

Comments

on the Basel Committee for Banking Supervision's Consultative document "Fundamental review of the trading book"

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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 2,200 banks.

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Ladies and Gentlemen,

Last May, the Basel Committee for Banking Supervision (BCBS) published a consultative document on the "Fundamental review of the trading book". The German Banking Industry Committee (GBIC) welcomes the opportunity for a consultation on the most salient and far-reaching proposed amendments. Specifically, we would like to share the following comments:

I. General comments

The financial market crisis clearly exposed the weaknesses inherent in the models-based regulatory approach towards market risks ("Basel 1.5") in effect at the time. Whilst reforms ("Basel 2.5") which were initialised already prior to the outbreak of the financial market crisis and came into effect in Europe on 31 December 2011 have indeed led to clearly higher capital requirements for the trading book, these reforms took place under a lot of time pressure. Hence, these reforms themselves feature weaknesses or were not able to remedy shortcomings that were already known. Criticism has primarily been levelled at coherence or, moreover consistency of the market risk framework, the adequacy and completeness of market risk measurement as well as scope for regulatory cherry picking in combination with the unchanged boundary between trading book and banking book.

Based on the foregoing, we would like to express our basic support for the Basel Committee's deliberations to overcome the weaknesses inherent in the regulatory framework ("Basel 2.5"). In our view the proposals which are as yet expressed in a not elaborated language have extremely far-reaching consequences for the future capital requirements for market risks both under the standardised approach and also under the models-based approach. Under the present proposals, the approaches currently applicable to market risk should undergo comprehensive adjustments which would entail material changes in the infrastructure for both the internal models-based approach as well as for the application of the standardised approach. Also, banks' internal organisational structures will be substantially affected by the changes. The new rules under the models-based approach will render the interpretation of the new market risk measures as well as the derivation of management action far more demanding and complex. Furthermore, it is our understanding that due to the adjustments in the existing approaches, the implementation costs and input of resources will be extremely high. We therefore kindly ask that this will be adequately reflected in the deadlines granted to banks for the introduction of these new rules.

This not only applies to banks with internal models but also to smaller banks which have to anticipate the introduction of the new standardised approach. Especially smaller banks have to be protected against excessive burdens and overly complex requirements. As long as there is only one standardised approach, this approach should not *de facto* require establishing and maintaining an infrastructure (with all the associated major costs that this incurs) which otherwise would only be necessary for a model approval (e.g. regarding pricing tools, market data supply, estimation of loss distributions etc.) should therefore absolutely be avoided. We therefore very much welcome the fact that the Basel Committee has signalled that the limited capabilities of smaller banks will explicitly be taken into account.

Generally speaking, the fundamental review should primarily be geared towards a simplification of the regulatory framework and not towards another increase of the capital charge. Based on the foregoing, there is an indispensable need for a careful calibration accompanied by corresponding quantitative impact studies (QIS). Once a detailed draft regulatory text has been submitted and with sufficient time for preparations on the part of banks, there should be a first quantitative impact study. Based on these QIS

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results, it should still be possible to carry out significant amendments. Therefore, the forthcoming, detailed regulatory proposals should still feature a sufficient degree of flexibility.

We also perceive an urgent need to refrain from exempting any particular instruments *ex ante* (e.g. certain securitisation instruments) when it comes to the application of the internal models-based approach. Also, a detailed discussion with the industry concerning the scope of application of the models-based approach is of paramount importance.

II. Specific comments

1. Redefinition of the boundary between trading book and banking book

a) General comments

The Basel Committee has submitted two proposals for improving the boundary between the trading book and the banking book. Objective boundary criteria which can be supervised are supposed to remedy the existing shortcomings. Whilst not limited to, the underlying rationale consists particularly in preventing regulatory arbitrage by allocating positions to the trading book and the banking book. We particularly welcome the fact that the initial plan of completely removing the boundary has been abandoned.

Out of the two alternatives, the overwhelming majority of German banks prefers the "trading evidence based approach". The boundary between the banking book and the trading book pursuant to this approach is largely based on the current provisions and reforms these. Along with the intention to trade, there should be evidence for *de facto* trading activities ("trade feasibility"). Nevertheless, in the review of the trading activities it should also be sufficient to provide evidence of hedging activity, i.e. the evidence does not necessarily have to relate to the specific instrument *per se*.

The "trading evidence based approach" has particular advantages also in the discussion on an appropriate consideration of market liquidity (cf. below). This is due to the fact that potentially illiquid instruments (in case there is no active hedging thereof) cannot be allocated to the trading book. This with respect to liquidity more restrictive allocation to the trading book could result in a subsequent reduction of complexity for approaches aimed at consideration of market liquidity in the trading book and allowing a less conservative handling (cf. question 1).

In our view, the "valuation based approach" constitutes an excessively far-reaching change which incurs various and serious disadvantages. Under this approach, the capital charge for trading book positions would have to be applied to each financial instrument accounted for under the fair value principle. We are of the opinion that this incurs the problem that the use of the respective accounting standard would have implications for the scope of the trading book. As a result, within individual banks there would be clear differences between the regulatory allocation to the trading book and the internal view concerning financial instruments regarded as "held-for-trading". Subsequently, the internal processes would differ clearly between actively traded financial instruments and less actively traded financial instruments and the inconsistencies in the designations which exist between different banks and different countries would persist.

