

Comments

on the Consultation Paper on the DRAFT RTS ON THE SPECIFICATION OF THE NATURE, SEVERITY AND DURATION OF AN ECONOMIC DOWNTURN (CP/EBA/2017/02)

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The **German Banking Industry Committee** is the joint committee operated by the central associations of the German banking industry. These associations are the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR), for the cooperative banks, the Bundesverband deutscher Banken (BdB), for the private commercial banks, the Bundesverband Öffentlicher Banken Deutschlands (VÖB), for the public-sector banks, the Deutscher Sparkassen- und Giroverband (DSGV), for the savings banks finance group, and the Verband deutscher Pfandbriefbanken (vdp), for the Pfandbrief banks. Collectively, they represent more than 1,700 banks.

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General observations

The EBA has developed the draft Regulatory Technical Standards (RTS) on the specification of the nature, severity and duration of an economic downturn to further harmonise the rules governing the use of the Internal Ratings Based approach (IRBA) relating to the estimation of risk parameters. The specific goal in doing so is to harmonise the processes and methods used by the banks for the IRB approach in order to reduce variability in capital requirements that cannot be explained by differences in the composition of the institutions' portfolios. This is intended to improve the comparability of risk-weighted exposure amounts for credit risk determined using internal models.

The German Banking Industry Committee (GBIC) welcomes this objective in principle. In particular, we welcome the fact that the approach adopted by the EBA does not seek to restrict the use of internal rating processes, but rather to limit unjustified variability in capital requirements between banks in order to restore confidence in the banks' own risk estimates. For these reasons, the GBIC has been actively participating in the discussion with the EBA on the 'Future of the IRB approach' since 2015.

We therefore appreciate the opportunity to comment on the Draft Regulatory Technical Standards on the specification of the nature, severity and duration of an economic downturn. The requirements set out in these Draft RTS are of the utmost importance for us.

Overall, we are highly critical of the primary approach (model component approach) proposed by the EBA. The specific points of criticism are as follows:

- Very high level of complexity
 - This bottom-up approach does not appear to be very robust in light of the many quantitative and qualitative sub-steps and the correspondingly large number of 'levers'.
 Rather, there is a risk of triggering effects that will be very difficult to control and that could probably only be managed or contained with considerable effort.
 - Because of the complexity of the approach, which also entails considerable scope for freedom on how to implement it in detail, we have substantial concerns about the extent to which a harmonised approach can be encouraged across institutions.
- Very high cost/effort
 - The effort incurred by the institution in establishing and regularly implementing the proposed approach will certainly be high, whereas the added value compared with a more direct statistical approach is doubtful.
 - We therefore believe that the effort is no longer appropriate and proportionate in light of the goal to be achieved and the existing implementation alternatives already described in the Consultation Paper.
- Methodological weaknesses
 - We believe that grouping together all non-simultaneous worst outcomes of downturn periods into a notional simultaneous downturn scenario is a questionable approach. On the one hand, this generates mutually reinforcing negative effects of a kind that might

not occur at all in reality. On the other, a more finely tuned analysis of the model components would lead to more conservative outcomes than less detailed approaches, as offsetting effects would be more likely to prevail in the latter cases. Overall, there is a risk of significantly overshooting actual downturn risks.

· In addition, a purely ex post view disregards effects that can already be explained by the existing model. In the extreme case of an already perfectly tuned model (that could even include any existing macro effects), the result of the measurement of the downturn effect would be the same as for a constant 'mean value model' without any explanatory power.

Restricted data availability

- Because the period with available loss data is generally rather restricted (10 years of good-quality loss data history appear to be quite ambitious here), the statistical power of correlation analyses performed on annual tranches is questionable. Because of this, it will be extremely difficult to demonstrate clear dependencies with a material effect.
- A further factor is the generally quite restricted quantity of data in an observed year, with the result that yearly averaged observed variables are highly unstable a situation that is further exacerbated by the multimodality of the distributions. The (statistical) problems of low data volumes are particularly evident in the non-retail/low default business segments.

In light of all this, we urgently recommend further pursuing the alternative approaches outlined in the Consultation Paper or suitable hybrid variants (see also our answer to Question 15).

An alternative in our view would be a credit loss approach with institution-specific segmentation, for example at the level of the exposure classes. For portfolios with a short time series or generally fewer data points (low default portfolios), there could be an expert-based transfer (possibly with an add-on) to other segments. The potential influence of idiosyncratic shocks could also be excluded using expert assessments. In our opinion, using experts would be proportionate, because they would also play a prominent role in the model component approach (see Question 4). This proposal therefore corresponds to a modified version of the reference value approach, which not only exhibits less complexity, but would also be more conservative. This would also result in the desired comparability, which in our opinion is not assured with the model component approach. Additionally, in our view such an approach would be applicable for LGD and CCF (and hence 'harmonised'), whereby for CCF we would understand the maximum draws (and not losses/defaults) to be the measure.

In addition, we would like to note that the allocation of the data pool across several model components, the analysis of dependencies to an appreciable list of macroeconomic factors over a time series of (at least) 20 years, the discussion and, if appropriate, modification of analysis outcomes by a panel of experts (which is of course independent) and the computation of downturn LGD based on quantified dependencies per model component comes across as a sound and sensible theoretical construct.

However, the proposed new requirements and amendments constitute a considerable change as against the existing requirements and can therefore only be implemented with very high additional effort. We see a risk that this high level of effort will produce a semblance of accuracy that will be tainted by considerable uncertainty, not least because of the data situation (representativeness of the twenty-year time series, size of the institution-specific LGD pool, general stability of correlation analyses).

