Prometeia's comments to EBA Consultation (EBA/CP/2016/21) on Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures

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Introduction

Prometeia welcome the opportunity to comment on EBA Consultation Paper on Guidelines on PD estimation, LGD estimation and treatment of defaulted assets.

We acknowledge that enhancing harmonisation of modelling and supervisory practices plays an important role in reducing unjustified variability of RWA across the system.

EBA's view on sound modelling methodologies, as expressed by Guidelines, can be acknowledged as well grounded on international best practices, even though we will highlight some exceptions on one side and some risks of overregulation on the other.

As we expect some LGD and LGD in-default provisions might have significant impacts on RWA and Capital of a series of institutions, a QIS would be beneficial in our view.

CRR requires IRB banks to extend over time the scope of application of IRB systems to all portfolios except those allowed for PPU of the standardised approach. As far as low default portfolios, it turns to be crucial to leverage on external/market data to cope with internal scarcity of default experience. As the proposed Guidelines are intended to reduce significantly such possibilities, in line with possible framework evolutions under discussion at BCBS level, it will be beneficial that EBA clarifies its expectations in terms of existing roll-out plans as well as models' review processes of existing LDP AIRB/FIRB portfolios, possibly not suitable to be modelled adopting approaches fully in line with the draft guidelines without undue recourse to MoCs.

Even though MoC is not a new concept, a process of quantitative assessment of deficiencies at all intended guidelines areas is unduly burdensome so that only those that are material in the specific context should be actually addressed. We highlight that this complexity might be itself source unjustified variability.

In this area, also, joint assessment on different areas shall be considered appropriate and avoiding double counting among estimation MoC and application MoC will be crucial.

As far as specifically LDPs are concerned, an inherently higher model risk should be recognised and the the recourse to MoC shouldn’t overwhelm models themselves. As long as banks will be required to internally model LDPs, the recourse to market data would still be in some cases the most reasonable solution, while GLs limit this possibility especially as far as LGD is concerned. In some cases, opening a way back to standardised or FIRB approaches for LDP might be the most appropriate solution. In other cases, an EBA position on what is expected from institutions rollout plans to LDP will be beneficial to focus investments.

As far as LGD and LGD in-default is concerned, the CP seems oriented towards secured/unsecured LGD estimation approach. Even if it does not exclude different solutions, as long as LGD adequately estimated incorporates expected recoveries from collaterals, some guidelines articles are more explicitly biased in this sense and this may lead to misrepresentation of recovery experience. As long as the LGD estimate takes adequately into account collaterals and their coverage, we deem some adjustment should be made in order to open to different methodological approaches as most appropriate in some cases.

In this document we first provide a summary of most relevant points outlined commenting specific provisions and responding to specific questions and we lately focus on each area of draft guidelines, both responding to specific questions for consultation and commenting on other points where found potentially useful to EBA.

1. Summary of most relevant points addressed in the feedback

The most important points we will be commenting on in the following paragraph are related to the followings:

- As PDs must be long-run average, the reference to benchmarking on most recent data might be misleading; Provinding that effective default definition changed over time, thus adjustment are required and this shouldn't lead automatically neither to MoC nor to calibrate on shorter and most recent time series;
- The requirement for specific treatments of short term exposure should be oriented in the sense that all defaults might be considered, but no specific underweighting of them for 1-year PD calibration is necessary;
- Treatment of multiple default under point 90 should be excluded, as this is already addressed within default definition; no specific treatment for LGD is required as it would make the definition adopted inherently different from PD definition, but on the other hand sample definition criteria shall guarantee that all defaults considered in PD estimates are also considered in LGD estimates;
- Representativeness of information and the "no data exclusion" provisions for LGD might be in contradiction in some circumstances; we will highlight that some data exclusion should be allowed for sake of representativeness;
- LGD and LGD in-default treatment of interests and fees is very questionable from the economic point of view, especially as risks of negative LGDs depending on differences among discount and accrual rates are already addressed by a LGD sero-floor;
- LGD and LGD in-default data requirements are meaningful and grounded, but a significant time will be required by a series of institutions before being able to fully cover gaps;
- Some LGD and LGD in-default guidelines provisions are targeted to a specific methodology for sound inclusion of model sensitivity to collateral coverage, namely secured vs. unsecured modelling; as other methodologies are available and advisable in some circumstances, some changes are suggested in order to make provisions more generally applicable;
- The previous points are connected, so that data availability and gaps might orient the best available methodology;
- The adoption of a undifferentiated standard spread for discounting recovery cash-flows is deemed to be really very simplistic; guidelines on sound methodologies would be most appropriate and only subordinately an appropriate differentiation of regulatory spreads;
- The identification of positions 'treated as closed' for LGD and LGD in-default estimations should be not only based on time but other characteristics might be considered (for instance based on existing supporting collaterals).

