CENTRAL BANK OF TRINIDAD & TOBAGO

FRAMEWORK FOR DETERMINING A DOMESTIC SYSTEMICALLY IMPORTANT BANK AND HIGHER LOSS ABSORBENCY REQUIREMENT

October 2023

TABLE OF CONTENTS

1.   INTRODUCTION

1.1   The financial crisis of 2007-2009 showed that the failure/impairment of global systemically important banks (G-SIBs) could severely impact the financial system and consequently harm the real economy, requiring public sector intervention to restore financial stability. In response to this, the Basel Committee on Banking Supervision (BCBS) adopted a series of reforms to improve the resilience of banks and banking systems, which include reducing the negative externalities and spillover risks posed by G-SIBs.

1.2   Further to this, the BCBS considered it appropriate to address the possible externalities posed by banks at a domestic level. Domestic systemically important banks (D-SIBs) are those whose failure or distress can potentially cause a negative impact on the domestic economy. Systemic importance is measured in terms of the impact of the failure of the bank rather than the risk that failure can occur. The BCBS' D-SIB framework[1] is the complementary perspective to the G-SIB regime[2] whereby local supervisory authorities identify, assess and apply increased surveillance and other supervisory measures to banks that are systemically important within that jurisdiction.

1.3   This framework will focus on the identification of D-SIBs and the corresponding higher loss absorbency (HLA) requirements, also known as the D-SIB capital charge. It is intended that it will be a component of a broader scheme for the monitoring of systemically important financial institutions (SIFIs) of which D-SIBs are a subset.

1.4   The imposition of a D-SIB capital charge is a key element of Phase 2 of the Central Bank's implementation of Basel II/III, aimed specifically at enhancing the quality and quantity of capital held by D-SIBS.

2.   PURPOSE, APPLICATION AND SCOPE

2.1 The D-SIB framework is made pursuant to regulation 20 of the Financial Institutions (Capital Adequacy) Regulations, 2020 ("the Regulations") and applies to any financial institution licensed ("licensees") pursuant to the Financial Institutions Act, 2008 (FIA).

2.2   The capital charge to be applied to a D-SIB will be **in addition to the other minimum capital requirements and buffers and must be in the form of Common Equity Tier 1 (CET1) capital**. It is intended to reduce the probability and impact of failure of D-SIBs as their failure is expected to have a greater impact on the economy than that of non- systemic institutions.

2.3   The purpose of this framework is to provide the methodology that will be used to

---

[1] Bank for International Settlements – A framework for dealing with domestic systemically important banks.
[2] Bank for International Settlements – Globally systemically important banks: updated assessment methodology and higher loss absorbency requirement.

identify D-SIBs and determine the appropriate HLA requirement applicable to the D-SIB.

2.4   The D-SIB charge detailed in this framework applies, in the first instance, **to licensees at the bank level, on an individual basis**. However, subsequent reviews of the framework may assess banks on a consolidated basis[3] which is in keeping with BCBS' principles[4]..

2.5   **On an annual basis, the Central Bank will review its list of D-SIBS and the required HLA using the methodology set out in this document**. Financial institutions will be advised only if they become a D-SIB, and/or if where they have already been identified as a D-SIB, where the relevant capital charge changes. The methodology itself will be reviewed periodically to ensure its continued relevance and compliance with international best practices.

3.   D-SIB IDENTIFICATION METHODOLOGY

3.1   The Central Bank's D-SIB identification methodology considers three (3) factors, namely **size, interconnectedness and substitutability**. For each institution, various quantitative indicators (e.g. asset size, share of deposit market) will be used to determine each factor based on their relevance and data availability. Some indicators relate to the institution's importance within the financial sector while others are aimed at capturing the institution's importance to the wider economy. For example, when measuring size and interconnectedness, the reference data is based on the total financial system. The assessment of substitutability however is based on the banking system due to the nature of those indicators. This essentially provides a measure of the market share of each bank for each chosen indicator.

3.2   The D-SIB identification process will be conducted annually and banks will be formally advised if they are a DSIB and the corresponding HLA requirement or if there is a change in either their D-SIB status or their corresponding HLA requirement. The list of D-SIBs will be published on the Central Bank's website. The HLA allocated to banks identified as D-SIBs will be formally communicated to each bank to whom it is applicable.

4.   THE HIGHER LOSS ABSORBENCY METHODOLOGY

4.1   Leveraging principle 5 of the BCBS' *"Framework for dealing with domestic systemically important banks"*, and the BCBS' G-SIB process for assessing systemic

---

[3]   Meaning the parent bank and its subsidiaries.
[4]   BCBS "A framework for dealing with domestic systemically important banks" – Principle 4: Home authorities should assess banks for their degree of systemic importance at the consolidated group level, while host authorities should assess subsidiaries in their jurisdictions, consolidated to include any of their own downstream subsidiaries, for their degree of systemic importance.

importance, the indicator based approach and weighting system used by the Central Bank is tailored to the local economy. Three factors are used to determine systemic importance of a bank: **size, interconnectedness and substitutability**.

