

Draft Guidelines on PD estimation, LGD estimation and treatment of defaulted assets (EBA-CP-2016-21) – Intesa Sanpaolo position paper

Intesa Sanpaolo welcomes the *Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures* and supports the EBA's goals to reduce the unjustified variability of RWA among banks and to restore trust in the internal models by market participants while at the same time preserving risk sensitivity of capital requirements.

Intesa Sanpaolo has participated actively in industry groups at both national and international level regarding the above mentioned Consultative Document and we fully endorse the responses of the IIF, EBF, ABI on this issue.

Moreover, Intesa Sanpaolo has prepared this position paper in order to answer the various questions of the EBA's document and to provide a complete overview of its opinion on the GLs, highlighting and explaining more in details the most relevant aspects according the ISP's view

As general introduction Intesa Sanpaolo would like to focus **on the most important and impacting issues of the new GL from its point of view:**

- **Scope of application:** EBA should better clarify the scope of application of these new Guidelines. Should banks apply all new requirements in details without considering the materiality of each portfolio and the very important difference between HDP and LDP? Are simulative/Cash flow models included in the scope of application, too? Guidelines on PD and LGD estimations should be adapted to different type of exposure considering the materiality and their characteristics (HDP vs LDP). In fact, the complete application of the new EBA's GL in an "standard" way for each classes of exposure could lead banks to define and apply MOC, which could be considered as structural MOC (while we consider MOC as a temporary prudential add-on, that can be removed when banks are able to remove and solve the related deficiency). We are particularly concerned that the limitations/prohibitions to use external or consortium data can be extended to LDP; or that their use has to be balanced with disproportionate MOC, so that paradoxically lower risk portfolios are the most penalized.

ISP considers necessary more clarifications about this significant topic. We consider also important to set in these EBA GLs objective criteria (e.g. 50 defaults/ 50 observations) to define a LDP or when a sub-portfolio must be considered too small in order to apply statistical analysis consistently without adding a margin of conservatism.
- **Margins of conservatism (MOC):** the statement that MOC is the quantification of "justified variability" is dangerous because, provocatively, it can lead to think that Banks have to develop MOC rather than good and efficient risk models. The unjustified variability among banks will be just moved from modelling techniques and data to MOC definition and quantification without at the end obtaining the desired improvement in enhancing comparability and creating a level playing field. MOC have to be considered just an opportunity to improve an already good model not the solution to all the problems and deficiencies: if a model is not able to properly capture the right riskiness of a counterparty / credit line the MOC cannot solve the problem.

We consider necessary an in-depth explanation of how the MOC have to be computed. It could be very useful provide standard approaches, a sort of accepted methodology within the industry (e.g. percentile distribution, expert based). It should be also clarified how to prevent and manage the potential correlation among them. The temporary characteristic of the MOC has to be well underlined in the text. The relationship between adjustments (both positive and negative) and MOC has to be better clarified and quantified. Moreover also the way of applying and using MOC for managerial purposes should be explained

The quantification of the MOC has to be requested at overall model level: it is not possible and burdensome to ask the banks a quantification of each MOC in each model and even at portfolio level application, considering that such adjustments (and therefore MOC) are defined and applied also at very early steps of the development process (e.g. processing of row data) If this interpretation is wrong, it could be better specified, also providing some examples, that this request refers to the main MOC (e.g. on the LRAVDR). While on one side the usage of MOC is requested in order to apply conservatism in case of any identified deficiencies, on the other side is necessary to ensure that capital requirements are not distorted due to the necessity for excessive adjustment: it is necessary to in-depth define the quantification of 'distortion' and eventually to set limits for these metrics.

Finally, it is also necessary provide more details about the management phase of the "Adjustment and MOC change methodology" over the years and its process: also in such cases is it necessary to present instances of model change or ex-ante / ex-post notification to the same conditions?
- **LGD Estimation – Inclusion of all the defaults within the estimates:** in general ISP deems appropriate to avoid incentives for banks to maintain open defaults for long time but the solution to forcedly include all the open defaults within the samples appears to be complicated and with the strong risk to introduce recursion in the models, error propagation with a result of larger confidence interval around the regressors' weights (estimates based on other estimates and modelling a not observed but estimated target variable). ISP thinks that the principle of the inclusion of open defaults should be carefully evaluated together with the modelling techniques since the Danger Rate approach already foresees the usage of all defaults as prescribed by the CRR. If the possibility to include all the defaults into LGD models via Danger Rate approach is accepted, it should be better explained to avoid misunderstanding.

- ISP opinion is that the Danger Rate approach in modelling LGD is already compliant with Article 181 (1)(a) of the CRR since all defaults are considered in the estimates even without estimating future costs or recoveries: in fact a bankruptcy still open in the sample and coming from a previous status of pre-litigation is included in the probabilities of first entrance in default and in the migration probability from a pre-litigation default status to the most severe one. This approach is moreover consistent with Article 181(1)(h) of the CRR where it is explicitly written to consider the exposure status in the estimates.
- The estimation of future costs and recoveries can generate effects of recursion in the models with the possibility to amplify the unjustified variability of the results and without allowing to use more information than that currently exploited. The defaulted assets peculiarities have to be better clarified because this section is very confusing in the text and it seems to request some differences with respect to non defaulted LGD estimate.
- **LGD Estimation – Discounting process:** the new discounting approach proposed in the GL goes towards the harmonization but ISP highlights the risk of a too high level simplification in favor of more homogenous approaches. More in details:
 - a) the usage of a historical rate would unduly penalize the banks/country having historical series as broad as possible as requested by both CRR IV and EBA since years before the introduction of the Euro were characterized by high volatility of the risk free rates which would be reflected in the results, moreover the 1-year EURIBOR or a comparable interest rate in a currency of the exposure is not representative of the risk free component which is typically more linked to a one-month or maximum three months EURIBOR (more liquid);
 - b) the 5% spread for all the segments and products is a proposal towards harmonization but is considered inadequate since it does not consider the peculiarities of each segment and product types and is indeed too high if compared with the current commercial spreads currently applied in the majority of the segments (only Retail exposures show higher values with the exclusion of Mortgage product type).

EBA should consider a forward-looking approach more coherent with the BCBS prescriptions (see for example Studies on the Validation of the Internal Rating Systems, Basel Committee on Banking Supervision, Working Paper No. 14 February 2005) and the current practices of the banks.

- **LGD Estimation – Treatment of unpaid late fees, interest and additional drawings after default:** It seems that the Guidelines introduce confusion between accounting schemes and the concept of economic loss, in particular for the issue concerning contractual interests.

All the fees are considered in the economic loss as well as all the other direct costs; they are included as well in the exposure at the denominator of the LGD until the beginning of the default (or the beginning of the litigation phase if a multi-stage approach is performed), not included if they are recorded after but treated as cash-out.

On the other side the interests can be further divided in two categories: a) contractual interest: these interests have not be considered in the numerator of the loss rate computation since their inclusion would result in a double counting with respect to the discounting process (whose section is separately treated in the GL), the inclusion of these interests such as costs in the numerator would represent an accounting scheme which is a completely different matter compared to the economic loss; b) unpaid late fees interests: a cash-in is always a cash-in and the priority rules for the cash-in repartition decided by the bank (capital, interests, etc.) should not distort the economic loss estimation, therefore all the cash-in should be considered without any specific treatment for the case of unpaid late fees interests.

As far as additional drawings are concerned

we have considered the default date as a point of break between EAD and LGD estimation and in general we think that this kind of approach, confirmed only for Retail approach in the EBA GL, is more simple and intuitive. It is not clear why for a Corporate segment it is preferable to choose a different approach which is more complicated respect to the Retail one and we are worried that EBA prescriptions moved just from a wrong provision already included in the CRR IV. If we had to include additional drawings in the Corporate CCF estimation as required by EBA GL, we would need a few clarifications: in particular 1) what we have to consider as additional drawings (are they only capital drawdowns after the default date?); 2) whether our estimates have to be based on closed defaults or we have to do projections also on still open defaults and include them in the CCF estimation sample; 3) how to treat different seriousness of default status (e.g. hard/soft collection). In this regard and considering the above mentioned points, EBA should provide more methodological details on CCF estimation (for example through a guideline on CCF estimation). If there are no reasons to differently manage additional drawings between Corporate and Retail segments then CRR should be coherently modified exploiting current layer one revision in progress.