On top of this, some of the requirements can be seen as unrealistic and too portfolio-specific (the descriptions are focused mainly on retail portfolios), with the result that there can be no assurance of general validity when they are implemented, or alternatively simplifications will be necessary. In extreme cases, this no longer produces any adequate risk measurement or estimate, which runs counter to the desired harmonisation effect and can lead to intrinsic distortions in the model.

Moreover, the proposals appear to underlie an attempt to describe the requirements in the model component approach in extreme detail and granularity. However, in many areas there are still uncertainties surrounding the details, scope for interpretation and difficulties in understanding that considerably complicate operationalisation.

Additionally, the tremendously high level of complexity in the model component approach associated with the proposals does not justify the additional effort, especially when compared with the expected benefits. On the contrary, it can be expected that this will see a drop rather than a rise in the forecasting quality of models, which is unlikely to be in line with the general objectives. The complexity of the approach proposed for computing downturn LGD does not fit in with the other requirements for computing LGD that are described in the Consultation Paper on Guidelines on PD estimation, LGD estimation and the treatment of defaulted exposures (EBA/CP/2016/21). That CP, for example, proposes a flat-rate add-on on the discounting rate, and thus specifies the parameterisation without any differentiation.

As a matter of principle, we are therefore advocating the creation of a general overarching framework rather than the elaboration of detailed requirements for a single approach. The institutions should also be able to continue to choose appropriate bank- or portfolio-specific approaches for the underlying portfolios.

We should add that at several points, the Consultation Paper calls for an independent panel of experts. We cannot find sufficient justification for this requirement, since establishing another unit that is independent of model validation, in addition to the validation and credit risk control unit, appears exaggerated. This requirement should at least be worded in a more proportional form, as the corresponding conditions are not met by every institution. In addition, it is entirely unclear what the remit, composition, hierarchy, etc. of this panel of experts should be.

In this context, we therefore advocate including experts to match the specific needs of a particular situation without overly rigid requirements, and therefore reject the mandatory obligation to establish yet another independent body.

Please note that we believe that it is necessary to frame some additional comments and points requiring clarification in addition to our answers to each of the 16 questions posed in the Consultation Paper, especially in the 'Additional questions and comments' section.

Detailed answers to the questions in the CP

Question 1: Do you have any concerns around the workability of the suggested approach (e.g. data availability issues)?

Identifying the downturn for each individual jurisdiction and providing evidence of comovements in realised factors in different jurisdictions appears unachievable to us because of a lack of internal and external data. We therefore believe that it should be up to the institution to perform a (summarised) differentiated assessment of the downturn, if applicable across several jurisdictions on the basis of the available data.

In addition, it is our understanding that the approach presented is not compatible with a pool approach authorised for the retail business, for example in which the LGD can be derived from the losses and estimates of PD.

Moreover, we take the view that Article 1(2)(b) too heavily restricts the use of the same downturns at different subsidiary banks. In our opinion, if the same LGD models are used – especially if their representativeness has already been demonstrated – it should be possible to use the same downturns if issues of data availability and model complexity mean that separate analysis is not reasonable for cost-benefit considerations. In such cases, we also believe that it should be permitted to analyse transactions in different jurisdictions together or using a simplified approach, even if it is not possible to demonstrate empirically that the economic factors at all these subsidiary banks are characterised by strong co-movements.

Over and above the factors describing a downturn (nature, duration, severity), we believe that the issue of the start of the downturn is decisive, in light of the consistency of the overall RWA model. It is our view that the estimate of the model components for LGD/CCF must be conditioned on the default occurring in a downturn, and thus that the date when loss realisation starts lies in a downturn. If this concept is departed from, as the example in Article 6 implies, economic time-based dependencies between the risk factors (PD, CCF, LGD) start to dissolve. Irrespective of this, however, time-related consistency of realisation and hence different macroeconomic conditions must be considered within the LGD components. As a general principle, we believe that estimating CCF/LGD subject to the condition that there is a downturn at the time of default is more expedient. This concept would have to be modified for estimating downturn LGD for defaulted assets. It should be allowed as an option.

We would also like to emphasise our view that the model component approach is not suitable as a one-size-fits-all solution for all portfolios and risk parameters. Consequently, alternative approaches should also be permitted here.

Question 2: Do you see any significant differences between LGD and CF estimates which should be reflected in the approach used for the economic downturn identification?

We do not see any significant differences between the LGD and CCF models with regard to the identification of an economic downturn, provided that the underlying portfolios are comparable for each risk parameter. However, the statements in the CP refer primarily to LGD aspects (and, in the examples, mainly to a scenario-based workout model). By contrast, there are hardly any detailed specifications in the rules described for the CCF. In particular, we are unclear about the identification of the model components for the CCF, including because of a lack of examples. The application of the rules to the CCF should also be explained in detail.

In the interests of a consistent overall RWA model, there will of course be different dependencies on duration if there is a uniform definition of the start of the economic downturn (see Question 1). The reason for this is that the CCF is normally realised at the time of default while the LGD is only realised in corresponding periods after the default.

Question 3: Is the concept of model components sufficiently clear from the RTS? Do you have operational concerns around the proposed model components approach?

In our opinion, the concept of model components is not sufficiently clear – especially outside the chosen examples. Additional information should be provided to ensure clarity for the CCF parameter and for LGD models that are not based on a workout model. Please also refer to our comments on Question 2.

We have the following additional concerns about the proposed model component approach.

First, we think that the consideration of model components that are more granular than those that are already integrated into the LGD model will often create difficulties in terms of model development and application. Additionally, we presume that it would not be possible to eliminate the multimodal distributions in every case even if more granularly defined model components were to be considered. For example, it can presumed for LGD models which are not based on a model structure that separates secured and unsecured LGD that there will typically also be a multimodal distribution of the workout component of the LGD if the cured cases have already been separated out. In this case, a multimodal distribution would still remain even if secured and unsecured LGD have been separated, in part also because even in cases where collateral has been furnished, often either a lot or only a little of it is actually realised. In light of this, we fail to understand why components should be analysed separately that ultimately are also not considered individually in the model structure.