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As regards the "valuation based approach", we would further like to point out that the trading book is becoming more comprehensive. Depending on its conception, it would cover a broad range of financial instruments (e.g. in terms of the liquidity horizon and the credit risk). As a consequence, this can have a considerable impact in terms of capital requirements (methodologically, operationally, quantitatively). Furthermore, this raises the question whether supervisors really want such a comprehensive relocation of credit risk from the trading book to the banking book. Besides, this approach fails to take into account that – from the point of view of risk management – for instance a liquidity reserve is managed differently than the "classical" trading book business with a short term trading intent. Also based on the foregoing reason, we are against including the liquidity reserve in the trading book.

At least under the current IFRS rules, a transition to the "valuation based approach" would not help resolve the problem of trade feasibility, either. This is due to the fact that the current provisions are equally based on the intention to trade.

Furthermore, banking supervisors would make themselves directly dependent on the decisions of international accounting standard setters. Yet, the motives and objectives of the latter for the choice and definition of the boundary between the trading book and banking book can be at odds with the ones pursued by banking supervisors.

The consultative document also advocates a clear limitation of the existing scope for reclassification. We absolutely support the rationale which is probably behind this i.e. reducing the scope for regulatory arbitrage between the trading and banking book. Notwithstanding the Basel Committee should restrain to a balanced approach which does not categorically rule out reclassification. In the event of a reformed, "intent-based" boundary but also in the event of an approach which is additional based on the criterion of the trade feasibility under certain conditions the trading intent might disappear (for instance in a market which over the course of time "freezes up") resulting in a need for reclassification to the banking book (for instance in a market which, over the course of time "freezes up"). Also conversely, there would be a need for a potential reclassification option from the trading to the banking book.

b) Relationship to a possible Pillar I requirement for interest rate risks in the banking book (IRRBB)

Regardless of the two proposals contained in the present consultative document: Whilst not limited to, the potential consequences of a redefinition of the boundary between the banking book and the trading book particularly also depend on the forthcoming new regulation on capital requirements for market risks of the banking book which is apparently in the pipeline (the exact details of which are still unclear). The scope of application of this new regulation depends on the definition of the boundary.

During the Basel II process, the idea of a Pillar I requirement for interest rate risks in the banking book (IRRBB) was discussed and eventually abandoned. One major reason for this decision was the observation that there is no single, unified modelling standard which is universally accepted by market participants and which could be used as a basis for a regulatory measurement of IRRBB. Today, the situation has remained unchanged in this respect; the treatment of material drivers for IRRBB is still extremely heterogeneous (for instance in the modelling of maturity mismatches between contractually agreed and actual maturities as well as interest rate lock-ins for liabilities but also for assets; this particularly also applies to financial instruments of the banking book not measured at fair value).

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For banks calculating IRRBB in an appropriate manner on the basis of a VaR-methodology and measuring as well as managing interest rate risks beyond the boundaries of the trading and banking book, this situation is further compounded by the additional danger that an isolated Pillar I capital charge will lead to a situation where hedge and diversification relations will become torn apart and the resulting sum of the capital requirements from the trading book and from the banking book would lead to a considerable over-estimation of the IRRBB. Based on the foregoing, we hold the view that a Pillar II treatment of the IRBB should be continued.

Alternatively, should – notwithstanding our aforementioned caveat – a Pillar I requirement materialise, banks that have their own validated market risk models should be entitled to also use their internal models as a basis for the IRRBB capital requirements. This is an established market practice that has been tested and tried by many banks.

2. Choice of the risk metrics: Moving from VaR to ES (Expected Shortfall)

The German Banking Industry Committee does not *per se* support the Basel Committee's plans to use the so-called expected shortfall (ES) as a future risk metric (*in lieu* of the Value at Risk (VaR) approach). In our view, the arguments listed as reasons for the transition to the expected shortfall remain unconvincing. In addition a series of issues will still have to be resolved before VaR can be replaced. Please find our more detailed comments on this issue in the paragraphs below. The bottom line is that, with a view to its suitability as a basis for the capital requirements, we doubt that ES is a risk measure superior to VaR.

Furthermore, we are concerned that a transition to ES might have unwanted repercussions on the risk measurement under Pillar II/ICAAP. More likely than not, also under Pillar II, supervisors will force a transition to ES. The consequence would be that the basic *desideratum* of methodological freedom under Pillar II would be curtailed. We think that such an approach is inappropriate. Even in the absence of a potential transfer to Pillar II/ICAAP, the introduction of the ES for market risks would give rise to inconsistencies in terms of combining risks across different risks.

In the present consultative document, the Basel Committee declares that there were no systematic problems with the models applied to date (section 4.5.1, page 35). Hence, we wonder whether the systematic change of the transition from VaR to ES can be seen as the right conclusion from the experience to date. We furthermore would like to point out that a number of core elements inherent in the risk models have already been changed during Basel 2.5. For instance the scope of application was changed (securitisations) and there was the introduction of the incremental risk charge for event risks and default risks and the stress VaR. Due to the fact that these innovations were only implemented at the end of last year, any assessment of their full implications is not yet possible. Perhaps the shortcomings which are supposed to be addressed by a switch to ES have already been resolved due to the changes which have occurred in the meantime. In our view, there should be a review of this possibility, first.

a) Validity of the arguments in favour of a transition to the ES:

- *Better capturing the tail of the loss distribution*

Whilst it is theoretically correct that, contrary to VaR, ES is capable of capturing the size and probability of losses beyond the selected quantile of the loss distribution we are nonetheless of the opinion that the ES is not *per se* capable of better capturing tail risks than the VaR. Far more important than selecting a

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parameter which represents the loss distribution would be the adequate modelling of the loss distribution itself (e.g. requirements with regard to the time series etc.). In this respect banks have undertaken major efforts in recent years – particularly after the onset of the financial crisis in 2007 – in order to improve this modelling. Already for a long time, the consideration of fat tails in the loss distribution (and in the joint multidimensional distribution of the risk factors) has been an industry standard thus leaving behind the "Gaussian distribution world". As a consequence, also VaR contains information on the tail of the distribution. Besides, for many (parametric) loss distributions (also as an approximation of simulated distributions) VaR can be translated into ES by means of a simple linear multiplier (e.g. t-distributions). In these cases, the VaR obviously contains the same information as ES.