- **LGD Estimation and representativeness – extraordinary recovery processes and organizational relevant changes:** with respect to LGD estimation and the requirement of representativeness (paragraph 6.2 of the GL), the treatment of extraordinary recovery processes disposed by Institutions (such as NPLs disposals or M&A) should be specified considering those events as relevant changes in the organizational structure.
- **PD Estimation – Point in time vs. Through the cycle Models:** together with the principle to introduce the topic of PIT vs. TTC PD models, ISP considers necessary to clearly introduce a homogenous metric for all the banks for the evaluation and quantification of PIT and TTC weights within the models. The need of a common metric can be also very significant for the models backtesting and more important than a common scheme for the pools / grades (benchmarks for number of pools and grades and maximum PD levels).

Finally, EBA and the Competent Authority should also consider the following aspects in the quantification of the impact coming from the whole adoption of these EBA GLs (2020/2021). In details:

- a) Impacts on model changes in progress;
- b) Review of the roll-out plan and new (potentially a lot) model change applications due to the alignment to the new EBA GLs;
- c) Adoption of the new definition of default (with impact on process, IT systems and models) and its relation with the rules of this GL;
- d) TRIM exercise and expectations
- e) Impacts on current models due to Basel Committee's decision about the general IRB approach (for example about LDP which are currently included within this GL but contain many differences from HDP portfolios);
- f) Impact on the supervisory authorities' activities

Considering the expected important impact on the banks (in order to align current validated models based on CRR regulatory provisions to the new EBA methodological framework/interpretation) and supervisory activities (e.g. on-site inspections, model change applications, ex-ante and ex-post notification, ...) a reasonably long transitional period should be provided.

Hereinafter Intesa Sanpaolo will provide a complete answer to each point of the EBA GL adding also some open issues not specifically detailed in the questions but considered significant for further modifications in the text.

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?

ISP agrees about the application of appropriate adjustments and margin of conservatism but just in specific cases such as methodological deficiencies, estimation errors that diminished representativeness of historical observations and deficiencies due to missing data.

In the definition of the MOC related categories, EBA should consider the fact that correlation between MOC could arise with problems in quantification and in the evaluations of the overall impact.

The MOC is not the solution, but a temporary prudential method to solve some difficulties. The MOC multiplication and correlation could lead to a not desired increase of the "unjustified" variability and in same case also to over-estimate the risk, with impacts on the real economy.

It is absolutely necessary that during the definition and quantification of MOC and adjustments the Regulator requires to banks to focus only on the most relevant and material, preventing that the error propagation due also to "MOC estimates" generates estimates even less comparable among banks or unrealistic estimates, exponentially increasing the so called model risk: the unjustified variability among banks can in fact be just moved from modelling techniques and data to MOC definition and quantification without at the end obtaining the desired improvement in enhancing comparability and creating a level playing field

It should be better explained when a MOC should be applied and the related level. Furthermore whereas the Regulator suggests MOC application in the different phases of model development, it would be reasonable to think that clear guidelines should be defined in order to standardize the criteria for the adjustments/MOC identification and quantification with the aim to avoid or to reduce the "unjustified" RWA variability among banks.

It has also to be underlined the difficult evaluation of impacts in terms of PD (as well as RWA), due to the introduction of adjustments in the first stages of the model development (before the Master Scale PD definition) or the introduction of MOC not applied directly to the final PD.

Moreover, EBA's GL should better clarify the way of managing MOC correlation that could arise in the application of margin of conservatism in several stages of the estimation model process.

According to ISP's view point it is crucial the EBA's GL Art. 32 which contains a strong indication in *ensuring that capital requirements are not distorted due to the necessity for excessive adjustments* and its coherence with the whole MOC section.

As consequence, and in order to prevent different interpretations in quantification and in application of adjustments and margin of conservatism among banks, countries and national supervisory authorities, EBA should better define:

- categories and methodological aspects in estimating MOC
- the MOC's temporary characteristic (refer to Art.34)
- a sort of standardizations (clear quantification?) in order to make homogenous the meaning of the sentence "*.... not distorted due to the necessity for excessive adjustments*"

In conclusion ISP completely **disagrees** to evaluate the impact of each MOC in terms of final risk parameters: this approach implies the estimate of a number of *n* models for each MOC applied, but the impact of MOC could be not

linear. Making a comparison between the model with all MOC applied and the model without any MOC is considered more appropriate to assess the overall adjustment impact.

Question 5.1: Do you see any operational limitations with respect to the monitoring requirement proposed in paragraph 53?

No operational limitations should be present. We already have an automatic 3 months Default Rate calculation engine for each segment. On the other hand, the impacts on time and effort should be evaluated given that, in order to be coherent with the calculation adopted on the Central Tendency, the repetition of the same exclusions/data treatments should be applied.

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 usually adopt a Non-overlapping windows method when possible. In fact, differently from the Overlapping method, defaults are considered just one time without inevitably incurring in overweight / underweights that increase/decrease the Central Tendency value. Regarding the bias due to the choice of fixed reference dates in case of Non Overlapping method, the volatility could be considered acceptable if a full economic cycle is included in the long run average so that changing the observation point substantially doesn't move the final average value, while considering a limited period in the cycle can influence the value if a downturn/upturn period is considered. On the other hand, the effect of using an Overlapping windows method is just an increase/decrease of the CT value depending on a high/low default presence in the middle of the historical series, given that here, differently from the tails, defaults/bonis are counted 12 times. In addition, in case of multiple defaults in the same period the Overlapping method takes into account the return to performing given that the initial performing perimeter changes each time, with the result of increasing the Default Rate, differently from the Non-Overlapping method where the initial performing perimeter is set one time at the beginning of the year.

Short term contracts are included in the population so that a customer with an active short term contract at the reference date is considered both in the numerator (in case of default) and in the denominator (in case of a bonis status at the reference date), independently from the expiration date of the contract, **no reasoning about the maturity are conducted.**

It's worth to note that ISP is a long – term relationship bank. As consequence, the weight of short term contract on the whole portfolio is marginal and the default rate is not biased.

EBA's GL should better clarify how to deal with short term contracts and give more details.

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.

In our opinion the guidelines should clarify these important topics for the comparability of the rating models. Moreover, it should be clarified if a long run time horizon have to include both upward or downturn years. In fact, in some countries, considering just the most updated years, banks could consider only downturn periods and this cannot be considered as a benchmark of the "likely range of variability of one-year default rates"

Others clarifications are expected on how banks can measure a downturn period, a whole economic cycle and how manage structural breaks such as important change in bank's business, in the legal environment and overall in the definition of default.

Note that related to the length of the historical series and to the adjustments that could be applied to manage the above mentioned aspects, it could lead to a definition of a structural and inappropriate MOC.

Currently ISP bank establishes that the historical series should be at least 10 years long (except structural break like mergers, acquisitions, changes in business model) and include a whole economic cycle considering both downturn and upturn periods.

Since the default definition could change over time (different regulatory default definition occurred during the last years, i.e. 90 days Past Due), in order to ensure a homogeneous default definition on the whole observed period, default rates reconstructions could be necessary.

If these reconstructions are not allowed, in order to estimate the long-run average default rate (at least 10 years), we could apply a "Cycle adjustment" possibly based on external data to the limited historical period of observed default rates where the default definition is homogeneous.

Moreover, the rigidity of the text regarding the necessity of properly managing (also by means of exclusion) particular events (i.e. change in legal environment, M&A operations,...) seems to indicate that adjustments/MOCs are the preferred way of addressing this topic, while, in our opinion, building a really representative historical sample (of course, taking into account also the current exposure) could allow banks to produce more robust estimation (with a positive impact on the system's ability to restore trust in internal models).
The EBA's GL should better clarify this topic.

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?**

ISP's approach in modelling PD is TTC oriented.

As broad as possible long run historical series are considered in building the estimation sample and in the long list variables definition.

Moreover, the CT for PD calibration purpose is the long run average observed default rate (with an adjustment to make homogeneous the default definition over time). As a consequence, macroeconomic conditions are generally reflected in the independent variables behavior and in the default rate evolution.

In details:

a) Macroeconomic conditions (*ie: GDP, unemployment rate, inflation rate, etc.*) are not considered as risk drivers for model development. The definition criteria for the Long list of variables potentially predictive of default probability is "Through The Cycle" oriented.

