



THE CENTRAL BANK OF THE BAHAMAS

Quantitative Impact Study (QIS 2)

Bank Supervision Department

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CENTRAL BANK OF THE BAHAMAS QUANTITATIVE IMPACT STUDY (QIS 2)

In an effort to further assess the potential effects of the changes in capital reporting requirements under the Basel II/III framework, the Central Bank of The Bahamas (CBOB) conducted its second Quantitative Impact Study (QIS 2) as a follow up to the first (QIS 1) conducted in 2015. Much like QIS 1, the second quantitative impact study examined the financial return data of a sample group of licensees, noting any significant changes to their capital adequacy ratios (CARs), capital definitions, and risk weighted assets, as a result of the new Basel II/III requirements. The study examined the financial returns of 44 licensees, representative of approximately **48%** of all banks and bank & trust companies reporting capital to the CBOB.

For the purposes of this analysis, the CBOB reviewed QIS submissions for the period ending March 2016. Twenty five licensees were mandated to participate in the study, while the remaining 19 respondents, all international banks, provided voluntary submissions.

In 2010 the Basel Committee introduced a new set of guidelines (Basel III) that sought to address various shortcomings of the regulatory capital structure, by raising both the quality and quantity of capital. The new Basel III framework can be summarised as follows:

- The regulatory capital structure is simplified and standardised to the extent possible;
- The quality of regulatory capital is improved and harmonised;
 - Common Equity Tier 1 (CET1) is clearly defined;
 - Stricter eligibility criteria are defined for all Tiers; and
 - Deductions/regulatory adjustments are made entirely and directly from CET1; and
- The quantity of regulatory capital required has been increased, i.e. higher levels of ratios are to be met by licensees.

Analysis/Findings

The scope of the study primarily consisted of the following four areas:

1. Changes to the definition of capital (based on the Basel III framework)
 - Noting any capital shortfalls for the Common Equity Tier 1 (CET1) minimum requirement;
2. Changes in overall risk weighted assets and its impact/correlation on banks' capital adequacy levels;
3. Capital allocations for operational risk and its impact on overall capital adequacy levels; and
4. Impact of the capital buffers on overall capital adequacy levels.

Capital Definition

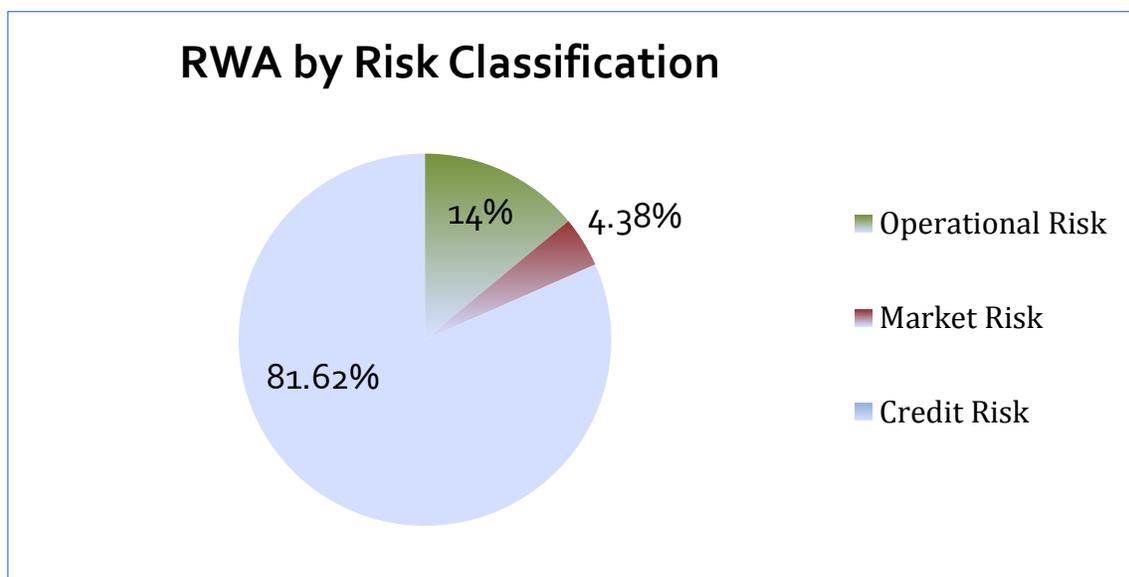
Implementation of the new Basel III requirements and the resulting change in the definition of capital did not appear to have had a significant impact on the capital positions of licensees. On average, Tier 1 capital **declined by approximately 3.69%** as a result of the new definition of capital. However, most licensees (64% of the sample) saw no change to their respective Tier 1 capital base.

