PRIVATE EQUITY
INTERNATIONAL

PRIVATE EQUITY VALUATION

The definitive guide to valuing investments fairly

By
Duff & Phelps LLC

Published in July 2014 by
PEI
6th Floor
140 London Wall
London EC2Y 5DN
United Kingdom

Telephone: +44 (0)20 7566 5444
www.privateequityinternational.com/bookstore

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ISBN 978-1-908783-75-2

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PEI editor: Wanching Leong
Production editor: Julie Foster

Printed in the UK by: Hobbs the Printers (www.hobbs.uk.com)

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Author biographies

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David L. Larsen, CPA is a managing director and a leader of the Alternative Asset Advisory practice in the San Francisco office of Duff & Phelps. David has over 30 years of transaction and accounting experience and has advised numerous investors in implementing and complying with FASB ASC Topic 820.

David is an adviser and board member for several financial associations and industry groups. He is a member of the International Private Equity and Venture Capital Valuation Guidelines (IPEV) Board and led the drafting of the 2012 version of the IPEV Valuation Guidelines. He is a member of the American Institute of Certified Public Accountants (AICPA) PE/VC Accounting and Valuation Task Force. He was a board member, project manager and technical adviser to the Private Equity Industry Guidelines Group and was instrumental in developing and drafting the PEIGG Valuation and Reporting Guidelines.

David served as a member of FASB's valuation resource group responsible for providing the board with input on potential clarifying guidance on issues relating to the application of the principles of FASB ASC Topic 820, *Fair Value Measurements and Disclosures*. He was also a member of the AICPA Alternative Investments Net Asset Value Task Force providing guidance on valuing investors' interests.

Prior to joining Duff & Phelps in 2006, he was a partner in the transaction advisory services group at KPMG LLP, where he held several leadership positions and served for 13 years in the firm's audit practices in Seattle, Prague and Dusseldorf. He has advised numerous strategic and private equity acquirers in all areas of joint ventures and divestitures. David's clients have included leading private equity firms, institutional investors and other alternative asset managers and investors.

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1

Introduction

By David L. Larsen, Duff & Phelps LLC

Since the publication of the first edition of this guide in 2009, the US Financial Accounting Standards Board (FASB) amended fair value guidance multiple times. FASB's 2011 amendment (through ASU 2011-4) harmonised fair value rules with the International Accounting Standards Board's (IASB) inaugural fair value guidance (IFRS 13). This new publication, *Private Equity Valuation*, expands on the first edition by:

- Updating valuation techniques and nuances.
- Incorporating the changes to fair value rules made by FASB and the IASB.
- Expanding guidance on valuing limited partnership interests and early-stage or venture capital investments.
- Providing insight into an expanded regulatory framework, including the Dodd-Frank Act in the US and the Alternative Investment Fund Managers Directive (AIFMD) in Europe.
- Explaining valuation nuances for investments in real estate, energy, shipping and management companies/GP interests.
- Providing an enhanced framework to determine the attribution of value created by individual investments.

The first edition of this publication came on the heels of the residential real estate market collapse in 2007, the end of investment banks Bear Stearns and Lehman Brothers in 2008, and growing unemployment throughout 2009. The great financial crisis of 2007–08 yielded a worldwide economic recession, failures of banks, and taxpayer rescue of financial institutions and corporations. While there were many causes for the global economic crisis, one supposed *offender* was the accounting standard known as 'mark to market' or 'fair value'. With the global economy rebounding, albeit slowly, in 2014 and with global fair value accounting standards having converged, questions remain about how best to consistently estimate and use fair value, especially with respect to alternative assets.

Financial accounting standards are usually not the topic of polite conversation. Few outside the green eyeshade crowd of certified public accountants can name accounting standards by number. Few would want to name them by number. Why then has ASC Topic 820[1] (as it is known in the US) or IFRS 13[2] (as it is known around the world) become the lightning rod of so much polarising debate? During the financial crisis,

[1] Prior to July 2009, the US FASB designated accounting standards (Statement of Financial Accounting Standards – SFAS) by sequential number. Effective 1 July 2009, FASB changed the nomenclature for authoritative US GAAP. The source of authoritative US GAAP (Generally Accepted Accounting Principles) is now the *FASB Accounting Standards Codification*™ (FASB Codification, or ASC). *(continued)*

SFAS No. 157 (now ASC Topic 820), which was issued in 2006 and became effective in 2007, brought together on the same side of an issue members of the European Commission; the G-20; The Blackstone Group's co-founder and CEO Stephen Schwarzman; Steve Forbes, managing editor of *Fortune* magazine; William Isaacs, former chair of the US Federal Deposit Insurance Corporation (FDIC); Newt Gingrich, former speaker of the US House of Representatives; Barney Frank, chair of the US House Financial Services Committee; and virtually all of the Democrats and Republicans on the US House of Representatives Financial Services Subcommittee On Capital Markets, Insurance and Government Sponsored Entities. Why did they vilify 'mark-to-market accounting' as they called it, while Mary Schapiro, chair of the US Securities and Exchange Commission; Ben Bernanke, former chairman of the US Federal Reserve; major investor groups; investment analysts; global accounting standard setters; and independent accountants seem to be supportive?

