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## CRR3 - An efficient, forward-looking framework for Operational Risk

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### Executive Summary

The final agreement reached by the Basel Committee on Banking Supervision (BCBS) in December 2017 (“Basel III”) has brought significant changes in the way banks are expected to calculate capital requirements linked to their management of operational risk. Notably, the ability of banks to use internal models for these calculations has been removed, replaced by a single Standardized Measurement Approach (SA-OR) that applies to all banks. The SA-OR is strongly based on the use of banks’ own historical loss data through the Loss Component (LC) in the Internal Loss Multiplier (ILM), with the assumption that historical loss from operational risk is an accurate predictor of future loss. While AFME welcomes the BCBS’s intention of streamlining measurement approaches and introducing risk-sensitivity into the operational risk framework, we maintain key concerns as to the suitability of the SA-OR for achieving this purpose – primarily due to the evidence showing the unreliability of the historical loss data. The other key omission in the framework is that it lacks a forward-looking component that would allow for dynamic risk assessment, as well as the consideration of risk-sensitivity, while maintaining adequate capitalisation. Additionally, SA-OR does not account for areas of risk that have yet to generate material losses, such as cyber risk, other new technologies and operational resilience. Such risks should be captured in a harmonised Pillar 2 framework.

In order to mitigate these effects, AFME makes the following recommendations:

- Setting the Internal Loss Multiplier (ILM) to 1 - By setting the ILM to 1, as is currently the supervisory discretion that can be applied at a jurisdictional level, the limitations and volatility of capital charges caused by using rolling 10-year historical data can be neutralized.
- The recognition of insurance policies in the SA-OR - Insurance policies are a significant form of risk mitigation and should be recognized under SA-OR with a cap of 20% RW. The SA-OR is the only part of the BCBS framework that does not provide risk mitigation benefits for hedges bought to limit underlying risks.

### **Operational Risk: A Brief Primer**

The Basel III standard introduces significant changes to the prudential treatment of operational risk, which refers to risk of loss resulting from failed internal processes and planning, people (human error) or from external events, including legal risk<sup>1</sup>. The BCBS and the EBA concluded that capital requirements for operational risk, particularly under the Advanced Measurement Approach (AMA) had proved insufficient to cover operational risk losses, particularly relating to misconduct charges in the aftermath of the financial crisis. However, past failures that resulted in losses are often addressed by other regulatory reforms. These

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<sup>1</sup> <https://www.bis.org/bcbs/publ/d424.pdf>, p.128

include the change in the calculation of benchmark rates (e.g. IBOR transition), the Market Abuse Regulation<sup>2</sup>, the FCA's Senior Managers Regime<sup>3</sup> (covering global FX code of conduct, in some jurisdictions) and MiFID<sup>4</sup>, which has directly addressed many of the conduct risks that were big contributors to past losses in the lead-up to the financial crisis. AFME is strongly of the view that, accompanied by a well-calibrated prudential treatment, sound operational risk management can be a key component of the maintenance of financial stability, and the ability of banks to channel capital to the real economy.

The key change introduced by the 2017 BCBS agreement is the introduction of the Standardized Measurement Approach (SA-OR), applicable as of 2023, as the sole measurement method, replacing all previously used approaches agreed at Basel II<sup>5</sup>. The SA-OR is meant to be more risk-sensitive and foresees the calculation of capital requirements as the eventual function of two variables: the Internal Loss Multiplier (ILM) and the Business Indicator Component (BIC).



The ILM indicator is predicated on an individual bank's internal loss history over the preceding 10 years. The implications of this characteristic of the framework is that banks are expected to have very robust historical internal loss data, which is necessary to support their claims for setting a specific ILM.