We also wish to suggest providing additional clarifications and examples showing how the model components are to be applied in such a situation. This additional clarification refers in principle to all issues for which the EBA requires the analysis of more granular components than those already considered for the estimate of LGD. We think that analyses of components that are more granular than those components already existing in the LGD model are not

reasonable under cost-benefit considerations and should therefore not be mandatory for the institutions. Please provide clarification.

As a matter of basic understanding, we believe that it is important for individual model components to be analysed on a time-dependent basis (duration of the downturn). When grouping together the components of the estimate of LGD, however, it should be considered that different effects will occur across the uniform downturn used, depending on the duration of realisation of the individual components. For example, financial collateral can always be realised faster than real estate. In the interests of a correct estimate that is conditioned on a downturn at the time of default, it is therefore not the case that all model components are realised at the time of the amplitude of the economic downturn. The estimates must be suitable for modelling these economic dependencies. It cannot be the objective of an estimate for the downturn to combine the realisation of all components in the loss estimate conditioned on a 'worst' time for each component.

Additionally, we regard the requirement in Article 2(2)(b) that institutions should use, as a minimum, the same components that are already contained in their own LGD model as overly restrictive. Depending on the structure of an LGD model, there may be a large number of components, some of which are immaterial and/or relatively insensitive to the economic situation. In our opinion, it should be permitted in this respect to analyse existing model components in combination if justifiable grounds for this can be demonstrated. However, the analysis of the relationship between economic factors and all individual LGD model components would lead to very high implementation and maintenance effort, and would disadvantage in particular those institutions that are using a component-based model.

Example: The following different LGD model components are defined in a secured/unsecured LGD model framework: fair value of collateral, fair value of haircuts on value of collateral, realisation period of collateral, LGD of unsecured portion of the exposure, length of workout period, workout rate, exposure at default (EAD) and discount rate.

What is not clear is whether the requirements stipulated in Article 2(2)(b) are to be understood to mean that an economic downturn is expected to affect all the different model components, or whether for example it is sufficient to include an economic downturn only in respect of most of the material model components. We would like to emphasise again at this point that the overall consistency of application of the economic downturn over the CCF/LGD realisation period is important, and that the requirements for estimates cannot be such that each component is realised at the time of the downturn, but rather that the time-based dependencies between the components that are already reflected today in the estimates have to be considered.

In our view, it is necessary to formulate Article 2(2)(b) more precisely and to put the focus onto the material LGD model components. In doing so, it would make sense for the EBA to stipulate specific model components for which a stronger dependency on the economic situation is presumed. Alternatively, the EBA could specify that all model components that are already used within the LGD model should, as a minimum, be analysed for macroeconomic dependency. However, a downturn add-on will only be necessary if it is possible to identify any

significant relationship with the macroeconomic factor for the component, or if even a quantitative analysis can be dispensed with if the economic dependency of a component appears to be deceptive based on a qualitative analysis.

Question 4: Do you have any concerns about the complexity around the dependency approach proposed for the identification of the nature of an economic downturn? Is it sufficiently operational?

In our opinion, the number and granularity of the specified factors across the data history per jurisdiction/exposure type, e.g. for default rates and credit losses, are not achievable. This even applies when external pool data (e.g. GCD) are used.

Precisely what or which indices are meant is not specified. There cannot be any consistent consideration of indices due to the (in some cases) large number of indices and their providers, as well as the resulting lack of any homogeneous definition of the indices.

In many cases, there will not be sufficient data available for a quantitative analysis because of the required granularity. This will result in an excessively high number of exclusively expert models (see text box on p. 21), which, according to our understanding, runs counter to the regulator's intention of moving towards data-driven models.

The requirements for the proposed dependency approach must be rated as too complex overall, and demand a high level of (unrealistic) analysis effort and possibly also data availability and history. The question of which expectations are specifically linked to the statements is not entirely clear at some points.

The list of economic factors to be considered as a minimum does not appear to be applicable or available for all portfolios. This applies in particular to default rates and loss rates from external data sources, as well as low default portfolios. Equally, there does not appear to be any evident dependency between, for example, the unemployment rate and specialised lending. The requirements should be worded more loosely here to avoid additional effort for the banks. We also reject the requirement for the institutions to demonstrate the suitability of the specified factors. On the contrary: the institutions should be free to analyse reasonable factors that are consistent with their business model and (in the sense of a use test) with the bank's strategic process.

Turning to the Draft Guidelines on PD estimation, LGD estimation and the treatment of default exposures, we believe that the rigid stipulation of a discount rate there is not appropriate and conflicts with the downturn concept. On the one hand, the discount rate is correctly defined as a macroeconomic factor and there is a requirement to analyse the dependency of the LGD in respect of this factor and subsequently to translate it into a downturn add-on. The extent to which the 5% add-on proposed in the Draft Guidelines is already supposed to express a downturn is not clear to us, which is why we reject it in order to ensure reciprocal consistency of the EBA requirements.