Furthermore it is worth noting that already under Basel 2.5 (and probably to be continued in the framework of the trading book review) a capital requirement for incremental risks or events (particularly migration risks and default risks) was introduced at a very high confidence level (i.e. 99.9%). The IR charge can be seen as a risk precaution for events which cannot be captured by means of modelling the conventional (credit) spread risks and which is characterised by particularly large price changes. Yet, in the conventional VaR market risk modelling, such events would precisely be those events which would be reflected as tail risks in the loss distribution. Due to the separate capturing of these tail risks through IRC modelling, however, there is no longer any need for focussing the usual VaR market risk modelling on such events. Hence, due to the IRC modelling, tail risks are taken into account sufficiently. For this reason, the rationale for a transition to ES is extremely difficult to comprehend.

- *Subadditivity (Coherence)*

There is a consensus on the fact that the VaR does not constitute a coherent risk measure. This is because it lacks an important feature necessary for the manageability/aggregation across portfolio levels, i.e. the so-called subadditivity. In our view, this is a theoretical argument which has no meaning in banking practice. Typically, the theoretical cases of noncompliance of subadditivity are extremely artificial and are mathematically engineered towards a breach of subadditivity (e.g. with non-finite moments such as expected values or variance). Following an internal GBIC survey, there have not been any issues in terms of violations of this feature. In our view, also the Basel Working Paper No. 19 "Messages from the academic literature on risk measurement for the trading book" (page 19-20) fails to corroborate the practical relevance of this issue. Furthermore, in the article "Basel proposes an end to VaR" in the Risk Magazine (June 2012, page 8) it becomes clear that the number of ES advocates has seen no increase and that even experts who generally tend to be open towards ES perceive certain problems when it comes to applying this risk metric.

- *Trader positioning (incentives to take on tail risk)*

One further argument for the replacement of VaR by ES consists in wrong incentives: Allegedly, traders would be tempted to position themselves in a way that would make VaR unsuitable for the purposes of risk measurement. This problem, too, is primarily a theoretical construct. In practice, in our view, it can hardly be resolved by the specific choice of a prominent risk parameter. Any risk measure – which is prominent due to its role for the purposes of capital requirements – needs to be complemented by further instruments of risk measurement and risk management (e.g. not only complementary methods such as scenario or stress test analyses but also simple methods and limitations based on the latter, such as volume and sensitivity based approaches). Hence, in every individual case – regardless of the specific regulatory choice and even after a potential transition to ES – it remains incumbent upon bank's internal risk

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management and internal risk controlling to carefully select the models, to be aware of their limitations and to analyse specific dealer positions with a view to the aforementioned issues.

b) Problems still to be resolved:

- *Backtesting (Question 8)*

As the Basel Committee points out itself (page 32, top paragraphs) to date there is a lack of (published) concepts on backtesting the ES parameter. In our view, the unresolved issues are not merely details. Instead, there is still an unresolved fundamental question of pivotal importance. Finding a practical solution to the validation problem is mission critical for the assessment of suitability of the ES as a central supervisory parameter. Due to the fact that the ES does not constitute a maximum threshold for losses, the simple counting of outliers based on a binomial approach is not an option. Generally speaking, the validation of a parameter which is based on a limited amount of extreme observations is difficult (cf. also below "outlier sensitivity"). Whilst the error of estimation is clustered around the empirical mean value it will generally not see a Gaussian distribution. Due to the low number of exceedances, we think that the use of asymptotic test statistics is debatable.

From our point of view it is also questionable whether it is at all possible let alone meaningful to impose a unified supervisory backtesting methodology or whether it would be more appropriate – similar as for the IRBA approaches – to leave the specific design to banks whilst maintaining the general backtesting requirement. The presentations on ES backtesting contained in the Basel Working Paper No. 19 "Messages from the academic literature on risk measurement for the trading book" (page 21 – 23) concerning the simple option (going back to the counting of VaR-outliers) do not constitute any validation/falsification of the ES parameter and are thus not helpful in this context. Apparently, the academic literature quoted was not very helpful, otherwise the Basel Committee would have decided to propose a specific method.

- *Outlier sensitivity of the conditional expectation parameter ES (Robustness)*

Also the problem of the outlier sensitivity of the conditional expectation parameter ES has to be seen in the context of the backtesting issue. This may become particularly evident with regard to the example of a historic simulation with a one year history: Since for the 99 % quantile there is the expectation that, on average, VaR will be exceeded 2-3 times per annum, even a single additional VaR exceedance could change the ES massively. This also results in a considerable complication for handling an ES limit system in the internal risk management. Hence, it is our understanding that the parameter VaR is more appropriate as a risk management tool than the parameter ES.