In terms of the remaining parameters, the Business Indicator (BI) is comprised of the sum of the interest, leases, and dividends component, the services component and the financial component, all comprising specific combinations of P&L items that constitute a bank's gross income. The Business indicator Component (BIC) is calculated by the multiplication of the BI with certain marginal coefficients (12, 15 or 18%). The marginal coefficient used is predicated on the range of the BI, which places banks in different "buckets" in accordance to their income – the higher the BI range (as BI is linked to income), the higher the marginal coefficient.

BI bucket	BI range	Marginal BI coefficients ( $\alpha_i$ )
1	$\leq \text{€}1 \text{ bn}$	0.12
2	$\text{€}1 \text{ bn} < \text{BI} \leq \text{€}30 \text{ bn}$	0.15
3	$> \text{€}30 \text{ bn}$	0.18

The assumptions behind the formula are that operational risks increase more than proportionately to a bank's income.

Aside from the intended risk-sensitivity through the consideration of individualized internal 10-year loss history through the Loss Component (LC), the SA-OR is meant to also facilitate the comparison of RWAs between banks by reducing the use of various different calculation approaches, as well as through the removal of the use of banks' individualized internal models. These provisions have respective reporting (Pillar III) implications.

<sup>2</sup> [MAR](#) aims to increase market integrity through the prohibition of insider dealing, unlawful disclosure of insider information and market manipulation.

<sup>3</sup> <https://www.fca.org.uk/publication/corporate/applying-smr-to-fca.pdf>

<sup>4</sup> [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid_en)

<sup>5</sup> The approaches replaced include the Basic Indicator Approach (based on the annual revenue of the bank), the Standardised Approach (based on the annual revenue of the bank per broad business line), and the Advanced Measurement Approaches (based on internally-developed RWAs, within certain parameters).

### **The Internal Loss Multiplier: A Closer Look**

The ILM is a historical loss-based parameter for calculating capital requirements linked to operational risk. The “risk-sensitivity” is theoretically achieved due to the ILM being a function of the BIC and the Loss Component (LC), the latter indicating 15 times a bank’s historical operational risk losses over 10 years, while allowing discretion for some banks to use a 5-year data. According to the BCBS calibration, when the BIC is equal to the LC, the ILM is equal to 1, thus neutralizing its effect on the calculation of capital requirements. The Basel III agreement also allows for the ILM to be set to 1 under supervisory discretion for all banks within the jurisdiction. This implies that the calculation of capital requirements would not be linked to the historical loss data and is solely based on the BI.

While AFME is broadly supportive of the aim to simplify and streamline calculation approaches, as well as to introduce more risk-sensitivity to the operational risk framework, we maintain our key concerns as to the suitability of this approach to properly address the operational risk of institutions, as explained in detail the following section. It is also worth noting that the Basel Committee is updating its Principles for the Sound Management of Operational Risk, which banks will need to adhere to. These guidelines provide a much more comprehensive view of operational risk and how it should be managed than the overly simplistic SA-OR.

### **Implementing an efficient framework for Operational Risk**

AFME’s reservations as to the suitability of the SA-OR framework are predicated on:

- The historical loss data is not a robust predictor of future losses.
- The lack of accommodation of recognition for improvements within the 10-year period covered the data used for ILM calculation, or for new regulations adopted by the regulators.
- The lack of recognition of risk mitigation methods, such as insurance policies, in the framework; and
- the expected increase in capital requirements as a result of the SA-OR, as concluded by the EBA’s Policy Advice on Operational Risk is disproportionate for majority of large EU banks. This reduces the supervisors’ ability to assess minimum operational risk capital requirements and to address any institution specific weaknesses via Pillar 2 capital requirements.

