

Division Bank and Insurance
Austrian Federal Economic Chamber
Wiedner Hauptstraße 63 | P.O. Box 320
1045 Vienna
T +43 (0)5 90 900-DW | F +43 (0)5 90 900-272
E bsbv@wko.at
W <http://wko.at/bsbv>

Your ref., Your message of

Our ref., person in charge
BSBV 189/Horvath

Extension
3141

Date
24 May 2016

Basel Committee on Banking Supervision

Consultation on the Standardised Measurement Approach for operational risk

The Division Bank and Insurance of the Austrian Federal Economic Chamber, as representation of the entire Austrian banking industry, appreciates the possibility to comment on the above cited consultation paper and would like to submit the following position:

1. GENERAL REMARKS

Within our industry a number of entities apply the Advanced Measurement Approach (AMA) for calculating the own fund requirement for operational risk under Pillar I since 2009. The current approach is based on internal modelling and includes internal and external loss data, scenario analysis and business environment and internal control factors; hence covers all applied techniques and methods of operational risk management. Changing the own fund requirement calculation towards a formula based approach mostly dependent on business indicators represents a decreasing incentive for proper operational risk management. Therefore, we want to take the opportunity to answer the three questions raised in the consultation paper provided by the BCBS in order to address concerns and to formulate open questions.

In general it is unsure how this methodology impacts Pillar 2 models. As the Pillar 2 models should capture risks that the Pillar 1 models do not capture, the changes to the Pillar 1 calculation might potentially make calculation of additional Pillar 2 charge unnecessary, as the new increased Pillar 1 requirement might be higher than the previous Pillar 1 + Pillar 2 requirements.

It is unclear why the quality of the risk management has factually a small impact on the final capital requirement. This consultation therefore may not offer a positive reinforcement towards more robust procedures, policies and manuals.

1.1. COMMENTS ON THE QUALITATIVE PART OF THE SMA

1. The consultation document does not include the timeline for the implementation start of the new standard. We would appreciate to get clarifications on that to be prepared for capital planning purposes and calculation set up process.

2. There is no clear/homogeneous definition of what should be considered as operational loss for the LC (Gross Loss. Gross Loss after recovery...). We would believe that amounts already insured are supposed to be deducted from the calculation.

3. There is the issue of the levels at which SMA applies in a bank with a subsidiarized model, it is unclear whether the requirement of capital for operational risk at consolidated level should be the same as the sum of the requirements at each subsidiary level or using different buckets in consolidated and subsidiary calculation Capital Requirement for operational risk at consolidated level will be never the same as the sum of the requirements at each subsidiary level. In the last case the effect between contribution on group level and local subgroup level is significant and from steering perspective is unclear.

4. We would appreciate such additional information on the expectations for the qualitative requirements to be included in SMA so that it better reflects the improvements of risk management (demonstration of usage of risk assessments for changing risk profiles, incentives for cultural changes in the bank etc.).

5. It is not clear why small entities in the BI bucket 1 are not allowed to use the ILC.

6. It is unclear why provisions/reversal of provisions related to operational risk events are included in the BI and at the same time they are also considered in the LC finally causing the double counting

7. According to the consultative document all financial and operating lease income and expenses - including depreciation of the leased assets and gains/losses from the selling of leased assets - are netted and included in absolute value into the interest component. There is no indication whether OOI should be calculated without operating lease income and expenses to avoid double counting

8. In the Annex I to the consultative document it is stated that *"The following P&L items should not contribute to any of the items of the BI:*

...

Expenses of premises and fixed assets (except when these expenses result from operational loss events)

- *Depreciation/amortization of tangible and intangible assets (except depreciation related to operating lease assets, which should be included in financial and operating lease expenses)*
- *Provisions/reversal of provisions (e.g. on pensions, commitments and guarantees given) except for provisions related to operational loss events"*

We would appreciate that the Committee indicates which component of BI (Interest, Services or Financial) should include the a.m. exceptions or these results are supposed to be included into BI without linking them to the components defined.

9. In the para 6.2 point 44 it is stated that *"The following items must be excluded from the gross loss computation of the SMA loss data set (this list is not exhaustive):*

...