What is fact and what is fiction? Where does suspicion of fair value accounting begin and trust in fair value judgements end? Unfortunately, there is a great deal of misinformation and misunderstanding surrounding the concept of fair value accounting. By definition, '*Fair value is 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*.' Why do these 30 simple words create so much debate? This guide, *Private Equity Valuation*, will separate fact from fiction from opinion.

Fair value, clarified

ASC Topic 820 provides a common definition of fair value and expands the disclosure (transparency) requirements identifying how fair value estimates are determined. A common misconception is that SFAS No. 157 changed the rules identifying which assets or liabilities should be recorded at fair value. *It did not.* Assets previously reported at fair value continue to be reported and measured at fair value; assets reported at cost continue to be reported at cost. Other accounting standards, which have been applicable for years, some for decades, mandate the use of fair value in certain circumstances. SFAS No. 157 did not give birth to fair value accounting – it harmonised the definition of fair value and added transparency identifying how fair value, when required, is to be estimated.

Another common misconception of fair value accounting rules relates to 'fire sale' pricing. To be clear, ASC Topic 820 does *not* allow the use of distressed (fire sale) pricing.

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[1] *(continued)*
Changes to GAAP are communicated through an Accounting Standards Update (ASU). ASUs are published for all authoritative US GAAP promulgated by the FASB, regardless of the form in which such guidance may have been issued prior to release of the FASB Codification (for example, FASB Statements, EITF Abstracts and FASB Staff Positions). ASUs also are issued for amendments to the SEC content in the FASB Codification as well as for editorial changes.
For ease of use, and because of much of the marketplace has adopted the new nomenclature, this guide will use the term ASC Topic 820 to refer to FASB's Fair Value Measurement guidance (formerly known as SFAS No. 157). In 2011, ASC Topic 820 was amended by ASU 2011-4 to harmonise with the IASB release of IFRS 13.

[2] In 2011, with the release of IFRS 13, the IASB issued fair value guidance virtually identical to ASC Topic 820. As such, the definition of fair value is now identical under US GAAP and IFRS.

ASC Topic 820 does, however, require the use of judgement. Unfortunately, there have been some inconsistencies (as noted below) in implementing the definition of fair value under ASC Topic 820. A distressed price is not allowed to be used to determine fair value in accordance with US Generally Accepted Accounting Principles (GAAP). Those who think otherwise are greatly misinformed.

ASC Topic 820 requires disclosure of the 'inputs' used in valuation techniques to estimate fair value. Inputs are classified as Level 1, 2 and 3. Unfortunately, rather than using the level disclosure as a qualitative characteristic of the input, many practitioners have inappropriately used the level disclosure as a qualitative characteristic of a particular asset. Level 3 assets, somehow, have unjustifiably been deemed bad or toxic. Again, this is a common misconception. ASC Topic 820 requires the inputs (the data used for valuation) to be classified as Level 1, 2 or 3. The Level 1, 2, 3 criteria does not provide information on the *quality* of an asset; it only provides information about the *observability* of the inputs used to determine value.

For example, had ASC Topic 820 been applicable for Google's initial investors (ASC Topic 820 disclosures were not required at the time of Google's initial public offering (IPO) in 2004; fair value however was required), the inputs used to value Google would have been deemed Level 3 – not observable. Having Level 3 inputs would not mean Google was a bad company or was a toxic investment; early investors achieved huge returns. Level 3 only tells readers of financial statements that the data used to value Google shares at that time were not observable. Once Google was publicly traded, the valuation input would have become Level 1 because it was observable in an active market. Google was still the same company. Using Level 3 inputs prior to the IPO did not mean Google was a toxic investment, and using Level 1 inputs after it was publicly traded did not magically clean up the non-existent toxic waste that some attribute to Level 3.

The difference between observable (public) and non-observable (private) information is a judgement-based determination. Private information is not automatically bad. It only denotes that the general public may not have access to the information used to value certain illiquid investments.

Some have called for the suspension of mark-to-market accounting. How would that help? Suspending or eliminating ASC Topic 820 would reduce transparency and the industry would revert back to the prior definition of fair value: *what price would a willing buyer and willing seller agree to transact*. Suspending ASC Topic 820 would not eliminate recording any assets at fair value. Reducing transparency by suspending ASC Topic 820 would be paramount to removing the 'sell by' date from milk at the supermarket with the assumption that by so doing more milk will be sold.