Tier 1 capital is the highest quality tier of capital, and is the core measure of a bank's financial strength. Tier 1 is comprised of CET1 and Additional Tier 1, and consists primarily of common stock, share premium, retained earnings and disclosed reserves, but may also include non-redeemable non-cumulative preferred stock.

Similarly, Tier 2 capital which consists of items such as undisclosed reserves, hybrid instruments and subordinated term debt, decreased (on average) by approximately 8.32%, suggesting new Basel II/III requirements did not have a significant effect on this segment of licensees' capital base. In fact, Tier 2 capital largely remained unchanged for most licensees (i.e. 75% of the sample saw no change in Tier 2 capital).

Risk Weighted Assets (RWA)

Every licensee within the group experienced some degree of change in their Total Risk Weighted Assets (i.e. the sum of bank's assets and off-balance-sheet exposures, weighted according to risk) as a result of the new Basel II/III requirements. On average, total risk weighted assets increased by 60.96%. The main drivers of this increase relate to changes in the credit risk weightings and the introduction of the operational risk capital charge. As a whole, the changes in risk weighted assets had more of an impact on the group's capital adequacy ratios than changes to the definition of capital.



Capital Adequacy Ratio (CAR)

Average CAR, defined as a measure of a bank's capital expressed as a percentage of its risk weighted assets, fell by 21 percentage points for the entire group when calculated under the Basel III framework. Under the Basel I framework, the group's average CAR stood at 54.72%; under Basel III, the group's average CAR stood at 33.74%.

CAR decreased for most licensees within the group (i.e. 37/44 or 84% of licensees). However, there were several exceptions wherein capital adequacy ratios actually increased. These exceptions were primarily the result of declines in Total Risk Weighted Assets due to the recording of different classes of assets/exposures using the assessments of external rating agencies methodology introduced under the Basel II framework.

Average level of CAR based on Common Equity Tier 1 (CET1) Capital

Under Basel III, the minimum requirement for CET1 has been raised to 4.5%. The average Common Equity Tier 1 (CET1) ratio, which is the highest form of loss absorbing capital for the group, stood at 32.96%. On an individual basis, we noted all banks in the Group had CET1 ratios ranging from 7.08% to 149.74% under the new Basel III requirements.

Average level of CAR based on Tier 1 Capital

Under the Basel I framework, the average Tier 1 Capital ratio (i.e. Tier 1 Capital: Risk Weighted Assets) stood at 57.53%. Under the Basel III framework, the group's average Tier 1 Capital ratio stood at 33.14%, representative of a 24.39 percentage point decline.

Overall, the results of the analysis indicate that the overwhelming majority (95%) of licensees within the entire group would meet the regulatory requirements in respect of minimum capital adequacy ratios as defined by Basel III (without the addition of the proposed Capital Buffers) at the level of 4.5% (CET1), 6% (Tier 1 Capital) and 8% (Tier 1 + Tier 2 Capital) or other regulatory capital norms captured by the CBOB.

The table below summarizes the overall impact of the Basel II/III minimum capital requirements:

Average Capital Ratios by Group in %								
	# of Banks	CET 1		Tier 1		Total CAR		% Change in CAR
		Basel I	Basel II/III	Basel I	Basel II/III	Basel I	Basel II/III	
Domestic Banks	7	N/a	32%	28%	34%	30.25%	28.64%	-1.62%
Int'l Banks	37	N/a	33.81%	62%	33.72%	59%	34.12%	-25%
Total	44	N/a	32.96%	57.53%	33.14%	54.72%	33.74%	-20.98%

Operational Risk

As a part of the QIS, the selected licensees reported on requested measures of Operational Risk. Of the forty-four (44) responses analysed, thirty-nine (39) licensees used the Basel II “*Basic Indicator Approach*” applicable for institutions without a significant international operation, and five (5) elected to use the more comprehensive “*Standardized Approach*”.