Additionally, we wish to suggest that further specifications should be considered with respect to the following issues:

- Most of the LGD model components have a multi-year nature. For example, the workout LGD depends on the cash flows that are realised over the entire workout period. There is a need for a clearer explanation as to whether the multi-year nature of the model components should be retained during the dependency analysis, or whether the dependency analysis should be performed based on the yearly observation of the model components. The question is therefore whether the workout LGD, for example, should be analysed in the aggregate, or whether it should be broken down into its yearly cash flows. Our understanding is that the first case is reflected in the example given, and we favour it as a matter of principle. However, an annualised analysis of the data is apparently prescribed elsewhere, which can be interpreted in such a way that the historical cash flows must first be divided by year, and then in a second step analysed to determine their dependency with the macroeconomic factors. For many institutions, this would result in an entirely new approach to processing the data, and would not in our opinion do justice to the multi-year nature of the LGD. It is more often the case in practice that the workout period is a model component that - depending on the individual institution's realisation practice - is heavily dependent on macroeconomic components. This increases the complexity, but it also underscores the importance of analysing longer-term horizons.
- Article 3(2)(f)(i) specifies that not less than a yearly frequency should be used for the macroeconomic data. However, it does not specify whether overlapping and non-overlapping one-year windows can be used to measure the economic factor. In the first case, for example, it would be acceptable to measure the GDP growth rate measured from year to year by reference to the following dates: 31.03., 30.06., 30.09., 31.12. [overlapping time windows]. In the second case, only a yearly reference date of 31.12. [non-overlapping time window] would be permitted. In our opinion, both approaches should be explicitly mentioned as permitted.
- Article 3(2)(f)(ii) requires a comparison of how factors react to different points in time, without making it clear how the time lags are to be measured and what should be done specifically about potential differences that are bound to arise.
- Article 3(2)(f)(iii) sets out that uncomplete cases must also be considered, which we believe
 is logically not possible because allocation as a model component (e.g. recovery) can only
 reasonably be demonstrated once a case has been fully completed. This requirement should
 therefore be deleted.
- Article 3(3) stipulates that the dependency analysis must be performed separately for each economic factor. It should be clarified in this context whether the multivariate influence of several macroeconomic variables on the LGD components should actually be analysed. The use of only a univariate analysis is regarded as appropriate in cases with: i) short time series until realisation of the LGD model components (e.g. an additional independent variable reduces the degree of freedom and hence the statistical power of the model); ii)

the worst realisation of the economic factor in the last 20 years is beyond the first date for which realisation of the LGD model is possible. However, if the worst realisation of the economic factor in recent years is before the first date for which realisation of the LGD model component is possible, with the result that the value of the model component has to be estimated using a macro model, a model that simultaneously considers the effect of several economic factors may be a more suitable approach.

 Article 3(3)(b) contains a requirement to consider region-specific indices for residential mortgages in the analyses. It is not clear to us in the case what exactly is meant here, so we are seeking clarification or examples.

Question 5: Do you agree with the proposed approach for computing the time series of the realised model component referring to the realisation of the model component rather than to the year of default?

The approach entails a significant increase in complexity in relation to the expected increase in understanding that it might bring. In our view, the approach cannot be applied reasonably in this form. The fundamental objective of harmonisation cannot be achieved through this requirement.

Irrespective of this, the following points need to be emphasised for the approach being proposed to determine the time window of the realised workout LGD:

Additional specifications are required that address the question of how to handle the inherent differences between non-defaulted and defaulted exposures. In particular under the proposed dependency analysis approach for determining the time series, it is not clear how to handle defaulted exposures for which most of the expected cash flows have already been realised, e.g. if the collateral was already sold before the reporting date, but the workout process has not been fully completed.

We would also like to note that it is sometimes not possible to identify for an individual exposure the period in which the highest realisation can be expected (e.g. the date of sale of the collateral might not be available). That is why it should be possible to determine the period with the highest realisation for all relevant exposures. For example, the average yearly cash flows for each year should be analysed for each year after default, and the period with the highest value should be used for the dependency analysis with the economic factor.

For other model components, such as time-in-default, recovery rate and unsecured LGD, we believe it would be appropriate to leave the choice of the precise specifications of the time dimensions of the LGD model component to the institutions. Using a quantitative analysis, it should be possible for institutions to determine the optimum time dimension for each model component, and the EBA should in our opinion therefore allow the use of alternative approaches, provided that they can be empirically justified.

Additionally, it is not clear how exactly the point in time when model components are realised is to be identified. In the case of the examples given this is understandable, but there are other possible components, such as internal costs, for which we think it will be difficult.

Furthermore, we take the view that the relevance of time lags and the precise way in which they are to be handled (scope, etc.) should be specified in greater detail.

We also believe that it is important to clarify that the approach described here in respect of the dependency analyses should be implemented in an economically rational fashion, as an interaction of all components, when deriving the add-ons for the estimate that are conditioned on the time of default. It should be considered in particular that the workout period normally depends heavily on the economic situation. It can be observed regularly in practice that institutions are willing to accept longer workout periods in downturns, and hence also higher discounting effects, in order to achieve higher recovery rates.

Question 6: Do you envisage any situation where a one year duration is not suitable of capturing the economic downturn at the economic factor level?

We cannot give a clear answer here because although specifying a one year duration for downturns appears to be a generally pragmatic and sensible approach, simply the fact that it is a simplification does not mean that it has to be automatically appropriate in every case. As we already noted in the case of the text box on Article 5, it is quite difficult to define the duration of an economic downturn in such a way that the described approach is supportable against the background of the empirical observations, and in light of the characteristics of the credit risk parameters LGD, CCF and the length of the typical workout process.

In addition, any longer horizon could considerably increase the analysis of the independent variables in the dependency analysis between macroeconomic factors and LGD. If several variables had to be considered, for example, that were associated with different long time horizons, this would result in unnecessary complexity. Another factor in favour of the fixed one-year horizon is that only a short time-series for realised LGDs is available in most cases.

In the context of Article 4, there is also a need for clarification of the calculation rule stating that the objective should be to generate 20 rolling 1-year tranches for which the underlying values are each calculated in the 1-year tranche.

