Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand

User Guide

Release 8.0.7.0.0

ORACLE
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Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand

User Guide, Release 8.0.7.0.0

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DOCUMENT CONTROL

Version Number	Revision Date	Changes Done
1.0	Created December 2018	This is the first release of LRRCBOT, release 8.0.7.
2.0	Updated April 2019	Added new LCR assumptions as part of Release 80701

This document provides a comprehensive knowledge about the regulatory calculations in Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand, Release 8.0.7.0.0. The latest copy of this guide can be accessed from OHC Documentation Library.

ABOUT THE GUIDE

This section provides a brief description of the scope, the audience, the references, the organization of the user guide and conventions incorporated into the user guide. The topics in this section are organized as follows:

SCOPE OF THE GUIDE

The objective of this user guide is to provide a comprehensive knowledge about the regulatory calculations supported in the Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand, Release 8.0.7.0.0. This document is intended to help you understand the methodologies involved in computation of LCR and NSFR ratio and other regulatory metrics and computations.

This User Guide should be used in conjunction with the documents listed in the section Related Information Sources in order to get a complete view of how the general capabilities of OFS Liquidity Risk Regulatory Calculations for Bank of Thailand (LRRCBOT) have been leveraged, and the configurations required for the purposes of addressing the regulatory requirements.

INTENDED AUDIENCE

Welcome to Release 8.0.7.0.0 of the Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand. This manual is intended for the following audience:

- Business Users: This user reviews the functional requirements and information sources, such as reports.
- Strategists: This user identifies strategies to maintain an ideal liquidity ratio and liquidity gap, based on the estimated inflow and outflow of cash.
- Data Analysts: This user would be involved with cleaning, validation, and importing of data into the OFSAA Download Specification format.

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RELATED INFORMATION SOURCES

You can access the below documents online from the Oracle Help Center (OHC) documentation Library for OFS Liquidity Risk Solution (LRS) 8.x:

- OFS Liquidity Risk Solution Application Pack 8.0.7.0.0 Release Notes
- OFS Liquidity Risk Solution Application Pack 8.0.7.0.0 Installation Guide
- OFS Liquidity Risk Measurement and Management Release 8.0.7.0.0 Analytics User Guide
- OFS Liquidity Risk Measurement and Management Release 8.0.7.0.0 User Guide

You can access the OFS AAI documentation online from the OHC Documentation Library for OFS AAAI 8.x:

- OFS Advanced Analytical Applications Infrastructure (OFS AAAI) Application Pack Installation and Configuration Guide
- OFS Analytical Applications Infrastructure User Guide

The additional documents are:

- OFSAA Licensing User Manual, Release 8.0.7.0.0
- OFS Analytical Applications Infrastructure Security Guide
- OFSAAI FAQ Document
- OFS Analytical Applications 8.0.7.0.0 Technology Matrix

ABBREVIATIONS

Abbreviation	Description
LRS	Liquidity Risk Solution
LRMM	Liquidity Risk Measurement and Management
LRRCBOT	Liquidity Risk Regulatory Calculations for Bank of Thailand
LRRCEBA	Liquidity Risk Regulatory Calculations for European Banking Authority
LRRCRBI	Liquidity Risk Regulatory Calculations for Reserve Bank of India
LRRCUSFED	Liquidity Risk Regulatory Calculations for US Federal Reserve
DICLRM	Deposit Insurance Calculations for Liquidity Risk Management
DPA	Deposit Protection Agency
OFS	Oracle Financial Services

Release Highlights

This is the first release of Liquidity Risk Regulatory Calculations for Bank of Thailand.

It includes the following features:

- Liquidity Coverage Ratio calculation as per guidelines specified by Bank of Thailand
- Net Stable Funding Ratio calculation per guidelines specified by Bank of Thailand

1 Introduction

Various parameters in Liquidity Risk Management help in analyzing the liquidity status of the bank. Liquidity ratios are one such parameter prescribed by the Basel III Guidelines. Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand (LRRCBOT) application calculates the following two types of ratios:

- **Liquidity Coverage Ratio (LCR)**: Liquidity coverage ratio addresses the short-term liquidity needs of a bank, or financial institution during a stress situation. It estimates whether the stock of high quality liquid assets is sufficient to cover the net cash outflows under stress situations over a specified future period, in general, lasting 30 calendar days (or LCR horizon). LCR is calculated at the legal entity level, on a standalone and consolidated basis.
- **Net Stable Funding Ratio (NSFR)**: Net Stable Funding Ratio addresses the medium and long-term liquidity needs of a bank, or financial institution during a stress situation. It specifies the minimum amount of stable funding required to be maintained in order to promote stable long term funding.

