

American Appraisal Associates, Inc.  
411 East Wisconsin Avenue, Milwaukee, WI 53202  
tel 414 271 7240

Leading / Thinking / Performing



September 3, 2013

International Valuation Standards Council  
68 Lombard Street  
London EC3V 6LJ  
United Kingdom

Re: The Valuation of Equity Derivatives  
Exposure Draft

To: The Standards Board Working Group Members:

Attached for your consideration are our responses to the Questions for Respondents from the above-referenced Exposure Draft (“ED”), which is expected to culminate in a Technical Information Paper (“TIP”) for the valuation of equity derivatives. The concept of derivatives is not new, but their widespread use became common during the past 15 years. Unfortunately, considerable diversity remains in the ways in which the fair value of these instruments is estimated.

As stated in the “Introduction to Exposure Draft,” this proposed TIP is the “first of a planned series of papers designed to bring greater consistency and transparency to the valuation of derivatives.” This effort to promote consistency of practice is commendable and, as a firm of valuation professionals, American Appraisal thoroughly supports this effort.

We are concerned, however, about the depth of the guidance in this ED. Currently, the ED covers issues only in the broadest sense and is more informational than in any way prescriptive. Perhaps the planned subsequent series of papers will provide greater technical depth and more specific guidance to narrow the significant gap that exists with respect to the valuation of derivatives.

Given the stated intent of the ED, this and subsequent documents should be drafted with sufficient detail to provide the guidance that professional valuers and reviewers of valuations will use in their practices.

Sincerely,

A handwritten signature in black ink that reads 'American Appraisal' in a cursive script.

American Appraisal

ATTACHMENT 1 – Questions for Respondents

## Attachment 1 - IVSC STANDARDS BOARD QUESTIONS FOR RESPONDENTS

- 1. UNDER THE HEADING OF “EQUITY DERIVATIVE PRODUCTS” (PARA 11-22) THE MAIN TYPES OF EQUITY DERIVATIVE ARE LISTED. DO YOU BELIEVE THERE ARE ANY MATERIAL OMISSIONS? IF SO, PLEASE INDICATE WHAT THEY ARE.**

The referenced paragraphs speak to the most common types of equity derivatives. However, the ED should also include range forwards or other option strategies that are traded or sold by banks and financial institutions as a bundled product. Additionally, because companies issue complex stock options (with market conditions and performance conditions), the valuation of these options for financial reporting or internal decision-making purposes will not be straightforward. Perhaps these complexities could be highlighted?

Also, we are witnessing increasingly complex acquisition structures. After the recent credit crisis, which resulted in companies having to record significant impairment losses, acquirers are stepping up their use of contingent consideration, which can be very complex. Addressing this situation, including the models and inputs, in the TIP could be developed as a helpful illustration for valuers and reviewers of such valuations.

With the increasing popularity and complexity of structured products for debt and equity (e.g., convertible notes), paragraphs 19-21 should be expanded.

- 2. DO YOU BELIEVE THE DESCRIPTIONS PROVIDED FOR EACH OF THE LISTED PRODUCTS ARE SUFFICIENTLY DETAILED?**

No. These are very high-level descriptions for complex instruments.

Within paragraphs 29-30, readers will benefit from more discussion about equity swaps because the valuation methods, like the swaps themselves, are becoming significantly more complex. The adjustments (FVA, CVA, and DVA) are integral and are not mentioned. Additional discussion regarding the types of swaps would also be helpful (e.g., total return, index, share, equity default, and relative value swaps).

- 3. DO YOU THINK MORE COMPLICATED DERIVATIVES AND STRATEGIES SHOULD BE INCLUDED? FOR EXAMPLE WHERE PRODUCTS ARE COMBINED, SUCH AS IN STRADDLES AND STRANGLES?**

Yes. Considering that more and more exotic instruments are available (to which more companies have exposure), it would be appropriate to address these instruments as well as range forwards,

butterflies, collars, covered calls, protective puts, etc. These instruments look rather complex when bundled, but they become rather simple when broken down into various smaller options.

**4. THE DISCUSSION ON FORWARDS (PARA 23 to -27) INCLUDES A NUMBER OF FORMULAE. DO YOU FIND THE INCLUSION OF FORMULAE TO BE HELPFUL IN UNDERSTANDING THE PRINCIPLES OR WOULD YOU PREFER A PURELY DESCRIPTIVE NARRATIVE?**

The formulae in the ED are helpful to the reader and should remain as part of the explanations. We recommend the use of formulae be expanded (e.g., Black-Scholes formula and description of inputs and  $N(d1)$  and  $N(d2)$  would be effective). Perhaps these could be located in an appendix.

