Chapter 4

Credit risk

4

4.7 Internal ratings based approach: loss given default

Negative LGDs

4.7.1 G The *FCA* expects a *firm* to ensure that no LGD estimate is less than zero.

Low LGDs

4.7.2 G The *FCA* does not expect a *firm* to be using zero LGD estimates in cases other than where it had cash collateral supporting the *exposures*.

4.7.3 G The *FCA* expects a *firm* to justify any low LGD estimates using analysis on volatility of sources of recovery, notably on collateral, and cures (see IFPRU 4.7.5 G). This includes:

(1) recognising that the impact of collateral volatility on low LGDs is asymmetric, as surpluses over amounts owed need to be returned to borrowers and that this effect may be more pronounced when estimating downturn, rather than normal period LGDs; and

(2) recognising the costs and discount rate associated with realisations and the requirements of article 181(1)(e) of the *UK CRR*.

4.7.4 G To ensure that the impact of collateral volatility is taken into account, the *FCA* expects a *firm*'s LGD framework to include non-zero LGD floors which are not solely related to administration costs (see article 179(1)(f) of the *UK CRR*).

Treatment of cures

4.7.5 G Where a *firm* wishes to include cures in its LGD estimates, the *FCA* expects it to do this on a cautious basis, with reference to both its current experience and how this is expected to change in downturn conditions. In particular, this involves being able to articulate clearly both the precise course of events that will allow such cures to take place and any consequences of such actions for other elements of its risk quantification. For example:

(1) where cures are driven by the *firm*'s own policies, the *FCA* expects the *firm* to consider whether this is likely to result in longer realisation periods and larger forced sale discounts for those *exposures* that do not cure, and higher default rates on the book as a whole, relative to those that might be expected to result from a less accommodating

attitude. To the extent feasible, the *FCA* expects cure assumptions in a downturn to be supported by relevant historical data;

(2) the *FCA* expects a *firm* to be aware of, and properly account for, the link between cures and subsequent defaults. In particular, an earlier cure definition is, other things being equal, likely to result in a higher level of subsequent defaults.

[**Note**: article 5(2) of the *UK CRR*]

Incomplete workouts

4.7.6 G To ensure that estimates of LGDs take into account the most up-to-date experience, the *FCA* expects a *firm* to take account of data for relevant incomplete workouts (ie, defaulted *exposures* for which the recovery process is still in progress, with the result that the final realised losses in respect of those *exposures* are not yet certain) (see article 179(1)(c) of the *UK CRR*).

LGD: sovereign floor

4.7.7 G To ensure that sovereign LGD models are sufficiently conservative in view of the estimation error that may arise from the lack of data on losses to sovereigns, the *FCA* expects a *firm* to apply a 45% LGD floor to each unsecured *exposure* in the sovereign asset class (see article 179(1)(a) of the *UK CRR*).

LGD: UK retail mortgage property sales reference point

4.7.8 G The *FCA* believes that an average reduction in property sales prices of 40% from their peak price, prior to the market downturn, forms an appropriate reference point when assessing downturn LGD for *UK* mortgage portfolios. This reduction captures both a fall in the value of the property due to house price deflation, as well as a distressed forced sale discount.

4.7.9 G Where a *firm* adjusts assumed house price values within its LGD models to take account of current market conditions (for example, appropriate house price indices), the *FCA* recognises that realised falls in market values may be captured automatically. A *firm* adopting such approaches may remove observed house price falls from its downturn house price adjustment so as not to double count. A *firm* wishing to apply such an approach must seek the consent of the *FCA* and be able to demonstrate that the following criteria are met:

(1) the adjustment applied to the market value decline element of a *firm's* LGD model is explicitly derived from the decrease in indexed property prices (ie, the process is formulaic, not judgemental);

(2) the output from the adjusted model has been assessed against the 40% peak-to-trough property sales prices decrease reference point (after inclusion of a forced sale discount);

(3) a minimum 5% market value decline applies at all times in the LGD model; and

(4) the *firm* has set a level for reassessment of the property market price decline from its peak. For example, if a *firm* had initially assumed a peak-to-trough market decline of 15%, then it will have set a level of market value decline where this assumption will be reassessed (see article 181(1)(b) of the *UK CRR*).

Downturn LGDs

4.7.10 G To ensure that its LGD estimates are oriented towards downturn conditions, the *FCA* expects a *firm* to have a process through which it:

(1) identifies appropriate downturn conditions for each IRB *exposure* class within each jurisdiction;

(2) identifies adverse dependencies, if any, between default rates and recovery rates; and

(3) incorporates adverse dependencies, if identified, between default rates and recovery rates in the *firm's* estimates of LGD in a manner that meets the requirements relating to an economic downturn (see article 181(1)(b) of the *UK CRR*).

Discounting cashflows

4.7.11 G To ensure that its LGD estimates incorporate material discount effects, the *FCA* expects a *firm's* methods for discounting cash flows to take account of the uncertainties associated with the receipt of recoveries for a defaulted *exposure*. For example, by adjusting cash flows to certainty-equivalents or by using a discount rate that embodies an appropriate risk premium; or by a combination of the two.