2 Liquidity Coverage Ratio Calculation

LCR is the first standard which assesses the short term liquidity challenges of a bank. The two standards - LCR and NSFR, complement each other, are aimed at providing a holistic picture of a bank's funding risk profile, and aid in better liquidity risk management practices.

2.1 Inputs

The LRRCBOT application requires the below inputs for LCR calculation:

- Liquidity haircut for each asset level should be provided through business assumptions, with assumption category as valuation change, and assumption sub category as haircut.
- Business assumption which defines the outflow percentage should be defined through appropriate business assumptions. For example, Retail Deposit Run off is defined through a business assumption with assumption category as Incremental Cash Flow, and sub category as Run-off.
- Business assumption which defines the inflow percentage should be defined through appropriate business assumptions. For example, Roll over reverse repo is defined through a business assumption with assumption category as Cash Flow Movement, and sub category as Roll Over.
- Liquidity Horizon is specified as the Run time parameter.

2.2 Process Flow

- Identification of Asset Levels
- Calculation of Stock of High Quality Liquid Assets
- Classification of Operational Deposits
- Insurance Allocation
- Identification of Deposit Stability
- Treatment of Lien Marked Deposits
- Secured Funding
- Calculation of Contractually Required Collateral
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- Calculation of Operational Amount

- Calculation of HQLA Transferability Restriction
- Calculation of Net Cash Outflows
- Consolidation
- Calculation of Liquidity Coverage Ratio

The application supports an out-of-the-box BOT LCR, which has the regulatory scenario with associated HQLA haircuts, inflow and outflow percentage / rates pre-configured in the form of rules and business assumptions.

2.2.1 Identification of Asset Levels

High Quality Liquid Assets (HQLA) are unencumbered high quality liquid assets, that can be easily sold or used as collaterals to obtain funds at little or no loss of value even under stress scenarios. All assets, whether owned by the bank, or received from counterparties as collaterals, that meet the high quality liquid asset criteria specified by Bank of Thailand (BOT), are classified by the application as follows:

- Level 1 Assets
- Level 2A Assets
- Level 2B Assets

Level1 assets can be included without limit, and Level 2 assets can only comprise 40% of the stock of HQLA. Of this, Level 2B assets can only comprise of 15% of stock of HQLA. Any asset not classified as an HQLA is considered as Other Asset.

I. Identification and Treatment of Level 1 Assets

The application identifies the following as HQLA Level 1 assets:

1. Cash in all currencies, including deposits and reserves at central banks.
2. Central bank reserves (including required reserves), to the extent that the central bank policies allow them to be drawn down in times of stress. These include,
    i. Banks' overnight deposits with the central bank
    ii. Term deposits with the central bank that satisfy the following conditions:
        - They are explicitly and contractually repayable on notice from the depositing bank
        - They constitute a loan against which the bank can borrow on a term basis or on an overnight but automatically renewable basis (only where the bank has an existing deposit with the relevant central bank)
3. Foreign bank branches are allowed to include the undrawn contractual committed facilities from its head office as HQLA up to 40% of the minimum LCR requirement.

4. Debt securities issued in currencies other than Thai Baht, in the country in which the liquidity risk is being taken or in the bank's home country where the issuer type is sovereign or central bank and the risk weight assigned to the sovereign is greater than 0%.
5. Excess reserves held with foreign central banks, where an international rating agency has assigned a 0% risk weight to the foreign sovereign.
6. Excess reserves held with foreign central banks, where an international rating agency has assigned a non-0% risk weight to the foreign sovereign and a 0% risk weight has been assigned at national discretion under Basel II Framework, to the extent these balances cover the bank's stressed net cash outflows in that specific currency.
7. Central bank excess reserves include the balance held by a bank at the central bank directly or through a correspondent bank less any minimum reserve requirement. It also includes overnight deposits or term deposits held with the central bank that meet the regulatory criteria. The value of eligible term deposits that is included is the amount net of any withdrawal penalty.