(b) Internal or external expenditures to enhance the business after the operational risk event: upgrades, improvements, risk assessment initiatives and enhancements"

We would believe that it would be acceptable that this item could be excluded but not must.

10. We would appreciate some explanation how to proceed with the units newly included into CRR Group list due to the different reasons (CRR Group requirements, purchase), is it supposed

that transition period is provided for such units before taking for the first time for the reporting of Capital requirement OpRisk in Standardised Measurement Approach.

11. It is unclear why risk transfer products (insurance etc.) are not deducted from the calculation of capital requirement OpRisk in SMA. We support the proposal of Aon ("Operational Risk transfer under the SMA") to include insurance in a standardized way within the formula.

1.2. COMMENTS ON THE QUANTITATIVE PART OF THE SMA

As stated in the Committee's consultation paper, there certainly is an inherent complexity of the AMA and also a too wide range of internal modelling practice. These issues have to be addressed. However, the Committee's decision for the withdrawal of all internal modelling practices might lead to a worse situation. The Committee should re-evaluate the decision, since a decision once taken into the wrong direction cannot easily be corrected again.

The Committee's objective was to make a clear decision in favour of comparability, even at the cost of a significant decrease in risk sensitivity of operational risk capital requirements. However, while the Committee is certainly aware of the latter, we would like to show in this comment that *even the main objective*, namely the comparability of capital numbers, is *not likely to be achieved* with the SMA.

1.2.1. LOSS HISTORY VS RISK PROFILE

The simple standard formula for the loss component guarantees that two banks *with the same loss history* will have the same number for their loss component. However, what rather should be guaranteed is that two banks *with the same risk profile* should have the same capital requirement. The loss history is an indicator of the risk profile, but two points have to be considered:

1. Risk profiles constantly change over time. It is a strong (and for many banks wrong) assumption that the operational risk profile of a bank stays constant during ten years.
2. Even if the risk profile stays the same over this long time frame, the actual loss history is just one possible realization of this risk profile. The probabilistic nature of operational risk events has to be taken into account, especially since the sum is normally driven by very few outliers.

To make this second point more clear, we devised a simulation study presented below.

1.2.2. SIMULATION STUDY

To perform the simulation, a lognormal single loss distribution with typical OpRisk parameters was assumed ($\mu = 10$, $\sigma = 2$). The loss collection threshold in this study was set to EUR 10,000, and it was assumed that the bank had on average 200 losses per year above this threshold.

In the study, a loss history for a bank with above operational risk profile was simulated $n = 1,000,000$ times. (Other parameters have been tested as well, as can be found in the Appendix)

Following metrics were calculated for each run:

- **Historical LC:** In the first simulation, the current definition of the LC was used to calculate the LC based on a sample of 10 simulated years (i.e. 2,000 losses).
- **Forecast LC:** Instead of ten historical years, only the last five years are considered as relevant. On these five years of data, a lognormal distribution was calibrated to simulate

the LC for the next five years. The sum of both (simulated future LC and five years historical LC) was then taken as “Forecast LC”.

- **Improved Forecast LC:** Similar to the forecast LC, but instead of calibrated parameters the true values were used (i.e. $\mu = 10$, $\sigma = 2$).