Contrary to VaR, ES is not a robust statistic. The problem of the outlier sensitivity is closely linked to the fact that the data quality in general or theoretically possible data quality problems would become far more significant if there was a transition to the ES. One operational challenge would consist in the definition of considerably higher data quality standards than at present. Also in the event of data problems it might become necessary to exempt individual exceedances for the ES calculation. From a regulatory point of view, this should be made possible. Due to the outlier problem, we would like to advocate not using the 99 % quantile as the quantile basis for the ES but instead to use the 95 or the 90 % quantile. This applies to the case which we think is very likely at least in the near future i.e. that the regulatory market risk measurement and the regulatory credit risk measurement will not be based on an integrated model approach but that it will be based on separate model approaches (c.f. below "revised model approach").

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Hence, in this regard, we support the Basel Committee's respective deliberations regarding lower quantiles (cf. page 36).

3. New inclusion of market liquidity

In terms of a risk adequate consideration of market liquidity risks, the Basel Committee submits three proposals which complement each other. We support the Committee's objective i.e. a better reflection of market liquidity within the risk measurement. Furthermore, we welcome the abandoning of the constant level of risk approach. Basically, there should still be a review concerning the interdependencies between the proposed approach for recognition of market liquidity risks and the approach of prudent valuation adjustments. Potentially this – together with the liquidity requirements for establishing the boundary between the trading book and the banking book – might already sufficient be for including market liquidity aspects.

However, we see problems as far as the implementation of the various proposals is concerned (Question 2).

Under the first proposal, the trading book positions shall be broken down into five liquidity horizon categories between 10 days and one year. This rises the question: How can an objective allocation of the individual financial instruments to the various liquidity horizons possibly be achieved? In the ideal case, the consultative document envisages an allocation at the level of the risk factors. In our view this will result in difficulties in the practical implementation, thus one fall-back option would be an allocation at the level of the financial instrument. In this regard, banks should at least be given the possibility to choose. Furthermore, we would also like to endorse the option of an assessment at a higher portfolio level (an option that is available under the current IRC regime). For instance, it should also be a viable option to define a suitable, homogenous liquidity horizon for the entire portfolio.

A more flexible application of the approach would allow banks implement portfolio related strategies and hedge relations more adequately. Furthermore, we are concerned that both for an assessment at the level of the risk factor and at the level of the instrument, the data availability might prove to be inadequate for such a highly granular differentiation for the inclusion market liquidity.

Moreover, in our view, the one year liquidity horizon mentioned above is inconsistent with the requirement of the short-term nature of trading book positions (generally less than one year).

Concerning the three implementation options presented in Annex 4 (page 69 and 70) for including the liquidity horizons, the overwhelming majority of our member banks prefer the third variant of the weighted average horizon. Along with the respective ongoing data maintenance and validation efforts, the introduction of several liquidity horizons in the calculation of market risk would not only create significant one-off model and system adjustment costs. Potentially, it might even lead to several partial risk contributions of one and the same book which would no longer be directly compatible. For the purposes of aggregating the risk measure at book level (for instance for the integral reporting scheme) at this juncture there would anyway have to be another scaling exercise analogous to option 3. The uniform calculation of one uniform horizon for the entire market risk and the subsequent scaling to a weighted liquidity horizon would significantly lower the implementation cost. In addition to this, it would lead to initially comparable risk figures and still comply with the Basel ideas.

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On the whole, we think that an extension of the liquidity horizons would be encumbered by the difficulty of a high implementation burden. We suggest reducing the number of liquidity horizons from five to three. The high costs are not only limited to adjustments of the underlying model. Rather, in order to appropriately model the liquidity horizons, there is a need for adjustment of master data and trade transaction data. When it comes to the shortest liquidity horizons, it is furthermore likely that migration and default risks will be low. We therefore suggest double-checking if there really is any actual need for an inclusion under the risk class "credit risks".

A third proposal aims at incorporating endogenous liquidity risks. This should allow a better reflection of the impact of sales resulting from particularly large or concentrated exposures relative to the market. Alternatively, the consultative document envisages a reflection of these risks by means of prudent valuation adjustments. The Committee furthermore suggests introducing capital add-ons. These capital add-ons should adequately cover potential jumps in liquidity premia. Although we see methodological difficulties when it comes to an appropriate incorporation of these jumps in the liquidity premia into the models, the instrument of the capital add-ons appears to be overly rough at this point. Furthermore, there is a danger of double-counting market liquidity risks.

Part of the QIS will have to assess in how far the combined impact of the methodological amendments aimed at an adequate reflection of market liquidity will lead to excessive capital requirements.

4. Future treatment of hedging and diversification under the standardised approach and under the models-based approach

We welcome the Basel Committee's endeavours aimed at improving the recognition of hedging and diversification under the standardised approach. The recognition of imperfect hedges which was not possible under the existing regime is an important step into the right direction. Under risk control and risk management aspects (at least partial) recognition makes sense and is logical. Hence, this should also be reflected in the regulatory capital requirements.

On the other side, we see as a source of major concern the plans for interfering with the internal model approaches, i.e. that correlation parameters should henceforth be imposed by supervisors. Banks invest a lot of resources into the development of approaches which are mathematically and economically sound standing. Correlation parameters imposed from the outside (as in the current proposal) destroy the interdependencies accounted for in banks' internal approaches and replace them by abstract requirements the rationale of which is intrinsically incompatible with the existing approaches. In our view, the exogenous imposition of correlation parameters is at odds with two fundamental objectives pursued by the application of internal approaches: Firstly, this is an erosion of the envisaged consistency between internal and external use (use test). If model parameters are not immediately geared towards current economic contexts but if they are built on parameter settings which were imposed differently, this will diminish the model acceptance. Secondly, rigidly imposing exogenous parameters enforces precisely the wrong incentives for arbitrage within the model. Furthermore, the envisaged stress calibration already introduces correlation estimates into the ES that will lead to clearly more conservative risk estimates. Based on the foregoing, there is no need for any further, more conservative action on the part of supervisors in the form of issuing regulatory requirements. Besides, apart from being superfluous, such an approach would not be constructive either.