However, risk drivers could be implicitly affected by economic conditions in different way according to the portfolio analyzed.

b) Macro economic conditions are not considered in the Master Scale construction. The current Master Scale construction methodology aims to minimize migrations between grades due to economic conditions and to ensure a good distribution of population among grades. Definition of the number of grades is conducted in relation to the observed Default Rates in order to have a monotonous trend with significant variability between grades and no concentration effects.

c) Definition of the Long - Run average of default rates is conducted including in the observed period a full economic cycle, that embeds both downturn and upturn periods, ensuring historical observation period representative of the likely range of variability of one-year default rates. Macroeconomic conditions (e.g. GDP trend, BOI default rates) are used for benchmarking purposes.

Question 5.5: Do you have processes in place to monitor the rating philosophy over time? If yes, please describe them.

The monitoring of the rating philosophy (*Point In Time vs Through The Cycle*) isn't a formalized process but migration matrix analyses are annually performed to verify the rating stability.

ISP really appreciates the attempt to in-depth analyze this topic. It's now clear the definition of PIT vs TTC models but it should be also clear that the majority of the models can be considered as "hybrid" between PIT and TTC with a score more based on PIT indicators and a calibration TTC.

In our opinion further clarifications should be provided in order to define technical standards and a homogeneous metrics for all the banks for the quantification of the pitness vs ttness model's degree.

Without a common interpretation inside the industry and among supervisory authorities' performance evaluations will continue to be not homogeneous.

ISP considers very important all the aspects related to the backtesting point of view.

We completely agree that backtesting analysis needs to be adapted in order to consider the cyclical and the dynamic proprieties of a model.

In our view, a possible direction could be defined through a

multidimensional approach framework for validation purposes¹. The idea is to develop a set of tests, each aiming at measuring the performance of the models and their compliance with different (even conflictual) regulatory requirements. Tests to be introduced are based on different hypotheses (correlations, degree of fitness measures, ...). The outcome would be a simultaneous assessment of the several dimensions in a traffic light approach involving both quantitative thresholds and qualitative judgments. The traffic light approach could be implemented with specific threshold for each test, differentiated for the degree of fitness of the model, the target segment (corporate, retail, HDP, LDP), number of rating classes of the system.

Question 5.6: Do you have different rating philosophy approaches to different types of exposures? If yes, please describe them.

Internal models are developed according to a TTC philosophy. However, the weight of behavioral component can be different for each model: models with high contribute of behavioral information are more Point In Time rather than models with high contribute of other more stable information (Retail vs Corporate exposures).

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?

The choice of the grades number influences the stability of the ratings themselves. The use of fixed number of grades and a maximum level for the PD allows a better (but not complete) comparisons with other banks and comparability. Nevertheless, it is necessary to evaluate the portfolio of each Bank and its specificity and therefore, for example, the concentration of the population among grades: it could be necessary join or divide grades to ensure default rates monotonicity and a better discriminatory power of the model.

The same number of pools and grade could be not enough for improving comparability between banks, because the ranges of the grades could be very different. Furthermore the banks could introduce managerial master scales for business choices if the compulsory numbers of grades wouldn't be a good fitting of the portfolio.

A possible approach could be to define standard common number of pools and grade just for transparency and comparability purposes (Pillar III). But, in order to define the portfolio/bank's specific master scale in our view is important to use statistical optimization method able to reflect the specificities of a model/exposure class and the relationship between rating grade and the observed default rate.

A different approach could lead bank (as above mentioned) to define specific (optimized) master scale at least for managerial and business purposes.

Guidelines on master scale definition would be appreciated. We would be keen to contribute by describing our methodological approach on this issue.

Question 6.1: Do you agree with the proposed principles for the assessment of the representativeness of data?

This question is strictly related to the Questions 4.1, 6.5 and 7.3 and therefore should be carefully and jointly evaluated.

We agree with the importance of the data representativeness with respect to the application portfolio. With respect to the LGD models the development team should always consider the significance of the risk drivers used to differentiate loss rates estimates not only in the sample but also in the real portfolio since long historical series can include biases in this sense. Nevertheless comparisons should be made amongst defaulted contracts (modelled versus recently observed); comparisons between the defaulted portfolio and the performing portfolio makes less sense and could determine the need to add an unjustified MOC due to the category B of the GL. In fact the sample of defaulted facilities for LGD estimation can differ from the Performing portfolio for structural reasons: we therefore suggest to properly separate this test for the purpose of Defaulted Asset models (ELBE and LGD in-default) from the Performing model. How should firms handle a lack of representativeness due solely to intrinsic differences between defaulted and performing exposures?

Since GL are currently devoted also to LDP portfolios it should be possible that in these particular cases representativeness analyses are more complicated and the usage of external data can influence the results. On this topic we underline therefore how crucial is a proper clarification on the scope of application of the GL.

¹ For further details see AIFIRM position paper: "Validation of rating models' calibration" by S. Cuneo, G. De Laurentis, F. Salis, F.Salvucci.- January 2016.

On the other hand a more complex topic concerns the inclusion of all the defaults in the sample: this principle can be potentially in contrast with the idea to have historical series as broad as possible (indicated by both CRR IV and EBA), in fact the consequence of a broad historical series can be the impossibility to have a complete information for all the defaults recorded and therefore the need to exclude some cases (for example because it is not possible to calculate correctly the target variable or they have a different default definition). For example the current process of the sample definition in LGD models foresees the exclusions of some defaults for data quality reasons: if all the defaults need to be included in the final sample, for these cases a LGD will be forcedly assigned. The question is therefore which LGD should be assigned and homogenous rules have to be provided in order not to create variability: according to ISP opinion these cases have to be properly considered by the GL in order to allow a better modelling and the right implementation of the MOC. Moreover not only data quality exclusions are performed: for example some defaults are excluded since they are open and their recovery process is in progress (they are not considered irrecoverable such as Incomplete Workout cases): for these situations, detailed also hereinafter in the GL, a clear guidance of the recovery rate estimates has to be provided in order not to create undue variability among banks.

In summary within the new GL an inconsistency is detected between the points 99/110 and point 111 (exactly like it happens in CRR art 181.1(a) and 179.1(d)), since the formers ask for representativeness of development sample towards the application one, while the latter requires the inclusion of all defaults, detailing that “it is not possible to remove the observations that are not fully representative from the estimation sample. However, in this case institutions should apply adequate margin of conservatism to account for the weaknesses in data and, if possible, adjust the data to ensure greater representativeness”.

We disagree with this requirement, i.e. to include non representative data which introduce biases in the estimation and then apply MoC to overcome them. Indeed, it would imply a double inclusion of errors within the estimation. Therefore, we deem that the possibility to exclude non representative data from the development sample should be allowed. The same concept should hold also for the data quality issues above mentioned.

A relevant topic to be discussed in this section of the GL concerns extraordinary recovery processes and organizational relevant changes: with respect to LGD estimation and the requirement of representativeness, the treatment of extraordinary recovery processes disposed by Institutions (such as **NPLs disposals or M&A**) should be specified considering those events as relevant changes in the organizational structure.

Question 6.2: Do you agree with the proposed treatment of additional drawings after default and interest and fees capitalized after the moment of default in the calculation of realized LGDs?

As far as Retail exposures are concerned, we agree with the proposed treatment of additional drawings for both CCF and LGD and our models are already developed aligned with CRR and EBA GL.

As far as Corporate exposures are concerned, our current approach is based on a prudential CCF equal to 100% applied on every undrawn amount referred to defaulted counterparties in the application portfolio.

Is our current approach about Corporate exposures considered compliant with the CRR?

We have considered the default date as a point of break between EAD and LGD estimation and in general we think that this kind of approach, confirmed only for Retail approach in the EBA GL, is more simple and intuitive. It is not clear why for a Corporate segment it is preferable to choose a different approach which is more complicated respect to the Retail one and we are worried that EBA prescriptions moved just from a wrong provision already included in the CRR IV. If we had to include additional drawings in the Corporate CCF estimation as required by EBA GL, we would need a few clarifications, in particular:

- 1) what we have to consider as additional drawings (are they only capital drawdowns after the default date?);
- 2) whether our estimates have to be based on closed defaults or we have to do projections also on still open defaults and include them in the CCF estimation sample;
- 3) how to treat different seriousness of default status (e.g. hard/soft collection).

In this regard and considering the above mentioned points, EBA should provide more methodological details on CCF estimation (for example through a guideline on CCF estimation). If there are no reasons to differently manage additional drawings between Corporate and Retail segments then CRR should be coherently modified exploiting current layer one revision in progress.