1.2.3. RESULTS

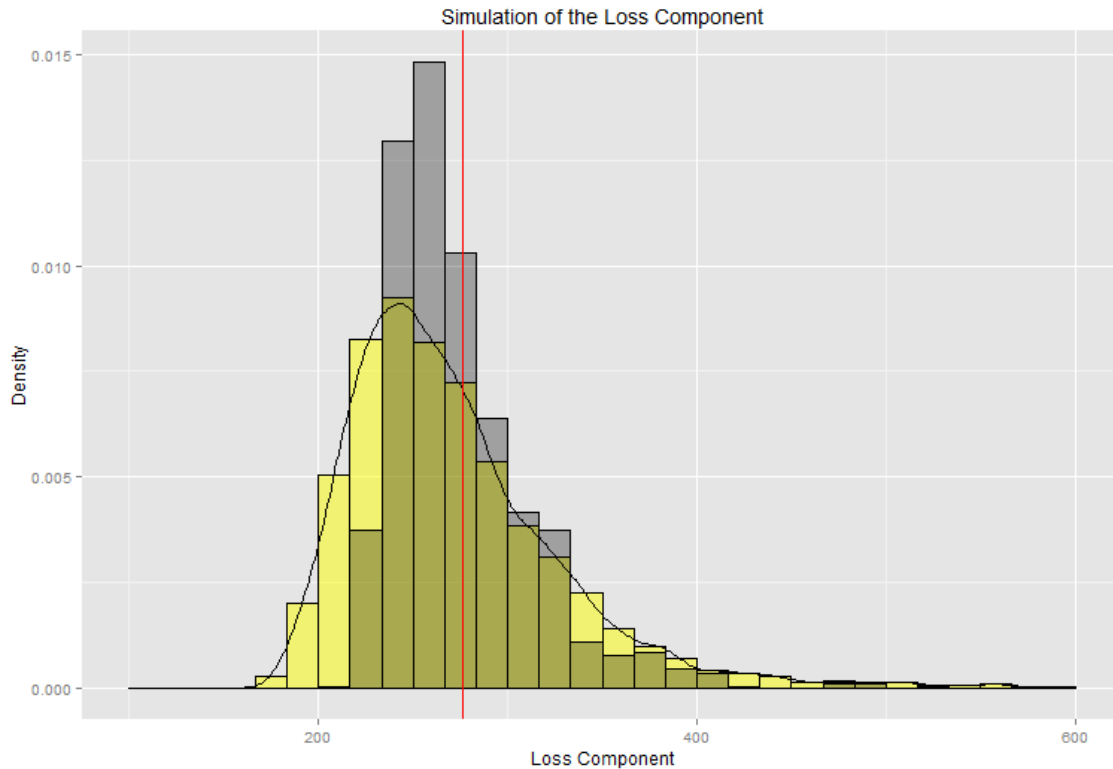


Figure 1: The variability of the historical LC (yellow) is much higher than for the (improved) forecast LC (grey). The red line shows the true value of the loss component.

	Mean	Stand. Dev.	Coefficient of Variation
Historical LC	277.14	82.65	29.8%
Forecast LC	278.42	66.69	24.0%
Improved fc. LC	277.12	58.93	21.3%

Table 1: Comparison of different forecast methods (EUR mn)

In the simulation study, for all three methods the sampled mean remained basically the same. However, the sample variance decreased significantly if forecast methods are used instead of only taking into account historical data.

While it seems clear that the improved forecast LC has a lower standard deviation, it is interesting that even the simple forecast LC significantly reduces the volatility. The reason for this is that due the assumption that there is certain randomness in the loss data; the requirement will adjust itself in the right direction with the simulated forecast part.

The main conclusion of the simulation study is that the currently proposed loss component introduces significant volatility into the capital estimation:

- The simulation study showed a coefficient of variation of about 30%
- The distribution is highly skewed, implying that capital requirements are under-estimated on average

This shows two weaknesses of the proposed approach: First of all, banks with the exact same risk profile are likely to have very different capital requirements, and due to skewed nature of the distribution, most of them are likely to actually underestimate their capital, while a few will over-estimate capital severely.

In addition, even in the unlikely case of a stable risk profile over ten years, one can expect huge variance of capital requirements over time for the same bank.

One of the reasons for this high variation and skewedness is the significant cliff effect in the formula (a loss of EUR mn 99.999 would get a weight of 14, while a loss of EUR mn 100.0001 would get a weight of 19).

Moreover, it can be seen that methods that use forecast losses can significantly reduce the variance. Improved calibration methods can further reduce the standard derivation.

1.2.4. PROPOSED SOLUTIONS

As was stated in the beginning, the Committee should carefully re-evaluate its decision on the withdrawal of all internal models. Many important factors that incentivize good operational risk management will fall away with the Committee's proposal, like the inclusion of forward looking factors such as risk mitigation and scenario analyses.