4.7.12 G If a *firm* intends to use a discount rate that does not take full account of the uncertainty in recoveries, the *FCA* expects it to be able to explain how it has otherwise taken into account that uncertainty for the purposes of calculating LGDs. This can be addressed by adjusting cash flows to certainty-equivalents or by using a discount rate that embodies an appropriate risk premium for defaulted assets, or by a combination of the two (see article 5(2) of the *UK CRR*).

Wholesale LGD

4.7.13 G The *FCA* expects a *firm* using advanced IRB approaches to have done the following in respect of wholesale LGD estimates:

(1) applied LGD estimates at transaction level;

(2) ensured that all LGD estimates (both downturn and non-downturn) are cautious, conservative and justifiable, given the paucity of observations. Under article 179(1)(a) of the *UK CRR*, estimates must be derived using both historical experience and empirical evidence, and not be based purely on judgemental consideration. The *FCA* expects the justification as to why the *firm* thinks the estimates are conservative to be documented;

(3) identified and explained at a granular level how each estimate has been derived. This should include an explanation of how internal data, external data, expert judgement or a combination of these has been used to produce the estimate;

(4) clearly documented the process for determining and reviewing estimates, and the parties involved in this process in cases where expert judgement has been used;

(5) demonstrated an understanding of the impact of the economic cycle on collateral values and be able to use that understanding in deriving their downturn LGD estimates;

(6) demonstrated sufficient understanding of any external benchmarks used and identified the extent of their relevance and suitability to the extent that the *firm* can satisfy itself that they are fit for purpose;

(7) evidenced that it is aware of any weaknesses in its estimation process and have set standards, for example related to accuracy, that their estimates are designed to meet;

(8) demonstrated that it has sought and utilised relevant and appropriate external data, including through identifying all relevant drivers of LGD and how these will be affected by a downturn;

(9) ensured, in most cases, estimates incorporate effective discrimination on the basis of at least security-type and geography. In cases where these drivers are not incorporated into LGD estimates, the *FCA* expects the *firm* to be able to demonstrate why they are not relevant;

(10) have an ongoing data collection framework to collect all relevant internal loss and *exposure* data required for estimating LGD and a framework to start using these data as soon as any meaningful information becomes available;

(11) ensure it can articulate the data the *firm* intends to use from any industry-wide data collection exercises that it is participating in, and how the data will be used.

4.7.14 G The *FCA* uses a framework for assessing the conservatism of a *firm's* wholesale LGD models for which there are a low number of defaults. This framework is set out in ■ IFPRU 4 Annex 2G (Wholesale LGD and EAD framework) and does not apply to sovereign LGD estimates which are floored at 45%. This framework is also in the process of being used to assess the calibration of a *firm's* material LGD-models for low-default portfolios.

4.7.15 G In the following cases, the *FCA* expects a *firm* to determine the effect of applying the framework in ■ IFPRU 4 Annex 2G (Wholesale LGD and EAD framework) to models which include LGD values that are based on fewer than 20 'relevant' data points (as defined in ■ IFPRU 4 Annex 2G):

(1) the model is identified for review by the *FCA*; or

(2) the *firm* submits a request for approval for a material change to its LGD model.

Unexpected loss on defaulted assets

4.7.16 G The *FCA* considers that both of the following approaches in relation to calculating unexpected loss of defaulted assets are acceptable in principle:

(1) the independent calculation approach; and

(2) subtraction of the best estimate of expected loss from post-default LGD.

4.7.17 G Where an independent calculation approach is adopted for the calculation of unexpected loss on defaulted assets, the *FCA* expects a *firm* to ensure that estimates are at least equal, at a portfolio level, to a 100% risk weight, ie, 8% capital requirement on the amount outstanding net of provisions (see article 181(1)(h) of the *UK CRR*).

Unsecured LGDs where the borrowers' assets are substantially collateralised

4.7.18 G The extent to which a borrower's assets are already given as collateral will clearly affect the recoveries available to unsecured creditors. If the degree to which assets are pledged is substantial, this will be a material driver of LGDs on such *exposures*. Although potentially present in all transactions, the *FCA* expects a *firm* to be particularly aware of this driver in situations in which borrowing on a secured basis is the normal form of financing, leaving relatively few assets available for the unsecured debt. Specialist lending (including property), hedge fund, and some SME/mid-market lending can be considered such cases.

4.7.19 G The *FCA* expects a *firm* to take into account the effect of assets being substantially used as collateral for other obligations estimating LGDs for borrowers for which this is the case. The *FCA* expects a *firm* not to use unadjusted data sets that ignore this impact, and note that it is an estimate for downturn conditions that is normally required. In the absence of relevant data to estimate this effect, conservative LGDs potentially of 100% are expected to be used (see articles 171(2) and 179(1)(a) of the *UK CRR*).