- Inferencial techniques for other incomplete workouts should be linked to LGD in-default / ELbe definition; the regulation might be reinforced in the sense of consistent and more specific as possibile methodologies to be adopted;
- The admission of ELbe override, within a dedicated process, will allow institutions to cope with quantification specificities of recovery expectations within most complex restructuring operations; this is very appreciated but within a controlled and ring-fenced dedicated process of ELbe validation/override; at this regard guidelines should be reinforced;
- The guidelines related to ELbe quantification and downturn should be strongly reinforced, as it is not clear whether it is expected all to be jointly grounded on macro-economic variables and satellite models, in a kind of baseline/adverse stress testing framework; This is advisable for reconciliation of IFRS9 treatment as well with rather limited specificities (f.i. discounting rate); An high degree of convergence not only is an available efforts-optimising option available to institutions, but would be very beneficial from the supervisory perspective as well;
- Model segmentation and Business segmentation criteria are connected but not strictly aligned, thus exposure under the same model are expected to be treated similarly but not necessarily homogeneously;
- The impact of human judgement on estimates should be assessed at all levels (qualitative information, input override, output override), while point 197 focus on output overrides only;

2. Detailed feedback by CP Chapters

2.1 General estimation requirements

Question 4.1	Do you agree with the proposed requirement with regard to the application of appropriate adjustments and margin of conservatism? Do you have any operational concern with respect to the proposed categorization?
From a general standpoint, we believe that the MoC estimation process is too pervasive and might indeed generate itself homogeneity issues across institutions. As guidelines do not promote standards of quantifications, they might not fulfil the final objective of enhancing comparability. As assessing every MoC area with quantitative analysis would be unduly burdensome, impact quantifications should be limited to most significant deficiencies only and an overall estimation among different areas should be allowed, as sources of model risk might be correlated and MoCs shouldn't be summed up in those cases, but jointly assessed (moreover, the application at risk parameter level ignores interconnectedness of risk parameters, therefore MoCs applied to PD may logically have the opposite effect on LGD). As MoC are required both for model estimation and model application phase, it should be made clear that this should not result in a double counting of MoCs. In addition to that, more clarifications should be provided as regards the role of MoCs in the use test area.	

Regarding general estimation requirements, we also suggest reconsider wording of art. 37 compared to art. 15. Art. 15 states that "*Exposures covered by the same rating system should be treated similarly by the institution in terms of risk management, decision making and credit approval process*" while art. 37 states that they "*should be managed homogeneously by the institution in terms of risk management, decision making and credit approval process*".

We agree that credit-related information for counterparties belonging to the same model segment might lead to differentiated business/process segmentations, however the latter might be also differentiated based on non-credit related information. For this reason, we would saggest the use of “similarly” within art. 37 as well.

2.2 PD estimation

Question 5.1	Do you see any operational limitations with respect to the monitoring requirement proposed in paragraph 53?
No, we don't see any limitation in calculating one-year default rates at least quarterly.	

Question 5.2	Do you agree with the proposed policy for calculating observed average default rates? How do you treat short term contracts in this regard?
We generally agree with the proposed policy. As far as short term contracts are concerned, we aknowledge that some business models or portfolios might be more heavily affected by seasonality effects which need to be addressed. From a more general standpoint, however, we do not believe that short term contracts phenomena should be addressed by adjusting 1-year default figures for missed to follow up positions as this is part of the 1-year default experience of the institutions. The use of overlapping default observation windows, for instance, wouldn't prevent capturing in the 1-year default figures all defaults even when seasonality effects are relevant. **Providing that all defaults are considered**, the exclusion of specific corrections seems to us more in line with the CRR definition of default and more consistent with the overall IRB framework as maturity have a 1-year floor.	

