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Prudent Valuation and Funding

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The views expressed are personal and do not necessarily reflect those of the Bank of England

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Background of Valuation & Financial Regulation (1)

Why is Valuation Important to Regulators?

- The valuations used for formal financial accounts are obviously critical for market perceptions of firms' financial resources and financial performance.

- The less obvious element is the regulatory side. When assessing the capital resources of firms, we are reliant upon appropriate valuations.

- Regulatory capital requirement regimes, such as the VaR (Value-at-Risk) based CAD2 models for Market Risk Capital and the internal models method used for Counterparty Credit Risk Capital, are also dependent upon appropriate valuations.

- Therefore, assessments of the appropriateness of firms' valuations and the control frameworks behind those valuations are critical for regulation generally and particularly for the aspects of the overall regulatory capital regime that are particularly dependent upon appropriate valuations.

Background of Valuation & Financial Regulation (2)

- Historically, regulators have placed reliance upon the valuations generated by accounting standards around the fair value accounting of trading book positions. Accounting standards have moved on significantly over the years and are now more focused on neutrality than prudence. For example, accounting standards now explicitly do not allow concentration reserves for Level 1 positions.

- Accounting standards have been shown to allow significant variation in the valuation of the same positions across different firms. In addition, accounting valuations are focused on a point estimate of value rather than a quantification of the intrinsic uncertainty in the valuation.

- For example, two assets – one with possible values between 49 and 51, and the other between 40 and 60 – can have identical fair values, i.e. 50, but the second asset clearly has greater valuation uncertainty.

- The basic concept of prudent valuation is to report this valuation uncertainty. The intention is that firms will assess the upper and lower ends of the range of plausible valuations at defined confidence intervals (e.g. 10^{th} and 90^{th} percentile). For regulatory purposes the focus is on the downside.

Background of Valuation & Financial Regulation (3)

Capital Adequacy Directive (Directive 2006/49/EC)

- Regulatory rules on prudent valuation have been in force since 31 Dec 2006 through the Capital Adequacy Directive (Directive 2006/49/EC) and hence apply across all member states of the European Union (in the UK implemented by GENPRU 1.3). These rules recognised the difference between fair and prudent valuation and required the use of prudent valuation for regulatory purposes.

- Most firms had in fact continued to use the fair value from their Financial Statements for the calculations of available capital in their regulatory returns.

The Financial Stability Forum On Enhancing Market & Institutional Resilience

- The April 2008 Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience states that *"most valuation methods result in an inevitable measure of uncertainty attaching to the point estimates of valuations. Finding ways to highlight such uncertainty is important to avoid giving management and market participants a false sense of precision, possibly lulling them into an equally false sense of security".*

The Basel Committee On Banking Supervision

- The Basel Committee on Banking Supervision's April 2009 'Supervisory guidance for assessing banks' financial instrument fair value practices' also recognises the importance of valuation uncertainty and states that *"Supervisors expect that a bank will have valuation and risk management processes that explicitly assess valuation uncertainty and that assessments of all material valuation uncertainty are included in the information communicated to the board and senior management. Outside of actual transactions, uncertainty about the current value of a financial instrument should be viewed as an inherent characteristic of the valuation process. Uncertainty is specific to the instrument and to the point in time the valuation is effected, and is not exclusive to any specific valuation methodology"*

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Developing the Prudent Valuation Regime (1)

August 2008 Dear CEO Letter

In August 2008, the FSA issued a Dear CEO Letter to the Industry outlining our key concerns in the area of valuations. It stated that:

- Based on our review work, most firms are not in a position to rigorously or systematically apply the prudent valuation principles.
- As the prudent valuation principles are associated with valuation risk and uncertainty, we believe there could be synergies from incorporating risk management skills into the frameworks.
- Firm's Independent Price Verification (IPV) processes are generally focussed on deriving a point-estimate of price that satisfies fair value accounting standards. This does not involve explicit assessment of the range of uncertainty. Analysis undertaken could be enhanced to facilitate the systematic quantification of valuation uncertainty. By developing better frameworks for the measurement of residual valuation and model risks after the application of IPV, firms would be better placed to deliver a control framework consistent with the prudent valuation principles.

FSA Guidelines

- From year end 2010, UK FSA regulated firms with large fair value balance sheets have been required to submit a quarterly, free form, Prudent Valuation Adjustment statement quantifying the difference between the fair valuation of their qualifying positions and the assessment of the corresponding prudent valuation.
- Initial reviews showed significant variation both in methodologies used and in the format of the returns, making comparisons between firms and across time difficult.
- Consequently, a standardised Regulatory Prudent Valuation Return was introduced in the UK (Policy Statement 12/7) with the first reporting date on 30 June 2012.

Developing the Prudent Valuation Regime (2)

•Results are on a portfolio basis, split by asset class and between vanilla and exotic.