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We therefore request that all parameters of the internal approach may be defined by the bank itself. Alternatively, should the regulator hold the view that there is a need for factors increasing capital for the purposes of overestimating of correlation misspecifications, we strongly suggest to apply these outside of the actual model.

5. Relationship between the standardised approach and the internal models-based approach (Q 3)

- *Calibration*

First, we would like to express our general support for the plans aimed at strengthening the relationship between the standardised and the internal models-based approach. In our view, this should be achieved first and foremost by means of better risk capturing concerning hedging and diversification effects under the standardised approach (cf. detailed comments above). The respective endeavours should be aimed less at limiting these effects on the model side. Also in terms of capital, it is of paramount importance to keep an incentive for choosing the models-based approach. This means that identical portfolios should generally incur a lower capital requirement under the internal models-based approach than under the standardised approach. This should take place in a consistent manner across all sub-portfolios. Should the capital adequacy requirements reach a comparatively similar level under the standardised approach and under the internal models-based approach, various model banks would presumably return to the standardised approach and – in the absence of any incentives in the form of capital requirements – would invest less resources into their models which they would continue to keep for their internal purposes. Generally speaking, this would weaken the banking community's risk governance as a whole which is an effect that is at odds with the Basel Committee's objectives. Furthermore, it would give rise to a new systemic risk if the supervisor were to calibrate the standardised approach which would then be used by several large banks.

- *Mandatory calculation of the standardised approach even if there is a model approval for all portfolios*

We are against the compulsory parallel calculation of the standardised approach. Banks which are no longer allowed to use the models-based approach for individual desks should only have to calculate the standardised approach for these portfolios (cf. comment below on the models-based approach). Alternatively, however, should a mandatory parallel calculation turn out to be inevitable, at least for the model banks the burden should be kept as low as possible in the calculation of the standardised approach. It is therefore our understanding that the calculation would at most have to take place on the regulatory reporting dates.

- *Floor based on the standardised approach*

We object to the regulatory imposition of a floor (or of a surcharge) based on the standardised approach. A floor would constitute a massive disincentive for the use and further development of an internal model. Furthermore, a floor might also create wrong incentives: If the floor takes effect, i.e. the model requirements are below (x %) of the standardised approach's capital requirements, there are incentives to carry out transactions which leave the floor (or, moreover, the standardised approach results) unchanged but which lead to higher capital requirements of the models. This would leave the capital requirements untouched as long as the floor takes effect. This consideration is based on the assumption that the standardised approach does not lead to adequate measurement results especially for more complex portfolios.

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- *Gradual withdrawal of model approval*

We welcome the proposal of the two stage process for the withdrawal of model approval for individual desks. Due to the warning issued by the supervisor, the bank has the opportunity to improve the internal model to a degree where it can avoid the withdrawal. It would be helpful to apply this desk-specific withdrawal also in the event of "catastrophic failures" as a two stage process. Instead of the immediate switch to the capital requirements of the standardised approach, we suggest a temporary increase by a multiplier.

6. Revised internal models-based approach

We would like to share the following comments on individual sub-items of the revised internal models-based approach presented:

- *New option to choose between the standardised and the internal models-based approach*

The reforms of the "Fundamental Review" will lead to a profound review of the trading book regime. Under these circumstances, we think it would be appropriate that banks are granted a new free choice between the models-based alternative (provided it is eligible for approval) and the standardised approach. A return to the standardised approach should be an option which a bank may select formally and *de facto* upon introduction of the new rules. Many banks took the decision to calculate their capital requirement on the basis of their internal models as early as in the mid-1990s. In your view, it is not possible to expect that this decision will remain binding under fundamentally different conditions.

- *Use Test*

In principle, we think that the apparently envisaged maintaining of the use test requirement is appropriate. In our view, the use test requirement has been sidelined since Basel 2.5 whilst the question concerning the increase of the capital requirement took centre stage. In our opinion, this approach towards reducing the importance of the use test should be abandoned. After the financial crisis it is still essentially correct to uphold the use test requirement. The use test still ensures the bank's own interest in the quality of the model, whose results form the basis for calculating the capital requirements, in a long-term and sustainable basis. This two-tier incentive structure between banks and supervisors should not be abandoned.

However, keeping the use test presupposes that banks are of the opinion that the regulatory calculated risk measurement results are also adequate and thus appropriate for the purpose of internal use within banks. Whatever the regulatory requirements are, this should not be ignored. Especially as regards limiting the scope of diversification we doubt that the regulatory model is appropriate for the use test.

In the form of the proposed risk model adjustments supervisors introduce a further controlling loop especially for banks with an approved internal model. For instance, in the worst case such a bank will, in future, have to calculate and analyse four different risk measures and controlling loops for market risks of the trading book (for Pillar 1: internal Expected Shortfall model with regulatory parameters, standardised model using regulatory parameters and Pillar 2: internal VaR model with internal parameters for day-to-day risk management, internal economic capital for the risk bearing capacity model (ICAAP) with regula-

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tory guidance). Given this plethora of figures, a consistent, unified and contradiction-free management of the trading book is no longer feasible. Also, communicating the various figures both internally and externally is rendered more difficult.