Question 5.3	Are the requirements on determining the relevant historical observation periods sufficiently clear? Which adjustments (downward or upward), and due to which reasons, are currently applied to the average of observed default rates in order to estimate the long-run average default rate? If possible, please order those adjustments by materiality in terms of RWA.
The requirements are sufficiently clear, but RTS on Assessment methodology would require a consistent revision. In terms of overall regulatory provisions, we suggest regulation should better allow for effective long-run calibration, without reference to benchmarking to most recent data or floors to most recent available data. As most recent data are affected by downturn economic conditions in quite many jurisdictions, the reference to benchmarking to most recent 5-years data contained in the guidelines turns to be not consistent with the concept of long-run average PD calibration. From a practical point of view, as the definition of default has changed over time and it would be unfeasible to simulate backward the current definition with sufficient time lag to cover an entire economic cycle, specific adjustments leveraging on proxies and restricted default definition might indeed be necessary and appropriate for effective long-run average calibration, representing the range of variability over time of default figures. Draft Guidelines, along with RTS on assessment methodology, introduce undue limitations as the appropriateness of the time series used is part of supervisory assessment process and as MoCs are already required to address data limitations where appropriate. We therefore suggest that a balance between long-run average calibration requirements, data limitation, required adjustments and related MoCs should be found on	

a case-by-case basis as part of supervisory activities rather than be constrained in the regulation.

Question 5.4	How do you take economic conditions into account in the design of your rating systems, in particular in terms of: a. definition of risk drivers, b. definition of the number of grades c. definition of the long-run average of default rates?
Most of Rating Systems do not take into account directly economic conditions, but include variables correlated to economic conditions (behavioral data, financial information, etc) so that they are hybrid in nature.	

Question 5.5	Do you have processes in place to monitor the rating philosophy over time? If yes, please describe them.
A process to address rating philosophy over time will be beneficial to correctly identify PIT/TTC-ness characteristics and thus define targeted backtesting metrics focused on unexpected miscalibration. The same can be extended to risk drivers dynamic properties to properly manage representativeness assessments.	

Question 5.6	Do you have different rating philosophy approaches to different types of exposures? If yes, please describe them.
Ex-ante definition of a rating philosophy is a non-standard practice. However, models are in practice differently hybrid across portfolios depending on risk drivers - retail models tend to be more PIT as behavioural information have generally an higher weight compared to other portfolios - and modelling techniques - for instance, shadow rating models to CRAs rating tend to be more TTC.	

Question 5.7	Would you expect that benchmarks for number of pools and grades and maximum PD levels (e.g. for exposures that are not sensitive to the economic cycle) could reduce unjustified variability?
As Rating Scale structure might be relevant both for PD calibration and for backtesting purposes and as criteria used by different institutions in rating scales design are quite different, some guidelines are appropriate. A rating scale should generally be designed in order that undue concentrations are avoided, but more importantly it should ensure that counterparties with the same risk are assigned the same PD and counterparties with different risk are assigned a different PD. For this reason, a rating scale should optimise risk variability within the same class and between different classes. As classes are used to calibrate PDs, the statistical robustness of risk differentiation should be explicitly tested. Such an optimisation implies that the optimal number of class is not always the same as it is strongly related to the distribution of underlying available risk drivers and thus of final scores or individual PDs (where estimated). For this reason, a benchmark on the number of classes is not found to be beneficial and might in some cases increase variability. Equally setting a maximum PD threshold would be inappropriate as the granularity of the scale at higher PD levels is strictly related to the discriminatory power of different models,	

even though the proposed approach would most likely help reducing the RWA variability for the upper classes of the rating scale (i.e. grades close to default).
For the above mentioned reasons, scales should generally be designed specifically for each portfolio and the recourse to institution-wide masterscales should be limited to reporting purposes where an aggregate view is required. Even with the use of portfolio-specific scales, in some cases significant concentrations cannot be avoided (especially for retail - e.g. regularly amortising mortgages).
In other cases, the differentiation of PDs among lower risk classes is not statistically grounded but a a granular scale is required for a reasonable business process. In such cases, for instance, a joint PD calibration for regulatory purposes covering more than one class can be most appropriate and thus calibration should be assessed at this aggregate level.

However **a benchmark on the number of grades would not help reducing unjustified variability** as the appropriate number is strongly related to the distribution of underlying risk drivers and thus of final scores or individual PDs (where estimated). Equally, **setting a maximum PD threshold would be inappropriate** as it is strictly related to the discriminatory power of different models.

