevant items. Deferred items specifically include nonfinancial assets and liabilities recognized in a business combination; reporting units, indefinitely lived intangible assets, and long lived assets measured for purposes of impairment testing; asset retirement obligations; and liabilities for exit or disposal activities. Examples of items SFAS 157 is now effective for include the measurement of derivative securities; servicing assets and liabilities measured under SFAS 156; and loans and debt measured either during a business combination or regularly under SFAS 159 or SFAS 107.

### **NVCA ISSUES STATEMENT REGARDING VALUATION GUIDELINES**

On September 18, the National Venture Capital Association (NVCA) issued a statement related to the March 2007 updated Private Equity Industry Guidelines Group (PEIGG) Valuation Standards. The NVCA recommended practitioners include a thorough review of the PEIGG guidelines, but stopped short of endorsing the guidelines as definitive. The statement generally advised that practitioners establish and communicate "specific procedures and methodologies used for valuing... portfolios" that both conform with GAAP and related fair value guidance as well as meet investor approval. The issue of portfolio company valuation guidelines has become increasingly important in recent years as the requirement of fair value measurement of portfolio investments has become more widespread.

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A purchase  
price allocation  
is not intended  
to be a  
black box



# Value Added™

The allocation process should be sufficiently transparent that you are able to understand it without excessive effort

## Mercer Capital Highlights

### MERCER CAPITAL PROFESSIONALS WEIGH IN ON FAIR VALUE ISSUES ON CFO.COM

Mercer Capital's **Travis W. Harms, CFA, CPA/ABV** and **B. Patrick Lynch** were recently quoted in an article published on CFO.com, titled "How Fair Value Could Affect Your Next Deal," by Sarah Johnson.

In the article, Harms and Lynch discuss the effect that the new fair-value accounting standard, FAS 157, may have on a financial executive's approach to purchase price allocation reports, which determine the value of an acquired company's intangible assets.

Harms and Lynch emphasize the importance of involving a valuation specialist early in the purchase price allocation process, and also advocate that financial executives become comfortable with reviewing a purchase price allocation reports in order to better anticipate and handle any issues that may arise.

"The process will work better for CFOs, the valuation specialist, and the auditor if the allocation gets more priority in the beginning," Harms told CFO.com. After all, he says, "CFOs are notorious for not liking surprises."

### MERCER CAPITAL ANNOUNCES SENIOR FINANCIAL ANALYST PROMOTIONS

Mercer Capital is proud to announce that **Laura J. Hoffmeister, B. Patrick Lynch**, and **Laura D. Stanford** have been promoted to the position of Senior Financial Analyst.

"Laura, Patrick, and Laura have each demonstrated technical proficiency, determination, and the ability to form strong relationships with clients, with exceptional results," said Mercer Capital senior vice president Tim Lee, ASA. "We thank them for their efforts and challenge them to higher achievements and responsibilities in the future."

### MERCER CAPITAL ON THE ROAD

January 12, 2008

"Buy-Sell Agreements: Ticking Time Bombs or Reasonable Resolutions?"

ING International Forum  
Miami, Florida

**Z. Christopher Mercer, ASA, CFA**

January 17, 2008

"How Much is an M&A Intermediary Really Worth"

Panel Discussion  
Alliance of Merger & Acquisition Advisors  
Las Vegas, Nevada

**Jay D. Wilson, Jr.**

### CONTINUED FROM PAGE FIVE

specify various structures of earn-out consideration, contain embedded contractual obligations, or contain other unique terms. The valuation specialist must demonstrate a thorough understanding of the deal terms and discuss the specific terms that carry significant value implications.

#### *Fair Value Determination*

The report should provide adequate description of the valuation approaches and methods relevant to the purchase price allocation. In general, the report should outline the three approaches to valuation (the cost approach, the market approach, and the income approach), regardless of the approaches selected for use in the valuation. This demonstrates that the valuation specialist is aware of and considered each of the approaches in the ultimate selection of valuation methods appropriate for the given circumstances.