Clarifying again that the beginning of the downturn has to be clearly defined also appears to be important at this point. Only the time of default is suitable for this. We reject a situation in which, for each model component, an 'own downturn' has to be estimated for the time of its expected realisation. This would lead to an economic inconsistency and, over the longer-term realisation period of the LGD, in cases of doubt to a sequence of downturns. Modelling in this way would rule out the use of parameters for internal control purposes (use test). However, this is required by the regulator and, in our view, contradicts the requirements for deriving stress scenarios.

Question 7: Do you have any concerns about the approach proposed for the identification of the severity of an economic downturn? Is it sufficiently operational?

The approach proposed for identifying the severity of an economic downturn is sufficiently clear. However, we wish to note that the requirement for a 20-year history goes clearly beyond the requirements in the CRR for minimum observation periods for internal models. Because the analysis of the downturn is a CRR requirement, however, the present RTS would de facto increase the requirements, for which we do not believe the EBA has a mandate. On top of this, such a requirement, including in combination with an automatic MoC trigger, would raise the entry barrier for banks as regards the development of new models to a level where it was no longer feasible. We do not believe that this requirement is reasonable and question whether calibration/interpolation based on an e.g. 57-year history of realisations is rational and actually meaningful for the mandatory analysis of the time horizon of the factors. We consequently reject this requirement.

Irrespective of the above, there may also be a risk in respect of the available time series that, in the case of a 20-year observation period, various adjustments that might not permit comparability over the entire period might be present when determining the economic factor. In such cases, a rigid requirement is counterproductive. Rather, qualitative adjustments should also be allowed in order to depart from the requirement in justified cases.

It would be helpful if an example of a structural change were to be given that permits the prescribed 20-year observation horizon to be shortened.

Additionally, we wish to note that only a data history of less than 20 years is available for a large number of economic factors, so an alternative approach should also be provided for this case as well.

We also cannot understand that only an observation period of less than 20 years should be an automatic trigger for an MoC. In reality, most of the economic factors experienced a severe recession during the subprime crisis between 2008 and 2010. This is less than 20 years in the past, but constituted very severe economic conditions. In our opinion, there is a need for clarification that no MoC is needed if it can be demonstrated that any shorter point in time already contains a correspondingly severe economic downturn.

Additionally, we presume there will be difficulties in operationalisation if the EBA prescribes the reference data that are supposed to be used in order to determine the yearly realisation of the economic factor in the manner described. At least some of the economic indicators are only available with a yearly frequency and typically lie at the end of the year. For this reason, we believe that the reference date of 31.12.yyyy is the natural candidate for measuring the yearly realisation of an economic factor. For economic factors that are available per quarter of monthly, it will typically be observed that there are relatively high variations between the annual realisations of the economic factor during a recession, depending on the chosen reference date and after adjustment for seasonal effects. For example, the economic situation could have deteriorated for four quarters and then recovered quickly, meaning that considerable differences in outcomes will result depending on the chosen reference date.

In order to avoid the sort of situations described above, we believe that it is necessary for the EBA to provide additional specifications relating to the choice of the reference date for measuring the yearly realisation of the macroeconomic factor.

Question 8: Do you think that more details should be included in Article 2(3) for the purposes of the evaluating whether sufficiently severe conditions are observed in the past?

We presume that the question relates to Article 5(3) and that the reference to Article 2(3) is an editorial error.

We believe that the RTS should contain more details. In particular, there is a need for greater specification as to how sufficiently severe recessions that were observed in the past should be evaluated. It needs to be clarified how the plausible variability of the macroeconomic factor is to be defined/measured/quantified. In addition, the dimension of the representativeness analysis should be specified more clearly. For example, representativeness could be measured quantitatively as regards the level of average realisation of the economic factor, the standard deviation of distribution, with regard to the similarities of overall distribution or entirely qualitatively. Different dimensions for measuring 'representativeness' could lead to different conclusions. Because of the lack of clear assessment criteria, there is a risk that an excessively conservative view might be adopted (or might have to be adopted) that already constitutes a stress event and is therefore not suitable as a downturn estimation.

Flanking this, there must also be an option in justified cases to lessen the effect of rare extreme events that might be contained in the data histories. Because of the strong impact combined with the high variations or the substantial scope for interpretation with regard to the definition of the outcomes, there is a risk that this would not contain RWA variability, but would actually increase it. The adjustment option should be allowed exclusively for shorter available periods.

In addition, it cannot be clearly inferred from Article 5(3) whether a representativeness analysis should always be performed, or only in conjunction with certain conditions that need to be specified.

Question 9: Do you think Article 6 should pin down the steps for the joint impact analysis described in this text box?

Yes, we think that the steps described in the text box make the underlying approach easier to understand. However, the procedure described is difficult to follow as far as the details are concerned, and the way the methodology is formulated makes it difficult to understand.

In addition, the meaningfulness of the approach cannot be discerned because of the (excessive) complexity in its practical application, in particular because the underlying LGD model with the risk drivers is ultimately supposed to constitute the primary component for the forecast, rather than highly complex, theoretical, and very narrowly worded application descriptions without any evident value added.

In light of this, Article 6 needs to be thoroughly revised. In doing so, the details of the implementation of the analysis need to be clarified, as they are currently evident only from the example.

We believe that it would be expedient to integrate revised elements of the text box in the RTS in order to make the requirements in the text of the rule clearer. We believe that the example in Step 4 exhibits a certain inconsistency that should be considered when defining the model components. For example, in our view the cure rate and the LGD_cure cannot be realised independently of each other, which is why scenario B with a cure rate from 2013 and an LGD_cure from 2010 is inconsistent. Such dependencies must be considered when identifying the scenario.

We would also welcome a decision to specify the steps for assessing the joint impacts in the Article itself in greater detail.