One other point to highlight is that article 66 of the draft guidelines imply the application of MoCs whenever there is a lack of up-to-date information. This provision should be limited to the cases where up-to-dated information are required and unmanaged in the model. For instance, retail models usually rely on credit application information that are seldom updated over time. For this reason such models already adress the variability of available information over time with dedicated model solutions or considering explicitly ageing information. In such case, the lack of up-to-date information shouldn't require the application of MoCs as it is expected

Finally, we highlight some other points requiring some clarification or deserving corrections

- Article 38 and 50 – unrated exposures

The treatment of unrated exposures might require some clarifications as article 38 imply that all counterparties should be rated, article 50 might be interpreted as a requirement for a specific PD calibration for the unrated class and lately in chapter 8 a conservative treatment of unrated positions is required.

Our interpretation is that unrated positions in the range of application of a certain model should be avoided to the possible extent, and that residual cases should find a conservative treatment. Unrated positions reclassified in a "conservative class" under chapter 8 should not be used for calibration purposes of the class where they are assigned. A specific PD calibration analysis should be performed for unrated positions so that it can be verified that the reclassification is conservative as required. Would this possible approach be appropriate?

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- Article 44(b)

It would be beneficial to clarify what does "lack of homogeneous pools or exposures" stand for.

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- Article 45(c)(ii)

Representativeness of "recovery standards" should not be relevant for PD estimation. This reference should be excluded.

2.3 LGD estimation

We already anticipated in the summary that some LGD guidelines provisions are targeted to a specific methodology for sound inclusion of model sensitivity to collateral coverage, namely secured vs. unsecured modelling.

Even though such approaches are grounded in international best practices, in some cases alternative solutions are advisable. The same applies to the direct definition of LGD considering the entire default experience, while multi-stage models might be advisable for coping with a variable definition of default over time.

Even when such alternative approaches are triggered by data gaps, which are indeed expected in terms of historical depth compared to Guidelines provisions, it should be encouraged the choice of the best modelling techniques fitting at the best sound estimation principles outlined in the guidelines. For instance:

- The time length of recovery processes and the variability of default definition over time live room for sensible multi-stage models (danger rate modelling plus LGD litigation), while this is not considered as possibility
  - for instance a statement requiring that "as LGD models may consider specific estimates and calibration for different components, for instances cure rates and recoveries; in this circumstances guidelines provision are intended to apply to any single component and to the resulting overall LGD", would turn to be appropriate;

- Lack of historical reconciliation of collateral disposals and recoveries, together with indirect effects of collaterals and guarantees and with evidence of risk differentiation among different levels of over-collateralisation, live room to model solutions different from FIRB-like secured/unsecured models. We fully agree that appropriate incorporation of collaterals is a strict necessity, and at this regard we also appreciate BCBS initiatives allowing potentially an hybrid approach where LGD unsecured is internally estimates and collaterals are considered with regulatory haircuts where this is not feasible. However, dedicated secured/unsecured models is not the only approach available, for instance:
  - Modelling "coverage dependent" overall LGD estimates;
  - Modelling secured recoveries based on observed extra-recoveries "coverage dependent" over unsecured estimates instead of directly on collateral liquidation cash flows.

In highlighting this, we do not support any specific approach among those cited, as the best approach depends on the context. However, some provisions are explicitly oriented to a specific methodology and our comments are intended to make provisions more generally applicable.

Another important point to comment on is related to art. 90 of draft guidelines. We remind that the definition of default require a specific “return to non defaulted status” process, within the which the definition of an appropriate probation period with 3/12 months floor is provided. In this sense we assume that default considered for parameters estimation already incorporate such effects.

In this light it is not meaningful the requirement set in art. 90 or draft guidelines as exclusion of cures for positions defaulted again in 12 months would generate an inherently different definition of default between PD and LGD estimates, violating CRR, RTS on assessment methodology and RTS on default definition. We suggest to exclude any reference to probation period or probation-like periods in the guidelines as it generates uncertainty. Return to non-default is already to be taken as after probation within the harmonised default definition framework.

In the following we respond to specific question points.