However, if the Committee wants to stay with the simple formula approach, the introduction of a "forecast" part into the formula can significantly reduce the volatility of the SMA's loss component. As shown, the focus then should be on improving the calibration to even further reduce the volatility. This can be achieved with the use of additional data sources as it was required in the AMA, e.g. external loss data and scenario analyses. The variance was shown to be significant even under the very strong assumption of a stable risk profile over ten years, which in reality is very unlikely. The proposed introduction of scenario analyses would not only decrease the estimation uncertainty by providing more data, it would also introduce a forward-looking way and hence correct for changes in the risk profile.

Variability introduced via model risk can be reduced by introducing strict floors. Taking into account the coefficient of variation of 30% for the Loss Component, it would be reasonable to set the floor to e.g. 70% of the historical LC.

Another option similar to the IRB-approach would be to publish a standardized formula for the forecast loss part and leave the banks to just calibrate very few parameters like μ and σ in the lognormal distribution.

1.3. ADDITIONAL REMARKS

We would appreciate to get more information about the results and reasons why certain components were used for both business indicator and loss component. This would increase the transparency and the understanding of the suggested approach.

We also see the aspect of a group where most of its entities which are currently applying AMA would fall into bucket 1 of the BI component. On the other side the group seen from the consolidated level would probably reach bucket 3 of the BI component. Consequently, on local level the loss data collection would not be necessary for a number of entities. What would be the suggested scenario for this constellation?

Additionally, with regard to the issue of allocated capital charges per entity (based on consolidated calculation), we are wondering if it should be comparable to stand-alone calculations, and if there are any stand-alone calculations expected.

2. ANSWERS TO THE QUESTIONS

Q1. WHAT ARE RESPONDENTS' VIEWS ON THE REVISED STRUCTURE AND DEFINITION OF THE BI?

The separation of the BI in three subcomponents is adequate and reasonable.

We agree that the net interest income should be capped at 3.5 % net interest margin as proposed. For the leasing component we think that income and expense from leasing where the institution is the lessee should be excluded. From reporting perspective it is unfortunate that lease components both finance and operating are treated that way in the Business Indicator calculation. The exclusion of net interest income requires detailed reporting efforts for being able to do so. Since FINREP reporting was just recently introduced in 2014 and IFRS reporting is aligned regarding P&L reporting, changes to that would lead to amend reporting structure and therefore to additional efforts and (unnecessary) costs. It should be considered that depending on the particular legislative implementation current FINREP reporting for finance lease might not always include a reporting requirement regarding an interest income component. Without this position it is not possible to calculate the BI in according to the way it is presented with the consultation paper. We also want to highlight that the effect of extracting the lease component from net interest income would give only minor results that usually do not affect the overall picture of an institution.

Therefore, a new BI calculation with sophisticated formulas should at least take into consideration current FINREP reporting availabilities on the one hand and potential new burdens of a separate reporting requirement with at least doubtful effects at the other hand.

The calculation of the service component is understandable, whereas we ask for further clarification on the items that have to be included in the calculation. We appreciate that the Committee provides descriptions and examples for the items in Annex 1, but additional information is required.

Banks that do not offer the full range of banking and financial products themselves may sell products for other banks or companies (e.g. credit cards, insurance policies) and act like a broker or agent. It is unclear whether commission income and expenses for selling products of other companies have to be included in the fee and commission income and expenses or not. The examples provided in Annex 1 give the impression that the fee and commission income and expenses contain all services provided by the bank itself. This interpretation is in line with our view of operational risk. If the service is provided by the bank itself, the risk of operational events lies within the bank. If the bank just sells the product, but does not provide the service element of the product itself, the operational risk is in the scope of the company behind the sold product. This company provides the necessary infrastructure and receives payments of the customer. Therefore we ask the Committee to add commission income and expense for selling products of other companies to the list in point 46 of the consultation paper.

The second item that is not explicitly mentioned in the examples are commissions for own products paid to own sales units and other agents. Basically, these costs are a kind of staff cost to the distribution staff. Therefore we consider these costs as a kind of administrative expense and would not include them in the service component. Moreover, an inclusion would cause a double-counting effect. If a sales clerk sells a loan contract, the customer pays fees and interest which are included in the BI. The commission paid to the sales clerk is refunded with these payments of the customer. As the payments of the customer are already included in the BI, an inclusion of the commission to the sales clerk causes a double-counting. To clarify this topic, we ask the Committee to add commission expense for own products paid to sales units to the list in point 46 of the consultation paper.

