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Regulatory Practice Letter
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BCBS Issues Consultative Document on Revising the Operational Risk Simpler Approaches

Executive Summary

The Basel Committee on Banking Supervision ("BCBS" or "Basel Committee") issued a consultative document on October 6, 2014, entitled *Operational Risk – Revisions to the Simpler Approaches*. The BCBS seeks comment on its proposal to address weaknesses identified in the existing set of non-model-based approaches for operational risk, including the Basic Indicator Approach ("BIA"), the Standardized Approach ("SA"), and the Alternative Standardized Approach ("ASA"). The Basel Committee's preliminary findings indicate that the current BIA, SA, and ASA methodologies are, on average, under-calibrated, resulting in a failure to correctly estimate the operational risk capital requirements of a wide spectrum of banks. Additionally, capital charges derived from the Advanced Measurement Approaches ("AMA") are often benchmarked against this under-calibrated capital requirement.

The weaknesses of the simpler approaches stem from the assumption, deemed by the BCBS to be invalid, that a bank's operational risk exposure increases linearly in proportion to its revenue, thereby allowing gross income ("GI") to be used as a proxy indicator for operational risk exposure. As proposed, the revisions would:

1) Refine the operational risk proxy indicator by replacing GI with a statistically "superior" measure of operational risk, termed the Business Indicator ("BI") and comprised of the three macro-components of a bank's income statement, namely the "interest component," "services component," and the "financial component;" and
2) Improve the calibration of the regulatory coefficients, preliminarily identified as a five-bucket structure with corresponding coefficients increasing in value from 10 percent to 30 percent as the BI increases in value. These size-based coefficients would replace the current differentiation by business line, which was not found to be a significant driver of risk by the Basel Committee.

The BCBS notes that the number and widths of these buckets, as well as their escalating corresponding coefficient values, represent tentative conclusions based on the results from their most recent quantitative analysis that will be further refined using loss data collected as a part of the Basel Committee's ongoing Quantitative Impact Study ("QIS") exercise.

Comments on all aspects of the consultative document will be accepted through January 6, 2015, and will be published on the Bank for International Settlements website unless a respondent specifically requests confidential treatment.

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Background

The Basel II Regulatory Framework includes three non-model-based methodologies for the measurement of a bank's operational risk capital charge:

- *Basic Indicator Approach*, where a bank's capital charge is calculated as a percentage ("alpha") of GI, which is used as a proxy for operational risk exposure.
- *Standardized Approach*, which requires a bank to divide its total GI into eight business lines and calculate its capital charge as the sum of the products of the GI attributed to each business line and its specific regulatory coefficient ("beta"). The SA is positioned as an intermediate approach between the BIA and the internal model-based AMA, as it requires compliance with a set of qualitative criteria relating to operational risk management ("ORM") systems. A bank must also obtain prior supervisory approval before moving to this approach.
- *Alternative Standardized Approach*, allows a bank with high interest margins to calculate its capital charge by replacing the GI for its retail and commercial banking business lines with a fixed percentage of its loans and advances. Adoption of the ASA is permitted by the respective supervisory authorities at their national discretion.

Additionally, the *Advanced Measurement Approaches* allow banks to use internal models to calculate their operational risk capital requirements. Adoption of the AMA requires prior supervisory approval and involves implementation of a rigorous risk management framework.

The financial crisis revealed certain weaknesses in the existing set of non-model-based approaches, which were based on the assumption that a bank's operational risk exposure increases linearly in proportion to its revenue. Despite an increase in the number and severity of operational risk events during and after the crisis, operational risk capital requirements have either remained stable or decreased under these simpler approaches when intuitively they should be increasing, thus calling into question the approaches' effectiveness and calibration.

Description

Principles of the Revised Standardized Approach

The BCBS states that the following principles were kept in mind while formulating the revised SA in order to ensure that the framework is both risk sensitive and simple, and that the capital outcomes are comparable across banks:

- There should be only one simple approach given the need to ensure simplicity and comparability of outcomes in the framework;
- The approach should address known weaknesses in the existing simpler approaches while retaining the fundamental attributes of the current framework;
- The approach should be relatively simple to understand, not unduly burdensome to implement, not have too many parameters for calculation, and it should not rely on banks' internal models;
- The approach should exhibit enhanced risk sensitivity;
- The approach should be calibrated according to the operational risk profile of a large number of banks of different size and business models; and
- The approach should be suitable for implementation across a wide range of jurisdictions and banks.