4.2   In assessing a bank's systemic importance within Trinidad and Tobago's economy, the Central Bank's D-SIB framework uses varied weights for each factor in line with its significance[5].

4.3   The indicators and their weightings are summarized in the table[6] and discussed below:

Factor	Indicator	Rationale	Weight (%)
Size	Total assets/ Total financial system assets (s_1)	One of the best and simplest measures of the size of an institution.	20
	Contribution to GDP* (s_2)	Provides a measure of the institution's impact on the real economy.	20
Total weighting for Size			**40**
Interconnectedness	Intra-financial system assets/ Total financial system assets (i_1)	Provides a measure of the bank's assets held at other local financial institutions (incl. insurance, etc.)	15
	Shares outstanding/ Total Banking Sector Shares Outstanding (i_2)	Indicates the market value of all shares held by investors who may be impacted by the bank's distress/failure.	15
Total weighting for Interconnectedness			**30**
Substitutability	Total deposits/ Banking System deposits (su_1)	Shows the market share for deposits which is one of the main services provided by the banking industry.	7.5

---

[5] For example, size is considered the most significant measure and is thus given the largest weight.
[6] The quantitative indicators listed are to be sourced from the Central Bank's regulatory returns, including the CB20, CB40 and CB100B, as well as external sources such as the Central Statistics Office.

Factor	Indicator	Rationale	Weight (%)
	Total loans/ Banking System loans (su_2)	Shows the market share for loans distribution which is one of the major services offered by the banking industry.	7.5
	Payment systems activity* (transactions, volume, etc.) (su_3)	Provides a measure of how much the bank is used to facilitate payments.	7.5
	Structural components* (number of branches, ATMs) (su_4)	Shows the reach of the bank with respect to the availability and provision of services.	7.5
Total weighting for Substitutability			**30**
Systemic Importance			**100**

* Further components for indicator provided below.

4.4   Factor 1 – Size

Size is seen as the most significant factor for determining systemic importance in Trinidad and Tobago's economy and as such, it has the largest weight of 40%. The larger the bank, the greater the chance that its failure would cause disruption to the financial markets in which it operates. Furthermore, the distress or failure of a large bank would likely damage the confidence in the financial sector and potentially impact financial stability.

The indicators used to measure the size of an institution were selected to reflect the potential impact its size may have on the local economy should the institution come under distress. The weight of the two indicators are equal.

Size indicators:
- (s_1) = **Total assets / Total Financial System Assets** (weighted at 20%) – this largely captures all activities of the institution and is commonly used as a measure of size by regulators. The assets of any institution in the sample will be divided by 'total financial system assets' to provide a gauge of its size relative to the rest of the financial system which includes banks, pension funds, insurance

companies, credit unions etc.

- (s_2) = **Contribution to GDP** (weighted at 20%) – proxy indicator that calculates the market share of each institution for loans to various economic sectors. This indicator shows how significant each bank is with regards to providing loans to each sector and the sector's importance to GDP.

The calculation for this indicator is as follows:

Contribution to GDP (s_2) = $\Sigma\gamma_{nk}$, where k represents the economic sector $\gamma_{nk} = \alpha_{nk} * \beta_k$, where

α_{nk} = total loans provided by bank 'n' to economic sector 'k' / total loans of bank 'n', and

β_k = sector 'k' contribution to GDP = sector 'k' production/ total GDP

4.5   Factor 2 – Interconnectedness

The distress or failure of a bank can materially increase the likelihood of distress at other financial institutions. Thus, **interconnectedness is considered to be another significant factor in measuring systemic importance with a weight of 30%**. The more interconnected a bank is in relation to other financial institutions, the greater its systemic importance. The two indicators chosen are considered to have equal importance in measuring interconnectedness as combined, they capture most business activity conducted within the financial sector and thus have the same weight of 15%.

Interconnectedness indicators:
- (i_1) = **Intra-financial assets / Total financial system assets** (weighted at 15%) – this provides a measure of the institution's assets that are held by other local financial institutions as a percentage of total assets within the financial system.

where Intra-financial assets (resident) = *Interbank funds sold + Due from banks + State-owned other financial inst. securities + Privately owned other financial inst. securities + Quoted stocks and shares (commercial banks) + Quoted stocks and shares (privately owned other financial inst.) + Mutual funds + Loans to State-owned financial inst. + Loans to commercial banks + Loans to privately owned financial inst.*

- (i_2) = **Shares outstanding / Total banking sector shares outstanding** (weighted at 15%) – this captures all shares and equity holdings held by investors who would be impacted in the event of a bank's distress or failure.

where Shares outstanding = Paid in capital + Paid in surplus

4.6   Factor 3 – Substitutability

The substitutability of a bank refers to the ease in which another bank can replace it in terms of market participation and as a service provider. The systemic importance of an bank thus depends on its lack of substitutability. Banks with large market share in the provision of key services, or those that provide unique services are less easily replaceable, should they exit the market.

