



30 September 2013

Our ref: ICAEW Rep 134/13

IVSC
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CommentLetters@ivsc.org

Dear Ms Castaneda

Proposed Revisions to IVSC Exposure Draft: The Valuation of Equity Derivatives

ICAEW is pleased to respond to your request for comments on the IVSC Exposure Draft: *The Valuation of Equity Derivatives*.

ICAEW is keen to play an active role in this project, and the ICAEW Valuation Group Committee would welcome a conversation for further discussion on this matter as a whole.

Please contact me should you wish to discuss any of the points raised in the attached response.

I look forward to hearing from you.

Yours sincerely

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ICAEW REPRESENTATION

PROPOSED REVISIONS TO IVSC EXPOSURE DRAFT: THE VALUATION OF EQUITY DERIVATIVES

Memorandum of comment submitted in September 2013 by ICAEW, in response to IVSCs Exposure Draft: *Valuation of Equity Derivatives* published on 1 July 2013.

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INTRODUCTION

1. ICAEW welcomes the opportunity to comment on the IVSC Exposure Draft: *The Valuation of Equity Derivatives* published on 1 July 2013, a copy of which is available from this [link](#).

WHO WE ARE

2. ICAEW is a world-leading professional accountancy body. We operate under a Royal Charter, working in the public interest. ICAEW's regulation of its members, in particular its responsibilities in respect of auditors, is overseen by the UK Financial Reporting Council. We provide leadership and practical support to over 140,000 member chartered accountants in more than 160 countries, working with governments, regulators and industry in order to ensure that the highest standards are maintained.
3. ICAEW members operate across a wide range of areas in business, practice and the public sector. They provide financial expertise and guidance based on the highest professional, technical and ethical standards. They are trained to provide clarity and apply rigour, and so help create long-term sustainable economic value.
4. The Valuation Group is the voice of Valuers within ICAEW, and the committee includes representatives from the business and practice communities. It draws together professionals engaged in valuation and its 900 members receive a range of services including an annual conference, business valuation training, quarterly newsletters, and regular seminars providing technical insight and practical guidance.

MAJOR POINTS

5. We welcome the intention of IVSC to enhance the standards of derivative valuation by promoting less diversity and more transparency in the valuation practice of the banking industry; however, the paper could go further towards achieving these objectives.
6. We feel the TIP lacks a level of practicality and key topics such as how to select appropriate discount rates have been omitted.
7. IVSC should perhaps further explore the question of how prescriptive the guidance given in the TIP should be. Of course, it is neither practical nor desirable to list every known product for an asset class and prescribe which models should be used for each, as any list would quickly become out of date.

We therefore believe that the best approach would be to try to define a set of general principles and guidelines to be followed by practitioners in relation to the most material valuation issues faced within equity derivatives. Such issues may or may not be specific to a particular product. This may include discussion of the modelling approaches commonly used, along with the adjustments required to compensate for deficiencies in each approach. Where disclosure of valuation uncertainties would be helpful, valuation guidance could usefully include discussion of the principal sources of valuation uncertainty and the methods determining the varying levels of uncertainty within models. Such a metric is likely to be relevant to an individual firm's decision on modelling approach. The question of how possible and necessary it is to quantify such uncertainty is currently a source of debate, and it is important to show transparency about the level of inherent uncertainty that inevitably exists in relation to the model and data.

RESPONSES TO SELECTED SPECIFIC QUESTIONS

QUESTION 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.

8. Autocallable options have been a very popular equity derivative product in recent years; this type of option is missing from the section. There are other products that are not listed, such as dividend swaps and options, options on volatility or variance and ‘gap’ products such as CPPI (constant proportion portfolio insurance) and crash cliquets. The question of whether a given product is material depends in part on whether the objective of the paper is to capture the biggest products or those for which the uncertainty is largest (e.g. new products for which no industry-wide consensus has yet developed on best practice).

QUESTION 2: Do you believe the descriptions provided for each of the listed products are sufficiently detailed?

9. The descriptions for each product are sufficient.

QUESTION 3: Do you think more complicated derivatives and strategies should be included? For example where products are combined, such as in straddles and strangles?

10. As stated in our response to Question 1, we do consider that other derivatives should be included. However, descriptions of derivative strategies are not necessary, unless the TIP aims also to include the portfolio level valuation adjustment and risk netting which we think should be included in the scope.

QUESTION 4: The discussion on forwards (para 23-27) 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?

11. It can be helpful to include mathematical formulae; however it is essential to have narrative explanations that can stand alone.

QUESTION 5: Would you prefer to see greater use being made of formulae to illustrate principles in other parts of the TIP?

12. Formulae used to reflect practical issues, however theoretical formulae can be found in textbooks. Formulae should not replace narrative description.

QUESTION 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?

13. In the discussion of option pricing models, we feel the TIP is currently focused on theories and could be expanded upon to include the practical issues that cause diversity in valuation processes in the industry and the descriptions of option pricing methods should be expanded upon. It could provide guidance on advantages and limitations of Black Scholes and compare with lattice models and Monte Carlo to allow the practitioners to assess the application in various valuation exercises. Also, more thorough guidance on volatility is needed again comparing historical vs. implied. It would also be useful to link the models to products to enhance the understanding for the readers. We felt instead of being very generic, the TIP

could identify the most material valuation issues commonly seen in the equity derivative space and discuss those in more detail.

QUESTION 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?

14. We do not believe such a prescriptive mapping is an achievable or appropriate objective for a cross-industry paper. However, some practical guidance or discussion on the pros and cons of the various techniques when applied to value the different types of instruments would be very helpful in assisting valuers in deciding on the most appropriate method. Please see our summary comments above for further discussion of this point.

QUESTION 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?

15. The "Greeks" are important, however a detailed discussion should include the links between sensitivities and valuation, including the practical issues e.g. call spreads.

QUESTION 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.

16. Not applicable.

QUESTION 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?

17. Overall, we feel the theoretical models are already quite well known in the financial community and thus the incremental value of the TIP should be in setting out the real-life issues that actually cause diversity of practice.

The paper describes a limited selection of products and product features but does not discuss the valuation implications of those features in practice, or the commonly accepted valuation practice. For example digital and barrier options may generate unhedgeable Gamma risk in theoretical models and common practice is to approximate the digital option with a call spread; however the width of the call spreads is often very subjective and hence also a source of diversity in practice.

The paper describes some basic valuation models, along with intrinsic advantages and disadvantages of each, but does not explore the transparency of decision making process as to which product features would tend to make the advantages outweigh the disadvantages for a given model. For example there is no discussion of what product features would make a stochastic volatility model preferable to a local volatility model.

Overall the TIP limits its contents to the basics of derivative valuation theories. An early example of such limitation can be found in the "valuation of forwards and futures" and "equity swaps" sections (para.24-30), in which the TIP briefly outlined the theory behind valuation but it would be useful to also explain the differences in practices that often lead to dispersion in valuations, such as different modelling of dividend yield (continuous vs. discrete), or different models for interpolation and extrapolation. It would also be helpful to include model limitations that might affect products with discontinuous pay-outs and methods for correcting for such limitations (e.g. barrier shifts) which in practice are one of the major sources of model

uncertainty for many of the products listed. It is probably not feasible to set out best practice, advantages / disadvantages of using each model, therefore the TIP may be more useful if it could elaborate on such issues and propose general principles to be followed by practitioners.

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