The degree of accuracy of the risk sensitivity in the SA-OR framework is based on the reliability of historical data, which comprises a key component for the calculation of the ILM. Academic literature, expert research and empirical evidence suggests that past operational risk events are not an accurate predictor of future performance, despite this being one BCBS’s assumptions in proposing the SA-OR:

- **Curti and Migueis**<sup>6</sup>, suggest that the information value of past losses, as predictors of future losses, reduces significantly as such losses become older than three years. In addition, the frequency and severity of losses as indicators of potential future exposure behave differently. While recent loss frequency data and changes in average frequency perform better as future loss indicators (see Graph 1 below), the severity component is more volatile (e.g. due to large conduct-related fines) and is thus a less reliable indicator. Curti and Migueis observe that treating frequency and severity separately results in better information of likely future losses compared to relying solely on past loss totals, as the ILM does. This separation would imply that frequency and severity are not strictly linked.
- **The Institute and Faculty of Actuaries** has noted the value of using factors in addition to internal loss data in order to better estimate the appropriate level of operational risk. In particular, it observed that “a key limitation of both internal and external loss data is its historic perspective of loss exposure. A forward-looking perspective of operational risks is required, which has regard to changes both in

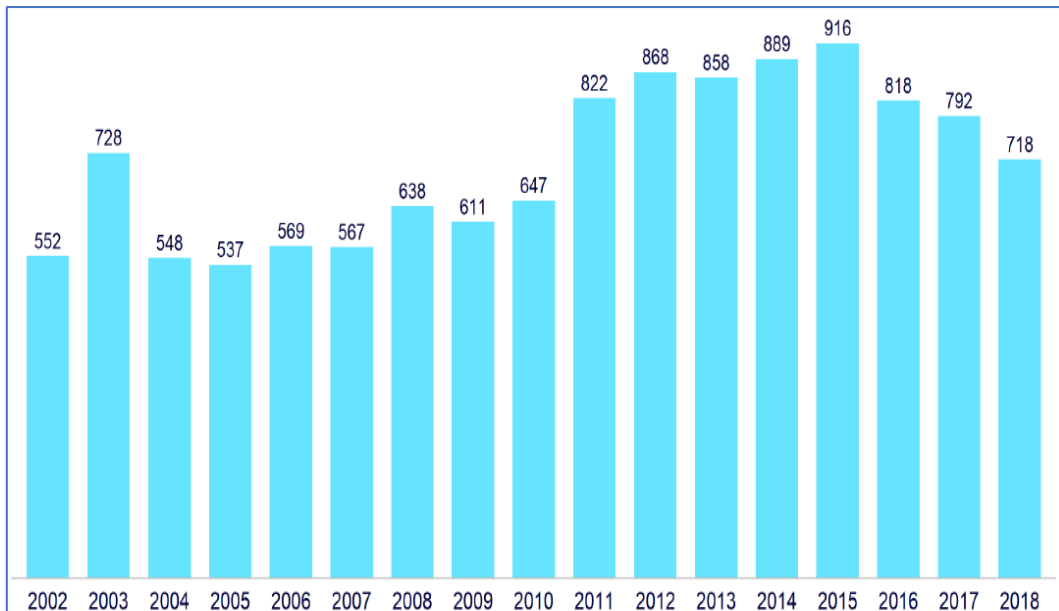
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<sup>6</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3353446](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3353446)