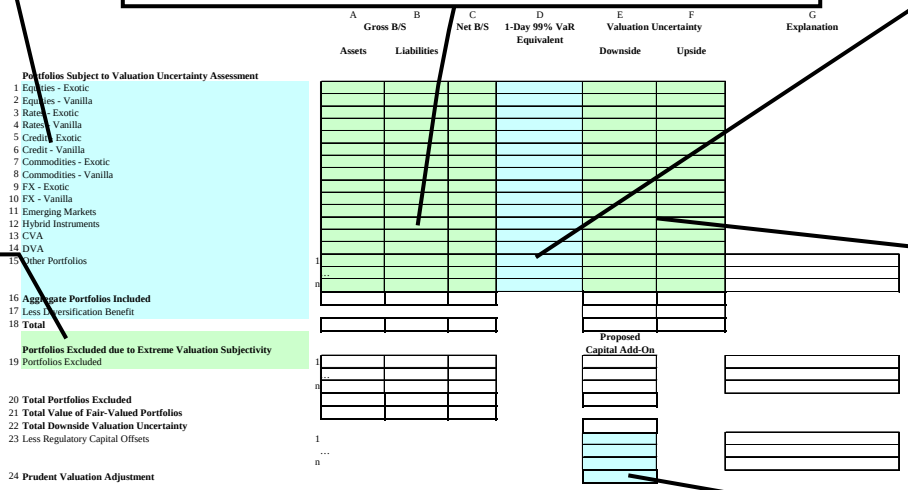
•Other portfolios that do not fall into these categories such as Emerging Markets, Hybrids and CVA/DVA are shown separately.

•**Gross and Net Balance Sheet** numbers give context to the valuation uncertainty.

•These amounts are the 'raw' numbers extracted from the Front Office system before netting. A reconciliation to Financial Statements is also included in the return.

•**1-Day-99% VaR** gives an indication of the size of the risk in each portfolio.

•**Portfolios Excluded due to Extreme Valuation Subjectivity** are required to be shown separately, including the required capital add-on.



•**Valuation Uncertainty – Downside/Upside** – These are the estimates of the possible range of valuation uncertainty after diversification benefit with the portfolio but before cross-asset diversification.

•**Total Prudent Valuation Adjustment** – This is the amount by which available capital would need to be adjusted if the downside valuations were used instead of the fair values from the Financial Statements. The total downside uncertainty is adjusted by offsets such as tax liability reductions or capital add-ons already included.

Developing the Prudent Valuation Regime (3)

In EU –

- An EBA Discussion Paper relating to Draft Regulatory Technical Standards on prudent valuation under Article 105 of the draft Capital Requirements Regulation was published in November 2012.
- EBA Consultation Paper was published in July 2013.
- The EBA Consultation Paper aims to further specify how to apply the prudent valuation requirements in Article 105 of the draft CRR, and set out the EBA's view on how valuation adjustments could in practice be applied by institutions in a consistent manner.

Funding Text

- Institutions shall estimate an investing and funding costs AVA by assessing the uncertainty in its valuation framework for strongly-collateralised derivatives.
- Institutions shall estimate the AVA by including the expected funding costs and benefits over the contractual lifetime of each derivative trade which is not strongly collateralised.

Regulatory Valuation vs. Accounting

Accounting

- Determine the dominant/appropriate market
- Using an appropriate methodology, determine the inputs required to match an observed market price

Regulatory

- Look at the range of possible sales/unwind scenarios and markets
- Examine the range of economic scenarios and choose a valuation approach which best represents the risks and costs

Potential Markets for OTC Trades

- Novations: closest to IFRS 13 definitions but very few occur. Entire books are sometimes novated but is often highly complicated.

- Primary market: majority of trades but profit margins are in place and trading usually occurs At-The-Money

- Client unwinds: heavily biased for banks as it is normally driven by client requests, so not indicative of where the bank can get out of other trades.

- Hold to maturity: although not typically a “market”, the economic risks and costs of hedging result in a “fair value”.

Prudent Funding Valuation (one size fits all…)

- The full cost of funding uncollateralised derivatives until the contractual maturity of the trade should be included in the valuation.

- The cost of funding should be based upon wholesale cost of funds, maturity matched with the trade payments.

- Usually, this is covered by discounting but there may be trades where funding is correlated to exposure/NPV.

Economic FVA

- 3 sources of funding costs on Trading Book
- Net contractual cash-flow imbalance; largely irrelevant as this has usually already been realised in the cash book through either:
- Net Collateral payment imbalance on hedges with collateralised counterparts
- Realising net profits through issuance, loans or other liabilities (also known as Balance Sheet funding costs)

- The main point is that these are all “net” amounts – the primary source of funding for assets on the Trading book is liabilities on the Trading book.

Potential Issues with firms

We have talked to 14 major London banks and have knowledge of several others: none of the banks are pricing trades (in general) without including the cost-of-funding.

OTC contracts are legally binding agreements; expecting them to be unwound early without including any Funding VA is equivalent to taking sales profits in advance.

If cheap funding is in place from depositors, such profits that result should be shown by the retail arm (or centrally as a "franchise" profit). In addition, if the bank fails, funding disappears. Such profits should be taken in the future, not now.

Other funding methods all involve a measure of risk; as such any profits should be taken when they are realised, not before.

Some firms disagree with the Pru-Val method of calculating Funding VA.

- "Trades are often unwound before maturity"
- "We think we can unwind at Libor"
- "We fund ourselves from our retail depositors, not from the market"
- "Liquidity requirements mean we can fund at X-month spreads, not at term"

Why we like the Pru-Val Funding method

Benefits:

- Better risk-management
- No downside to “DVA”
- No hidden “carry” costs
- Consistency between valuation and pricing
- Consistency between valuation and external hedges
- Easier to unwind existing trades
- Clarity of inter-company subsidies
- Easier separation of sub-entities (legal or otherwise)

- Greater monitoring of assets vs. liabilities
- FVA “carry” offsets balance sheet charges/funding accrual
- No losses incurred by unwinding funding-heavy trades
- Sub-entities explicitly rely on subsidies by retail arm
- Funding trades act as hedges to trading book
- DVA offset by asset FVA
- Buyers, potential creditors & central banks have clarity and stability in valuations
- No disguised funding trades in the trading book