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The proposal seeks to address the weaknesses identified in the existing approaches by (1) refining the operational risk proxy indicator by replacing GI with a new BI measure, and (2) improving calibration of the betas.

Refinement of the Operational Risk Proxy Indicator

Based on its qualitative and quantitative analysis of potential indicators of operational risk exposure, the Basel Committee has identified BI as the most suitable replacement for GI. Comprised as the sum of three macro-components of a bank's income statement, the "interest component," "services component," and the "financial component," the BCBS states that the BI is a statistically superior method for capturing a bank's exposure to the operational risk inherent in its mix of business activities.

The construction of the BI is defined in the proposal as follows:

BI = Interest Component + Services Component + Financial Component

Income statement macro-component	Gross Income items	Proposed Business Indicator items
Interest	Interest Income - Interest Expense	**Absolute Value** (Interest Income - Interest Expense)
Services	Fee Income - Fee Expense + Other Operating Income	Fee Income **+** Fee Expense + Other Operating Income **+ Other Operating Expense**
Financial	Net Profit and Loss on the Trading Book	**Absolute Value** (Net Profit and Loss on the Trading Book) **+ Absolute Value (Net Profit and Loss on the Banking Book)**
Other	Dividend Income	*Not included*

The Basel Committee states that the BI improves upon the GI by:

- Including items sensitive to operational risk, such as profit and loss from the banking book, other operating expenses, and fee and commission expenses, that are omitted or netted from the GI definition;
- Avoiding counterintuitive results, such as negative contributions to the capital charge from net trading losses;
- Reducing the weight of components for activities traditionally regarded as less exposed to operational risk, such as interest income generated by pure lending activity; and
- Increasing the weight of components for activities more closely related to operational risk, such as gains and losses on traded or sold portfolios, commissions from service payments, fees received from loan securitizations, fees received from origination and negotiation of asset-backed securities, and penalties from product or service misselling and inadequate market practices.

The BCBS seeks comment on whether it should consider further improvements to the BI measure.

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Improving Calibration of the Regulatory Coefficients

The BCBS's analysis further revealed that capital needs for operational risk typically increase in a non-linear fashion as a bank's size increases, suggesting the need to introduce a set of different coefficients based on bank size as reflected in the BI value, rather than bank business line. To address this, the Basel Committee's preliminary calibration, which it intends to refine based on the new QIS exercise, has identified a discrete five-bucket structure with the regulatory coefficients increasing in value from 10 percent to 30 percent as the BI increases in value. The BCBS notes that particular caution should be exercised with respect to the lower buckets, as the data used for their estimation were less abundant.

Proposed coefficients per bucket under the SA	
BI (€ millions)	**Coefficient**
0 – 100	10 percent
> 100 - 1,000	13 percent
> 1,000 - 3,000	17 percent
> 3,000 - 30,000	22 percent
> 30,000	30 percent

The coefficients were determined by an analysis first conducted on 2010 QIS data that was subsequently updated with data made available in 2012. The appropriate number of buckets was determined by a technical analysis that identified the discrete structure for the coefficients based on the BI's value.

To address undesirable "cliff effects" introduced when applying the coefficient to the full amount of the BI when a bank migrates from one bucket to another, the BCBS is also proposing a "layered approach" that would deliver a smoother increase of capital charges with increasing BI values. Under the proposed layered approach, the coefficient for a given bucket would be applied in a marginal manner only to the incremental portion of the BI that falls within that bucket. The total operational risk capital charge for a bank would then be the sum of the incremental capital charges ascribed to each of the relevant buckets.

Bank	**BI** (€ millions)	**Capital calculation under the revised SA using the proposed coefficients**	**Capital calculation under the revised SA using the layered approach's "effective" coefficients**
A	80	80 * 10% = **8**	80 * 10% = **8**
B	800	800 * 13% = **104**	100 * 10% + 700 * 13% = **101**
C	2,000	2,000 * 17% = **340**	100 * 10% + 900 * 13% + 1,000 * 17% = **297**
D	20,000	20,000 * 22% = **4,400**	100 * 10% + 900 * 13% + 2,000 * 17% + 17,000 * 22% = **4,207**
E	40,000	40,000 * 30% = **12,000**	100 * 10% + 900 * 13% + 2,000 * 17% + 27,000 * 22% + 10,000 * 30% = **9,407**

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The BCBS seeks comment on other considerations that should be taken into account when establishing the BI bucket structure and its corresponding regulatory coefficients, including the number of buckets that would be practical for implementation while adequately capturing differences in banks' operational risk profiles, the ramifications of replacing the business line measures with size-based buckets, and any other implementation challenges in its proposed layered approach.

