



Dealing with valuation uncertainty at times of market unrest

A letter from the IVSC's technical standards boards



Dealing with valuation uncertainty at times of market unrest

This letter is issued by the IVSC's technical boards and is intended as a helpful summary of key parts of the International Valuation Standards (IVS), which might be of particular relevance during periods of market uncertainty.

This paper is not a standard. Valuers should refer to the latest version of IVS when carrying out a valuation. IVS can be accessed online at: www.ivsonline.org

Alexander Aronsohn,
IVSC Technical Standards Director

The emergence towards the end of 2019 of the novel coronavirus, also known as Covid-19, and the resulting global pandemic, has created a huge amount of uncertainty around the world. Among the many manifestations; this has led to enormous market volatility. These times have been made even more interesting in respect of valuation as valuers are having to value assets, when there are limited to no comparable evidence and all markets are facing an uncertain future.

IVS 103 'Reporting' requires the valuation report to disclose a number of matters, including any significant uncertainty or limiting conditions that directly affect the valuation. In fact, IVS 103 Section 10 para 10.1 and para 10.2 states;

"10.1. It is essential that the valuation report communicates the information necessary for proper understanding of the valuation or valuation review. A report must provide the intended users with a clear understanding of the valuation.

10.2. To provide useful information, the report must set out a clear and accurate description of the scope of the assignment, its purpose and intended use (including any limitations on that use) and disclosure of any assumptions, special assumptions (IVS 104 Bases of Value, para 200.4), significant uncertainty or limiting conditions that directly affect the valuation."

The objective of this letter is to provide additional information on factors that may give rise to significant valuation uncertainty in a way that is useful to those who will be preparing or relying on the valuation. It should be noted that this article does not deal with uncertainty caused by limitations imposed under the terms of engagement on the extent of investigations or information, though this topic is also relevant for these challenging times and may be dealt with in a future IVSC perspectives paper.

One of the main issues when dealing with valuation uncertainty is that a valuation is not a fact, but it is an estimate of the most probable of a range of possible outcomes based on the assumptions made in the valuation process. Market valuations are

estimates of the most probable price that would be paid in a transaction on the valuation date. However, even where assets are identical and exchanged in contemporaneous transactions, fluctuations in the prices agreed between different transactions can often be observed. These fluctuations can be caused by factors such as differences in the objectives, knowledge or motivation of the parties. Consequently, an element of uncertainty is inherent in most market valuations as there is rarely a single price with which the valuation can be compared.

Valuation uncertainty Vs. Market Risk

Valuation uncertainty should not be confused with risk. Risk is the exposure that the owner of an asset has to potential future gains or losses. Risk can be caused by various factors affecting either the asset itself or the market in which it trades. Examples include:

- for tangible assets reduction in market prices after the date of acquisition or valuation,
- a deterioration in the projected future income of a security,
- a loss of liquidity compared with other assets,
- costs for maintaining or developing an asset being higher than currently anticipated,
- the rate of an asset's technical or physical obsolescence being higher than currently anticipated.

Such risks are taken into account by informed buyers/sellers when considering a bid for an asset and are balanced against the perceived advantages of ownership. Risk is therefore normally reflected in market prices.

Risk can often be quantified. For example, market risk can be measured by applying statistical techniques to previous patterns of price fluctuation, or by assuming different market scenarios to model different outcomes. Techniques for identifying risks and quantifying them are central to the various methods used to determine discount rates used in valuation.

While risk may be thought of as a measure of future uncertainties that may result in an increase or decrease in the price or value of an asset, valuation uncertainty is concerned only with uncertainties that arise as part of the process of estimating value on a specific date.

Valuation certainty and market risk are independent of each other. For example, a valuation of a highly liquid quoted stock has little uncertainty, but that stock may still be seen as carrying a high market risk.

Valuation uncertainty should not be confused with stress testing, i.e. measuring the impact on a current price or value of a specified event or series of events.

Valuation uncertainty can be caused by various factors. These can be broadly divided into the following categories:

- market disruption,
- input availability,
- choice of method or model.

These causes of valuation uncertainty are not mutually exclusive. For example, market disruption may affect the availability of relevant data which, in turn, may create uncertainty as to the most appropriate method or model to use. Interdependence and correlation between the causes of uncertainty are therefore likely to exist and account should be taken of this during the valuation process.

Market Disruption

Valuation uncertainty can arise when a market is disrupted at the valuation date by current, or very recent events, for example through panic buying or selling, or a loss of liquidity due to a disinclination of market participants to trade.

