THE CENTRAL BANK OF THE BAHAMAS

Consultation Paper on the Calculation of the Capital Charge for Operational Risk

Bank Supervision Department

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INTRODUCTION

The Central Bank of The Bahamas ("the Central Bank") is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas, pursuant to the Banks and Trust Companies Regulation Act, 2000, and the Central Bank of The Bahamas Act, 2000. Additionally, the Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.

On 26th June , 2004 the Basel Committee on Banking Supervision ('BCBS') released a document entitled ***International Convergence of Capital Measurement and Capital Standards: A Revised Framework***, also known as Basel II (finalised in June 2006). The major objective of Basel II has been to align a bank's regulatory capital more closely with its risks, taking into account the bank's progress in the measurement and management of risk and the opportunities which these provide for strengthened supervision. On 25th November, 2013, the Central Bank issued guidance to licensees, entitled ***Guidelines for the Management of Operational Risk***, which require licensees to develop and implement an operational risk management framework, taking into account the nature, size, complexity and risk profile of their activities.

PURPOSE

Pillar 1 of the Basel II framework details how banks should calculate their minimum capital requirements to cover credit risk, operational risk and market risk. The purpose of this paper is to seek the views of the licensees of the Central Bank and the public, regarding the methodology for calculating the capital charge for operational risk. The methodology, entitled ***Calculation of the Capital Charge for Operational Risk***, outlines the three (3) approaches which the Central Bank intends to allow licensees to use to calculate the capital charge for operational risk, as well as the qualifying criteria for each approach.

Consultative Period

To make an informed and impartial decision on this topic, the Central Bank wishes to obtain comments from its licensees and other interested parties. The consultative period will run for sixty (60) days, from 5th November to end on 5th January, 2015. In that regard, we welcome your comments on these proposals.

Questions and/or Comments

You are encouraged to submit questions and/or comments relative to this consultation paper to the Policy Unit, Bank Supervision Department, via postal mail or email.

The Policy Unit
Bank Supervision Department
Central Bank of The Bahamas
Market Street
P.O. Box N-4868
Nassau, Bahamas
Tel: (242) 302-2615
Fax: (242) 356-3909
Email: Policy@centralbankbahamas.com

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Calculation of the Capital Charge for Operational Risk

1. DEFINITION OF OPERATIONAL RISK

1.1. Operational Risk is defined in the Central Bank's ***Guidelines for the Management of Operational Risk*** (November 2013) as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. This definition includes legal risk, but excludes other risks such as strategic and reputational risk.

2. MEASUREMENT METHODOLOGIES

2.1. The following measurement methodologies[1] are allowed by the Central Bank to calculate operational risk capital charges:

A. the Basic Indicator Approach;
B. the Standardised Approach; and
C. the Alternative Standardised Approach.

2.2. The Basic Indicator Approach is the default approach. Licensees are encouraged to move from the Basic Indicator Approach to the Standardised Approach (and the Alternative Standardised Approach) as they develop more sophisticated operational risk management systems and practices. Licensees should choose an approach that is appropriate for their risk profile.

2.3. A licensee will not be allowed to revert to a simpler approach once it has been accepted for a more advanced approach, without supervisory approval. However, if the Central Bank determines that a licensee using a more advance approach no longer meets the qualifying criteria for this approach, it may require the licensee to revert to a simpler approach, until it meets the conditions specified by the Central Bank for returning to a more advanced approach.

A. THE BASIC INDICATOR APPROACH

2.4. Licensees using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three (3) years of a fixed percentage (denoted as alpha, i.e., "**α**") of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average.[2] The charge may be expressed as follows:

$$K_{BIA} = [\sum (GI_{1 \ldots n} \times \alpha)]/n$$

Where:

K_{BIA} = the capital charge under the Basic Indicator Approach

GI = annual gross income, where positive, over the previous three years

n = number of the previous three years for which gross income is positive

α = 15%

2.5. Gross income is defined as net interest income plus net non-interest income. It is intended that this measure should:

a. be gross of any provisions (e.g. for unpaid interest);

[1] The Central Bank will not allow the Advanced Measurement Approach at this time.

[2] If negative gross income distorts a licensee's Pillar 1 capital charge, the Central Bank will consider appropriate supervisory action under Pillar 2.

b. be gross of operating expenses, including fees paid to outsourcing service providers;[3]
c. exclude realized profits/losses from the sale of securities in the banking book;[4] and,
d. exclude extraordinary or irregular items, as well as income derived from insurance.

Qualifying Criteria

2.6. As the Basic Indicator Approach is a point of entry for capital calculation for operational risk, no specific criteria is attached to its use. However, licensees using this approach are expected to comply with the Central Bank's ***Guidelines for the Management of Operational Risk***.

B. THE STANDARDISED APPROACH

2.7. In the Standardised Approach, licensees' activities are divided into eight (8) business lines: corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management, and retail brokerage. The business lines are defined in further detail in **Appendix A - Mapping of the Business Lines.**

2.8. Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. Under the Standardised Approach, gross income is measured for each business line, not the whole institution; i.e., in corporate finance, the indicator is the gross income generated in the corporate finance business line.