Question 6.1	Do you agree with the proposed principles for the assessment of the representativeness of data?
We agree with the requirement of assessment data representativeness, but some concern is related to article 103(a) as it should be aknowledged that a population of defaulted facilities (as used for LGD estimates) shouldn't share necessarily the same characteristics of the population of performing facilities it is applied to. Relevant phisiological differences exist that needs to be taken into account. More importantly, we believe that data exclusion shouldn't be neglected as means for appropriately address data representativeness instances. Requiring representativeness of development sample towards the application one, while at the same time asking for the inclusion of all defaults, specifying that “it is not possible to remove the observations that are not fully representative from the estimation sample" is not fully reasonable. This is especially true as the use on non-representative data require adjustments and imply MoCs. Use of elder available data not representative of current recovery practices, bias LGD estimates as they cannot be adequately forward looking. Not all cases can be addressed by adjustments+MoC; in some cases exclusion is the most sensible option. Of course, supervisory judgement is required to verify if this is actually appropriate on a case by case basis.	

Question 6.2	Do you agree with the proposed treatment of additional drawings after default and interest and fees capitalised after the moment of default in the calculation of realised LGDs?
We disagree from the proposed treatment (point 116) for interest and fees capitalised after the moment of default since it is not consistent with the "economic loss" meaning of LGD. In our view only cash flows related to effective recoveries or costs should be taken into account. Interest and fees capitalised after the moment of default are economically irrelevant prior to their capitalisation as no effective cash flow is indeed associated and	

recoveries are already properly discounted. We agree that interest and fees have a similar economic meaning, so that both should be excluded as in the alternative proposal included in the explanatory box. The alternative proposal that exclude both is fully appropriate.
From a more formal point of view, we consider that art. 181(1)(i) of the CRR states that "to the extent that unpaid late fees have been capitalised in the institution's income statement, they shall be added to the institution's measure of exposure and loss" has a non equivocal interpretation: unpaid late fees count only after they have been capitalised and thus part of the EAD and straightforwardly their been part of the EAD means considering them both at "exposure and loss".
The eventuality of negative realised LGD as outcome of the alternative approach, risk highlighted in the explanatory box, is already accounted by a general zero-floor. Potentially, LGD might find a more prudent floor in the LGD resulting from material costs that being never capitalised are not subject to recovery. Compensating discounting effect is fully economically grounded.
Finally, as far as art. 115 is concerned, we believe that as the outstanding amount at the date of return to non-defaulted exposures includes also interests and fees charged during the default period and such amount should be discounted at default date as any other recovery.

As far as the usage of undrawn amount, we deem Guidelines treatment to be fully in line with CRR provisions for CCF estimates. Indeed a treatment within LGD as allowed for Retail would be equally sensible, but however would require a CRR amendment.

Question 6.3	Do you agree with the proposed specification of discounting rate? Do you agree with the proposed level of the add-on over risk-free rate? Do you think that the value of the add-on could be differentiated by predefined categories? If so, which categories would you suggest?

We agree that the risk-adjustment (or spread) should reflect the volatility of the recovery process, and more specifically we believe that it should reflect the recovery time-volatility of a given homogeneous portfolios and not the volatility of individual facilities recoveries.
Thus there would be room for guidance enhancing more homogeneous practices in this area. As practices are indeed not such, we understand the definition of a regulatory spread might be considered the most desirable solution. However it comes at costs of assimilation of very different uncertainty levels among jurisdictions, portfolios, supporting collaterals, etc.
We would therefore prefer clear guidance on the methodology, along with best practices examples where found appropriate, rather then losing specificity.
Subordinately, a regulatory guidance more granular will be however preferred.

Another point to highlight is the use of 1Y euribor, independently from the recovery maturity. We would suggest the use of a term structure of risk-free rates as most appropriate.