Question 10: Do you have any concern around the proposed approach about the identification of the final downturn scenario?

In our opinion, additional specifications are necessary in order to make it more understandable how recession periods should be grouped together. In some cases, the grouping decision appears to be simple and clear, but in others, it seems to contain a heavily subjective element.

There is a need to refine the model component approach with regard to how to incorporate individual collateral, as this is not reflected in historical downturn or long-run average scenarios: the individual collateral situation of a certain exposure needs to be reflected in the LGD estimation, which requires that neither pure long-run averages of model components nor pure downturn model components can be used, as they reflect an average or downturn case (as proposed in Step 5 of the explanatory text for Article 6) without taking the current individual situation of collateralisation into account.

It is unclear how the individual collateralisation of a facility can be incorporated into the estimation process of model components, as they are chosen as the value of the year of the worst outcome of corresponding economic components or the long-run average. To give an example, the liquidation LGD is highly influenced by the current value of the collateral assigned to a loan, reflected in a low LTV. If this loan defaults, the collateral will most likely be of more value than the loan outstanding and therefore the bank will not suffer any or only a small loss, i.e. a low LGD. This is especially the case for low risk and highly over-collateralized financing. In contrast to this, a poorly collateralised loan may be assigned a relatively high LGD due to the formulated downturn requirements. The value of the collateral is too small to cover the outstanding and the loan would normally end in a higher LGD than the long-run or even downturn liquidation LGD.

In the proposed approach, either the long-run liquidation LGD is used or the average liquidation LGD of all liquidations from the year of the worst outcome of the corresponding economic component. These liquidation LGDs are therefore not appropriate for reflecting the individual situation. Hence, there would be an unintended loss of risk sensitivity. In most

cases, a well collateralised exposure would be assigned too high an LGD, whereas a low collateralised exposure would be assigned too low a LGD, and the risk sensitivity of the collateralised exposures will be lost. Overall, this will be misleading and runs counter to the intention of the EBA, as banks would be implicitly forced to do more business with high LTVs since the capital requirements are as high as for low LTV business, and the well collateralised business would therefore no longer be profitable. This will increase overall systemic risk within the banking sector, which is contrary to what the regulators are striving for. The disadvantages of the proposal are currently much higher for loans for financing real estate or transport finance assets, which are required for a healthy economy.

For the objective of Step 6: identification of the downturn scenario, it is not clear at which level the comparison should be made. For example, the LGD model level, the grade or pool level, or the exposure level are all possible. In addition, it is not clear whether the current portfolio (a single snapshot) should be used as the basis.

Ultimately, the issue of how the downturn scenarios should be identified is not specified, nor are the criteria to be used as a basis for assigning economic downturns to them. We are seeking clarification.

Question 11: Do you see any issue with the estimation of the model components for downturn periods which are not in the data base of the institution (e.g. in step 3 the case where the estimation of cure rate for 2001 is performed on the basis of the dependency assessment described in Article 3(2)(e) and (f))?

We would refer in this context to our answers to Questions 4 and 7.

As a general principle, it is very clear that macroeconomic models should be used that can be defined within the dependency assessment.

However, as already described in our remarks on Question 3, such models can only be defined for model components for which sufficient data is already available, so that in our opinion, an analysis of the model components should concentrate on the material model components.

A situation where there is an insufficiently long LGD history will be problematic. The retrospective calculation of empirical loss ratios for the past 20 years is not possible. It can be presumed that most institutions are not in possession of a history of this length. In addition, there are necessarily also changes in the calculation logic at institutions (due to changes in supervisory requirements, internal portfolio changes, changes in the accounting, etc.), with the result that the time series always contain structural breaks that distort long-run analyses. This means that the meaningfulness of the analysis of dependences will also be limited. This also decisively influences the calculation of add-ons, or can lead to further distortions because arbitrary derivations might be necessary. Overall, we therefore advocate considerably simpler requirements.

Question 12: Do you think the same approach for the identification of the final downturn scenario proposed in this text box for LGD could be adopted also for the purpose of downturn CF estimation?

Because the CF estimation is usually based on even more volatile data and shorter (comparable) data histories that are heavily influenced by changes in business processes and strategies, our remarks on Question 11 above also apply to an even greater extent to the CF estimations. Simpler approaches will be even more expedient especially here.

With regard to the CCF, we believe that the same approach as for the LGD is inherently impossible. In particular, we believe that additional guidance is needed for the CCF, especially as regards the model components. We are seeking clarification.

Question 13: Do you think the draft GLs should describe in more detail the downturn adjustment methodology?

In our opinion, a more detailed description is not necessary since we in any case see a need to permit institution-specific approaches.

The level of detail of the description is less of a problem than the proposed highly complex approach. Simpler approaches are needed instead of more detailed requirements.

Question 14: Do you think simpler alternative approaches for downturn adjustment should be considered in the spirit of proportionality?

Based on our criticism of the model component approach described above, we urgently recommend following a simpler approach in line with the principle of proportionality. The direction of the purely statistical – and hence considerably simpler and more transparent – alternative supervisory add-on approach proposed by the EBA generally appears to us to be expedient (see also our answer to Question 15).

Simpler alternative approaches for the downturn adjustment should be considered especially for the following situations:

- Low default portfolios with little or no internal data
- Specialised lending portfolios that estimate the LGDs using simulation models
- Portfolios for which only a short time series of realised LGDs is available
- Immaterial portfolios

We regard the proportionality principle as generally reasonable. However, in our opinion it would not be sufficient to stipulate a more differentiated approach merely in relation to the size and scope of an institution. Rather, additional special cases as described above should be taken into account.

Question 15: What is your view on the alternative approaches? Please provide your rationale.