2.9. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted as beta, i.e., "β") assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.

2.10. The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. In any given year, a negative capital charge (resulting from negative gross income) in a business line will be given a nil capital charge. Additionally, where the total capital charge across all business lines within a given year is negative, the numerator for that year will be zero. The total capital charge for operational risk, under the Standardised Approach, shall be calculated as follows:

$$K_{TSA}=\{\Sigma_{years\ 1\text{-}3} \max [\Sigma (GI_{1\text{-}8} \times \beta_{1\text{-}8}), 0]\}/3$$

Where:

K_{TSA} = the capital charge under the Standardised Approach

$GI_{1\text{-}8}$ = annual gross income in a given year for each of the eight business lines

$\beta_{1\text{-}8}$ = a fixed percentage

The values of the betas for each business line are detailed below.

[3] In contrast to fees paid for services that are outsourced, fees received by licensees that provide outsourcing services shall be included in the definition of gross income.

[4] Realised profits/losses from securities classified as "held to maturity" and "available for sale", which typically constitute items in the banking book (e.g., under certain accounting standards), are also excluded from the definition of gross income.

Business Lines	Beta Factors
Corporate Finance (β1)	18%
Trading and Sales (β2)	18%
Retail Banking (β3)	12%
Commercial Banking (β4)	15%
Payment and Settlement (β5)	18%
Agency Services (β6)	15%
Asset Management (β7)	12%
Retail Brokerage (β8)	12%

Qualifying Criteria

2.11. To qualify for use of the Standardised Approach, a licensee must satisfy the Central Bank that, at a minimum:

- its board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
- it has an operational risk management system that is conceptually sound and is implemented with integrity; and
- it has sufficient resources in the use of the approach in the major business lines, as well as the control and audit areas.

2.12. The Central Bank will have the right to insist on a period of initial monitoring of a licensee's Standardised Approach, before it is used for regulatory capital purposes.

2.13. A licensee must develop specific policies and have documented criteria for mapping gross income for current business lines and activities into the standardised framework. The criteria must be reviewed and adjusted for new or changing business activities, as appropriate. The principles for business line mapping are set out in **Appendix B – Principles for Business Line Mapping**.

2.14. Licensees using the Standardised Approach must also meet the following additional criteria.

a. The licensee must have an operational risk management system with clear responsibilities assigned to an operational risk management function. The operational risk management function is responsible for developing strategies to identify, assess, monitor and control/mitigate operational risk; for codifying firm-level policies and procedures concerning operational risk management and controls; for the design and implementation of the firm's operational risk assessment methodology; and for the design and implementation of a risk-reporting system for operational risk.

b. As part of the licensee's internal operational risk assessment system, the licensee must systematically track relevant operational risk data, including material losses by business lines. Its operational risk assessment system must be closely integrated into its risk management processes. Its output must be an internal part of the process of monitoring and controlling the licensees operational risk profile. For instance, this information must play a prominent role in risk reporting, management reporting, and risk analysis. The licensee must have techniques for creating incentives to improve the management of operational risk throughout the company.

c. There must be regular reporting of operational risk exposures, including material operational losses, to business unit management, senior management and to the board of directors. The licensee must

have procedures for taking appropriate action according to the information within the management reports.

d. The licensee's operational risk management system must be well documented. The licensee must have arrangements in place for ensuring compliance with a documented set of internal policies, controls and procedures concerning the operational risk management system, which must include policies for the treatment of non-compliance issues.

e. The licensee's operational risk management processes and assessment system must be subject to validation and regular independent review. These reviews must include both the activities of the business units and/or the operational risk management function.

f. The licensee's operational risk assessment system (including the internal validation processes) must be subject to regular review by internal and external auditors and/or the Central Bank.

C. THE ALTERNATIVE STANDARDISED APPROACH

2.15. The Alternative Standardized Approach (ASA) is a special variation of the Standardised Approach, which aims to provide a more risk-sensitive approach to calculating operational risk for institutions whose main activities are related to retail and commercial banking. Once a licensee has been allowed to use the ASA, it will not be allowed to revert to use of the Standardised Approach, without the prior approval of the Central Bank.

2.16. Under the ASA, the calculation of the operational risk capital charge is broadly the same as for the Standardised Approach, except for two business lines – retail banking and commercial banking (**Appendix B – Principles for Business Line Mapping)**. For these two business lines, loans and advances, multiplied by a fixed factor (0.035) replace gross income as the exposure indicator. The betas for retail and commercial banking remain unchanged from the Standardised Approach.