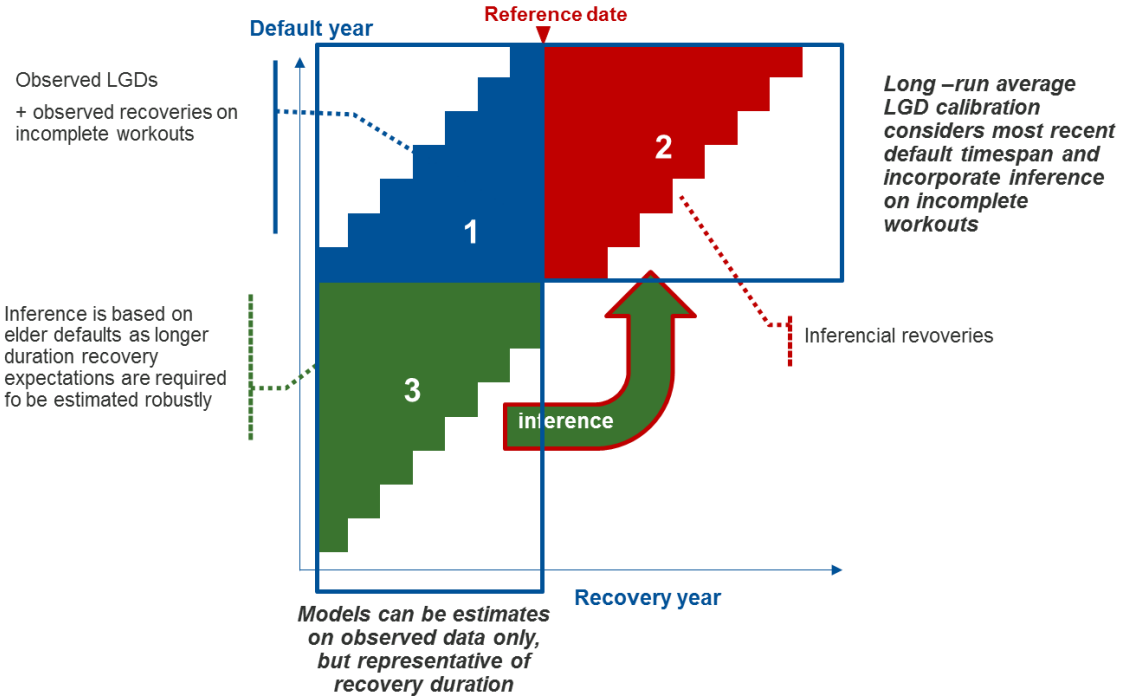
Finally, and not less importantly, the use of applicable rates at the date of default might be exposed to market volatility (an average of rates would avoid this risk) and would not deliver sensible forward looking estimates. Especially as no data should be excluded, including elder data, in some jurisdiction, this means including default stemming from

periods with double-digit discount rates, which is not a reasonable forward looking perspective. This is particularly burdensome for those banks that have valuable longer time series, unduly penalising them compared to other banks that do not.
For this reason, we suggest rather the use of current rates as most appropriate from a discounting future cash flows perspective.

This implies that the different discounting regime compared to historical accrued interests must not bias LGD estimates, which is already addressed with the zero-floor. We would consider appropriate that LGD finds an higher floor so that costs not capitalised and thus not recovered shouldn't be compensated by different accrual and discounting regimes, as further adjustment allowing such forward looking implementation of discounting approach.

Question 6.4	Do you agree with the proposed approach with regard to the specification of historical observation period for LGD estimation?

It shall be acknowledged that a sample most representative of more recent defaults implies excluding available historical observations that are not included in the most recent default timespan. Such information are valuable for making inference on future recoveries over longer durations.
Said differently, the dataset used for inferential purposes on future recoveries will not automatically be reduced to the "observed LGD" portion of the long-run average LGD calibration sample as in the following picture.



Question 6.5	Do you agree with the proposed treatment of incomplete recovery processes in obtaining the long-run average LGD?

The identification of so called "treated as closed" default as of article 137 of draft guidelines should be based not exclusively on the time-lag from default and on the type of exposure. Article 137 should more generally encompass other information to assess such as existing collaterals, legal procedures, insolvency status, individually or considered jointly. For instance, allowing a maximum duration for the collection process (excluding the time in default other that at the collection stage, accounted in danger rate figures) or excluding positions characterised by relevant collaterals from time-lag criteria.
The latter case is important as such cases would be treated without taking in consideration additional future recoveries as of 138(a) provisions, which is inappropriate for a secured position.
This does not prevent for considering such positions in LGD calibration as incomplete workouts with appropriate inference based on appropriate historical recovery data.
We already commented that historical data used for inference will be not automatically be a subset of the overall calibration population.

Inference should be based on a modelling framework grounded on a methodology consistent with ELbe estimation, as future recovery inference should ideally be consistent with estimated future recoveries for the position from the ELbe perspective (as point 159 states between LGD, LGD in-default and ELbe). We think guidelines should eventually be strengthened in terms of required homogeneity among LGD, LGD in-default and ELbe, rather then requiring further guidance from the inferential point of view.

Question 6.6	Do you agree with the proposed principles on the treatment of collaterals in the LGD estimation?

Without prejudice to exposed detail data requirements, found grounded and appropriate, some estimation principles should be mitigated allowing different methodological solutions where appropriate, as commented earlier.