   Note: The process of identifying the value to be included in the stock of HQLA up to the extent of a bank stressed net cash outflows in a particular currency is documented in the section below.
8. Marketable securities, assigned a 0% risk weight under both Basel and by international rating agencies, which satisfy the following conditions:
   - Issuer type or guarantor type is a foreign sovereign
   - Traded in large, deep and active repo or cash markets characterized by a low level of concentration
   - Have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions
   - Not an obligation of a financial institution or any of its affiliated entities
9. Debt securities issued or guaranteed by the Thai government or Bank of Thailand, in Thai Baht, or debt securities issued by the government or central banks in their local currencies and the commercial banks registered in Thailand has its branches in those countries, are allowed to be counted as HQLA with unlimited amount.

To meet this requirement the application identifies and updates the below flags as follows:

- **Account and Branch Currency Match Flag**
  i. Identifies all branches in the given solo and consolidated Run.
  ii. Identifies currency of the branches in step (i), which are equal to the account currency.

iii. If the condition in Step (ii) is fulfilled, then the application updates the flag as "Yes" else "No".

10. Debt securities issued in foreign currencies are eligible up to the amount of the bank's stressed net cash outflows in that specific foreign currency stemming from the bank's operations in the jurisdiction where the bank's liquidity risk is being taken, where the issuer type is domestic sovereign or central bank assigned a non-0% risk weight. Such marketable securities are included in the stock of HQLA only up to the extent of the bank's net stressed cash outflows in that currency arising from bank's operations in that foreign jurisdiction.

To meet this requirement the application identifies and updates the below flag as follows:

- **Account country liquidity risk flag**:

i. The existence of bank's operations in a particular jurisdiction is identified. If the bank holds either liabilities or non-marketable assets in that jurisdiction, the application assumes that the bank has operations in that specific jurisdiction. This is identified at a country and currency combination.

ii. The application then identifies whether the asset is held to meet the bank's net stressed cash outflows in that currency arising from bank's operations in that specific jurisdiction by checking the following conditions:

a. If the issuer's country is the same as the account country

b. If the issuer's country is the same as the country in which local operations are present in a particular jurisdiction as identified in step (i) above.

c. If the account currency is the same as the currency in which local operations are present in a particular jurisdiction as identified in step (i) above.

If all of the above criteria are met, the account country liquidity risk flag is updated as "Yes". This indicates that the particular asset is held to meet the net cash outflows in a particular jurisdiction.

iii. Finally, the application identifies the amount to be included in the stock of HQLA when account country liquidity risk flag = "Yes" using the following calculation:

$$\boldsymbol{Amount\ to\ be\ Included\ in\ Stock\ Due\ to\ Local\ Operations\ Related\ Restrictions}$$
$$= \boldsymbol{Minimum}\left(\boldsymbol{Haircut\ Adjusted\ Market\ Value\ of\ Asset}_{Currency,Country},\ \boldsymbol{Net\ Cash\ Outflows}_{Currency,Country}\right)$$

Assets classified as HQLA Level 1 are assigned a 0% haircut under the regulatory scenario prescribed by BOT.

II. Identification and Treatment of Level 2A Assets

The application identifies the following assets as HQLA Level 2A assets:

1. Marketable securities which satisfy the following conditions:
    - Issuer type or guarantor type is one of the following:
        - Sovereign
        - Governments
        - Central banks
        - Local government organizations
        - State agencies, state enterprises
        - Public Sector Entity (PSE)
        - Multi-Lateral Development Bank (MDB)
    - Assigned a 20% risk-weight under the standardized Approach of Basel II
    - Not an obligation of a financial institution or any of its affiliated entities
    - Price has not decreased or haircut has not increased by more than 10% over a 30-day period during a relevant period of significant liquidity stress specified by the bank.
2. Debt securities issued in foreign currencies by governments, central banks, local government organizations, state agencies, state enterprises, Bank for International Settlements (BIS), International Monetary Fund (IMF), European Central Bank (ECB), European Community (EC) or Multilateral Development Banks (MDBs) that are assigned a 0% risk-weight under the Standardised Approach, but excluding debt securities issued by commercial banks, companies in the financial business group of commercial banks including head offices and other branches, parent company, affiliates and subsidiaries located in both domestic and overseas, finance companies, and where the banks do not have stressed net cash outflows in that specific foreign currency are allowed to be counted as HQLA Level 2A with unlimited amount, if the securities are denominated in US dollar, Pound sterling, Euro, Yen and Chinese Yuan Reminbi.
3. Debt securities issued by state enterprises or Specialized Financial Institutions (SFI) whose principals and interests are not guaranteed by the Ministry of Finance, and assigned a rating of equal to or greater than A. If a rating has not been assigned, the securities must have the status "no problem" according to the State Enterprises Policy Committee (SEPO) guidelines.
4. Corporate debt securities and covered bonds (including commercial papers), which satisfy the following conditions:
    - Issuer type is not a financial institution or its affiliated entities.
    - Issuer type is not the bank itself for which the computations are being carried out or any of its affiliated entities (in case of covered bonds)
    - Either has

- A long-term credit rating by a recognized External Credit Assessment Institution (ECAI) equal to or greater than AA- or,
- If long-term rating is not available, then a short-term credit rating by a recognized ECAI which is equal to or greater than AA- or,
- If it does not have assessment by a recognized ECAI, the probability of default as per the internal rating corresponding to a rating which is equal to or greater than AA-

- Price has not decreased or haircut has not increased by more than 10% over a 30-day period during a relevant period of significant liquidity stress which is specified by the bank.

5. Promissory Note issued by the Ministry of Finance

Assets classified as HQLA Level 2A are assigned a 15% haircut under the regulatory scenario prescribed by BOT.

III. Identification and Treatment of Level 2B Assets

The application identifies the following assets as HQLA Level 2B assets:

1. Marketable securities which satisfy the following conditions:
    - Issuer type or guarantor type is one of the following:
        - Governments
        - Central banks
        - Local government organizations
        - State agencies
        - State enterprises or,
        - Multilateral Development Banks (MDBs)Assigned risk-weight of 50% under the standardized Approach of Basel II
    - Not an obligation of a financial institution or any of its affiliated entities
    - Price has not decreased or haircut has not increased by more than 20% over a 30 day period during a relevant period of significant liquidity stress
2. Debt securities issued in foreign currencies by governments, central banks, local government organizations, state agencies, state enterprises, or Multilateral Development Banks (MDBs) that are assigned a 20% risk-weight under the Standardised Approach, but excluding debt securities issued by commercial banks, companies in the financial business group of commercial banks including head offices and other branches, parent company, affiliates and subsidiaries located in both domestic and overseas, finance companies, where the banks do not have stressed net cash outflows in that specific foreign currency are allowed to be counted as HQLA Level 2B with

unlimited amount, if the securities are denominated in US dollar, Pound sterling, Euro, Yen and Chinese Yuan Reminbi.

3. Bills of Exchange or Promissory Notes issued by Specialized financial institutions (SFI)
4. Corporate debt securities, which satisfy the following conditions:
    - Not an obligation of a financial institution or any of its affiliated entities
    - Assigned a rating equal to or between A to A+ by an eligible credit rating agency

Assets classified as HQLA Level 2B are assigned a 50% haircut under the regulatory scenario prescribed by BOT.

2.2.1.1 Identification of Eligible HQLA

The application identifies whether a bank's asset or a mitigant received under re-hypothecation rights meets all the operational requirements prescribed by BOT. If an asset classified as HQLA meets all the relevant operational criteria, it is identified as eligible HQLA and included in the stock of HQLA. The application checks for the following operational criteria:

a. Operational Capability to Monetize HQLA

An asset is considered HQLA only if the bank has demonstrated the operational capability to monetize such an asset, and has periodically monetized such an asset. The application captures this information for each asset as a flag.

b. Unencumbered

The application looks at the encumbrance status, and includes only those assets in the stock which are unencumbered. If partially encumbered, then the portion of the asset that is unencumbered is considered as HQLA and included in the stock. If an asset is pledged to the central bank, or a PSE, but is not used, the unused portion of such an asset is included in the stock. The application assigns the usage of a pledged asset in the ascending order of asset quality i.e. the lowest quality collateral is marked as used first.