The approach concerning fees and interests is very important for an appropriate LGD computation. **It seems that the Guidelines introduces confusion between accounting schemes and the concept of economic loss**, in particular for the issue concerning contractual interests. All the fees are considered in the economic loss as well as all the other direct costs: they are included as well in the exposure at the denominator of the LGD until the beginning of the default event (or the beginning of the litigation phase in case of multi-stages model), while they are not added to the exposure if they are recorded after the default event (or litigation event) but, as stated above, considered as cash-out. On the other side the interests can be further divided in **two categories**:

- Contractual interests:** these interests are included in the exposure at the denominator of the LGD until the beginning of the default event (or the beginning of the litigation phase in case of multi-stages model) but have not be considered as a cash-out in the numerator of loss rate computation since their inclusion would result in a double counting with the respect to the discounting process (whose section is separately treated in the GL). Moreover the inclusion of these interests such as costs in the numerator **would represent an accounting scheme which is a completely different object compared to the economic loss:** the share of interests which will be cashed-in will be adequately discounted to take into account the time value of money but nothing more has to be added in the LGD formula. The following example can clearly illustrate the distortion in the LGD computation deriving from the inclusion of the contractual interests in the numerator of the formula together with discounting process of the cash flows as indicated in the Explanatory box for consultation purposes at pages 65-66:

Table 1

| | Month | Exposure | Yearly Contractual Interest rate | | Direct Costs | Net Cash flows | Net Cash flows minus contractual interests | Write-off | Discounting factor |
|---------|-------|----------|----------------------------------|---------|--------------|----------------|--|-----------|--------------------|
| | | | Contractual Interests | Cash-in | | | | | |
| Default | 0 | 200 | | | | | | | |
| | 1 | 201 | 1 | | | 0 | -1 | 99,52% | |
| | 2 | 202 | 1 | | | 0 | -1 | 99,03% | |
| | 3 | 203 | 1 | | | 0 | -1 | 98,55% | |
| | 4 | 204 | 1 | | | 0 | -1 | 98,08% | |
| | 5 | 205 | 1 | | | 0 | -1 | 97,60% | |
| | 6 | 206 | 1 | | | 0 | -1 | 97,13% | |
| | 7 | 207 | 1 | | | 0 | -1 | 96,66% | |
| | 8 | 208 | 1 | | | 0 | -1 | 96,19% | |
| | 9 | 0 | 1 | 209 | | 209 | 208 | 95,72% | |

Supposed equal to the contractual interest rate of the facility

$Disc. Val. = \frac{Nom. Val.}{(1+i)^T}$

LGD default

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|-----|-----------|------------|------|-----|
| Computation | 200 | 209 | 200 | 100% | 0% |

LGD default with EBA GL including contractual interests in the numerator

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|-----|-----------|------------|-----|------|
| Computation | 200 | 200 | 191 | 96% | 4,4% |

As immediately noticeable this position ends its recovery process with a full recovery of both capital and interests. Since the contractual interest of this facility is equal to the one applied for the discounting process the resulting LGD is correctly equal to 0. Nevertheless if the contractual interests are also added as cash-out in the numerator of the LGD formula the resulting loss rate becomes equal to 4,4%, a value undoubtedly wrong.

The confusion between accounting scheme and economic loss has to be corrected. Given this principle, about the negative LGD it has to be underlined that, in case of perfect alignment between contractual interest rate and discounting rate, the discounting process would not determine any distortion in this sense (see the example above). Nevertheless banks tend to apply current rates approach for the discounting process as also suggested by the BCBS *Working Paper 14*²: “their use allows the consideration of all available information and facilitates the comparison between LGD estimates from different portfolios”; this approach can determine negative loss rates for the different consideration of the value of money in time. The subsequent 0% floor appositely solves this misalignment without creating distortions in the sample. More specific comments on this topic will be provided in the dedicated section of the GL;

- Unpaid late fees interests:** these interests are included in the exposure at the denominator of the loss rate until the entrance in the default status (or until the entrance in the litigation phase if a multi-stages model is applied), but the GL asks to consider that in case of recovery of late interest that have not been previously capitalised the moment of recovery should be considered a moment of capitalization. If this requirement imposes not to consider the cash-in related to unpaid late fees interests and exceeding the amount included in the EAD for the loss rate computation we do not agree with the proposal: in fact according to our opinion a cash-in is always a cash-in and the priority rules for the cash-in repartition decided by the bank (capital, interests, etc.) should not distort the economic loss estimation; our opinion is that all the cash-in should be considered without any specific treatment for the case of unpaid late interests.

We deem more appropriate to treat the two topics separately and to pay attention to the terminology (which is critical on this technical issue, for example sometimes the terms “unpaid” or “late” are forgotten in the text). We propose to rectify these issues by properly considering the economic loss concept without inappropriately including accounting topics. The double counting effect with the discounting process has to be considered and avoided.

For the unpaid late fees interests we propose to consider a cash-in always a cash-in without rectifying anything for the capitalization concept: the repartition of the cash-in decided by each bank can cause a distortion in the economic loss estimates if a share of these unpaid late fees interests has to be rectified and therefore can increase the variability among banks.

Question for discussion: Article 115 states that additional recovery cash flow has to be added to the calculation at the date of the return to non-defaulted status in the amount that was outstanding at the date of the return to non-defaulted status and **this additional recovery cash has not to be discounted:** this approach means that this recovery is not discounted analogously to the other cash flows because is not considered as a cash flow. Can EBA provide a definitive clarification on this point?

² Refer to: *Studies on the Validation of the Internal Rating Systems*, Basel Committee on Banking Supervision, Working Paper No. 14 February 2005.

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?

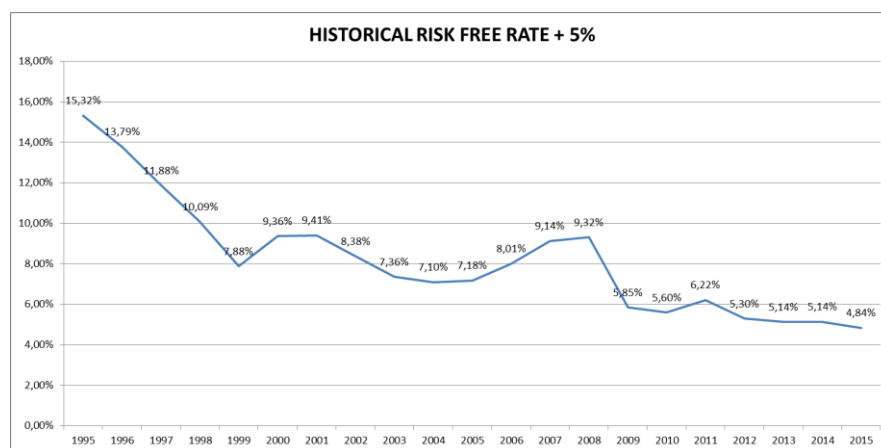
We completely **disagree with the use of an "historical" risk-free rate to estimate loss rates**. The only advantage of this choice is to reduce the divergence between discounting effect for LGD computation and contractual interests with the related recoveries which could cause negative LGDs (which are anyway treated by properly floor them to 0 as also prescribed by the GL and illustrated in the example provided for Question 6.2). Anyway we consider inadequate to discount the cash flows with this approach since a **forward-looking perspective** has to be taken into account as underlined also by the BCBS which indicated current rates approach as the most suitable since *"their use allows the consideration of all available information and facilitates the comparison between LGD estimates from different portfolios"* (Working Paper 14³).

We agree with the idea of determining the final rate as the sum of a risk-free component plus a credit spread but in more details:

- **Risk-free rate:** the usage of a historical rate would unduly penalized the banks/countries having historical series as broad as possible as requested by both CRR IV and EBA, in fact years before the introduction of the Euro were characterized by high volatility of the risk free rates which would be reflected in the results. The natural consequence would be the elimination of the oldest data from the database with a clear reduction of the available information, which is not the goal of the GL. Moreover the GL asks for a primary interbank offered rate equal to the **1-year EURIBOR** or a comparable interest rate in a currency of the exposure: this measure is not representative of the risk free component which is typically more linked to a one-month or maximum three months EURIBOR (more liquid). Finally before 1999 EURIBOR did not exist and therefore a proxy should be derived;
- **Spread component:** the 5% spread for all the segments and products is considered totally inadequate since it does not consider the peculiarities of each segment and product types (i.e. secured vs. unsecured) and is indeed too high if compared with the current commercial spreads applied in the majority of the segments (only Retail exposures show higher values with the exclusion of Mortgage product type). For the spread component it is fundamental to consider these peculiarities together with the different portfolio and commercial characteristics of each bank: the results would therefore create variability among banks but according to our opinion this variability is totally justified. Our proposal is therefore to reflect current spreads of the bank by segment and product type (at least secured vs. unsecured facilities) and to define an average on the most recent years in order to reduce volatility.