Depending on the situation, any of a number of valuation methods could be appropriate for a given intangible asset. While selection of the appropriate method is the responsibility of the valuation specialist, the reasoning should be documented in the report in such a way that a report reviewer can assess the valuation specialist's judgment.

At the closing of the discussion related to the valuation process, the report should provide some explanation of the overall reasonableness of the allocation. This discussion should include both a qualitative assessment and quantitative analysis for support. While this support will differ depending on circumstances, the report should adequately present how the valuation "hangs together."

### SOMETHING TO REMEMBER

A purchase price allocation is not intended to be a black box that is fed numbers and spits out an allocation. The fair value accounting rules and valuation guidance require that it be a reliable and auditable process so that users of financial statements can have a clear understanding of the actual economics of a particular acquisition. As a result, the allocation process should be sufficiently transparent that you are able to understand it without excessive effort, and the narrative of the report is a necessary component of this transparency.



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# Financial Reporting Valuation Services

## FINANCIAL REPORTING VALUATION SERVICES

Mercer Capital financial reporting valuation services include:

- » Purchase Price Allocations for SFAS 141
- » Impairment Testing for SFAS 142 and 144
- » Portfolio Investment Valuation
- » Employee Stock Option Valuation for SFAS 123R and IRS 409A
- » Preliminary intangible asset amortization estimation
- » International Fair Value Valuation for IFRS 3, IAS 36, etc.
- » Other related valuation and consulting services

## MARKETS WE SERVE

Mercer Capital focuses valuation services for the following:

- » Middle-market public companies
- » Financial Institutions
- » Private equity holdings
- » Hedge funds
- » Start-up enterprises
- » Other closely held businesses

## Mercer Capital provides valuation opinions that withstand the scrutiny of your auditors, the SEC, and other regulatory bodies

- » Mercer Capital has been a leading provider of valuation services for more than 25 years, and completes more than 400 engagements annually in 40+ states and a handful of foreign countries
- » Our professionals have actively participated in the development of fair value standards and continue to closely follow their evolution
- » The breadth of valuation experience and depth of knowledge of the applicable accounting standards, combined with the rigorous documentation of valuation reports, leads to valuation opinions that are regularly accepted by auditors and other reviewing parties

## Mercer Capital has the capability to serve the full range of your fair value valuation needs

- » Mercer Capital professionals have broad experience with fair value issues related to middle market public companies, financial institutions, private equity holdings, start-up enterprises, and other closely-held businesses
- » Our professionals hold the most rigorous credentialing designations including the CFA, ASA, and CPA, among others, which are indicative of dual expertise in both valuation and accounting
- » As a result, Mercer Capital has the institutional capability to tackle even the most uncommon or complex fair value issues

## Mercer Capital can guide you through the complexities of the fair value landscape

- » Fair value rules and guidance are constantly changing and becoming increasingly complex
- » Mercer Capital professionals remain up to speed with changing fair value regulations so you don't need to

## OUR SENIOR FINANCIAL REPORTING VALUATION GROUP CAN HELP

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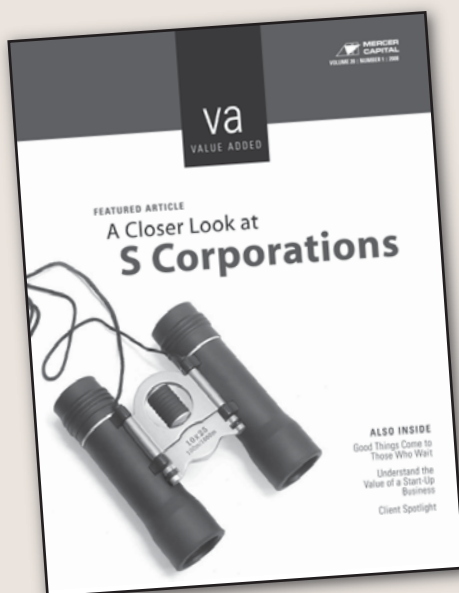
Reasonable Valuation of Illiquid Mortgage-Backed Securities

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Hot Topics in Financial Reporting

## A NEW YEAR - A NEW LOOK



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