2.17. The ASA operational risk capital charge for retail banking (with the same basic formula for commercial banking) is, as follows:

$$\mathbf{K_{RB} = \beta_{RB} \times 0.035 \times LA_{RB}}$$

Where:

$\mathbf{K_{RB}}$ = the capital charge for the retail banking business line

$\mathbf{\beta_{RB}}$ = the beta for the retail banking business line

$\mathbf{LA_{RB}}$ = the total outstanding retail loans and advances (non-risk weighted and gross of provisions), averaged over the twelve (12) most recent financial quarters

2.18. Under the ASA, banks may, if they wish, aggregate retail and commercial banking using a beta of 15%. Similarly, those banks that are unable to disaggregate their gross income into the other six (6) business lines can aggregate the total gross income for these six (6) business lines, using a beta of 18%.

2.19. For the purposes of the ASA, total loans and advances in the retail banking business line consists of the total drawn amounts in the following credit portfolios: retail, SMEs treated as retail, and purchased retail receivables. For commercial banking, total loans and advances consists of the drawn amounts in the following credit portfolios: corporate, sovereign, bank, specialised lending, SMEs treated as corporate and purchased corporate receivables. The book value of securities held in the banking book should also be included.

Qualifying Criteria

2.20. At the Central Bank's discretion, a licensee may be allowed to use the Alternative Standardised Approach (ASA), provided the licensee is able to prove that:

a. this approach provides an improved basis of calculating the capital charge by, for example, avoiding double counting of risks; and

b. it meets the qualifying criteria for the Standardised Approach.

APPENDICES

APPENDIX A

MAPPING OF BUSINESS LINES

<table>
<tr><th>Business Line</th><th>Major Business Segment</th><th>Activity Groups</th></tr>
<tr><td rowspan="4">Corporate Finance</td><td>Corporate Finance</td><td rowspan="4">Mergers and acquisitions, underwriting, privatisations, securitisation, research, debt (government, high yield), equity, syndications, IPO, secondary private placements</td></tr>
<tr><td>Municipal/Government Finance</td></tr>
<tr><td>Merchant Banking</td></tr>
<tr><td>Advisory Services</td></tr>
<tr><td rowspan="4">Trading & Sales</td><td>Sales</td><td rowspan="4">Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage</td></tr>
<tr><td>Market Making</td></tr>
<tr><td>Proprietary Positions</td></tr>
<tr><td>Treasury</td></tr>
<tr><td rowspan="3">Retail Banking</td><td>Retail Banking</td><td>Retail lending and deposits, banking services, trust and estates</td></tr>
<tr><td>Private Banking</td><td>Private lending and deposits, banking services, trust and estates, investment advice</td></tr>
<tr><td>Card Services</td><td>Merchant/commercial/corporate cards, private labels and retail</td></tr>
<tr><td>Commercial Banking</td><td>Commercial Banking</td><td>Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange</td></tr>
<tr><td>Payment and Settlement[5]</td><td>External Clients</td><td>Payments and collections, funds transfer, clearing and settlement</td></tr>
<tr><td rowspan="3">Agency Services</td><td>Custody</td><td>Escrow, depository receipts, securities lending (customers) corporate actions</td></tr>
<tr><td>Corporate Agency</td><td>Issuer and paying agents</td></tr>
<tr><td>Corporate Trust</td><td></td></tr>
<tr><td rowspan="2">Asset Management</td><td>Discretionary Fund Management</td><td>Pooled, segregated, retail, institutional, closed, open, private equity</td></tr>
<tr><td>Non-Discretionary Fund Management</td><td>Pooled, segregated, retail, institutional, closed, open</td></tr>
<tr><td>Retail Brokerage</td><td>Retail Brokerage</td><td>Execution and full service</td></tr>
</table>

[5] Payment and settlement losses related to a bank's own activities would be incorporated in the loss experience of the affected business line.

APPENDIX B

PRINCIPLES FOR BUSINESS LINE MAPPING

a) All activities must be mapped into the eight (8) business lines in a mutually exclusive and jointly exhaustive manner.

b) Any activity (banking or non-banking) which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. In the event that more than one business line is supported through the ancillary activity, an objective mapping criteria must be consistently adopted and the reasoning behind adopting that criterion recorded by the Bank.

c) When mapping gross income, if an activity cannot be mapped into a particular business line then the business line yielding the highest capital charge must be used. The same business line equally applies to any associated ancillary activity.

d) Licensees may use internal pricing methods to allocate gross income between business lines, provided that total gross income for the licensee (as would be recorded under the Basic Indicator Approach) still equals the sum of gross income for the eight business lines.

e) The mapping of activities into business lines for operational risk capital purposes must be consistent with the definitions of business lines used for regulatory capital calculations in other risk categories, i.e., credit and market risk. Any deviations from this principle must be clearly explained and documented.

f) The mapping process used must be clearly documented. In particular, written business line definitions must be clear and detailed enough to allow third parties to replicate the business line mapping. Documentation must, among other things, clearly explain any exceptions or overrides and be kept on record.

g) Processes must be in place to define the mapping of any new activities or products.

h) Senior management is responsible for the mapping policy (which is subject to the approval of the board of directors).

i) The mapping process to business lines must be subject to independent review.