The following graph illustrates a simulation of the implementation of the GL requirement with a risk free determined according to a one-month EURIBOR (LIBOR before 1999 as proxy) and the 5% spread:

Table 2



It is clear that these rates would be not sustainable and include a lot of variability in particular in the first year of the historical series. The historical risk free rate is too much volatile, the same nominal losses would be evaluated with a different LGD only because the default started in a different year; therefore in the development sample some LGD would be over-weighted and others under-weighted in a random way (in particular if the perspective of the estimates is forward-looking and not backward-looking).

³ Refer to: *Studies on the Validation of the Internal Rating Systems*, Basel Committee on Banking Supervision, Working Paper No. 14 February 2005.

The following examples can further help to identify the distortions potentially derivable from the proposed approach, **in particular showing that the proposed approach would create an advantage to high yield portfolios (segments) penalizing at the same time the less risky ones (guaranteed by collaterals for example)**. We have considered two portfolios completely different from riskiness point of view (Retail Non Sme Mortgage on one side, Retail non Sme not backed by a real estate collateral on the other side with a personal loan product) and we have circumscribed for sake of simplicity a facility with full recovery at the end of the recovery process (both capital and interests accrued on capital). We distinguish the LGDs for both cases between on one side a forward looking approach based on a one month risk free rate (average of last years) and a spread based on respective average rates of bank's loans and on the other side the EBA approach with the historical risk free rate plus the 5% spread (backward looking). The results are recapped in the following **Table 3**:

| Comparison of discounting processes - Total recovery (capital + interests) at the end of the recovery process | | | | |
|---|--|--------------|--|--------------|
| | Mortgage loan | | Unsecured Personal Loan | |
| | Current approach (risk free + average spread of product) | EBA approach | Current approach (risk free + average spread of product) | EBA approach |
| LGD | -2,6% | 5,2% | -0,6% | -2,1% |

To be remarked: negative LGD are caused by discounting rates lower than the contractual interest rate. They are floored to 0 in the model

The following Tables illustrate how the previous results have been obtained separately for Retail Non Sme Mortgage and Retail non Sme not backed by a real estate collateral with a personal loan product (both products are supposed to have the entrance in the default status in the year 2006 and the related risk free rate is taken together with the 5% spread for the EBA approach):

Tables 4 and 5

| Retail Non Sme Mortgage | | | | | | |
|-------------------------|-------|----------|----------------------------------|-----------------------|--------------------|----------------|
| | Month | Exposure | Yearly Contractual Interest rate | Current Discount rate | EBA Discount rate | Net Cash flows |
| | | | 4,5% | 3,00% | 8,01% | |
| | | | Contractual Interests | Discounting factor | Discounting factor | |
| Default | 0 | 1000 | | | | |
| | 1 | 1004 | 4 | 99,75% | 99,36% | |
| | 2 | 1008 | 4 | 99,51% | 98,72% | |
| | 3 | 1011 | 4 | 99,26% | 98,09% | |
| | 4 | 1015 | 4 | 99,02% | 97,46% | |
| | 5 | 1019 | 4 | 98,78% | 96,84% | |
| | 6 | 1023 | 4 | 98,53% | 96,22% | |
| | 7 | 1027 | 4 | 98,29% | 95,60% | |
| | 8 | 1030 | 4 | 98,05% | 94,99% | |
| | 9 | 1034 | 4 | 97,81% | 94,38% | |
| | 10 | 1038 | 4 | 97,57% | 93,78% | |
| | 11 | 1042 | 4 | 97,33% | 93,18% | |
| | 12 | 1046 | 4 | 97,09% | 92,58% | |
| | 13 | 1050 | 4 | 96,85% | 91,99% | |
| | 14 | 1054 | 4 | 96,61% | 91,40% | |
| | 15 | 1058 | 4 | 96,37% | 90,82% | |
| | 16 | 1062 | 4 | 96,14% | 90,24% | |
| | 17 | 1066 | 4 | 95,90% | 89,66% | |
| | 18 | 1070 | 4 | 95,66% | 89,08% | |
| | 19 | 1074 | 4 | 95,43% | 88,51% | |
| | 20 | 0 | 4 | 95,19% | 87,95% | 1078 |

$Disc. Val. = \frac{Nom. Val.}{(1 + i)^t}$

Current approach LGD computation

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|------|-----------|------------|------|-------|
| Computation | 1000 | 1078 | 1026 | 103% | -2,6% |

LGD is negative just because the discounting rate is lower than the contractual interest rate (current rates approach). The negative LGD is anyway floored in the development sample

EBA approach LGD computation

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|------|-----------|------------|-----|------|
| Computation | 1000 | 1078 | 948 | 95% | 5,2% |

LGD is positive even if the recovery is total (both capital and interests). In fact the discounting rate is completely disaligned from the riskiness of this product. The risk premium is overestimated.

Retail non Sme not backed by a real estate collateral: Personal Loan

| | Month | Exposure | Yearly Contractual Interest rate | | Current Discount rate EBA Discount rate | |
|---------|-------|----------|----------------------------------|----------------|---|--------------------|
| | | | 9,0% | | 9,00% | 8,01% |
| | | | Contractual Interests | Net Cash flows | Discounting factor | Discounting factor |
| Default | 0 | 1000 | | | | |
| | 1 | 1008 | 8 | 0 | 99,28% | 99,36% |
| | 2 | 1015 | 8 | 0 | 98,57% | 98,72% |
| | 3 | 1023 | 8 | 0 | 97,87% | 98,09% |
| | 4 | 1030 | 8 | 0 | 97,17% | 97,46% |
| | 5 | 1038 | 8 | 0 | 96,47% | 96,84% |
| | 6 | 1046 | 8 | 0 | 95,78% | 96,22% |
| | 7 | 1054 | 8 | 0 | 95,10% | 95,60% |
| | 8 | 1062 | 8 | 0 | 94,42% | 94,99% |
| | 9 | 1070 | 8 | 0 | 93,74% | 94,38% |
| | 10 | 1078 | 8 | 0 | 93,07% | 93,78% |
| | 11 | 1086 | 8 | 0 | 92,40% | 93,18% |
| | 12 | 1094 | 8 | 0 | 91,74% | 92,58% |
| | 13 | 1102 | 8 | 0 | 91,09% | 91,99% |
| | 14 | 1110 | 8 | 0 | 90,43% | 91,40% |
| | 15 | 1119 | 8 | 0 | 89,79% | 90,82% |
| | 16 | 1127 | 8 | 0 | 89,15% | 90,24% |
| | 17 | 1135 | 8 | 0 | 88,51% | 89,66% |
| | 18 | 1144 | 9 | 0 | 87,87% | 89,08% |
| | 19 | 1153 | 9 | 0 | 87,25% | 88,51% |
| | 20 | 0 | 9 | 1161 | 86,62% | 87,95% |

$Disc.Val. = \frac{Nom.Val.}{(1+i)^T}$

Current approach LGD computation

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|------|-----------|------------|------|-------|
| Computation | 1000 | 1161 | 1006 | 101% | -0,6% |

LGD is negative just because the discounting rate is lower than the contractual interest rate (current rates approach). The negative LGD is anyway floored in the development sample

EBA approach LGD computation

| Default | EAD | Nom. Rec. | Disc. Rec. | RR | LGD |
|-------------|------|-----------|------------|------|-------|
| Computation | 1000 | 1161 | 1021 | 102% | -2,1% |

LGD is more negative because the discounting rate applied is sensibly lower than the contractual interest rate. The risk premium of risky products is not properly caught.

It is immediate to verify that, given the same nominal recovery rate within the same product type, the discounted LGDs change due to the discounting rate. The EBA discounting rate is too high for low risk products (such as the Mortgage) and therefore the resulting LGD is erroneously higher than 0% even if a total recovery has been recorded. On the other side the same discounting rate can distort an unsecured product such as the Personal Loan where the LGD becomes more negative since the rate is lower both than the contractual one and than the current approach one.