c. Inclusion and Exclusion of Certain Re-hypothecated Assets

Assets received under re-hypothecation rights as part of reverse repo and securities financing transactions are considered as eligible HQLA, if they are not re-hypothecated. An asset pledged to central banks or PSEs, but not used is considered eligible HQLA. Any asset that a bank receives under a re-hypothecation right, is not considered eligible HQLA, if the counterparty or beneficial owner of the asset has a contractual right to withdraw the asset at any time within 30 calendar days.

d. Unsegregated Assets

The application includes unsegregated assets, received as collateral under re-hypothecation rights, for derivative transactions, in the stock of HQLA. Conversely, it excludes all segregated assets from the stock of HQLA.

e. HQLA Under the Control of the Treasurer

To be considered eligible HQLA the asset is required to be under the control of the management function of the bank that manages liquidity For example, Treasurer. The application captures this information for each asset as a flag.

f. Termination of Transaction Hedging HQLA

If a HQLA is hedged by a specific transaction, then the application considers the impact of closing out the hedge to liquidate the asset that is, the cost of terminating the hedge while computing the stock of HQLA. The hedge termination cost is deducted from the market value of the asset and the difference is included in the stock of HQLA.

2.2.2 Calculation of Stock of High Quality Liquid Assets

All unencumbered assets classified as Level 1, 2A or 2B, which meet the HQLA eligibility criteria, are included in the stock of high quality liquid assets (SHQLA). The formula for calculating SHQLA is as follows:

$$\begin{aligned} \textbf{\textit{Stock of HQLA}} = {} & \textbf{\textit{Post Haircut Stock of Level 1 Assets}} + \textbf{\textit{Post Haircut Stock of Level 2A Assets}} \\ & + \textbf{\textit{Post Haircut Stock of Level 2B Assets}} \\ & - \textbf{\textit{Adjustment due to Cap on Level 2B Assets}} \\ & - \textbf{\textit{Adjustment due to Cap on Level 2 Assets}} \end{aligned}$$

Where,

Adjustment due to Cap on Level 2B Assets : Adjustment for 15% cap

Adjustment due to Cap on Level 2 Assets : Adjustment for 40% cap

The application applies the relevant liquidity haircuts to the market value of each eligible HQLA based on the haircuts specified as part of a business assumption. The sum of haircut adjusted market value of all assets which are not 'other assets' and which are classified as 'eligible HQLA' comprises of the stock of HQLA. The stock includes bank's own assets which are unencumbered, i.e. not placed as collateral; as well as assets received from counterparties where the bank has a re-hypothecation right and where such assets are not re-hypothecated.

NOTE: All calculations are based on the market value of assets.

The steps involved in computing the stock of HQLA are:

- Calculation of Stock of Liquid Assets
- Identification of Eligible HQLA on Unwind
- Unwinding of Transactions Involving Eligible HQLA
- Calculation of Adjusted Stock of HQLA
- Calculation of Adjustments to Stock of HQLA Due to Cap on Level 2 Assets

2.2.2.1 Calculation of Stock of Liquid Assets

1. Calculation of Stock of Level 1 Assets

The stock of level 1 assets equals the market value of all level 1 liquid assets held by the bank as on the calculation date that are eligible HQLA, less the amount of the minimum/mandatory reserves less hedge termination costs (if any), less withdrawal penalty on time deposits (if any).

2. Calculation of Stock of Level 2A Assets

The stock of level 2A liquid assets equals 85 percent of the market value of all level 2A liquid assets held by the bank as on the calculation date that are eligible HQLA, less hedge termination costs (if any).

3. Calculation of Stock of Level 2B Assets

The stock of level 2B liquid asset amount equals 50 percent of the market value of all level 2B liquid assets held by the bank as on the calculation date that are eligible HQLA, less hedge termination costs (if any).

