Response to the International Valuation Standards Board's Discussion Paper entitled
"VALUATION UNCERTAINTY"

Italian Permanent Committee on
Business Valuation Guidelines

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Introduction

The International Valuation Standard Board (IVSB), the standard-setting body of the International Valuation Standard Council (IVSC), has issued a Discussion Paper on Valuation Uncertainty (hereinafter DP). The DP summarises the Board's preliminary views on the nature and causes of valuation uncertainty and on how this should be communicated to valuation users. The Board will consider responses to the DP in deciding whether amendments are required to the proposed New International Valuation Standards (ED June 2010) and whether a project should be undertaken to consider the development of technical guidance on possible methods for estimating a quantitative measure of uncertainty.

The Italian Permanent Committee on Business Valuation Guidelines (hereinafter IPC) is pleased to have the opportunity to express its views on the Discussion Paper issued by the IVSB.

The IPC is promoted by Bocconi University. It consists of members of academia and representatives of the professions and other stakeholders (valuers, auditors, investors, accounting standard setters, financial markets) and its purpose is similar to that of the IVSC, that is to advance quality improvement in business and asset/liability valuations through the dissemination of guidelines and valuation standards. The IPC does not have any expert (from academia or otherwise) in the field of property valuation. The IPC is not a professional body and, like the IVSC, has no regulatory power. However, the IPC addresses both valuers and users, as in Italy there is no professional body specialising in the valuation of companies, financial instruments and/or real assets.

This letter has been developed by the members of the Committee and its content cannot be construed in any way as being representative of the official position of the institutions to which such individual members belong.

The IPC agrees with the basic principle that "valuation is not a fact" and that, accordingly, uncertainty is inherent in any valuation exercise. Valuation is the result of a process in which consideration has been given to all meaningful information. The IPC agrees also with the general principle contained in IVS 105 whereby it "is essential that the valuation report communicates the information necessary for proper understanding of the valuation". However, the IPC feels that, when it refers to "uncertainty outside the normal uncertainty for the applicable market", the IVSB should identify the factors that valuers should consider in determining whether the uncertainty is normal or abnormal. In the absence of adequate clarification and without an adequate taxonomy of the circumstances and/or events that might generate abnormal uncertainty, different valuers can reach widely varying conclusions.

The IPC identified five different situations of abnormal uncertainty in the following cases:
   a) The valuation process leads the valuer to identify first a range of value estimates, instead of a specific value, and then to select the most appropriate value from that range (when such selection is possible);
   b) A comparison should be made between valuations of the same asset/liability performed at different dates, if the valuation methods and/or approaches utilised are inconsistent for reasons beyond the valuer's control;
   c) The valuer detects a model misspecification in relation to the asset/liability to be valued or a model uncertainty with respect to the valuation context;
   d) The valuer is not independent of the valuation client and/or does not have adequate valuation skills and/or experience;
   e) The valuer has received only a partial valuation assignment.

In the case under a), the valuation report already shows a quantitative statement of valuation uncertainty whilst in cases b), c), d) and e) the IPC thinks that the valuer cannot provide a quantitative statement of valuation uncertainty. However, the valuer is required to clarify the causes of valuation uncertainty and to indicate that such valuation uncertainty may have a material effect on the estimated figure.

To further clarify the IPC's standpoint, this comment letter has been structured in two parts. Before answering the individual questions, an overview is provided to illustrate the rationale of the answers to the single questions.

Overview

The IPC's general comment on the DP is presented in the 5 points outlined below.

1) The Focus of the DP

The Board has issued the Discussion Paper in the light of growing calls from financial regulators for the better identification and communication of uncertainty in valuations. In particular, the DP's introduction refers to:
   a) The main documents published by financial regulators following the global financial crisis on the issue of transparency and valuation reliability;
   b) ED/2010/7 issued by the IASB on "Measurement Uncertainty Analysis. Disclosure for fair Value Measurements. Limited re-exposure of proposed disclosure" (hereinafter ED/2010/07).