The events causing market disruption may be macroeconomic such as the 2009 financial crisis or recent disruptions in the UK markets due to Brexit, or microeconomic for example an unexpected

change in the law or a natural disaster disrupting a sector of the market or causing disruption to the supply chain of an industry. In respect of the coronavirus, the market disruption could be seen as microeconomic, but in future this could also have some macroeconomic implications.

If the valuation date coincides with economic or political crises or immediately follows such an event, significant valuation uncertainty arises because the only inputs and metrics available for the valuation are likely to relate to the market *before* the event occurred and therefore have limited relevance to the situation on the valuation date. The impact of the event on the attitude of market participants, and therefore prices, will not be known during its immediate aftermath. Because of this, uncertainty caused by market disruption is rarely quantifiable. The disruption can manifest itself in Input Availability.

Input Availability

A lack of relevant input data will cause valuation uncertainty. This may be due to market disruption as described above, but may also be due to the assets being unique or because the market for the asset is normally illiquid. Where there is a lack of relevant market data, there may be a need to extrapolate inputs from directly observable prices for similar assets, or to rely on unobservable inputs. These are inputs for which market data are not available but that can be developed using the best information available about the assumptions that market participants would use when pricing the asset.

The use of extrapolation or unobservable inputs can be a source of uncertainty because of the difficulty of finding objective evidence to support either the adjustments or the assumptions made.

The valuation method used may adjust for input uncertainty. For example, in a discounted cash flow model the cash flow inputs are based on current expectations of future performance and are therefore uncertain. However, market participants'

views of the potential risk or reward implied by the expected cash flows differing from those that actually occur in the future can often be reflected in the discount rate applied.

In some cases, the valuation uncertainty resulting from inconsistent or conflicting data can be estimated by the effect on the valuation of using possible alternative inputs. A key consideration for example for non-financial instrument valuations is the distribution pattern and spread of potential alternative inputs. If the data follows a normal pattern of distribution, or bell curve, data in the tails could usually be safely disregarded as falling outside the range of being reasonably possible. However, other distribution patterns may mean that greater weight needs to be given to certain outliers.

Choice of Method or Model

For many asset types, more than one method or model may be commonly used to estimate value. However, those methods or models may not always produce the same outcome and therefore the selection of the most appropriate method may itself be a source of *valuation uncertainty*.

IVS 105 Valuation Approaches and Methods para 10.4 states that; *“Valuers are not required to use more than one method for the valuation of an asset, particularly when the valuer has a high degree of confidence in the accuracy and reliability of a single method, given the facts and circumstances of the valuation engagement. However, valuers should consider the use of multiple approaches and methods and more than one valuation approach or method should be considered and may be used to arrive at an indication of value, particularly when there are insufficient factual or observable inputs for a single method to produce a reliable conclusion. Where more than one approach and method is used, or even multiple methods within a single approach, the conclusion of value based on those multiple approaches and/or methods should be reasonable and the process of analysing and reconciling the differing values into a single conclusion, without*

averaging, should be described by the valuer in the report.”

Arguably, the current climate is a situation where more than one approach should be used as the economic and political climate is such that *“there are insufficient factual or observable inputs for a single method to produce a reliable conclusion.”*

Significant Uncertainty

Most valuations contain an element of uncertainty but IVS 103 only requires this to be disclosed when it is “significant”. A requirement to disclose uncertainty when it is of no or limited consequence would be an unnecessary complication in the reporting of many valuations and could breach the principle that reports should provide the intended reader with a clear understanding of the valuation. It could also potentially increase costs and raise unwarranted concern as to the reliability of many valuation opinions, which would not be helpful to users.

However, the existence of significant uncertainty does not mean a valuation cannot be undertaken, but it does mean that significant assumptions within the valuation approach and methodology should be disclosed within the valuation report.

It is therefore necessary to consider when valuation uncertainty is ‘significant’. It is also necessary to consider the standard that is being followed as other standards such as IFRS may have a differing perspective on some elements such as judgement and materiality.

Significance should be considered from two interrelated aspects: first, whether the potential impact on the valuation figure is significant; and second, whether it is of relevance to an intended user of the valuation. Whereas insignificant uncertainty is very unlikely to be relevant, significant uncertainty may or may not be relevant.

Consideration of whether or not the impact of identified uncertainty on the valuation is significant

involves the potential for error. For certain assets this quantification may prove challenging especially given current market conditions.