Q2. WHAT ARE RESPONDENTS' VIEWS ON THE INCLUSION OF LOSS DATA INTO THE SMA? ARE THERE ANY MODIFICATIONS THAT THE COMMITTEE SHOULD CONSIDER THAT WOULD IMPROVE THE METHODOLOGY?

We acknowledge the inclusion of loss data into the Standardized Measurement Approach (SMA) compared with the method proposed in the consultation on "Operational risk - Revision of the simpler approaches" issued in October 2014. In our view, the inclusion of internal loss data is an adequate approach to enhance risk sensitivity.

Nevertheless, we would like to raise following topics and concerns in order to increase the reflection of risk profile and risk management within the SMA, however, some adjustments would be meaningful.

The Committee should consider allowing Bucket-1 institutions to apply the loss multiplier as well on an optional basis. This would decrease the risk of overcapitalisation of small banks that exhibit a low operational risk profile. In our opinion, this option should at the very least be available to institutions that currently apply the AMA approach and have, consequently, implemented very high standards in loss data collection.

Currently a loss over EUR 100m is recognised through the formula 245 times (7x7x5) as the wording does not state if these intervals are discrete or not. This exacerbates the impact of this loss unproportionally. This should be clarified. Additionally a loss data for the last 10 years seems to be excessive (see also the GENERAL REMARKS) and in case of extraordinary events in line with this massive multiplication as shown above, it creates a misinterpreted requirement that carries on for these 10 years.

It is unclear if the calculation approach should be "bottom-up", i.e. losses and BI on the most granular level aggregated up to a consolidated figure or "top-down", i.e. a consolidated figure calculated and distributed down to all subsidiaries. What would be the key to allocate? Both of these approaches have its downsides. The former skews as some of the entities (ancillary services companies) have no or next to no losses and the latter skews in a way that non-credit institution losses are a part of the credit institution losses. All of the ancillary services subsidiaries are using a Basic Indicator Approach, so their IT systems need to be geared up to be able to start capturing internal losses data. Therefore, an exception for those subsidiaries should be considered.

a) Recognition of Insurances and other Risk Transfer Mechanism

Currently, applying an internal model within AMA provides the possibility to account for the risk mitigating effect of insurances and other risk transfer mechanism in order to reduce the own fund requirement for operational risk. Having an insurance framework in place gives a better understanding of operational risk potential throughout an entire group. It clears the focus regarding problematic aspects as well as opens opportunities for diminishing costs or even structural/ organizational problems and therefore gives a positive incentive for business. But not only the P&L relief, also lowering the own fund requirement represents an additional incentive for risk management.

Hence, we propose to reconsider and include the risk mitigating effect of insurances as part of the loss component as well. Moreover the aspect would be also in line with the general approach measuring the credit risk where insurances are part of risk mitigation factors.

b) Considering the Aging of Loss Data

Within the AMA at least five years of internal data have to be considered for calculating the own fund requirement for operational risk. This time frame seems to be reasonable in order to capture enough loss events with the calculation but also in order to avoid overestimation of appropriateness of "older" (date of discovery more than 5 years ago) loss events. Generally,

processes and products change over time and “older” loss events provide less information about current risk profile and risk management situation of the Group.

Therefore, we would propose to limit the consideration of loss data to a five-year time horizon which is comparable to current standards. Alternatively, we propose to give older loss data (date of discovery more than 5 years ago) a proportional risk weight which can be also gradually (e.g. percental) adjusted.

c) Qualitative methods

As already mentioned above it is seen as an improvement to incorporate loss data within the calculation of the new SMA. Unfortunately, other qualitative methods like risk control and self-assessments (RCSA), key risk indicators (KRI) or scenario analysis are not taken into consideration for calculating the own fund requirement. But these methods represent important tools for an adequate operational risk management and the incorporation of operational risk within business lines. Having proper techniques in place does improve the overall risk management and therefore it should be reflected as an input factor in the own fund requirement. We would be concerned if these methods are taken out of the operational risk management which also means cutting back its importance within the overall risk management process. Therefore, we propose to extend the SMA with a component reflecting scenarios and business environment and internal control factors as well. This would also add more forward looking approaches to the calculation of own fund requirement.

d) Outcome of the SMA

As far as we understood the concept of the SMA, the main goal was to derive a certain comparability and stability of own fund requirements for different banks.