The sets of documents under both a) and b) refer to <u>fair value</u> estimates. In particular, the IASB's ED addresses the disclosure required in case of fair value estimates based on level 3 inputs (for financial reporting purposes). In the IPC's opinion, the IVSB should specify that the DP covers valuation uncertainty in measuring the <u>fair value</u> of assets and liabilities, not valuation uncertainty in general. To this end, it might be appropriate to recall the accounting standard setter's definition of fair value: "*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". This definition shows clearly that there is only one fair value for any particular asset or liability and that an initial source of valuation uncertainty are valuation processes where the valuer first arrives at a range of possible values and then selects, from within this range, the fair value of the specific asset/liability.

This would give a better understanding of:
   a) the definition of valuation uncertainty. The DP defines valuation uncertainty as the "probability that the valuation estimate would differ from the price in an actual transaction on the same terms on the valuation date". This definition applies only when the estimate is intended to determine the market price of an asset/liability. On the other hand, when the estimate is designed to measure the fair value of an asset/liability, it might be better to define valuation uncertainty as the "probability that the valuation estimate would differ from 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".
   b) the scope of the DP. If the definition of valuation uncertainty addressed fair value measurements, it would be clear that the document's content refers only to valuation reports prepared for financial reporting purposes. For this reason, the DP should clarify that:

> i. it does not deal with valuation uncertainty related to estimates of value in use, investment value or intrinsic value;
>
> ii. it relates to cases where the unit of valuation of the valuation report is the same as the unit of valuation used for the financial statements.

Putting the scope of the document into sharper relief (uncertainty in the results of fair value measurements in valuation reports prepared for financial reporting purposes) would translate into a clearer definition of the document's objectives.

2) The risk of divergence between the IVSB and the IASB

The DP seems mainly intended to clarify why: a) the requirement to report a quantitative statement of valuation uncertainty, without a proper explanation, might be counterproductive; b) valuation uncertainty disclosure should only concern cases where uncertainty is deemed abnormal vis-à-vis market standards and has a material impact on the outcome of the estimate regardless of the input levels utilised. These approaches seem to diverge from those of the IASB's ED/2010/7, whereby valuation uncertainty disclosure should always be quantitative and concern only valuations founded on level 3 inputs. According to the IPC, in dealing with valuation uncertainty in the measurement of fair value for financial reporting purposes and mindful of their different roles, the IVSB and the IASB should not adopt diverging outlooks. Notwithstanding specific concerns that the IVSB may have with the approach ultimately adopted by the IASB, valuation reports prepared for financial reporting purposes should be sufficiently comprehensive to allow reporting entities to meet any disclosure requirements set out by the IASB (and FASB), including quantitative disclosure, if adopted. The IASB's final goal should be to ensure a degree of valuation uncertainty disclosure for users of valuation reports consistent with the disclosure required for financial reporting purposes. The IASB and the IVSB should not part ways. Coordination between the two Boards should be as important an objective as the identification of the appropriate disclosure in the areas falling within their respective remits, that is financial statement disclosure and valuation report disclosure, respectively.

3) Changes in fair value end up magnifying valuation uncertainty

Coordination between the IASB and the IVSB requires also that the IVSB should acknowledge the different significance of valuation uncertainty for valuation report users and for financial statement users. For financial reporting purposes, certain assets and liabilities are measured and reported periodically at fair value, with changes in fair value impacting either profit or comprehensive income. Changes in fair value between two dates are more affected by valuation uncertainty compared with fair value estimates per se, as the volatility (i.e. variance) of the difference between two random variables is equal to the sum of their variances minus twice their covariance. The problem of magnification of estimate errors in fair value changes is well known in accounting quarters (Peasnell 2006).