The results above proposed clarify the distortions implied in the proposed approach, showing that the proposed approach would create an advantage to high yield portfolios (segments) penalizing at the same time the less risky ones (guaranteed by collaterals for example). The Mortgage facility would receive a higher LGD due to both a higher risk free rate and a higher spread while the Retail not backed by real estate collateral facility would receive a similar (but lower) LGD just because the higher historical risk free rate would compensate the lower spread.

Intesa Sanpaolo thinks that EBA should consider a forward-looking approach more coherent with the BCBS and the current practices of the banks. For the spread component it is fundamental to consider the peculiarities of the various regulatory segments and product types including the commercial characteristics of each bank and the uncertainties of the recovery processes (where do we have more uncertainty?): the results would therefore create variability among banks but according to our opinion this variability is totally justified and can be limited by proper prescriptions on how to differentiate and compute the spreads.

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

We agree that the time-series for LGD must be “as broad as possible”. This request has anyway to be jointly evaluated with the other requests of this GL (i.e. adjustment for different default definition, discount rates, inclusion of all defaults in the development sample) and all the entire framework must be coherent.

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

This question is strictly related to the Question 6.1 on the data representativeness and inclusion of all the defaults in the development sample and the Question 7.3 in the Defaulted Asset section.

The inclusion of all observed defaults is a very impacting issue for the LGD estimation in the way EBA has at the moment interpreted CRR IV Article 181 (1)(a). In general, we deem appropriate to avoid incentives for banks to maintain open defaults for long time but the solution to forcedly include all the open defaults within the samples

appears to be complicated and with the strong risk to introduce **recursion** in the models (estimates based on other estimates). It is indeed appropriate to define a threshold to consider an open default as closed (by including the observed costs and recoveries until that moment and then the residual exposure at the date as lost), but for “young defaults” the problem is more complicated.

If the LGD models are built via Danger Rate approach (i.e. by calibrating the losses observed on the most severe default status for the pre-litigation phases until reaching the Performing), the inclusion of all open defaults and the related estimates of future costs and recoveries can be very challenging (also because not only costs and recoveries should be estimated but also the default behavior of soft defaults towards either a return to performing or an evolution to hard default situation).

ISP opinion is that the Danger Rate approach in modelling LGD is already compliant with Article 181 (1)(a) of the CRR since all defaults are considered in the estimates even without estimating future costs or recoveries: in fact a bankruptcy still open in the sample and coming from a previous status of pre-litigation is included in the probabilities of first entrance in default and in the migration probability from a pre-litigation default status to the most severe one. This approach is moreover consistent with Article 181(1)(h) of the CRR where it is explicitly written to consider the **exposure status** in the estimates.

According to EBA interpretation of the Article 181 (1)(a) of CRR IV, the inclusion of incomplete recovery processes has to be differentiated in two sub-samples:

- where the time from the moment of default until the moment of estimation is longer than the maximum period of the recovery process specified for a type of exposures, **we agree to perform current treatment (so called *Incomplete Workout*) where the residual exposure at the reference date is considered totally lost**, while the costs and recoveries observed until that date are normally considered;
- where the time from the moment of default until the moment of estimation is shorter than the maximum period of the recovery process specified for a type of exposures, it is requested **to estimate future recoveries and costs**, this approach is not applied in the current models since these positions are excluded from the sample of loss estimates (they are instead included in the other components as explained above) and no assumptions on future recoveries were allowed by the Regulation. To this goal the GL indicates to analyze the costs and recoveries realised on these exposures until the moment of estimation in comparison to the average costs and recoveries realised during similar period of time on similar exposures and for this purpose institutions should analyze the recovery patterns observed on both closed and incomplete recovery processes. According to our opinion it should be clearly documented and explained by the GL:
 - a) how the projection on future costs and recoveries have to be computed;
 - b) if the open defaults included in this category have to be added to the estimation sample and therefore have to be subject to the model estimation (regression analysis) or if they have just to be added in order to calculate the long-run average LGD for a final MOC but the model has still to be performed on a sample composed by closed defaults plus current *Incomplete Workout* cases;
 - c) how to “avoid a circular reference of an estimation from another estimation”?

We agree with the underlying idea that open and recent defaults are more representative of the current portfolio but we have imagined other solutions to preserve representativeness and statistical significance of the models: for example, as introduced for Retail exposures by Article 181 (2) of CRR IV (“*An institution needs not give equal importance to historic data if more recent data is a better predictor of loss rates*”), recent data of closed defaults in the sample can be over-weighted or used as basis for the statistical analyses of the predictive risk drivers.

We consider this topic very relevant for the future models and we require an in-depth explanation in order not to create further variability among banks. The link of this topic with the economic cycle and the Downturn component has to be carefully evaluated.

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

We need a clarification concerning the proposal related to the LGD estimation approach based on the use of the recoveries stemming from different types of collateral; in particular, concerning the sections 148 and 149, are they referred to the calculation of recovery rates in terms of realized LGDs computed separately by each type of collateral?

Concerning the section 149/E, how do we have to take into account the past liquidations and potential inability to gain control and liquidate the collateral? Furthermore, considering the time of recovery as risk driver in the estimation, such risk driver cannot be used in application for performing portfolio. In the current approach of calculation of the Realized LGD, cash flows are discounted at the time of recovery, according to the sections 151 and 152 (c).

Concerning the section 149/F, how do we have to take into account the potential decrease in collateral value resulting from the changes in the market conditions, state and age of the collateral from the point of LGD estimations to the eventual recovery? An appropriate **Downturn model** can already include the potential decreases in collateral value from the point of LGD estimation to the eventual recovery, in particular those resulting from the changes in the market conditions, state and age of the collateral and, where relevant, currency fluctuations, therefore we think that this issue should be properly treated in that component of LGD modelling (and in the GL about to be published)

without adding further elements of variability in interpreting and including this phenomenon in the treatment of collateral.

Other issues deserving attention are:

- Recovery cash flows from collaterals not recognised by CRR should be taken into account somewhere; agreement should be reached on this allocation (should it be on the 'prudentially' unsecured portion?);
- Recognising the sources of the cash flows and allocating them adequately to the specific collateral or unfunded credit protection has operational challenges (collaterals may cover several exposures, operational difficulties in cases of disposals, etc.)
- LGD approaches should not unnecessarily separate the treatment of collateralised vs unsecured exposures as the recovery process is often managed at borrower level.

According to Article 143 *“Institutions should analyse the risk drivers not only at the moment of default but also at least within a year before default. Institutions should use a reference date for a risk driver that is representative of the realisations of the risk driver within a year before default”*; we do not agree with the proposal to consider the valuation of the collateral before the entrance into default: such value has to be taken into account at the default event coherently with loss and the same holds for the other risk drivers.

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?

We deem appropriate to distinguish the repossession of real estate collaterals from the repossession potentially linked to leasing business since we do not know a priori to which exposure types the GLs refer to. We ask to clarify this aspect in the next release of the document.

In leasing contracts the “leased asset” is recorded in the lessor’s balance sheet since the beginning. Thus, the moment in which the leased asset is returned to the bank by the lessee cannot be considered in the same way as the typical “repossession” of a collateral, which requires the inscription of the asset in the bank’s balance sheet (art. 151 EBA GL). Furthermore in the LGD models built on the leasing financial activity, the resale of the leased asset is normally the main source of recovery from the defaulted exposures. Therefore, it is important that the repossession and the resale of the asset coming from a defaulted leasing contract is properly considered among the cash flows of the leasing collateral recovery process.

If we look at the leasing asset as a specific type of collateral, where the bank/leasing company is the owner of the asset, we have to consider that for this kind of collateral the actual cash flow should be recognized in the LGD calculation only at the time of liquidation of the asset (the date in which the asset is sold, re-leased or demolished).

On the contrary, in par. 151 of the CP it is specified that “The value of repossession should be considered a value of recovery at the date of repossession and should be included in the calculation of the economic loss and realised LGD in accordance with section 6.3...”. In addition, par. 153 states that “In any case the repossession of collateral should be recognised at the moment of repossession and should not prevent the institution from closing the recovery process in accordance with paragraph 136.”

In the following Explanatory box for consultation process, the pros and the cons to the above mentioned approach are analysed. For the nature of the collateral represented by the leased asset, we think that in those cases where the number of sales are quite representative of the leasing defaulted portfolio, only the sale value should be taken into consideration for the calculation of the LGD, as the haircut at the repossession date could be too prudential or too far from the real resale value. Of course, the repossession date should be adequately recorded in the RDS for the correct calculation of the representativeness of the sales and of the time to recovery, but not necessarily accompanied by an evaluation of the value at the repossession date with the prudential haircut.