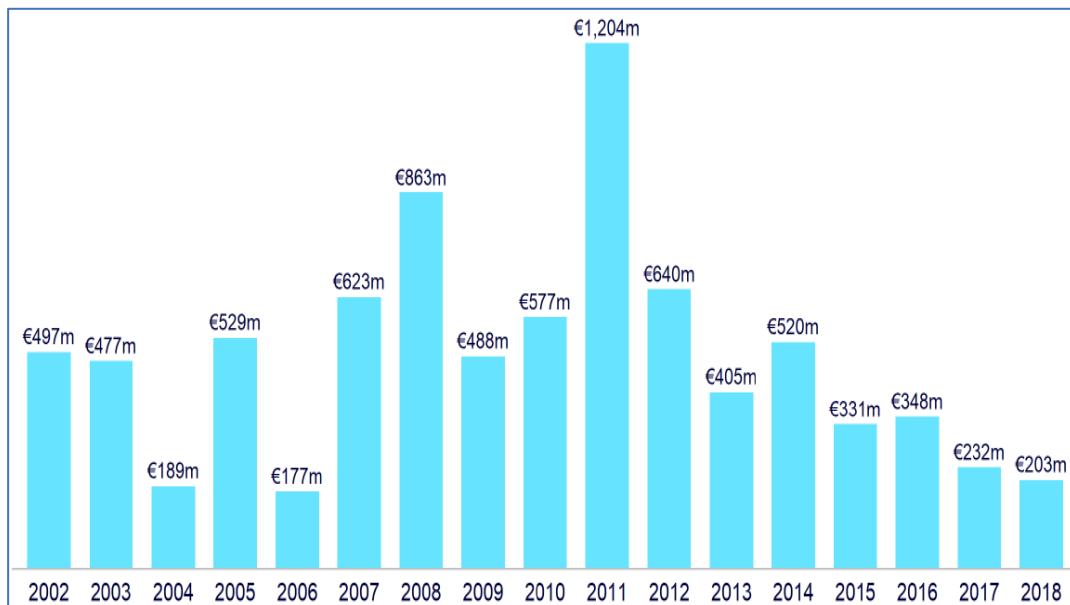
gross exposure and in the controls environment. Business Environment and Internal Control Factors (BEICF) can contribute to such a perspective.<sup>7</sup>

- It is evident by observing the industry-wide operational loss history in the run up to the 2008 financial crisis that consistently low losses are not a safe predictor of future levels. (see Graphs 1 and 2 for periods 2008 – 2012).

Graph 1: Mean Annual Loss Frequency per bank:



Graph 2: Mean Annual Gross Loss per bank:



As such, the capital requirements resulting from a variable ILM does not seem to reflect the level of operational risk that banks are actually facing, or are intending to assume through their business model, nor the resulting current and future risk exposures that they manage.

<sup>7</sup> <https://managingrisktogether.orx.org/loss-data/annual-banking-loss-report>

On that point, the EBA's Policy Advice<sup>8</sup> notes that: "[i]t is assumed that exposure to operational risks is increasing[...]; therefore, any gains in competitiveness that may result from setting the ILM equal to 1 in the short run for some banks could eventually be offset by insolvency issues or capital shortfalls in the long run." It is, however, unclear how the ILM, being backward looking, could help authorities and banks predict such increasing risks and how it could help to avert capital shortfalls.

The challenge of using past losses to predict future losses is that such an approach assumes a steady-state world rather than the reality of the changing environment in which banks operate. In practice, past failures which give rise to losses are often addressed by other regulatory reforms. These include the change in the calculation of benchmark rates (e.g. IBOR transition), the Market Abuse Regulation<sup>9</sup>, the FCA's Senior Managers Regime<sup>10</sup> (covering global FX code of conduct, in some jurisdictions) and MiFID<sup>11</sup>, which has directly addressed many of the conduct risks that were big contributors to past losses in the lead-up to the financial crisis. Although new methods could give rise to different problems, it is assumed that the introduction of regulatory reforms substantially mitigates the risk that the same type of issues will cause. Conversely, the changing technological and economic environment presents entirely new risks, e.g. cyber-risks, which could at some point materialise in loss events for some banks.

Another key limitation of the SA-OR approach is its lack of provision of adequate incentives. Except for divestment of loss-creating activities, the SA-OR with a variable ILM fails to recognize improvements made by banks after loss events. Such improvements include revised risk management, enhanced legal analysis, additional client and transaction vetting on origination, increased training and compliance scrutiny. Furthermore, because of the 10-year duration, the SA-OR with variable ILM this may create incentives for inertia in Operational Risk management in the short-to-medium term.

As a result, and when considering the internationally-reached agreement to no significant increases in capital requirements as part of the Basel III implementation, AFME considers that the SA-OR parameters need to be carefully considered by the co-legislators in the upcoming CRR3 proposal. According to the EBA's Policy Advice, the introduction of the SA-OR would lead to a total increase of operational risk RWAs by 37%<sup>12</sup> and over a 50% increase for the largest banks in the EBA's sample.