For instance, art 149(b) is only appropriate as a direct estimate of recoveries from collaterals is performed, and should be limited to those cases. Article 149(d) admits that this is not necessarily the case. Also provision as of article 149(f) is relevant also in the specific circumstance that recoveries from collaterals are first estimated on market value at liquidation and thus require that the estimated value change is taken into account. This is not relevant where collateral recoveries are estimated directly on original market value even when specific Secured LGDs are estimated.

As far as article 149(a) is concerned, we agree with the requirement of unbiased unsecured LGD. On the other hand, the point states that "Institutions should avoid the bias that may stem from including the cash flows related to realisation of collateral in the estimation of recoveries that are realised without the use of collaterals and the other way round". This turns to limit sound modelling practices allowing evaluations of indirect effects of collaterals on direct recoveries from the obligor.
As in case of joint estimation of the overall “coverage dependent” LGDs there is always a potential bias to estimated parameters, the provision, along with others previously commented, seems assuming banks will estimate LGD unsecured and collateral recoveries separately.

As this is a wide used practice, it is not under question its validity. On the other hand, it is only one of potential modelling techniques and it is not without shortcomings as indirect effects are more difficult to be incorporates. For this reason provisions as of article 149 should include a “where appropriate" statement in order to be more generally applicable.

Question 6.7	Do you agree with the proposed treatment of repossessions of collaterals? Do you think that the value of recovery should be updated in the RDS after the final sale of the repossessed collateral?
The Guidelines introduce a specific treatment for repossessed collaterals, even when finally disposed. We believe that in general terms collateral recoveries should be considered as stemming from the sale of the repossessed asset unless it is devoted at own institution use or benefit (f.i., rented). Repossessed but not disposed assets should thus be generally treated as incomplete workout processes within the dedicated framework and Repossessed and lately disposed assets, in our opinion, should rather be accounted in LGD estimated on the basis of disposal price and not based on the repossession value. This latter point is particularly relevant as the implied "two phases" modelling might unnecessarily bias estimates rather then enhance estimates. Indeed the value of recovery should very much be updated in the RDS after the final sale of the repossessed collateral.	

Question 6.8	Do you think that additional guidance is necessary with regard to specification of the downturn adjustment? If yes, what would be your proposed approach?
We believe that a series of additional guidance are needed on a series of topics. For instance: downturn identification and namely whether based on stressed macro-economic scenarios or based on historical experience, downturn impact computation, whether recovery time of default time should be considered, whether a specific PD/LGD correlation analysis is expected or just an assessment of downturn impact con recoveries specific to LGD. We expect further clarification will be provided with RTS specific on downturn conditions.	

We finally suggest removing reference to recovery procedure among risk drivers (art. 142(a)) as unknown at application to a non-defaulted exposure.

2.4 Estimation of risk parameters for defaulted exposures

Guidelines require a dedicated calibration of LGD by time-on-book, where the reference date might be based on time only of be event-triggered and thus it seems to us that this allows indirectly multi-stage modelling (cure rate + recoveries). As expressed in the initial comments, we find it appropriate.

However it wouldn't be sound defining models specific for each reference date as cliffs and non-monotonic behaviours should be avoided as long as possible. We suggest that defining LGD for each reference date shouldn't be interpreted as requirement for estimating dedicated models, as a cross-time time-dependent specification would better guarantee a smoother LGD assignment.

Question 7.1	Do you agree with the proposed approach to the ELBE and LGD in-default specification? Do you have any operational concerns with respect to these requirements? Do you think there are any further specificities of ELBE and LGD in-default that are not covered in this chapter?
We agree with the proposed approach, but suggest that some further clarification is required for the definition of "additional unexpected losses". We expect that additional correction on top of downturn correction might be relevant only in very limited cases.	

Question 7.2	Do you agree with the proposed reference date definition? Do you currently use the reference date approach in your ELBE and LGD in-default estimation?
Yes, we agree. We appreciate that this reference date might be event-triggered as only based on time would be limiting. However, we also believe that a model for each reference date should not be the best solution as reference dates are to be considered mostly boring point in a continuous pattern. The homogeneity of drivers used across reference date, or modelling altogether different reference dates with explicit time dependent variables, is advisable for outcomes monotonicity.	