For leasing contracts, the repossession is not characterized by a cash inflow, but rather it corresponds to the phase in which the ownership and the factual possession of the asset coincide again. In the case in which the sales (that is, the “closing” of the process of recovery of the leased assets) were representative of the defaulted portfolio, applying a haircut to the repossession may not represent a truly prudential approach.

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?

Downturn topic is very relevant and is indeed a source of strong variability among banks. We think that additional guidance is necessary in order to harmonize the approaches whose impact is very strong not only on Performing LGD side but also on Defaulted Assets for the RWA computation (since many banks use this element as the differentiating one between ELBE and LGD in-default and this prescription is also emphasized in the GL).

The guidance should consider approaches based on macroeconomic indicators and should indicate how to relate them with the loss rates (for example through simulative approaches) **and how to consider idiosyncratic factors of**

the loss rates which does not depend on the economic cycle but strongly influence the loss rates observed (i.e. credit sales).

A range of potential approaches should be indicated as well as the proper definition of Downturn conditions. If minimum or maximum impacts of the Downturn factor are expected they should be clearly explained in this Guideline.

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 that, as already specified in Article 54(2)(c) of the RTS on IRB assessment methodology, the direct estimation of LGD in-default should be consistent with the methodology set for LGD for non-defaulted exposures in order to avoid potential cliff effects. The main topics concerning ELBE and LGD in-default are aligned to EBA RTS and our bank has already implemented defaulted assets models accordingly.

The main topics still to be clarified are:

- since the defaulted assets LGD for regulatory capital purposes is strictly related with the Stage 3 LGD on IFRS9, the coherence between the approaches should be considered, for example IFRS9 requires to have a nominal LGD which is discounted with the effective interest rate directly on the application portfolio. Therefore it is proposed in this case to adopt proper corrections with respect to the standard approach used for the Performing LGD estimation in order to derive the ELBE directly from the provisions, which are mainly based on robust statistical models subject to auditor scrutiny and public disclosure. This link has to be clearly introduced in the GL since a lot of variance is observed in the industry among banks not allowed to derive ELBE from provisions and banks allowed to do it: if the relationship Financial Statement → Risk is allowed, it should be allowed for every bank in order to create a level playing field;
- the treatment of the open facilities has to be clearly documented also in relation to Question 6.5 for Performing LGD, it seems that the requisites here indicated are different from the section of the open facilities for Performing LGD estimation (refer to question 7.3);
- the difference between ELBE and LGD in-default is currently determined by the majority of the banks through the Downturn factor. Nevertheless the GL asks to assign all the other MOC to the LGD in-default and not to ELBE: which MOC are included in this specification? The GL should better define the components differentiating the two LGDs (ELBE and LGD in-default) since their difference determines RWA on defaulted facilities and a high level of discretion can determine a high level of variance in RWA. The three components below LGD in-default (Downturn, MOC, other unexpected losses) have to be clearly identified and quantified with the aim not to excessively distort and increase capital requirements.

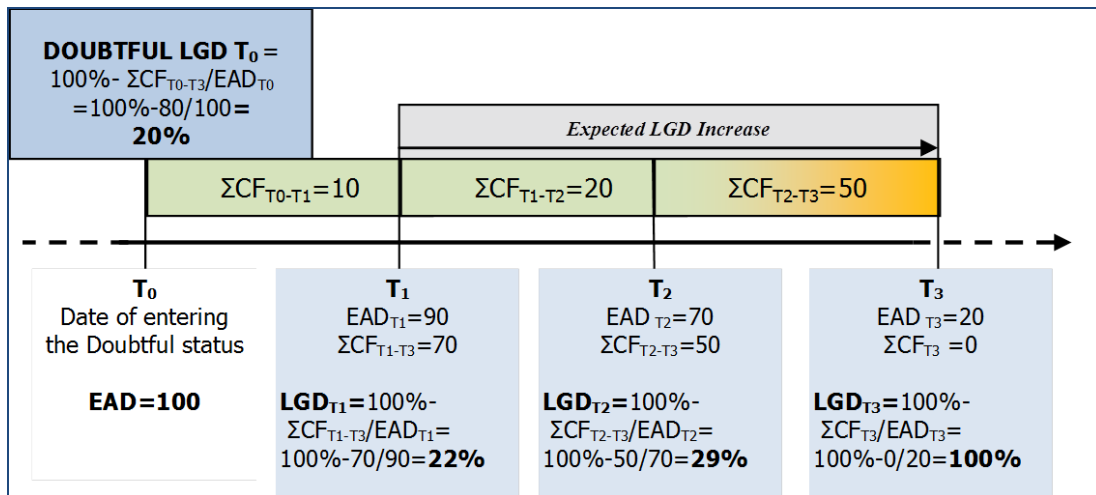
Question 7.2 : Do you agree with the proposed reference date definition? Do you currently use the reference date approach in your ELBE and LGD in-default estimation?

As requested by EBA RTS at Article 54 (2,b) the LGD in-default estimation methods have to take into account the information on the time in-default and recoveries realized so far. We therefore agree with the proposed reference date definition for the defaulted assets LGD: **the definition of the reference date depends also on the definition of default and the related categories.** For example in our LGD models default events are divided between pre-litigation and litigation phases. The reference date for the LGD definition is shorter in the pre-litigation phases while it increases going towards the litigation event (Bad Loans) where a yearly logic is more appropriate: in fact the reference date repartition depends also on the recovery process and legal procedures of each country and, for example, they can last a lot with a consequent significance of yearly reference date for long periods. Our opinion is that reference dates should be defined in order to reach as much granular estimates as possible and to best discriminate loss rates (also for including a time series “as broad as possible”).

Once defined the framework for the reference dates, the loss rate computation derives accordingly: the exposure is modified and coherently also the cash flows.

In this sense we request to better clarify the modelling technique allowed for the defaulted assets LGD estimation: this topic is strictly related with the reference date choice. We think that the following example best represents the proper computation of Defaulted Asset LGD according to the time of permanence in default/risk status:

Table 6



Can the GL clearly indicate how the time in default has to be incorporated in the loss rate computation?

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 think that the treatment of the open facilities has to be clearly documented also in relation to Question 6.1 and 6.5 for Performing LGD. The inclusion of open defaults can heavily distort the estimates depending on the logic adopted for the modelling technique of defaulted assets (see example in the previous question 7.2). In our model for example, going forward on the timeline, the open positions would assume an increasing weight over the total sample and therefore would strongly influence the results.

The indications of the GL are not clear: “The only exception envisaged in paragraph 169 with respect to the inclusion of incomplete recovery processes in the ELBE and long run average LGD for defaulted exposures is that those can be included only with respect to reference dates beyond which factual recovery and costs have been already observed. **This was put in place to avoid a circular reference of an estimation within the estimation.** The estimation of the future costs and recoveries on incomplete recovery processes should be consistent between defaulted and non-defaulted exposures and should be based, as suggested in paragraph 138(c), on a comparison of the costs and recoveries realised on these exposures until the moment of estimation to the average costs and recoveries realised during similar period of time on similar exposures. For this purpose institutions should analyse the recovery patterns observed on both closed and incomplete recovery processes taking into account only observed costs and recoveries”.

What does the term *beyond* mean in this paragraph? Is it possible to provide an example about that (if not in text of the GL at least in the Introduction)? Which differences are expected with the analogous treatment for the Performing LGD estimation? We think that here there is a strong link between the approach proposed and the modelling technique: the two sides cannot be considered separately and a strong attention has to be put on this topic.

The same considerations already illustrated in Question 6.5 about the compliance with Article 181 (1)(a) of the CRR IV holds even here and will not be repeated again.

We point out that the guidelines would like to “avoid a circular reference of an estimation within the estimation”, however the inclusion of the incomplete workout will generate a “loop” because future recoveries and costs will be estimated and, above all, this prescription potentially will increase the “unjustified” variability of RWA, because the estimation of the future recoveries and costs could be different among banks.

Our opinion is that only closed recovery processes should be considered for the ELBE and LGD in-default estimation: this approach would allow simplicity and not to distort the estimates over the time. We think that the open facilities should be treated separately.

Question 7.4 : Which approach do you use to reflect current economic circumstances for ELBE estimation purposes?