- *Limitation of diversification (Q6)*

Contrary to the requirements to date, the consultative document limits diversification between risk classes (cf. page 39f.) based on the assumption that banks tend to overestimate the diversification effects particularly during stress situations. We would like to question this underlying assumption. The calibration on stress periods was introduced under Basel 2.5 just at the end of last year. Any such conclusions would hence be premature. We are of the opinion that it is no longer entirely correct to refer to an "internal model" if the supervisor restricts diversification effects. Rather, this would, by default, evolve into the direction of a standardised model.

In our understanding this means that the Basel Committee plans to define quantitative regulatory requirements or at least floors for diversification options. More specifically, formula (1) (section 4.5.6, p. 40) calls for a classification of the risk factor classes as long or short positions. In many cases this is not possible in a clear and unambiguous manner meaning that this formula cannot possibly be applied at all times. Even if one assumes that the problem can be resolved that low correlations or a ban on negative correlations will not be conservative for any position, we see the corresponding regulatory requirements as a source of major concern. These requirements partly abrogate banks' responsibility for their own internal model. Instead, the banking supervisors assume quite a great deal of responsibility for modelling and appropriate model performance also in future stress or crisis situations. This loss of a clear attribution of roles and responsibilities is dangerous both for banks but also for regulators. After all, when problems regarding the models arise in the future, one might, quite legitimately, also refer to the responsibility of supervisors for the model quality.

- *Desk-level approach for model validation (Q4)*

In principle, we welcome the idea of the desk-level approach. In our understanding this will allow avoiding the extreme consequences of a binary decision ("pass or fail regime") regarding the future model approval or withdrawal of the approval. This would also help defuse the issue of a "credible" threat which may involve a withdrawal of the model approval. Notwithstanding the foregoing, it is worth bearing in mind that the desk-level approach must not lead to unnecessary complications for the entire internal bank operations and supervisory processes.

The adequacy of the desk-level approach hinges on the definition of the individual "regulatory" desks. Here, we endorse the basic idea of following the bank's internal functional organisational structure. However, there is a need to clarify the question as to how changes of the organisational structure (demerger, merger, discontinuation of trading units etc.) should be handled at a regulatory level. Are these examples regarded as model changes which will have to comply with a corresponding process?

Particularly for the treatment of desks that have not been approved for modelling purposes, the definition of the level of the regulatory desks is of vital importance. This is above all about a very fundamental problem: For instance complex instruments of a desk might not be eligible for the purposes of internal modelling (capital requirement under the standardised approach). Yet, the corresponding simpler and more liquid hedging instruments that go hand in hand with these positions would nonetheless still be

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modelled internally. The lower the level of the regulatory desks will be, the higher the danger will become that instruments and corresponding hedges will not fall in the same desk. In such a case, it should be permissible to still leave the non-eligible instruments within the model estimate. Otherwise banks would be "penalised twice": First, by means of an additional capital requirement for ineligible instruments under the standardised approach. Secondly, due to the (falsely) exaggerated risks calculated on the model basis.

Based on the foregoing, we would like to suggest a solution where the "regulatory desk" will not be located at a portfolio level which is too low. It should especially not be located at "desk level" of an individual trader. Instead, it ought to be located at a significantly higher portfolio level.

Furthermore, in our view, the desk-level approach as such renders the constant parallel calculation of the standardised approach for all portfolios redundant. If the desk's approval is at stake (and this will be known long before the final verdict), banks could receive the order to implement the standardised approach. We interpret the presentations on page 32 above (remediation period) as the corresponding process which was apparently planned by the regulator in such a manner. Furthermore, when there is a withdrawal of the approval due to poor model performance for the desk under observation, there appears to be a need for the described lead time during which the bank, by virtue of its own efforts, might still be able to prevent the withdrawal of the model approval.

- *Partial Use*

The envisaged structure of the five risk classes (equity, general interest rate risk, credit risk, FX and commodities) is not in line with the current structure of the various risk categories. More specifically, the explicit distinction between the general and the specific price risk for equity and interest rate instruments is obviously abandoned. However to date, this differentiation used to be the basis for the current partial use regime. Under this regime it was e.g. permissible to use an internal model for backing general interest risks and to use a standardised approach for the backing of specific interest risks. Particularly for smaller model banks, we used to appreciate this opportunity. After all, this partial use allows especially those banks to use their model without being overstrained by particularly complex and onerous requirements. We would welcome it if the option of a partial use within a desk was kept. This could allow, for instance, capital requirements of general interest risks on the basis of the internal model whilst the credit risk would be covered on the basis of the standardised approach.

- *P&L attribution process*

Based on the so-called P&L attribution process – along with the EL backtesting assessment (cf. comments above) the desk-level model quality should be ascertained. In our understanding, this process which is already implemented by many banks today should test whether the model is capable of explaining *ex post* the unmapped clean P&L from one trading day to the next or, moreover, its changes (theoretical P&L versus actual P&L). In principle, we think that this approach is comprehensible, however, we do not believe that all methodological questions relating to the process have already been clarified appropriately. For instance, there should be a clarification concerning the handling of proxies: Should the process be carried out before or after consideration of proxies? This can make a major difference. From our point of view, the consultative document's assessment is important, that there may be a series of reasons which explain the deviations between the "theoretical P&L" and the "actual P&L" and that these should not be

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seen as an indication of an inadequate model quality. Hence, we think it would be problematic to issue generally binding quantitative requirements for the "degree of fit" (cf. page 31).