The substitutability factor has a weight of 30%. The indicators used to measure (the lack of) substitutability focus on the main services provided by banks and their availability. There are four indicators with equal weightings, reflecting their balanced effectiveness as measures of substitutability. These indicators are specific to the banking sector as services vary throughout the financial system and thus such comparisons cannot be made across sectors.

Substitutability indicators:

- **(su_1) =** Total deposits / Total banking sector deposits (weighted at 7.5%)
    - this shows the market share for deposits in the banking sector which is a key service provided by banks.

- (**su_2**) = Total loans / Total banking sector loans (weighted at 7.5%)
    - this provides the market share for loans in the banking sector which is another key service provided by banks.

- (**su_3**) = Payment systems activity (weighted at 7.5%)
    - this reflects how much the bank is used to make payments using the Automated Clearing House (ACH) and other systems such as debit and credit cards. This indicator is further divided into two components which will each be given equal weighting.
    - (su_3) = (volume of transactions / total volume of transactions) * 0.5 + (value of transactions / total value of transactions) * 0.5

- (**su_4**) = **Structural components (weighted at 7.5%)**
    - provides a measure of the bank's reach and availability with regards to the provision of services. This indicator contains multiple components which are given equal weighting.
    - (su_4) = (number of branches / total banking branches) * 0.25 + (number of depositors / total number of banking depositors) * 0.25 + (number of loan customers / total number of loan customers) * 0.25 + (number of ATMs / total number of banking ATMs) * 0.25

**4.7	DERIVING THE D-SIB INDEX – An Example**

A bank's D-SIB score is determined by the combination of each of these factors (F) and their respective weightings as follows:

D-SIB score = 0.4 (F $_{size}$) + 0.3 (F $_{interconnectedness}$) + 0.3 (F $_{substitutability}$)

Each bank's score will then be set against a minimum of 0.1 or 10% of financial system activity. The factors and their weights are combined in the D-SIB index and the score produced indicates the share of systemic importance within the banking sector.

For example, Bank A has the following score:

D-SIB Score $_{Bank\ A}$ = 0.4 (0.10) + 0.3 (0.06) + 0.3 (0.312) = 0.1492 which is equivalent to **14.92%**

Since the score is above the minimum threshold of 10%, Bank A would be considered a D-SIB and therefore subject to a D-SIB additional capital charge in line with the approach detailed in section 5.

**5.	D-SIB HIGHER LOSS ABSORBANCY REQUIREMENT**

5.1	The higher loss absorbency (HLA) requirement or D-SIB capital charge, is intended to reduce the probability and impact of a D-SIB's failure. Principle 8 of the BIS' D-SIB framework recommends that the supervisor in each jurisdiction calibrate the HLA requirement **using quantitative methodologies and without supervisory judgment bias**.

In this regard, the Central Bank will apply an additional capital charge to D-SIBs based on their D-SIB score "X", depending on which of the four 'buckets' the D-SIB score falls as shown below:

Bucket	D-SIB Score "X" (in %)	HLA requirement
1	$10 \leq X < 15$	1.0%
2	$15 \leq X < 20$	1.5%
3	$20 \leq X < 25$	2.0%
4	≥ 25	2.5%

This bucketing approach will require any institution that meets the D-SIB minimum threshold of 10% to hold additional capital equivalent to 1% of the bank's total risk

weighted assets under the Basel II/III framework. Each increase by 5% (or 500 basis points) will attract a further 0.5% capital charge. These buckets align with the range of 1% - 2.5% for the additional capital charge stipulated in the Regulations. Thus, the maximum additional charge of 2.5% will be applied to banks that score 25% or above.

5.2   The additional capital requirement is to be met with Common Equity Tier 1 (CET1) capital and is to be added to the Pillar I minimum capital requirements and the Capital Conservation Buffer.

5.3   Notwithstanding section 5(2) of this framework, and in accordance with Regulation 6(5) of the Financial Institutions (Capital Adequacy) Regulations, 2020, the Central Bank may impose higher target capital ratios for any licensee, whether it is a D-SIB or not, that is determined to be exposed to excessive risk.

6.   TRANSITIONING AND DISCLOSURE

6.1   In accordance with Regulation 2, a Notice dated September 30, 2023 was published in the Gazette by the Minister of Finance on October 12, 2023 to have Regulation 20, which refers to the D-SIB capital charge, come into effect on January 1, 2024. Banks that have been assessed as D-SIBs shall be formally notified of their D-SIB status and the relevant HLA requirement.

6.2   The Central Bank will also indicate on its website a listing of those banks that it considers to be D-SIBs in accordance with this Framework along with the corresponding HLA requirement.

6.3   Upon coming into effect of Regulation 20 on January 1, 2024 and formal notification of being a D-SIB and the relevant HLA requirement by the Inspector of Financial Institutions ("Inspector"), where a bank does not meet its HLA requirement in accordance with Regulation 20, it shall -
   a) have a transition period of up to 12 months following notification from the Inspector to comply with the HLA requirement; and
   b) with three (3) months of the notification from the Inspector, submit a board approved action plan which details how it intends to meet the minimum capital ratios and any required buffers, including the D-SIB HLA within the period referred to 6.3 a) above.