2.2.2.2 Identification of Eligible HQLA on Unwind

The application identifies the assets that are placed as collateral which are eligible HQLA, if they are not encumbered. Placed collateral is marked as eligible HQLA on unwind if it fulfills all of the following criteria:

- Asset level is level 1, 2A or 2B asset
- Meets HQLA operational requirements on unwind

2.2.2.3 Unwinding of Transactions Involving Eligible HQLA

The application identifies all transactions maturing within the LCR horizon where HQLA is placed or received. These transactions include repos, reverse repos, secured lending transactions, collateral swaps and so on. Such transactions are unwound that is, the original position is reversed and the cash or stock of HQLA is adjusted accordingly. This is done to avoid inclusion of any asset in the stock that may have to be returned to its owner before the end of the LCR horizon. The unwinding of transactions results in adjustments to the stock of HQLA, i.e. additions to or deductions from the stock of HQLA.

2.2.2.4 Calculation of Adjusted Stock of HQLA

1. Adjusted Stock of Level 1 Assets

The formula for calculating adjusted stock of level 1 assets is as follows:

$$\boldsymbol{Adjusted\ Stock\ of\ Level\ 1\ Assets} = \boldsymbol{Post\ Haircut\ Stock\ of\ Level\ 1\ Assets} + \boldsymbol{Post\ Haircut\ Adjustments\ to\ Stock\ of\ Level\ 1\ Assets}$$

NOTE: Adjustments relate to the cash received or paid, and the eligible level 1 assets posted or received as collaterals, or underlying assets as part of secured funding, secured lending and asset exchange transactions.

2. Adjusted Stock of Level 2A Assets

The formula for calculating adjusted stock of level 2A assets is as follows:

$$\begin{aligned}&\boldsymbol{Adjusted\ Stock\ of\ Level\ 2A\ Assets}\\&\quad=\boldsymbol{Post-Haircut\ Level\ 2A\ Assets}\\&\quad+\boldsymbol{Post\ Haircut\ Adjustments\ to\ Stock\ of\ Level\ 2A\ Assets}\end{aligned}$$

NOTE: Adjustments relate to eligible level 2A assets posted or received as collaterals, or underlying assets as part of secured funding, secured lending and asset exchange transactions.

3. Adjusted Stock of Level 2B Assets

The formula for calculating adjusted stock of level 2B assets is as follows:

$$\begin{aligned}&\boldsymbol{Adjusted\ Stock\ of\ Level\ 2B\ Assets}\\&\quad=\boldsymbol{Post-Haircut\ Stock\ of\ Level\ 2B\ Assets}\\&\quad+\boldsymbol{Post\ Haircut\ Adjustments\ to\ Stock\ of\ Level\ 2B\ Assets}\end{aligned}$$

NOTE: Adjustments relate to eligible level 2B assets posted or received as collaterals, or underlying assets as part of secured funding, secured lending and asset exchange transactions.

2.2.2.5 Calculation of Adjustments to Stock of HQLA Due to Cap on Level 2 Assets

1. Adjustment Due to Cap on Level 2B Assets

Level 2B assets can only constitute up to 15% of the stock of HQLA after taking into account the impact of unwinding transactions maturing within the LCR horizon. Adjustment to stock of HQLA due to cap on Level 2B assets i.e. adjustment for 15% cap is calculated as follows:

$$\begin{aligned}&\mathrm{A}\boldsymbol{djustment\ due\ to\ Cap\ on\ Level\ 2B\ Assets}\\&=\boldsymbol{Maximum}\left[\left\{\boldsymbol{Adjusted\ Level\ 2B\ Assets}\right.\right.\\&-\left(\frac{\mathbf{15}}{\mathbf{85}}\right.\\&\times(\boldsymbol{Adjusted\ Level\ 1\ Assets}\\&\left.\left.+\boldsymbol{Adjusted\ Level\ 2A\ Assets})\right)\right\},\left\{\boldsymbol{Adjusted\ Level\ 2B\ Assets}\right.\\&\left.-\left(\frac{\mathbf{15}}{\mathbf{60}}\times\boldsymbol{Adjusted\ Level\ 1\ Assets}\right)\right\},\mathbf{0}\Bigg]\end{aligned}$$