**To mitigate this increase in capital requirements, as well as the limitations based on the use of historical data, AFME would recommend that the ILM be set to 1 uniformly, across all European jurisdictions and banks, which is currently a discretion granted to national supervisions by the BCBS standard.** According to the EBA's estimates, setting the ILM to 1 would lead to a 16% increase in capital requirements across all banks, and to a 20% for the largest banks in Europe, denoting an improvement from the previous calculations of the EBA. Given the shortcomings of SA-OR and to underpin the Pillar 1 capital requirements, the EU should instead consider a Pillar 2 framework to capture excessive and likely recurring losses, **as well as forward-looking treatment of specific risks related to cyber, technology and unauthorised (misconduct) activities.**

In addition, the SA-OR should give due recognition to risk management and risk mitigation processes, such as insurance policies. **Insurance should be included in the SA-OR framework as it was in the AMA, with a 20% RW.** This recognition would be consistent with the Basel II framework<sup>13</sup>, as well as Article 323(5) of

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<sup>8</sup> <https://eba.europa.eu/file/113256/download?token=R3Q2uet0>

<sup>9</sup> MAR aims to increase market integrity through the prohibition of insider dealing, unlawful disclosure of insider information and market manipulation.

<sup>10</sup> <https://www.fca.org.uk/publication/corporate/applying-smr-to-fca.pdf>

<sup>11</sup> [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid_en)

<sup>12</sup> p. 12 <https://eba.europa.eu/sites/default/documents/files/documents/10180/2886865/5db69327-7d3f-4e6c-9ac9-fc54430781eb/Policy%20Advice%20on%20Basel%20III%20reforms%20-%20Operational%20Risk.pdf>

<sup>13</sup> <https://www.bis.org/publ/bcbs107.pdf>

CRR2<sup>14</sup>. This change should be achieved by an inclusion of a mandate in the forthcoming CRR3 legislative proposal, which would allow for the EBA to develop an RTS to ensure banks and supervisors have more specific technical guidance on the inclusion of insurance.

In addition, we believe that the SA-OR should be reviewed by the Basel Committee of Banking Supervision (BCBS), in order to improve the risk sensitivity of the international standard and provide incentives to active operational risk management as described in this paper and our feedback to the Basel Committee. The main recommendations are in this paper.

**As a fallback option, AFME would recommend a phase-in period for the SA-OR, over a 5-year period.**

This period would be sufficient for financial institutions to ensure that loss data collection requirements be up-to-speed, and put in place appropriate strategies for the management of operational risk. This option would be a straightforward one in terms of introducing the SA-OR gradually, while allowing for a more proportional impact on banks with larger historical losses.

AFME's global affiliate, the GFMA, together with the IIF, provided joint feedback during the BCBS consultation process on Basel III, highlighting how the proposed framework could be improved in various areas, such as better recognition of insurance protection and the use of a forward-looking risk component. Notwithstanding these recommendations, we are supportive of the EU adopting the Basel standard and our comments on adoption of the rules relate to (a) the supervisory discretions available in the global standard and how they should be applied in the EU, and (b) some further operational concerns as discussed in the above sections.

**AFME recommendations on Operational Risk**

AFME would propose the following recommendations:

- Setting the Internal Loss Multiplier (ILM) to 1 - By setting the ILM to 1, as is currently the supervisory discretion that can be applied at a jurisdictional level, the limitations and volatility of capital charges caused by using rolling 10-year historical data can be neutralized.
- The recognition of insurance policies in the SA-OR - Insurance policies are a significant form of risk mitigation and should be recognized under SA-OR with a cap of 20% RW. The SA-OR is the only part of the BCBS framework that does not provide risk mitigation benefits for hedges bought to limit underlying risks.

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<sup>14</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0876>