Furthermore, we would like to point out that there will be differences between the theoretical P&L and the actual, clean P&L which result from a number of other aspects of the internal models which are being required under the consultative document's current proposals. This should be taken into account during the deviation analysis. For instance it is hardly possible to adjust the calculation for risk factors classified as "non-modellable". Furthermore, the correlations potentially imposed by the regulator will result in an additional distortion of the model result which is not being reflected in the P&L. Moreover, an application at desk-level fails to take into account many diversification effects within a risk factor class.

- *Integrated model (Q7)*

The consultative document discusses the question (cf. page 38) to which extent a future requirement would be possible under which integrated market and credit risk modelling would be expected from banks or whether it makes sense – particularly for migration and default risks – to continue requesting separate modelling (continuation of the separate supervisory IRC modelling).

From our point of view, an integrated modelling approach appears theoretically possible. However, to our knowledge, there is not yet any single bank in the world which has implemented such an integrated modelling approach for the entire trading book. What is more important than the theoretical possibility of such an approach is therefore the question whether banks are capable of bearing the extremely high implementation costs incurred by an integrated modelling approach. Whilst, however, it is not the only *conditio sine qua non*, one of the preconditions for this would be at least a corresponding incentive concerning the resulting capital requirements. The restrictions on the diversification options envisaged for the models-based approach make us believe rather that an integrated modelling approach with severely restricted diversification options between risk classes would be unattractive for banks. Based on our understanding that it will not be possible either to request all larger – internationally active – banks to switch to integrated models, we would basically recommend approving both integrated and also separated models. Separate modelling would furthermore facilitate carrying out ES backtesting for market risks (incl. credit spread risks) at lower quantiles (cf. above for more detailed comments on ES backtesting). In this respect, we share the view held by the Basel Committee.

Last but not least due to the double counting problem, we also generally agree with the Committee's assessment (cf. p. 6 bottom) that "CVA risk, as the market component of credit risk, should be captured in an integrated fashion with other forms of market risk within the market risk framework". Nonetheless, this is also subject to our aforementioned caveats.

- *Continuation of Delta—Gamma approach*

The Committee explains (cf. page 35f.) that there are no fundamental issues which speak against any of the three model classes (parametric approaches, historical simulation and Monte Carlo simulation) deployed to date. Nevertheless, in view of the future stress-based calibration, the opinion has been expressed that approaches which are not based on a full re-evaluation of the instruments but which are based on an approximation of the local price function would be inappropriate in terms of the expected capturing of tail risks inherent in the estimated loss distribution. This would particularly affect the parametric Delta-Gamma method in combination with a variance-covariance approach. In our view, also in

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future it should remain an option to use parametric approaches with Taylor approximations of the price functions if the banks can prove that this approach also "performs" (i.e. is adequate) in a stress situation. Given our banks' experience, we assume that the approximations deployed will feature sufficient precision in most cases. We therefore think that a categorical exclusion of these approaches would be clearly excessive. This is especially owed to the fact that the consultative paper concedes that non-linearity is taken into account by most banks' current models (Annex 2, section 2, page 61).

- *Stress calibration*

We welcome the development that in future there is no longer any need to use separate models for "normal times" and for "stress times" for the purposes of regulatory capital requirements (which would have to be linked additively thus incurring an oversimplistic risk exaggeration). Based on the foregoing, we are pleased that the point we made in previous statements has been taken into account, i.e. that there cannot possibly be a simultaneous manifestation of normal times and stress times. Although the predictive capacity may typically suffer during a stress calibration, in principle, we think that the notion that stress calibration should mitigate the regulatory framework's procyclicality is correct and comprehensible.

Nonetheless, we would like to point out that it is possible to use unstressed risk measures for "day-to-day" risk management in a meaningful and useful manner. The stress calibration, however, means that "day-to-day-risk measures" become considerably less important within banks. This effect will not remain without implications for the quality of these risk measures.

Instead of a stress calibration of the input parameters which lead to risk figures that are useless for purposes other than calculating the regulatory capital requirement, we therefore suggest a subsequent scaling of the risk measure calculated with calibration to the current period.

- *Definition of the stress period (indirect vs. direct)(Q5)*

We agree to the statement that any model calibration to periods of stress involves various practical challenges. This has been made blatantly obvious by the "Stress VaR" requirement under Basel 2.5. The Basel Committee now discusses two alternative procedures for determining the stress period, the so-called indirect method and the so-called direct method (cf. page 36). We advocate in favour of admitting both methods in general. The choice of the most appropriate method should be left to the discretion of the respective bank. Obviously, banks will have to demonstrate that the method chosen and the approach adopted by them is adequate. Contrary to the direct method, however, the indirect method also takes into account the current unstressed ES. Hence, it is more consistent with our view expressed above that day-to-day risk measures should not be relegated in terms of importance.

- *Future of the multiplier*

In our understanding, in principle, a multiplier should be kept for the purposes of transforming the model results into capital requirements. To this end, the multiplier might also be different for various desks depending on the model performance. In our view, it is necessary to obtain a more detailed consensus concerning a multiplier's underlying rationale (e.g. backtesting result, qualitative model shortcomings, model risks?). All of the reasons concerning the model risks mentioned in the context of Basel 1,5 in the mid-1990s are addressed by the fundamental review. As a consequence, they can no longer be used as a justification for the multiplier.