"Consider an asset with a true fair value of €100 at the beginning of the year and a true value at the end of the year of €120. Further suppose that the estimates of fair value fall into one of three equally likely states: equal to true value; true value plus 10% error; and true value minus 10% error. Table 1 summarises the outcomes. The numbers in the first column of the table are the three different possible opening book value estimates; the numbers in the first row of the table are the end-of-period book values. The other figures are the gains and losses associated with particular opening and closing book values. Nine possible profit or loss outcomes are possible; all are equally likely. The expected (true) gain is €20. The variances of the opening and closing estimates of true value are €66⅔ and €96, respectively. But the variance of the estimated revaluation profit or loss is €262⅔, ie, equal to the sum of the two asset value variances.10 If we compute the standard

deviation by taking the square root of this variance, we have a measure that can be directly compared to the mean or expected gain or loss, ie, the income effect is equal to €20 plus or minus a standard deviation of €16.2. In other words, a balance sheet error of plus or minus 10% has magnified into a profit or loss error of 81%. "[1].

Table 1

Measurement error example

Gains and losses arising from different beginning and ending fair value estimates

		Fair value estimate at end of year		
		108	120	132
Fair value estimate	110	-2	10	22
at beginning	100	8	20	32
of year	90	18	30	42

Assuming that the fair value estimates at the two dates are uncorrelated, the variance of the difference is equal to the sum of the two variances. Thus, there is a magnification problem for the effects of valuation uncertainty with respect to two valuation estimates performed at different times on the same asset/liability. To eliminate this uncertainty, it might be appropriate to require valuation uncertainty disclosure, in the case of valuation reports related to assets/liabilities whose fair value changes have an accounting impact whenever valuers, for reasons beyond their control, could not use the same valuation models and/or approaches.

4) Any source of confusion should be removed.

In principle the DP should acknowledge that the price prevailing in an active market (level 1 input) for assets and liabilities identical to those undergoing the valuation process, on the valuation date, is the same as the fair value of the asset, as defined by the accounting standard setters (IASB and FASB). In these cases no valuation is required and there is no valuation uncertainty. However, the considerations outlined in paragraph 30 of the DP do not seem to refer to fair value as defined by accounting standards (i.e. exit price in orderly transactions between market participants). This is an example of divergence between the DP and the IASB's approach, which, according to the IPC, is a source of confusion.

Moreover, we suggest that the Rembrandt painting example be replaced with an example of a financial instrument, given that this is more likely to be encountered in practice. We also note that the DP states that Rembrandt's work is liquid because it is saleable. However, many definitions of liquidity refer to the ability to sell an asset without affecting its market price. Given that the market price of a Rembrandt is not known, the effect of the painting's sale on its market value cannot be known. As such, the use of such an asset to illustrate liquidity may be misleading.

5) Reference to a conceptual framework should be made

In dealing with valuation uncertainty in fair value estimates, the DP should refer specifically to a shared conceptual framework, otherwise any analysis of the valuation uncertainty issue risks being considered inadequate with respect to the concerns voiced by financial regulators. According to the IPC, only a reference to a conceptual framework can make it possible to determine whether the

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[1] Peasnell K., Institution-specific value, BIS working papers, No. 210, August 2006, page 7.

disclosure proposed in the DP is a reasonable answer to the question: what can the valuation standard setter do to help valuation users?

To this end, it might help to refer to the following equation, which is well known in the literature (Barth, 2004)[2]:

estimated fair value   = true fair value + estimation error   [1]
in symbols:
$$X \quad = \quad x \quad + \quad \varepsilon$$

Where:
- True fair value, x, reflects the price that would prevail in an active market for assets and liabilities identical to those undergoing valuation, on the valuation date. Obviously, true fair value is not the true value of the asset/liability but is that price which, for accounting purposes (IASB and FASB), reflects fair value and is recognised on the measurement date without any estimation. True fair value is the fair value of the asset that need not be estimated as it is observable in the market.
- Estimation error is the difference between estimated fair value (X) and true fair value (x).