Perceived issues with fair value

Why then do so many intelligent, articulate people seem to believe that 'fair value' is problematic? While there are numerous opinions behind the denigration of fair value accounting, in general there are six reasons that have caused a venomous reaction to fair value principles: the bursting of the real estate bubble, the conflict between rules

and principles resulting in the misapplication of mark-to-market accounting, increasingly illiquid markets for certain assets, the impact on banks of 'other than temporary impairment' accounting rules, regulatory reliance on GAAP financial statements, and post-crisis regulation.

1. Bursting of the real estate bubble

First, it must be acknowledged that the real estate bubble did in fact burst. As the value of real estate started to fall in 2006, it set off a chain reaction and other dominoes started to tumble. Credit markets seized up, causing assets originally deemed liquid to become illiquid, and off-balance sheet risks became more apparent.

Mark-to-market accounting did not cause homeowners to stop paying their mortgages. Mark-to-market accounting rules did, however, force financial statement preparers to more robustly evaluate the value of those assets which were required to be recorded at fair value. Because fair value accounting shines a brighter light on management's assessment of value, some managers started to shout, "Get that light out of my eyes!" While the long-standing rules of recording certain assets at fair value were well understood, the greater focus on transparency adopted by ASC Topic 820, accompanied with the real estate bubble deflation, caused a reaction that negatively characterised fair value accounting as the villain.

2. Conflict between rules and principles

The second major problem came as the result of the confluence of two independent, unrelated noble goals. The first was the issuance of ASC Topic 820 in the US combined with FASB's stated goal to establish accounting standards that are more principles-based (as are international accounting standards). One of the past criticisms of US GAAP was that it was deemed to be very rules-based. With continued pressure for convergence between international accounting standards and US GAAP, FASB made a concerted effort to provide accounting standards that are principles-based. Therefore, ASC Topic 820 was intended to provide guiding principles requiring the exercise of judgement. It did not provide specific rules.

The second noble goal was to 'fix' the corporate fraud and the audit profession, in the post-Enron, post-Parmalat environment. The US Sarbanes-Oxley Act created the Public Company Accounting Oversight Board (PCAOB) as the regulator of auditors. The PCAOB's reach extends around the globe to auditors outside the US. Sarbanes-Oxley also created criminal penalties for CEOs, CFOs and auditors who 'broke the rules'. Therefore, more than ever in the current economic crisis, management and auditors want to follow the rules. Yet principle-based accounting standards require the exercise of informed judgement. At the time of writing, the PCAOB continues a decade of silence in providing guidance to auditors on what rules should be followed when auditing judgementally determined fair value estimates. The historical rules-based system has crashed head-on with a newer principles-based accounting standard.

One of the ways many have dealt with this problem of rules versus principles is to focus on observable transaction prices, even in markets which have become inactive or

where the volume of transactions is low. Using observable transaction prices is deemed to provide stronger evidence that rules are followed. This is the primary catalyst providing fuel to those who believe mark-to-market requires fire sale pricing. If an asset is sold at a distressed price – a fire sale price – and if management and auditors use that reference price as a basis to value other assets, effectively everything is valued using the last observable transaction price or fire sale price. Accounting rules do not require the use of last transaction pricing, but some have adopted that practice to ensure that they do not break the rules.

Another way this problem has surfaced is the push by auditors to use mathematical models to estimate fair value. Even though in many cases mathematical models are not used by market participants, some auditors feel that documenting fair value through the use of models could help limit pressure from the PCAOB. Yet the incorporation of such models in fair value estimates, when they are not used by market participants, is arguably in conflict with the judgement required by accounting standards.

FASB has amended ASC Topic 820 several times, in October 2008, April 2009, September 2009, and finally to harmonise with IFRS 13, in May 2011. Many of these amendments had the primary goal of pushing financial statement preparers and auditors to use judgement to estimate fair value while taking into account all appropriate inputs, especially in markets that are not active. Even with these amendments, tension continues to exist between the rules-based regulatory environment and the requirement to use informed judgement in estimating fair value. This tension is often eased when a third-party valuation expert is brought in to assist the validation of such informed judgements. However, tension will continue to exist where management teams are not robust in their use of appropriate inputs, and where they do not clearly document their fair value estimation processes, procedures and conclusions.

3. Growing illiquidity

The third reason for the violent reaction to mark-to-market accounting is the illiquidity in certain markets. Many assets, including structured products, asset-backed securities and related financial instruments, were initially valued using Level 2 inputs (defined as assets where prices are observable, or were based on similar securities in active markets). As fewer and fewer transactions took place, ASC Topic 820 (as amended) required that additional inputs (Level 3) be used to estimate fair value. However, because of the stigma associated with Level 3 inputs (deemed toxic) and management's and auditor's reluctance to move away from observable (Level 2) pricing, these illiquid assets increasingly were valued during the crisis at last-transaction prices. Again, this is not because it is required by ASC Topic 820, but because there is a level of comfort in using observable inputs.