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- *Distinction between "modellable risk factors" and "non-modellable risk factors"*

Generally, in view of the potentially limited availability of market data we think that a distinction between "modellable and "non-modellable" risk factors is useful. In order to safeguard comparability, non-modellable risk factors shall become integrated into the calculation of the capital requirement by using stress scenarios (page 35). According to the Fundamental Trading Book Review, for this purpose, a stress calibration shall be carried out at the confidence level of the modellable risk factors. In our view, at this point there is a need for high transparency regarding the approaches used by supervisors. This is due to the fact that especially in the context of non-modellable risk factors the lack of data availability may potentially hinder a consistent stress calibration.

7. Revised standardised approach (Q9 and Q10)

We welcome the plans aimed at revising the standardised approach and making it more risk sensitive. However, we are concerned that – especially for smaller banks – this will become clearly more onerous. Especially in view of the forthcoming boundary between the trading book and the banking book, an approach has to be developed for smaller banks with a lower trading book activity which does not require setting up own pricing models.

In terms of their complexity as well as their risk sensitivity, the two proposed approaches for a revised standardised approach feature considerable differences. Both proposed standardised approaches require the decomposition of complex products into their components. Also in banks with a model approval this incurs additional massive initial costs. Many banks with an internal model lack the requisite splitting engine or a comparable concept. This is due to the fact that they do not need the latter in this form and shape for their own model.

Apart from our general concerns about the likely costs, we are concerned that the standardised approach will grow into a kind of simplified model approach. In the latter case, although there is no room for initial or ongoing validation, the supervisor assumes full responsibility by prescribing the applicable formulas and parameters. Banks would refrain from validation because they simply comply with the regulatory provisions and the official formulas and parameters whilst the rationale for supervisors for refraining from validation consists in the fact that they – even if they were to collect each and any data necessary for this – would be overwhelmed by the sheer amount of resources that such a validation would tie up. At this point, we see a major danger: Banks might begin to apply a model for which they cannot assume any responsibility but for which (if this model fails) they will have to foot the bill.

Should one of the proposed approaches be implemented, we think that there is an indispensable need for ongoing monitoring of the underlying parameters by supervisors. Last but not least the financial crisis has revealed that markets and their underlying conditions can change within extremely short periods of time. In order to also take into account newly developed financial products within an appropriate period of time we request at least an annual adjustment of the regulatory specifications.

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We welcome the fact that the two envisaged standardised approaches will be more risk sensitive with regard to market risks than is currently the case. Yet, in terms of their practical handling, they are still far from being useable for internal control. This means that the banks must generally carry out their own risk assessment for risk management and ICAAP purposes. Based on the foregoing whilst not limited to, particularly the complexity inherent in the Fuller Risk Factor Approach (FRFA) is clearly excessive.

As a conclusion we prefer the less complex Partial Risk Factor Approach (PRFA). Our preference is also due to the fact that banks featuring an approved internal model approach will, in future, probably have to apply the standardised approach in parallel. The simultaneous calculation of both approaches (standardised approach and internal models-based approach) is clearly far more onerous for banks. The PRFA, however, constitutes a simple approach the implementation of which is also feasible for smaller banks because, more often than not, smaller banks have hardly any complex products in their portfolio which is largely comprised of cash-like-instruments.

In terms of the PRFA, however, we kindly request an explanation as to how the parameters which are used in the formula for the calculation of a bucket's capital requirement should be stipulated. The formula uses the risk weights RW_i and correlations ρ_{ij} . We kindly request a clarification whether these parameters shall be stipulated for every individual financial instrument (for each combination of two instruments) or whether a unified value will be stipulated generically for all instruments. We have serious doubts about the practicality of either variant. Due to the limited resources available, it will not be possible for supervisors to issue one risk weight for every single existing instrument and to define one correlation each for respectively two instruments. This is especially true given the fact that the parameters already have to be present when a new instrument is being issued. However, neither would a generic stipulation of the weights and correlations for but a few instrument groups be sufficient. This is due to the fact that such an approach would fail to take into account the fact that the instruments are rather heterogeneous. We therefore suggest choosing a combination of both variants whereby under certain conditions it shall permissible to depart from a generically imposed value. Due to the fact that they would be able to keep the generic value, this would take account of smaller banks whilst larger banks would have an opportunity of proving that a different value is more appropriate for their risk assessments.

Although we would prefer the PRFA, we are concerned that it might not be appropriate for larger banks. The PRFA carries out a very generic valuation of the instruments and provides no scope for greater flexibility. For this reason, in addition to the PRFA, we suggest admitting the FRFA as an alternative approach. Through the optional choice between two standardised approaches, every bank receives the opportunity to apply an approach that is appropriate to its size and business activity.

At present, our comments on this are of a preliminary nature because the FRFA presentation contained in the current consultative document does not allow any more detailed comment on our part. The need to set up a pricing model for every instrument, however, disqualifies this model from becoming the sole standardised approach. At present, banks with a small trading book do not possess such a functionality. Frequently, they would not be capable of meeting this requirement.

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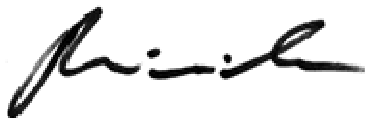
We would appreciate it if our views were taken into account in the ongoing consultation process and we would gladly provide further information about any of the issues raised.

Yours faithfully,
On behalf of the German Banking Industry Committee

by proxy



Uwe Fröhlich



Thorsten Reinicke