The breakdown of estimated value in its two components (true fair value and estimation error) makes it possible to understand how:
- the volatility of estimated fair value (= σ^2_X) is determined by both true fair value volatility (so-called inherent volatility = σ^2_x) and estimation error volatility (=σ^2_ε). This shows that valuation uncertainty is inherent in any estimation exercise and that any valuation uncertainty disclosure makes sense only when this volatility exceeds levels regarded as "normal";
- inherent volatility corresponds to the economic volatility of the asset/liability, that is a metric which can indicate the market risk of the asset/liability as defined by the DP ("market risk is the loss an asset can face in a given interval of time due to changes in market conditions over that period" paragraph 6);
- estimation error volatility measures the accuracy of the estimate. The greater the estimation error the greater the scatter of the results that could be reached by two different valuers. For instance, given two valuers, one could estimate x as $X_1 = x + \varepsilon_1$ and the other as $X_2 = x + \varepsilon_2$.

Calls by financial regulators and the accounting standard setter for greater valuation uncertainty disclosure are due to evidence that financial statement users need to understand estimation standard volatility because it reflects information uncertainty, which they need to factor into their risk assessment. To this end, in ED/2010/7, the IASB requires an entity to provide a measurement uncertainty analysis for fair values categorised within Level 3 of the fair value hierarchy.

Relationship [1]:
a) under "normal" conditions, when the estimation error ($\varepsilon = X - x$) is on average equal to zero, indicates that the recognised value of X is an unbiased measure of x. Assuming that X and x are not correlated: $\sigma^2_X = \sigma^2_x + \sigma^2_\varepsilon$, that is the volatility of estimated fair value (=X) is greater than the volatility of the underlying true fair value (=x). This would mean, for instance, that the estimated

[2] Barth, M. E. 2004. "Fair Values and Financial Statement Volatility", in The Market Discipline Across Countries and Industries, Edited by Claudio Borio, William Curt Hunter, George G.. Kaufman, and Kostas Tsatsaronis. Cambridge, MA: MIT Press.

fair value of a financial asset traded in a thin market reflects the true fair value of the asset (x) with an error (X –x ≠ 0); yet, X represents in any case an unbiased measure of x. In such a context, how reliable is the estimate? From an accounting standpoint a measure is reliable if it is verifiable, representationally faithful and neutral. Verifiability is the extent to which different valuers would arrive at the same amount, X, given the same true fair value, x, to be estimated. Thus, the variance of ε reflects the verifiability of the estimate, a very important component in determining the reliability of a fair value measurement. The IASB's ED assumes that all the fair value estimates that fall within the Level 3 category are characterised by a high variance of ε. However, the variance of ε cannot be considered in absolute terms but needs to be evaluated with respect to the inherent volatility of true fair value. In fact, assuming that X and x are positively correlated, as is normally the case, the covariance of X and x, which measures the representational faithfulness (another dimension of the reliability of accounting information) of estimated fair value, is equal to σ^2_x (= inherent volatility). Thus, the greater the inherent volatility the greater X's reliability, coeteris paribus. For this reason, what is important is not the absolute value of the variance of ε but its relative value with respect to the variance of x. From this standpoint, the doubts expressed in the DP - on whether measurement error analyses should be reported for all fair value measurements categorised within Level 3 of the fair value hierarchy at the measurement date - would be justified by the fact that a normal level of valuation uncertainty should be assessed in relation to the volatility of true fair value instead of the nature of input data. However, these considerations would lead to believe that if valuation uncertainty exceeds a normal level, and there are no abnormal conditions (see the sub-paragraph below), the valuation report should already include a quantitative measurement of valuation uncertainty in the shape of a range of possible values. This because the valuation process should have prompted the valuer first to identify a range of values and then to select the fair value from within this range;