The document explains the interest rates (risk-free rate and discount rates) that need to be considered in the option pricing model (paragraph 31 and onward). The document should also mention the relevant discount rates and interest rates along with the formulae for the forward and future valuations.

**5. WOULD YOU PREFER TO SEE GREATER USE BEING MADE OF FORMULAE TO ILLUSTRATE PRINCIPLES IN OTHER PARTS OF THE TIP?**

Yes. As stated above, formulae and illustrations are helpful to the reader and should be part of the ED wherever applicable.

**6. THE DISCUSSION OF VARIOUS MODELS TYPES INCLUDES THE KEY ASSUMPTIONS AND OTHER INPUTS REQUIRED. THE OBJECTIVE IS NOT TO PROVIDE DETAILED INSTRUCTION ON THE USE OF THE MODEL, BUT DO YOU THINK THE INFORMATION ON THESE INPUTS IS SUFFICIENTLY DETAILED TO PROVIDE AN UNDERSTANDING OF THE PRINCIPLES INVOLVED BY SOMEONE RELYING ON THE VALUATION?**

The treatment of Black-Scholes in the ED is fairly basic, and the description of pros and cons is good; however, there is only limited discussion about the finite difference, Monte Carlo, and other valuation methods. In our opinion, the ED must address models other than Black-Scholes in greater detail because Black-Scholes does not have the desired flexibility for dealing with floating inputs associated with derivatives that are prevalent in the marketplace.

**7. DO YOU BELIEVE THE MODEL SECTION OF THIS PAPER SHOULD DISCUSS EACH MODEL'S RELATIVE APPLICATIONS AND WHEN IT IS APPROPRIATE TO USE ONE RATHER THAN ANOTHER, FOR EXAMPLE, BY MAPPING EACH MODEL TO A LIST OF PRODUCTS?**

Yes, we believe the model section of the ED should discuss each model's relative applications and when it is appropriate to use one rather than another. We believe such discussion and mapping would be useful to valuers and the users of such valuations and would help establish practical guidance.

However, such guidance could be misinterpreted as a rigid requirement. While experienced valuers will presumably understand the use of appropriate methods for valuing different type instruments, inexperienced reviewers might reference the mapping and disregard the experienced valuer's more appropriate judgment. Perhaps it would be beneficial to also explain which models might be less appropriate in certain situations.

**8. "THE GREEKS" ARE SUMMARISED WITH BRIEF DESCRIPTIONS IN THIS PAPER. DO YOU BELIEVE IT WOULD BE HELPFUL IF THERE WERE A MORE DETAILED DISCUSSION OF SENSITIVITIES?**

Valuers performing the valuation of derivatives should already be familiar with these sensitivities; however, inexperienced users of valuations may benefit from a more detailed discussion.

**9. PLEASE LIST THE DEPARTMENTS WITHIN YOUR ORGANISATION THAT YOU BELIEVE WOULD FIND THIS DOCUMENT USEFUL, E.G., EXECUTIVE MANAGEMENT, TREASURY, RISK, FINANCIAL REPORTING, PRODUCT CONTROL, ETC.**

Responding as a valuation firm, this document would be pertinent to financial valuation professionals.

**10. DO YOU CONSIDER THAT THE OVERALL LEVEL SCOPE AND LEVEL OF DETAIL IN THIS PROPOSED TIP IS SUFFICIENT TO MEET ITS OBJECTIVE OF REDUCING DIVERSITY OF PRACTICE AND RAISING AWARENESS OF THE PRINCIPLE METHODS USED FOR VALUING EQUITY INSTRUMENTS AMONG THE WIDER FINANCIAL COMMUNITY, AND IN PARTICULAR INVESTORS?**

Whether the proposed TIP increases investors' awareness or understanding of the methods used for valuing equity instruments is best left for the wider financial community and investor respondents to address.

With respect to valuation practitioners, we believe the proposed TIP falls short of its goal to reduce diversity of practice due to the document's high-level, mostly descriptive and definitional nature. Valuing equity derivatives is a highly technical process that requires judgment and experience. Without sufficient guidance, it is possible for valuers to agree on high-level theoretical aspects yet develop significantly different valuations. We do not believe the proposed TIP will remedy the diversity of practice that currently exists. We do recognize, however, that the introduction to the proposed TIP states that it is the first in a planned series on this subject; perhaps the ensuing TIPs will provide greater and more detailed guidance.