Minimum Capital Requirements Calculation

Under the proposal, the revised SA would be based on two inputs: (1) the BI, and (2) the regulatory coefficients applied in a layered manner. Banks using the revised SA must hold capital for operational risk based on the following formula:

$\mathbf{K_{SA} = [\sum_{years\ 1\text{-}3} \sum (BI_j \times \alpha_j)]/3}$ where K_{SA} = the capital charge under the revised SA, BI_j = annual value of the BI apportioned to bucket "j" (1…n) in a given year, and α_j = coefficient for bucket "j."

Considerations for Banks with Very High or Low Net Interest Margin

The net interest margin ("NIM")[1] is the BI's dominant component and fluctuations in the NIM are considered normal. Averaging the BI for three years usually smoothens the impact of these fluctuations on a bank's operational risk capital charge. However, an NIM that is structurally and persistently very high or very low may result in a considerable overestimation or underestimation of a bank's operational risk capital requirements. As such, the BCBS has concluded that, in extreme cases, the BI may not be an appropriate proxy for a banks' operational risk exposure. For instance, the BCBS has observed that bank business models in some jurisdictions may emphasize a high net interest income and, similarly, a high NIM that is usually explained by high credit losses. To address this, Basel II authorized the replacement of GI with an asset-based proxy in the retail and commercial banking business lines under the ASA.

The BCBS intends to use the new QIS data to identify alternative solutions to address this issue and notes that one possible solution would be to apply an "interest margin cap" to the NIM by normalizing the interest component included in the BI downwards. A similar treatment, which would act as an "interest margin floor," could be applied in cases of low interest income, thereby introducing a "boundary range" beyond which adjustments to normalize the interest component would be made.

Considerations for Banks Specializing in Fee-Based Activities

The BCBS states that a small number of banks highly specialized in fee businesses may face a disproportionately high capital impact under the proposed BI measure. As the structure of the BI was designed to capture the operational risk profile of a universal bank, the Basel Committee notes that it may not be applicable to banks engaged in predominantly fee-based activities. If needed, the BCBS intends to respond to this issue after evaluating the results of the new QIS exercise.

[1] Defined as net interest income divided by interest-earning assets.

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Commentary

The Basel Committee recognizes that capital requirements should not be used as a substitute for effective controls and strong risk management processes that, in turn, help to reduce the capital banks must hold against their operational risk exposure. The BCBS revised SA proposal also emphasizes the need for banks to deploy robust ORM programs due to the limitations of existing operational risk capital measurement methodologies that are still evolving toward maturation commensurate with other risk dimensions, such as credit and market risk.

As such, the proposal reinforces the qualitative risk management expectations promulgated in the Basel Committee's June 2011 publication entitled *Principles for the Sound Management of Operational Risk* ("Principles") that established standards for governance, the risk management environment, the role of disclosure, and the three lines of defense, as well as the supervisory expectation that all internationally active banks should implement ORM policies, procedures, and practices commensurate with their size, complexity, activities, and risk exposure.

As additional post-Basel II data points are collected and further analyzed, both banks and supervisory authorities will continue to make significant strides in refining formal processes for modeling operational risk exposure. This is further evidenced in the proposal's recalibration of the regulatory coefficients from business line- to size-based metrics which will likely improve consistency and comparability across banking organizations. Once finalized, however, banks employing the revised SA will likely still need to continue their efforts to implement the qualitative components of the Principles in a manner that is fully aligned with their risk profile, as well as proactively address their processes in areas such as risk identification and assessment, culture, monitoring and reporting, and Board oversight when enacting their ORM programs (see KPMG *Regulatory Practice Letter 14-18).*

Lastly, the overhaul of the simpler approaches provides some insight into potential future actions to address deficiencies, such as the lack of cross-bank comparability, in the more complex AMA methodology. It is likely that this approach will remain based on an internal loss data model that is adjusted by key qualitative factors such as risk assessments and scenario analyses. Regulators have signaled that they will also likely place more emphasis on the articulation of forward-looking operational risk appetite and tolerance statements, both in qualitative and quantitative terms, for banks of all sizes.

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