As a general rule, simplified approaches are to be welcomed. Justified exceptions to the strict approach should also be allowed because the methodology cannot be applied adequately to all portfolios (e.g. for real estate financing, in most cases special proceeds – e.g. one-time high cash flows from foreclosures – are seen that very often also imply long realisation periods and therefore can considerably complicate the analysis of economic dependencies or lead to distortions).

Unfortunately, the description of the alternative approaches is at times quite difficult to understand. This applies in particular to the distributional approach as a whole, but also to the description of the method of calculating the add-on for discounting. Depending on the way it is designed, this approach might also change the basic model because the modified target variable means that other risk drivers might have to be assessed as significant. The description in the Consultation Paper is too rudimentary to allow a conclusive assessment. There is a risk that the principle of allowing the institutions the freedom to choose the methodology will not be complied with, and that it cannot do justice to the portfolio diversity. As a general principle, however, the supervisory add-on approach would be an operational alternative for transparently incorporating the issue of 'downturns' into the existing models.

In contrast to the model component approach, the reference value approach appears to allow for greater methodological freedom. In particular, the requirement for a dependency analysis relating to individual model components and the relatively effort-intensive further modification into a downturn scenario have been dropped. Rather, the macroeconomic dependency is analysed more directly at the level of the LGD.

In return, a (statistically derived) reference value is established that is intended to serve as a benchmark of the appropriateness of the simplified downturn scenario derivation. If this benchmark is undershot, the reference value will be used or the deviation must be correspondingly justified.

We expressly welcome this move towards significantly simplifying the model component approach. Nevertheless, there is still a requirement for a fundamental analysis of macroeconomic variables that might possibly be made even more complicated because in our opinion (as well as in the view of the EBA), the dependencies at the LGD level could be considerably 'blurred'; at the same time, a more or less hard anchor in the form of the reference value is introduced that in turn actually represents a limiting factor.

In light of this, the question arises of whether the effort involved to produce a relatively elaborate – and possibly even more complicated – macroeconomic analysis is justified if, ultimately, a statistically calculated reference value is the limiting requirement. There is also no healthy balance between cost and benefit in this approach. Rather, even more importance should be attached to a statistically calculated 'reference value', which leads us to the next approach.

In the reference value approach, the level of the model components is removed when identifying the institution-specific downturn, which appears to be a welcome move to reduce complexity. However, the problem of historical data availability also applies here (albeit no longer for the components, but still for the realisations; see Question 7), as well as the problem of the number and granularity of the prescribed factors (see Question 4). Based on the necessary reasoning about deviations from the reference value (proposed average LGD over two years with the highest losses), we presume that the reference value would have to be used as a general rule, which in our opinion is not proportionate to the effort required to calculate the downturn LGD.

However, the reference value approach is not suitable, or is too rough in the structure proposed, as an outline uniform solution for Europe and all institutions, and the result might be distortions. The approach appears to be applicable in principle due to its simplicity, but only if further individualisation or portfolio- or country-specific characteristics are considered. This would, however, require the development of further proposals. Our detailed perspective on the reference value approach can be summarised as follows:

- The analysis at the model component level is no longer necessary in the reference value approach, so institutions are free in the choice of the level at which the analysis between macroeconomic factors and the realised LGD is performed.
 - If an underlying LGD model already consists of several components, it is obvious that the analysis has to be performed at the model component level. That is why such an analysis is imperative in such cases, even if the institutions have been given the freedom to act differently. The flexibility that the reference value approach brings would therefore only save modelling effort if there is an actual requirement in the model component approach to further break down existing model components based on the suitable risk factor from which the multimodal distribution of the realised LGD results, which we do not believe makes sense as a matter of principle. Although we regard this flexibility as very important, we stated our opinion in our answer to Question 3 that this flexibility should only be allowed for institutions using the model component approach.
- Additionally, the reference value approach does not specify how the dependency analysis between the macroeconomic factors and the LGDs should be performed, whereas a clear procedure about how to define the reference data is prescribed for the model component approach.
 - We think that there are sound economic grounds for the proposed dependency analysis for the model component approach. Departures from the proposed approach could lead to quantified severe (non-casual) dependencies, or might not recognise existing dependencies with the economic factor. We believe that it is necessary to ensure flexibility in the choice of the dependency analysis only in special cases, for example for the time-in-default component. However, we already expressed our opinion in this respect in our answer to Question 5 and wish only to recall at this point that we favour the model component approach. Nevertheless, this approach should still provide for flexibility in special situations.
- No procedure for assessing the impact of an economic downturn on the LGDs is described.
 By contrast, the model component approach contains a reference to the recession scenarios

clarifying that the relevant recession value should be assigned for all model components that are affected by the scenario, whereas the long-run average value is to be used for all the others.

- We regard this point as a simplification compared with the model component approach. However, we already expressed our opinion that the EBA should provide clearer specifications with regard to the definition of a recession scenario in our answer to Question 10. If such specifications were to be added, identifying the impact of an economic recession under the model component approach would be simple and understandable, and we therefore see no need in principle for a simplified approach. Rather, there should be an option to permit alternative approaches in justified exceptions and to stipulate for these exceptions that the institutions have to ensure that the design is as equivalent as possible.
- The results of the analysis by the individual institutions are compared with a specified reference value (e.g. the average of the two highest yearly realised LGDs). Lower values for the downturn LGDs are only acceptable if there is evidence that the reference value does not exhibit any dependency on the recession scenario. Two possible simplifications and complementary solutions for the reference value were presented for this.
 - Using specified values as a floor could be too conservative because there are often components that do not exhibit any dependency on the economic situation. Additionally, such an approach would only be marginally risk-sensitive. Moreover, we believe that a reference value that is defined at EU or national level will only be appropriate for a small number of institutions, and will thus not reflect the specific risk profile of the institutions, although LGDs in particular are considerably dependent on internal workout processes.