b) under "abnormal" conditions, when there is a bias that affects the specification of the estimation error volatility, X is no longer an unbiased measure of x. The main causes of bias are model misspecification and model uncertainty. To this end, there are four typical situations:

    a) there are no appropriate models to value a specific asset or liability. An example is the application of the Black-Scholes formula to price non-transferable options, such as employee stock options;

    b) there are several models that can be utilised to estimate the fair value of an asset but there is no hierarchy of models or a best practice to follow and the different models do not produce the same outcome. Thus, the (subjective) choice of a model affects the estimation error volatility (paragraph 12.4 of the DP);

    c) certain models may be disproportionately sensitive to small variations in input data, for example due to gearing effects in the model (paragraph 12.4 of the DP);

    d) in the specific market context, the theoretical frame of reference of valuation models is no longer applicable, for example because the market may be distressed and the adoption of a risk-neutral approach is not possible.

The IPC thinks that in all the cases of model misspecification and model uncertainty, valuers should:

a) report the limits of the results of their own valuation, as it is assumed that the estimation error volatility has a material effect on the valuation;

b) explain and disclose whether one or more of the foregoing four typical situations apply to the specific case.

It is precisely because of model misspecification and/or model uncertainty that it makes no sense to perform a quantitative analysis of valuation uncertainty.

Obviously, other abnormal cases as sources of bias can be due to:

2) the valuer's status:
    a) the valuer has inadequate skill and experience (paragraph 12.1. of DP)
    b) the valuer is not in an independent position (paragraph 12.1. of DP);
3) the scope of the work:
    c) the valuation assignment does not allow for an in-depth investigation and an adequate verification of the inputs (paragraph 12.2 of DP).

However, concerning these cases it should be noted that:
a) in case of inadequate skill and experience, the valuer should not accept the assignment;
b) in case of lack of independence, the client should disclose the reasons why the assignment was given to a non-independent valuer, with a statement in the valuation report;
c) in case of limited assignment, the valuer should indicate the factors that have not been considered and which might change the outcome of the process.

<center>*   *   *   *</center>

In essence, the IPC feels that:
1) the purpose of the document should be better clarified, stressing clearly that:
    a. the valuation uncertainty addressed by the document refers to estimates of fair value for financial reporting purposes;
    b. the valuation uncertainty disclosure contained in the valuation report prepared by the valuers retained to perform the estimate should allow the valuation report user to fulfil also the disclosure requirements of the accounting standard setter;
2) a clarification should be provided as to which disclosure the valuer should make when fair value estimates made for financial reporting purposes are used by the preparer of the financial statements to measure the change in fair value between two periods and the valuer could not apply the same models and/or approaches as before, for reasons beyond the valuer's control;
3) all sources of terminological and conceptual confusion between the IVSB and the IASB should be avoided;
4) a conceptual framework of reference should be adopted which would allow persons other than the valuers (chief among them financial regulators and accounting standard setters) to identify a situation where the valuer should provide a quantitative statement of valuation uncertainty and four typical situations where the valuer should provide a qualitative disclosure:
    Quantitative disclosure [high uncertainty but under normal conditions (no model misspecification, no model uncertainty)]: the valuation report features a range of estimates within which the valuer picks the estimated fair value of the asset/liability. The range of estimates measures valuation uncertainty;
    Qualitative disclosure [abnormal uncertainty due to abnormal conditions]: the valuation report features a clear description of the valuation limits and the causes of model misspecification and/or model uncertainty.

Our comments on specific questions in the exposure draft

Comment to Q1:
Do you agree that it is only when material, or abnormal, uncertainty attaches to a valuation on a specific time or date that that specific disclosure is necessary when the valuation is

reported? If not please explain why you consider that an uncertainty statement should be provided in all cases.