Especially the requirement for stability cannot be ensured with the current proposal for SMA. Large loss events (above EUR 100mn) would be considered three times with the loss component which creates a significant overestimation of their impacts and could lead to an instability to the SMA when the reflecting numbers of loss events enter the considered timeframe as well as when drops off.

Additionally, events close to the threshold for large events can produce instability. I.e.: a loss of 99mn could lead to a significant increase of the loss component when it slightly increases to EUR 101mn, e.g. in the next quarter. Although the loss is almost the same size, the effect is quite different without any substantial reasoning.

e) Definition of Data regarding the calculation of loss components

Currently, the explanation on which kind of losses should be used for calculation of the loss component is providing a general idea of the required loss data. But additional clarification would be necessary in order to ensure that all banks are using the same kind of data.

How banks should account for the fact that (most of the) entities within a company might have a data base reflecting a 10 years history but other mostly smaller entities/subsidiaries might have only shorter time frames? Are there any temporary arrangements under consideration?

When falling into bucket 1 for the BI component why are banks not allowed to apply a loss multiplier? These banks could not take into account any risk management tool for calculation of OR own fund requirements at all.

Q3. WHAT ARE RESPONDENTS' VIEWS ON THIS EXAMPLE OF AN ALTERNATIVE METHOD TO ENHANCE THE STABILITY OF THE SMA METHODOLOGY? ARE THERE OTHER ALTERNATIVES THAT THE COMMITTEE SHOULD CONSIDER?

The description of the alternative method is very unspecific, which is why a clear statement cannot sufficiently be given. For instance:

- How should factor m in the formula be determined?
- Is it considered that m is a stable value or should m be adjusted on a regular basis?

Taking the unclear definitions into consideration a first analysis showed that the described alternative method seems to lead to more volatile results. We therefore would appreciate to have a more detailed basis for any further analysis as well as further suggestions.

3. APPENDIX

In the following the coefficient of variation of the (historical) loss component has been tested for different parameters:

100 losses a year:

	$\mu = 8$	$\mu = 9$	$\mu = 10$	$\mu = 11$	$\mu = 12$
$\sigma = 1,5$	4,48%	6,96%	9,70%	12,84%	15,02%
$\sigma = 1,75$	9,84%	15,93%	21,09%	24,79%	25,04%
$\sigma = 2$	26,11%	35,92%	42,47%	42,85%	37,76%
$\sigma = 2,25$	64,79%	69,41%	78,47%	72,03%	59,96%
$\sigma = 2,5$	118,89%	120,34%	112,58%	117,36%	83,55%

200 losses a year:

	$\mu = 8$	$\mu = 9$	$\mu = 10$	$\mu = 11$	$\mu = 12$
$\sigma = 1,5$	3,18%	4,97%	6,86%	9,01%	10,59%
$\sigma = 1,75$	6,92%	11,16%	14,95%	17,44%	17,64%
$\sigma = 2$	18,62%	26,28%	29,80%	29,45%	26,69%
$\sigma = 2,25$	45,11%	50,89%	88,34%	48,36%	39,40%
$\sigma = 2,5$	93,34%	110,37%	85,82%	70,79%	62,63%

400 losses a year:

	$\mu = 8$	$\mu = 9$	$\mu = 10$	$\mu = 11$	$\mu = 12$
$\sigma = 1,5$	2,58%	4,03%	5,64%	7,30%	8,63%
$\sigma = 1,75$	5,67%	9,09%	12,23%	14,28%	14,45%
$\sigma = 2$	15,37%	22,50%	24,78%	24,13%	22,05%
$\sigma = 2,25$	42,62%	41,48%	41,91%	36,35%	33,69%
$\sigma = 2,5$	78,44%	75,78%	63,39%	54,61%	50,27%

We ask you to give our remarks due consideration.

Yours sincerely,

Dr. Franz Rudorfer
Managing Director
Division Bank and Insurance