Our opinion is that ELBE should be coherent with the long run average LGD and with the estimates adopted for managerial purposes (analytical-statistical evaluation of NPL, future Stage 3 on IFRS9) since from this comparison the Excess Reserve / Shortfall is computed. Therefore this topic is strictly related with the possibility to use provisions as the best proxy for expected loss and with the IFRS9 prescriptions: **can banks harmonize the methodology for the LGD macroeconomic conditioning in IFRS9 with the request to have an ELBE reflecting current economic conditions?**

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 do not use specific credit risk adjustments as ELBE estimates or to override them but **we think that this proposal is correct, in particular for big exposures subject to renegotiation or restructuring measures and in some case for low default portfolio.**

As already stated in Questions 7.1 and 7.4 it should be clarified once for all that the ELBE can directly be derived from the provisions, which are mainly based on robust statistical models subject to auditor scrutiny and public disclosure. This link has to be clearly explicated in the GL since a lot of variance is observed in the industry among banks not allowed to derive ELBE from provisions and banks allowed to do it: if the relationship Financial Statement → Risk is allowed, it should be allowed for every bank in order to create a level playing field.

This conclusion would also avoid a huge load on banks about models estimation with no material effect on costs/benefits side.

Moreover an override of the ELBE with evaluation performed by the position manager (specific credit risk adjustment) would be totally justified where the statistical model is not able to know the peculiarities of a client / position (for example because of particular renegotiation measures, i.e. forbearance measures) and would avoid to create an unjustified Excess Reserve or Shortfall. We agree that for these case adequate documentation should be provided to support the process and the decisions.

In this sense we ask for a better clarification of the demonstrations required to support the override / substitution of the ELBE: according to our opinion it is not feasible to demonstrate the appropriateness of the specific credit risk adjustment through both the economic loss and a re-computation via the prescriptions of the GL. Demanding that the model of provision satisfies the requirements of the CRR and of the new EBA GL, which is not always in line with auditors' requirements, is excessively burdensome and at the end out of scope if the logics underlying provisions managed by position managers are really different from economic losses based on statistical assumptions (i.e. restructuring plans, income statement analyses, business plan analyses). We would welcome an alignment with EBA orientations provided in the CP2016-10 (ECL accounting).

Question 8.1: Do you see operational issues with respect to the proposed requirements for additional conservatism in the application of risk parameter estimates?

No operational issues are expected. However, it is necessary that the Regulation better clarifies (with some examples) the cases of "deficiencies related to implementation or application of risk parameters", focusing only on the most relevant and material. Nevertheless, the ISP bank sets some additional conservatism in the application of risk parameter, for example by assigning conservative weights to the missing information, downgrading the expired ratings due to outdated financial information, etc.

Question 9.1: Do you agree with the proposed principles for the annual review of risk parameters?

ISP agrees with the proposed principles for the annual review of risk parameters. In fact, the bank has already set up an internal document referred to the rules on development and review of credit risk measurement internal systems.

According the monitoring of specific triggers and on the basis of the annual backtesting results performed by Internal Validation function, PD and LGD models can be revised.

This can be done in different ways depending on the intensity of the identified deficiency / trigger. In fact, it could be necessary a re-calibration, others adjustments (e.g. to update the sample, to optimize the factors' weight, ...), a re-estimation activity up to the complete review of the model design.

In addition to quantitative analysis, managerial evaluations have to be considered to avoid a significant impact on the business functions in case of not relevant deficiencies and this evaluation should be considered when deciding re-develop, re-estimation and re-calibration activities.

Finally we request to clearly define the three different scenarios (re-calibration, re-estimation, re-development) for both PD and LGD sides: in fact the GL seems to refer explicitly to the PD models but the same three possibilities have to be clearly identified also for LGD models in order to allow banks to adopt proper and right rules.

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

We do not agree with this proposal. In fact the *Q&A EBA 2014_1064* has not contributed to create a level playing field on this topic.

It should be carefully evaluated this requests together with IFRS9 implementation; BCBS already understood the implications and in fact in the *"Regulatory treatment of accounting provisions – interim approach and transitional arrangements"* it is clearly written that:

Total eligible provisions

The Basel II framework defines "total eligible provisions" under the IRB approaches as the sum of all provisions (eg specific provisions, partial write-offs, portfolio-specific general provisions such as country risk provisions or general provisions) that are attributed to exposures treated under the IRB approaches (Basel II paragraphs 380-383). In addition, total eligible provisions may include any discounts on defaulted assets. Specific provisions set aside against equity and securitisation exposures must not be included in total eligible provisions.

CET 1 deduction and Tier 2 add-back

Under the IRB approaches, banks compare the total eligible provisions to the regulatory measure of EL calculated by banks as probability of default (PD) times loss given default (LGD) times exposure at default (EAD). Any shortfall between total eligible provisions and regulatory EL is fully deducted, without considering tax effects, from CET1 capital (Basel III paragraph 73); whereas any excess is added to Tier 2 capital, up to a limit of 0.6% of credit RWAs calculated under the IRB approaches (Basel III paragraph 61).

Exposure at default

*Under the IRB approach, all exposures are measured **gross of specific provisions and partial write-offs** (Basel II paragraph 308).⁹ Thus, neither specific provisions nor general provisions are deducted from EAD.*

We think that EBA should align its proposal to BCBS; in fact the Shortfall computation would be strongly influenced by this approach as highlighted in the following example:

Table 7

| Time T0 Initial situation | Exposure | Provision | Write-Off | Estimated LGD | ELBE | Excess/Shortfall |
|------------------------------|----------|-----------|-----------|---------------|------|------------------|
| T0 | 100 | 30 | 0 | 30% | 30 | 0 |

| Time T1 30 € Write-off | Exposure | Provision | Write-Off | Estimated LGD | ELBE | Excess/Shortfall |
|---------------------------|----------|-----------|-----------|---------------|------|------------------|
| T1 | 70 | 0 | 30 | 30% | 21 | -21 |

| Time T1 new Write-off correction | Exposure + Write-Off | Provision + Write-Off | Estimated LGD | ELBE | Excess/Shortfall |
|-------------------------------------|----------------------|-----------------------|---------------|------|------------------|
| T1 new | 100 | 30 | 30% | 30 | 0 |

Our opinion is that it is not correct to suffer an inappropriate Shortfall after having already suffered a loss on the Financial Statement: this topic has to be clearly defined once for all since does not contribute to a level playing field among banks. If the bank proves to fully pursue its credit on a civil law base, then LGD estimation and related implementation should be calculated by treating provisions and write offs at the same way.

This modification should also be applied coherently in Article 158 and 159 of the Regulation No. 575/2013 (CRR IV) in the first layer revision currently in progress.

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?

A: Generally speaking, since our internal models are already validated and mostly consistent with the CRR regulatory framework, it would be reasonable not to expect a relevant impact in terms of RWA and regulatory capital. If this is

not the case, the consequence would be that the current RWA levels are both biased and underestimated and therefore the trust in validated internal models could further decrease. Moreover, at the same time, Banks and Supervisory reputational risk could increase.

Quantitative simulation on how the new EBA Guidelines will impact banks are not available due to the complexity of the proposed modifications as well as the unclear technical aspects of some of them.

However, ISP certainly expects a very relevant impact of the proposed EBA Guidelines in terms of resources and effort (e.g. PD-LGD models design, roll out plans - will new application packages be necessary for every model estimation? - calibration, back testing, monitoring, periodical review, process and IT systems).

LGD parameters is undoubtedly the most impacted in these GLs: many aspects for both Performing and Defaulted Asset models are subject to revision and therefore the entire framework has to be carefully evaluated together with the implementation timings.

Finally we highlight the need to have an appropriate discussion with JST on these topics since the expectation on our side is that these GLs, once approved, will require many model changes with substantial modifications to the current framework.

In general terms, EBA and the Competent Authority should also consider the following aspects in the quantification of the impact coming from the whole adoption of these EBA GLs (2020/2021). In details:

- a) Impacts on model changes in progress;
- b) Review of the roll-out plan and new (potentially a lot) model change applications due to the alignment to the new EBA GLs;
- c) Adoption of the new definition of default (with impact on process, IT systems and models) and its relation with the rules of this GL;
- d) TRIM exercise and expectations
- e) Impacts on current models due to Basel Committee's decision about the general IRB approach (for example about LDP which are currently included within this GL but contain many differences from HDP portfolios);
- f) Impact on the supervisory authorities' activities

Considering the expected important impact on the banks (in order to align current validated models based on CRR regulatory provisions to the new EBA methodological framework) and supervisory activities (e.g. on-site inspections, model change applications, ex-ante and ex-post notification, ...) a reasonably long transitional period should be provided.