Question 7.3	Do you agree with the proposed approach with regard to the treatment of incomplete recovery processes for the purpose of estimating LGD in-default and ELBE?
We agree in full. Especially we agree the approach of including incomplete workouts should be consistent to LGD so that cliff effects are avoided. The approach for calibrating the "observed LGD in-default" to "long-run average LGD in-default" is however rather complex. Assuming for instance, positions can be treated as closed after 10 years, the LGD in-default at year ten is expected to be 100%. As historical observations at reference date 9 will include LGD observed on complete workouts and incomplete workouts as well, the latter should be estimated a 0% future recoveries. This forms the base for calibrating t=9 long run average LGD in-default. Going to positions open at t=8, then some will be closed and others will be still be incomplete workouts eventually observed up to 9 or up to 10. Future recoveries will be	

0% for the latter and the resulting of the previous long-run average for those observed up to date 9 for positions observed up to this date. And so on in a backward looking inference from last relevant date to LGD in-Bonis. This is indeed a complex procedure as expectations are not necessarily average rates but a calibrated model. However this is really he only way to make fully sensible an extention to incomplete workouts both for LGD and for LGD-in-default. As ELbe itself should be the base for best inference of future recoveries, than guidelines should be reinforced establishing an explicit link between future recovery inference and ELbe definition.

Question 7.4	Which approach do you use to reflect current economic circumstances for ELBE estimation purposes?
Elbe estimation requires analysing the dynamic properties of realised LGD/recoveries over the economic cycle and thus the definition of the relation between macro-economic scenario/variables and expected LGD/recoveries. As such required downturn calibration of LGD in-default might be interpreted as the stress testing result of these satellite models under downturn scenario of macro-variables. For this reason, further guidance on downturn LGD will be beneficial to address specific LGD in-default and point-in-time ELbe calibration requirements in a consistent way. A comprehensive approach linking IFRS9 PIT calibration purposes, stress testing, ELbe PIT calibration and downturn estimates is foreseen as the most appropriate. Such an approach is however not obvious to be implemented as recovery processes may span across different economic scenarios and require specific calibration for different purposes.	

Question 7.5	Do you currently use specific credit risk adjustments as ELBE estimate or as a possible reason for overriding the ELBE estimates? If so how?
We fully agree with the proposed guidelines. We know approaches are very different across institutions. However, we deem appropriate ELbe to be the result of a specific model not to be confused with provision it should be compared to. Only as provisioned share all ELbe characteristics, which require always adjustments, this can be considered appropriate.	

2.5 Application of risk parameters

Question 8.1	Do you see operational issues with respect to the proposed requirements for additional conservatism in the application of risk parameter estimates?
We consider appropriate the requirements but confirm that model estimate MoCs and model application MoCs shouldn't trigger a double counting of prudenciality and thus estimate MoCs should focus on estimation errors on positions not effected by deficiencies stemming from the estimation process.	

As far as Human judgement is concerned, we consider appropriate that not only model output overrides but also model input overrides should be tested in terms of performance. Fort this reason we would extend art. 197 as “Institutions should regularly assess the performance of the model before and after the overrides of model inputs and/or outputs”, making it more in line with art. 193 where positive oveerides are required to be limited both stemming from input and output. From a wider point of view, moreover, all the impact of human judgement should be assessed thoroughly. For this reason the impact on performance of qualititative inputs shouldn't be neglected as required monitoring under article 197.

2.6 Re-development, re-estimation and re-calibration of internal models

Question 9.1	Do you agree with the proposed principles for the annual review of risk parameters?
We agree with the proposed principles, but adverse outcomes can be individually detected (through specific triggers) but should be jointly assessed in a dedicated validation framework in order to trigger "predefined actions". In order to make clearer the importance of a joint assessment, we suggest article 200(c) to be modified as follows: "predefined actions to be taken in case of adverse results in any of the analyses, based on the overall impact of detected deficiencies to be jointly assessed".	

2.7 Calculation of IRB shortfall or excess

Question 10.1	Do you agree with the clarifications proposed in the guidelines with regard to the calculation of IRB shortfall or excess?
Yes, we agree	

2.8 Materiality of impact on rating systems

Question 11.1	How material would be in your view the impact of the proposed guidelines on your rating systems? How many of your models do you expect to require material changes that will have to be approved by the competent authority?
We expect most IRB Systems, with different degrees of priority and with different impacted parameters or model components, would require material changes to fully address the requirements.	