The IPC shares the DP's approach whereby specific disclosure is necessary only in the presence of material valuation uncertainty.
However, the IPC thinks that the DP should identify the situations characterised by material valuation uncertainty. The IPC proposes the following five situations (see paragraph 5 in the Overview section):

   a) The valuation process leads the valuer to identify first a range of value estimates, instead of a specific value, and then to select the most appropriate value from that range[3];
   b) A comparison should be made between valuations of the same asset/liability performed at different dates, if the valuation methods and/or approaches utilised are inconsistent for reasons beyond the valuer's control;
   c) The valuer detects a model misspecification in relation to the asset/liability to be valued or a model uncertainty with respect to the valuation context, due to one of the following four typical situations:
      i. there are no appropriate models to value a specific asset or liability. An example is the application of the Black-Scholes formula to price non-transferable options, such as employee stock options;
      ii. there are several models that can be utilised to estimate the fair value of an asset but there is no hierarchy of models or a best practice to follow and the different models do not produce the same outcome. Thus, the (subjective) choice of a model affects estimation error volatility (paragraph 12.4 of the DP);
      iii. certain models may be disproportionately sensitive to small variations in input data, for example due to gearing effects in the model (paragraph 12.4 of the DP);
      iv. in the specific market context, the theoretical frame of reference of valuation models is no longer applicable, for example because the market may be distressed and the adoption of a risk-neutral approach is not possible;
   d) The valuer is not independent of the valuation client and/or does not have adequate valuation skills and/or experience;
   e) The valuer has received only a partial valuation assignment.

The situations under d) and e) could be disregarded, should it be specified that the DP refers to the use of unbiased and qualified valuers.

Comment to Q2:
 Do you believe that the Board has identified all major sources and types of material valuation uncertainty? If not please identify what additional causes of uncertainty exist and how often you encounter these in practice.

As indicated in the previous answer, the status of valuer and the scope of work could be disregarded, should it be specified that the DP refers to the use of unbiased and qualified valuers.

Comment to Q3:

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[3] An example might be the case where the valuer uses several valuation methods or models and then selects the fair value estimate on the basis of the criterion deemed most appropriate. As the method selection is a source of uncertainty, the valuer might provide a quantitative statement of the range of results that might have been obtained using different methods.

Do you agree with the Board's conclusion that an explanation of any abnormal uncertainty identified and an explanation of the impact this has on the valuation (a qualitative statement) is more helpful to users in understanding the valuation than a purely numeric expression of the range of possible values created by the uncertainty (a quantitative statement)?

The IPC feels that a quantitative statement of valuation uncertainty might be appropriate whenever the valuation process results in a range of estimates within which the valuer picks the fair value.
In all the other cases (indicated in the answer to question 1), disclosure can only be qualitative. (See paragraph 5 in the Overview section)

Comment to Q4:
Do you think the IVSB should include an explicit requirement in the proposed IVS 105, Valuation Reporting, to disclose any material uncertainty or is the principle that requires valuation reports not to be ambiguous or misleading sufficient?

IVS 105 might identify typical situations where model misspecification and model uncertainty occur (items from i. to iv. in the answer to question 1).

Comment to Q5:
Do you consider that there are cases where a qualitative statement of the causes and impact of uncertainty on the valuation is inadequate and should be either augmented or replaced by a quantitative statement? If so please
a. state the circumstances and assets classes where you believe that quantitative statements are more helpful to users and,
b. provide a brief explanation or example of the type of quantitative statement that you believe would be useful.

When the valuation report defines a range of possible values within which the valuer picks the fair value of the asset/liability undergoing valuation, it means that the valuation approach indicates as likely a scatter of values which should be described and commented in the valuation report.

Comment to Q6:
Do you consider that it would be helpful if IVSC developed guidance on methods for making a quantitative disclosure of uncertainty under specific circumstances? If so please indicate the circumstances and any methods that you either use or encounter in your market.

The IVSC should develop examples of disclosure for each of the standard situations, which are assumed to be characterised by material or abnormal valuation uncertainty.