4. Hold-to-maturity loans[3]

The fourth enemy of mark-to-market accounting is not fair value itself, but the impact of other accounting standards applicable primarily to banks. Great debate has taken

[3] As the time of publication, both the IASB and FASB continue to debate changes to the accounting for financial instruments, including hold-to-maturity loans.

place and continues to take place on the appropriate accounting model for financial instruments, such as loans. Historically, when a hold-to-maturity loan is deemed other than temporarily impaired (it is beyond the scope of this guide to get into the nuances of hold-to-maturity accounting), then the loan needs to be written down to its fair value.

First and foremost, it must be stated that such write-downs are precipitated by a triggering event identifying that the loan is in fact impaired. Then, and only then, does mark-to-market apply. In April 2009, FASB issued new rules for hold-to-maturity loans which provided investors with greater transparency by recording the 'credit component' (actual expected cash losses) of the fair value adjustment in the profit and loss statement (impacting regulatory capital) and the remainder of the fair value adjustment (due to market conditions, marketability and supply demand) as a reduction in 'other comprehensive income' (a separate component of equity which does not impact regulatory capital). FASB and the IASB continue to debate the appropriate accounting treatment for financial instruments, such as loans, held by banks and similar institutions.

5. Prudential regulation

The fifth point is related to prudential regulation. Repeatedly, mark-to-market is said to prevent banks from lending. How could an accounting standard handcuff lending? Prudential regulators, not accounting standard setters, determine how much a bank can loan based on various criteria, including the bank's capital adequacy. When loans are impaired and are written down to fair value, a bank's capital is reduced and the amount a bank can loan is reduced. Bank regulators do have the ability to determine both the amount of capital required and where adjustments to the calculation of capital are necessary. Therefore, regulators can allow adjustments to the financial statements in determining capital adequacy.

6. Post-crisis regulation

Finally, the sixth point is increased regulation post crisis. The passage in the US of the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010 and the implementation of the Alternative Investment Fund Managers Directive in Europe in 2013, have increased the regulatory oversight of larger alternative investment managers. Even though there is little evidence to support that alternative investment funds had any significant impact on the 2008-09 financial crisis, governments felt the need to demonstrate action and therefore created new regulation impacting the alternative investment world. As such, the US Securities and Exchange Commission and European regulatory bodies such as the UK Financial Conduct Authority perform regular inspections of fund managers which include their approach to valuation.

Timing of mark-to-market rule changes

Some have argued that SFAS No. 157 was implemented at an inopportune time and that it is difficult, if not impossible, to apply fair value concepts in depressed market conditions. However, based on extensive work with a wide range of fair value financial statement preparers to value thousands of illiquid assets, the author and his colleagues have concluded that mark-to-market principles, when properly applied, allow for the

appropriate exercise of informed judgement utilising current market conditions to result in a reasonable assessment of fair value where required.

Mark-to-market or fair value estimates have been at times misapplied because of the tension between the historical rules-based framework and the current drive towards a principles-based framework. Failing to acknowledge that many, if not most, assets in a recessionary economic environment have decreased in value is paramount to maintaining that the world is flat. While author Thomas Friedman may describe the world as flat, it is indeed round. Calling the earth 'flat' does not make it so.

Conclusion

Suspending fair value would not cause mortgages in default to become current. Stopping delivery of quarterly pension account statements will not magically cause account balances to retain value. Fair value is not always best represented by the 'last observable transaction price'. Fair value should be based on an assessment of an 'orderly' transaction, using market participant assumptions, not a historical transaction price or mathematical model that may not represent an orderly transaction.

Mark-to-market has been unjustly vilified, in part because it has been misapplied. Because many intelligent individuals attack mark-to-market accounting does not mean that investors are better served with less transparency into how the fair value of their investments is determined. Just because observable transaction prices are easier to verify does not mean they should replace realistic informed judgement as to what assets could be sold for in an orderly transaction today. Hiding from existing market conditions does not make difficult market conditions go away.

Mark-to-market accounting has become a lightning rod for dissent when applied without judgement or without market participant assumptions. Judgement is required to estimate fair value. Fair value provides greater transparency to users of financial statements when applied as intended through the use of judgement. For those who apply informed, validated judgement, mark-to-market works; for those who do not, it would not. Most consumers check the freshness date on a carton of milk prior to purchasing. Removing the freshness date will not make sour milk fresh! This guide is designed to give the reader practical guidance in valuing alternative assets fairly. It provides nuts-and-bolts descriptions of valuation nuances and practical applications for determining the fair value – *the freshness date*, so to speak – of alternative assets. □