Even if the uncertainty can be quantified and appears to be significant, either as an absolute amount or as a percentage, whether it is significant also depends on its relevance, which has to be judged in the context of the purpose for which the valuation is required and the potential impact on all intended users of the valuation subsequently being shown to have been incorrect on the date it was provided.

Factors that it may be helpful to consider in order to determine whether valuation uncertainty is significant for tangible asset and business valuations include:

- whether the valuation is required for internal purposes by the commissioning party or whether it will be disclosed to and relied upon by third parties (the threshold of materiality is likely to be lower if the valuation is to be relied on by third parties);
- the extent to which the value of a total portfolio is affected if the valuation uncertainty affects only certain assets within the portfolio (this may also involve considering correlation and interdependence between the individual assets);
- whether the cause of the uncertainty was known to the commissioning party or to a third party relying on it when the valuation was commissioned;
- whether the effect of the uncertainty could expose the commissioning party or a third party relying on the valuation to significant risk of loss.

A useful test for considering whether valuation uncertainty is significant is to consider whether failure to disclose the uncertainty would lead a reasonable person to take action that relies on the reported valuation that they may not have taken if the uncertainty had been disclosed.

Measuring Valuation Uncertainty

Notwithstanding the general caution required in presenting any quantitative estimate of uncertainty, there may be valuation purposes where it is required. As discussed, uncertainty stemming either from the choice of model or method, or from a lack or inconsistency of input data, may be estimated by observing the effect on the valuation of using an alternative model or input.

Quantification of valuation uncertainty can be more relevant for some classes of asset than others.

Where two or more alternative scenarios are possible the valuation should be based on the most likely scenario.

The principle of quantifying uncertainty by the use of a sensitivity analysis can be applied to assets where there are a sufficient number of reasonably possible alternative numeric inputs that could have been selected on the valuation date. However, such analysis is usually harder to apply to non-financial assets because the volume of transactions and related data is normally much lower. Where non-financial assets are subject to significant valuation uncertainty, it is more likely that there will have been reliance on unobservable inputs that cannot be easily or accurately quantified, and to which statistical analysis cannot be reliably applied.

Providing a quantitative estimate of valuation uncertainty in such circumstances, though relevant for some specialisms such as financial instruments, can also run the risk of implying a false precision within other specialisms that could be misleading to those relying on the valuation. Valuers should clearly state the level of confidence when this approach is adopted.

If a quantitative measure of valuation uncertainty is to be provided, the following principles should be considered and applied as appropriate:

A quantitative measure should always be accompanied with a narrative describing the cause and nature of the uncertainty.

- A purely numeric illustration will only confirm uncertainty, not explain it. There is no useful purpose served by providing such a quantitative expression of uncertainty if this will not result in a better understanding of the valuation conclusion by the user.
- Quantifying valuation uncertainty does not involve forecasting a worst-case scenario. The objective is not to stress test a valuation to an extreme case. Any test of valuation uncertainty should address the impact on the reported value of reasonable and likely alternative assumptions. When choosing alternative assumptions to measure uncertainty within a business or tangible asset valuation, a selection needs to be made among possibilities that are not located in the tail of the distributions (where events are very unlikely to happen), but rather in their central areas (where events are likely to occur).
- The objective of any uncertainty analysis is not to provide a forecast of possible fluctuations in the reported value at future dates, but to provide information about the variability of the value at the specific valuation date.
- When quantifying the impact of uncertainty, the interdependence or correlation between significant inputs needs to be considered when it is practical to do so. Correlation analysis is an extremely important part of this process and when uncertainty is measured without proper correlation of interdependent inputs, the degree of uncertainty may be overestimated.

Additional Advice from IVS

- If you are unable to comply with all the requirements contained with IVS 102 Investigations and Compliance due to existing government restrictions – for example the ability to move freely in order to carry out valuation-related work – then this should be

clearly stated within the scope of work, agreed with the client and clearly stated in the report.

- If the valuer considers that it is not possible to provide a valuation on a restricted basis, the instruction should be declined.
- Valuers should not apply pre-crisis criteria to their valuations as this approach is based on the potentially erroneous assumption that values will return to their pre-crisis levels and there is no way of predicting that this assumption is in fact correct.

Additional Information

Further comment on the corona virus and additional advice issued by IVSC member organisations can be accessed via the following link:

<https://www.ivsc.org/news/article/statement-in-relation-to-the-covid-19-pandemic>

The latest version of the International Valuation Standards (IVS) can be found here:

www.ivsonline.org



Mark Zyla

Chair of the IVSC Standards Review Board

With support from the Chairs of the IVSC’s technical Boards