Treatment for Illiquid Positions

Contents:

A. Prudent valuation guidance

718(c). This Directive provides banking corporations with guidance on prudent valuation for positions that are accounted for at fair value, whether they are in the trading book or in the banking book. This guidance is especially important for positions without actual market prices or observable inputs to valuation, as well as less liquid positions which raise supervisory concerns about prudent valuation. The valuation guidance set forth below is not intended to require banking corporations to change valuation procedures for financial reporting purposes. The Supervisor will assess a banking corporation's valuation procedures for consistency with this guidance. One factor in the Supervisor's assessment of whether a banking corporation must take a valuation adjustment for regulatory purposes under paragraphs 718(cx) to 718(cxii) will be the degree of consistency between the banking corporation's valuation procedures and these guidelines.

718(ci). A framework for prudent valuation practices should at a minimum include the following:

1. Systems and controls

718(cii). A banking corporation must establish and maintain adequate systems and controls sufficient to give management and the Supervisor the confidence that the banking corporation's valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organization (such as credit analysis). Such systems must include:

a. Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, guidelines for the use of unobservable inputs reflecting the banking corporation's assumptions of what market participants would use in pricing the position, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and
b. Clear and independent (i.e., independent of front office) reporting lines for the department accountable for the valuation process. The reporting line should ultimately be to a main board executive director.

2. Valuation methodologies

Marking to market

718(ciii). Marking-to-market is the at-least daily valuation of positions at readily available close out prices in orderly transactions that are sourced independently. Examples of readily available close out prices include foreign exchange prices, screen prices, or quotes from several independent reputable brokers.

718(civ). Banking corporations must mark-to-market as much as possible. The more prudent side of bid/offer should be used unless the banking corporation is a significant market maker in a particular position type and it can close out at mid-market. Banking corporations should maximize the use of relevant observable inputs and minimize the use of unobservable inputs when estimating fair value using a valuation technique. However, observable inputs or transactions may not be relevant, such as in a forced liquidation or distressed sale, or transactions may not be observable, such as when markets are inactive. In such cases, the observable data should be considered, but may not be determinative.

Marking to model

718(cv). Only where marking-to-market is not possible should a banking corporation mark-to-model, but this must be demonstrated to be prudent. Marking-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. When marking to model, an extra degree of conservatism is appropriate. Supervisory authorities will consider the following in assessing whether a mark-to-model valuation is prudent:

a. Senior management should be aware of the elements of the trading book or of other fair-valued positions which are subject to mark to model and should understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business.

b. Market inputs should be sourced, to the extent possible, in line with market prices (as discussed above). The appropriateness of the market inputs for the particular position being valued should be reviewed regularly.

c. Where available, generally accepted valuation methodologies for particular products should be used as far as possible.

d. Where the model is developed by the banking corporation itself, it should be based on appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. The model should be developed or approved independently of the front office. It should be independently tested. This includes validating the mathematics, the assumptions and the software implementation.

e. There should be formal change control procedures in place and a secure copy of the model should be held and periodically used to check valuations.

f. Risk management should be aware of the weaknesses of the models used and how best to reflect those in the valuation output.

g. The model should be subject to periodic review to determine the accuracy of its performance (eg: assessing continued appropriateness of the assumptions, analysis of P&L versus risk factors, comparison of actual close out values to model outputs).

h. Valuation adjustments should be made as appropriate, for example, to cover the uncertainty of the model valuation (see also valuation adjustments in paragraphs 718 (cviii) to 718 (cxii)).

Independent price verification

718(cvi). A banking corporation is to carry out independent price verification in addition to daily mark-to-market or mark-to-model. It is the process by which market prices or model inputs are regularly verified for accuracy. While daily marking-to-market may be performed by dealers, verification of market prices or model inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective, i.e., independent, marking of positions should reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marks.

718(cvii). Independent price verification entails a higher standard of accuracy in that the market prices or model inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates. For independent price verification, where independent pricing sources are not available, or where pricing sources are more subjective (e.g., only one available broker quote), prudent measures such as valuation adjustments may be appropriate.

3. Valuation adjustments

General Standards

718(cviii). As part of their procedures for marking to market, banking corporations must establish and maintain procedures for considering valuation adjustments. The Supervisor expects banking corporations using third-party valuations to consider whether valuation adjustments are necessary. Such considerations are also necessary when marking to model.

718(cix). The Supervisor expects the following valuation adjustments to be formally considered by a banking corporation at a minimum: unearned credit spreads, close-out costs, operational risks, early termination, investing and funding costs, and future administrative costs and, where appropriate, model risk.

B. Adjustment to the current valuation of less liquid positions for regulatory capital purposes

718(cx). Banking corporations must establish and maintain procedures for judging the necessity of and calculating an adjustment to the current valuation of less liquid positions for regulatory capital purposes. This adjustment may be in addition to any changes to the value of the position required for financial reporting purposes and should be designed to reflect the illiquidity of the position. The Supervisor expects banking corporations to consider the need for an adjustment to a position's valuation to reflect current illiquidity whether the position is marked to market using market prices or observable inputs, third-party valuations or marked to model.

Standards for less liquid positions

718(cxi). Bearing in mind that the assumptions made about liquidity in the market risk capital charge may not be consistent with the banking corporation's ability to sell or hedge out less liquid positions, where appropriate, banking corporations must make an adjustment to the current valuation of these positions, and review their continued appropriateness on an on-going basis.
Reduced liquidity may have arisen from market events. Additionally, close-out prices for concentrated positions and/or stale positions should be considered in establishing the adjustment.
Banking corporations must consider all relevant factors when determining the appropriateness of the adjustment for less liquid positions. These factors may include, but are not limited to, the amount of time it would take to hedge out the position/risks within the position, the average volatility of bid/offer spreads, the availability of independent market quotes (number and identity of market makers), the average and volatility of trading volumes (including trading volumes during periods of market stress), market concentrations, the aging of positions, the extent to which valuation relies on marking-to-model, and the impact of other model risks not included in paragraph 718 (cx).

718(cxi-1-) For complex products including, but not limited to, securitization exposures and n^{th}-to-default credit derivatives, banking corporations must explicitly assess the need for valuation adjustments to reflect two forms of model risk: the model risk associated with using a possibly incorrect valuation methodology; and the risk associated with using unobservable (and possibly incorrect) calibration parameters in the valuation model.

718(cxii). The adjustment to the current valuation of less liquid positions made under paragraph 718 (cxi) must impact Tier 1 regulatory capital and may exceed those valuation adjustments made under financial reporting accounting standards and paragraphs 718 (cviii) and 718 (cix).