Overall, we do not think that the reference value approach can be a valid alternative to the model component approach. In our opinion, the effort involved in developing and validating a model under the reference value approach is not much less than with the model component approach, provided that a degree of flexibility is enabled for the latter approach. In addition, it will probably lead to more blanket values and thus only to a weaker link between the LGD estimation and the actual dependency on recessions.

With the "Distributional approach" and the "Downturn discounting rate with fixed add-on" approach EBA describes two options of the supervisory add-on approach.

Distributional approach:

This proposal sees the EBA moving away from the requirement to identify macroeconomic drivers in the course of dependency analyses in order to consider a corresponding effect arising from conservatism. Rather, the historical realisations are used to establish directly which variations in the data – sometimes also caused by economic cycles – are possible in order to derive a 'downturn add-on' from them.

We expressly welcome the core concept of the proposal not to focus primarily on an analysis of macroeconomic drivers, but rather to derive the downturn effect directly from the data. In particular, it makes sense to us because anchoring or calibrating an effect – regardless of how it is calculated – should rationally always be validated using the history, so that a direct link 'without any detours' is obvious.

The approach therefore appears to us to be both simple and effective.

We would like to comment as follows on the alleged weaknesses mentioned in the EBA's text: there are concerns, especially for low default portfolios, that false conclusions could be drawn from the data distribution, because its variability is attributable less to macroeconomic factors than to the dispersion of the data per se. However, we believe that this problem of low data volumes is not a disadvantage that is particular to this approach. Rather, the risk of false conclusions due to low data volumes is just as high in the case of approaches that attempt to work out macroeconomic dependencies. Ultimately, all that can help here are suitable control mechanisms for dealing with low data volumes – more or less independently of the chosen approach.

For all approaches, data effects that are already explained by the model (e.g. changes in the composition of the collateral over time) should be controlled by suitable means (e.g. through adjustment by an ex ante forecast). This may be particularly important in the case of small data volumes.

Based on the model component approach, the following fine-tuning would be possible: the analysis of the variation effects could take place at the level of the individual model components in addition to the LGD level. The (measured) downturn effect can then be taken into account more specifically for the relevant model component in order to consider the downturn risk in a more differentiated way depending on the scenario.

Deriving the supervisory add-ons from the volatility of the realised recoveries does not appear suitable to us for identifying the downturn because, in our opinion, such measures are typically used to determine the estimation uncertainty, which should also be a model component (empirical standard deviation of the realised LGDs).

- Downturn discounting rate with fixed add-on:
 - The technical restriction to a discount-driven stress calculation (at least as the floor) does not appear to us to be very expedient because this could entail moving relatively far away from the historical effects that were actually observed. Depending on the implementation of the loss computation in the institution, the simulated stress computation using another discount rate assumption could also be technically relatively complex.
 - In our view, this approach is a valuable alternative for LDP portfolios for which the small amount of internal workout data makes it very difficult or even impossible to implement a risk-sensitive approach.

Using the discount rate as a downturn component does not seem economically plausible to us. In particular, we cannot see how such an approach could be transferred to the CCF. In the interests of a simple, comparable approach, however, we believe that an approach with an add-on (without a maximum with an increased discount rate) is conceivable.

In general we think an alternative approach to the model component approach is required which will represent a much more simplified approach. As the alternative approaches are partially only described in a rudimentary way in the consultation paper a final assessment

cannot be made at the moment. Although, we think that at least one more significantly simplified alternative approach has to be described. That approach could be endowed with specific conditions and should take the complexity and risk appetite of the lending business into consideration.

Question 16: Which approach are you currently using for estimating downturn LGDs?

Put simply, some banks use the dispersion of empirical loss data over a longer period and thus derive the effect of macroeconomic factors. Macroeconomic time series are already being used today to define a downturn period, but these are not based on a single reference year because experience shows that this is neither necessary nor expedient. This avoids, for example, a situation where the entire characteristics of a stress scenario are directly applied in the downturn LGD.

Other banks have implemented an approach that comes closest to the distributional approach variant of the supervisory add-on approach.

Additional questions and comments

Article 3

Article 3 suggests that the panel of experts conducting the qualitative analysis should be independent of the modelling unit. In our opinion, the independence requirement is not appropriate. We see qualitative and quantitative analyses de facto as strictly complementary. They should be conducted as such by the same panel of experts.

There is a further need for clarification with regard to this Article. For example, it is certainly conceivable that a dependency between model components and the macroeconomic factor can also be identified qualitatively. However, there is a need for greater specification as to how application should happen. Ultimately, no quantitative dependency can actually be identified in such cases (otherwise the qualitative assessment would not have been necessary) and it is therefore unclear how the severity will in the end be determined. Following the current proposal, it would probably not be possible to identify a downturn effect because it would be most likely that no higher realised LGD at the time of the downturn phase would be available. If such an effect could be identified, there would surely also have been a quantitative dependency.

Overall, based on the present consultation, we arrive at the assessment that the benefits of the approach are out of proportion to the cost.

Article 160(c)

Article 160(c) stipulates an MoC in cases where 'institutions do not have data concerning the realised model components during the selected economic downturn period and the model component value is therefore estimated for downturn adjustment purposes.'

In such situations, the estimated realisation of model components can de facto over- or underestimate the actual realisation of the model components. Based on the observed time series of the model component, it is possible to assess whether the macro model over- or underestimates the model components during an economic downturn scenario. In situations in which it can be demonstrated that the macro model tends to overestimate the realisation of the model components during economic downturn scenarios, we are not of the opinion that an MoC is necessary.