The addition of the Operational Risk capital charge contributed to an increase in Total Risk Weighted Assets for all licensees in the group. The ratio of Operational Risk Equivalent Assets to Total Risk Weighted Assets ranged from 0.38% to 47.80%.

Market Risk

Licensees are required to use the Standardized Measurement Method for reporting market risk. Historically, licensees have been reporting their market risk positions once their trading book exposures met the “de minimis” market risk threshold for the Bank¹. Although there appears to be limited trading book activity across the group, data with respect to the market risk component was also considered for the purposes of the QIS 2 analysis.

The study confirmed that there were few licensees with significant trading book activities. In fact, only 11% of the group had trading book exposures that were subject to a market risk capital charge. Further, it was observed that the market risk capital charge had little to no impact on changes to the Risk Weighted Assets of these banks and their resultant capital adequacy ratios.

¹ Criteria include: i) a market risk position greater than 5% of assets or ii) market risk position greater than \$100 million (greater than \$25 million for joint licensees with the Securities Commission of The Bahamas.). See Section 3 of the Guidelines on the Management of Market Risk.

Capital Buffers

In addition to the minimum capital ratios, institutions will be required to hold a **Capital Conservation Buffer (CCB)** beginning 2018². The CCB is designed to ensure that banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. In addition, based on the CBOB's supervisory discretion, licensees will be required to maintain a **Countercyclical Capital Buffer (CCCB)** to ensure that capital requirements take account of the macro-financial environment in which banks operate. Banks must meet these capital buffers with CET1 capital.

For all QIS respondents, we developed an estimate for the Capital Conservation Buffer using the reported March 2016 RWAs. The CBOB developed an estimate of the Countercyclical Buffer assuming a max buffer of 2.5% of RWAs. The analysis showed that, assuming full implementation of the CCB, most banks within the group met the CET1 requirement (i.e. minimum of 7% = 4.5% + 2.5%) without the need to increase their capital base with few exceptions.

As it relates to Total Capital (i.e. minimum of 10.5% = 8% + 2.5%), three (3) banks fell short of the minimum, and would likely require some capital injection in the future. Assuming full implementation of both the CCB and CCCB at its highest level, most banks within the group met the regulatory requirements, with the exception of five (5) banks. However, the results broadly demonstrate that capital shortfall does not appear to be significant in terms of the overall banking system.

It should be noted that licensees which fall below the minimum levels would be subject to enhanced monitoring and may be required to take specific actions, in order to come into compliance with the 17%/14% target and trigger ratios for commercial banks, and the 8% minimum CAR for international banks (unless the CBOB has stated otherwise).

² Capital buffers for international banks are expected to be phased-in starting 2018.

Conclusions

- Capital levels for most licensees are above the minimum thresholds under Basel III. There are, however, a few cases where banks will have to increase their capital base to hold adequate buffers of additional capital to comfortably avoid any breaches of the minimum capital requirements;
- While every licensee within the group experienced some level of change in Total Risk Weighted Assets; overall, total risk weighted assets increased (on average) by 60.96%. The main drivers of this increase related to changes in the credit risk equivalent assets and the operational risk equivalent assets. These factors led to a general increase in RWA and a decrease in CAR ratios across the group;
- Continued monitoring of CET1 levels is needed given the strict ratio requirement for this higher level of capital under Basel III. The Basel III framework places greater focus on banks holding adequate levels of loss absorbing Common Equity Tier 1 Capital. This is especially important given the approaching introduction of both the capital conservation buffer and the countercyclical capital buffer, which would increase minimums for CET1. Thus, going forward, our monitoring of banks will appropriately assess both CET1 capital, and CET1 ratios.

Questions regarding the results should be directed to:

The Policy Unit

Bank Supervision Department

Central Bank of The Bahamas

Frederick & Market Streets

P.O. Box N-4868

Nassau, Bahamas

Tel: (242) 302-2615

Fax: (242) 356-3909

Email: Policy@centralbankbahamas.com