2. Adjustment Due to Cap on Level 2 Assets

Level 2 assets can only constitute up to 40% of the stock of HQLA after taking into account the impact of unwinding transactions maturing within the LCR horizon. Adjustment to stock of HQLA due to cap on Level 2 assets i.e. adjustment for 40% cap is calculated as follows:

$$\begin{aligned}&\textit{Adjustment due to Cap on Level 2 Assets}\\&= \textit{Maximum}\left[\left\{\textit{Adjusted Level 2A Assets} + \textit{Adjusted Level 2B Assets}\right.\right.\\&\left.\left. - \textit{Adjustment due to Cap on Level 2B Assets} - \left(\frac{2}{3} \times \textit{Adjusted Level 1 Assets}\right)\right\}, 0\right]\end{aligned}$$

2.2.3 Classification of Operational Deposits

Operational deposits are those deposits placed by customers with a bank or balances kept by the bank with other financial institutions in order to meet their payment and settlement needs and other operational requirements. The application classifies accounts as operational, if they meet the following criteria:

1. They are held in specifically designated accounts that is held as operational accounts, by the customers at the bank.
2. They are priced without giving economic incentive to the customer to leave excess funds in the account.
3. They arise out clearing, custody or cash management relationship with the bank.
4. They do not arise out of correspondent banking services or in the context of prime brokerage services.
5. The termination of such agreements requires a minimum notice period of 30 days.
6. If the agreement can be terminated within 30 days, the customer has to pay significant switching or termination costs to the bank.

Any excess balances held in an account classified as an operational deposit over and above that which is required to meet operational needs of the customer is assigned a higher outflow rate by the regulator. The application supports a methodology for computing the portion of the balance held for operational purposes which is truly required to meet operational needs of the customer. For details see Calculation of Operational Amount.

2.2.4 Insurance Allocation

The steps involved in insurance allocation are:

- Identification of Insurance Eligible Accounts
- Allocation of Deposit Insurance

2.2.4.1 Identification of Insurance Eligible Accounts

The identification of insurance eligible accounts involves looking at the inclusion as well as the exclusion criteria. The application requires users to provide the following inclusion criteria:

1. **Ownership Category**

OFS LRRCBOT allocates the insurance limit separately for each ownership category level. Ownership categories include single accounts, joint accounts, trusts and so on. As per Deposit Protection Agency (DPA), a separate limit is assigned to a depositor combination based on the ownership category of accounts and hence users are required to provide the ownership categories that get a separate limit. If a particular customer gets a single limit irrespective of whether the accounts are held as single, joint or a combination, the ownership category should have a single default value.

2. **Product Type**

   This is a list of product types that are covered under the respective jurisdiction's deposit insurance scheme. The insurance limit is allocated to only those accounts of a customer whose product types matches those that are covered by the deposit insurance. In case of Thailand, DPA covers all types of deposits such as current accounts, savings accounts and term deposits, which need to be provided as inputs.

3. **Product Type Prioritization**

   The sequence in which the insured amount is to be allocated to each product type is captured. For instance, the product prioritization may be specified as current account, savings account and term deposit. This indicates that the insured amount is allocated first to a current account held by the customer. After current accounts have been fully covered, the remaining amount is allocated to savings accounts and finally to term deposits.

NOTE: In case product type prioritization is not specified, the default allocation will be proportionate to the EOP balance of each account irrespective of the product type.

4. **Currency Eligibility for Insurance**

   This is a list of currencies in which the accounts are denominated that are eligible for insurance coverage under a deposit insurance scheme. Some jurisdictions cover foreign currency deposits under their deposit insurance schemes. If eligible currencies are specified for the purpose of insurance, then the insured balance is allocated to all accounts belonging to the particular legal entity which have the associated attributes required for assigning the insured balance. For instance, if Deposit Protection Agency (DPA) insures only Thai Baht denominated deposits. The eligible currency against DPA insurance scheme should be provided as Thai Baht.

   The application includes insurance exemption criteria covering deposits of foreign sovereigns, central and state governments, and banks and so on. The deposits that are eligible for insurance under a particular insurance scheme are identified based on the inclusion and exclusion criteria as specified by the users.

2.2.4.2 Allocation of Deposit Insurance

As part of the BOT Run, the application allocates the deposit insurance to accounts based on the guidelines specified by the DPA. The insurance limit captured against each deposit insurance scheme is allocated to the insurance eligible accounts under that scheme based on the ownership category and the depositor combination.

The insurance limit, that is the maximum deposit balance covered by an insurance scheme per customer, is captured against each insurance scheme – ownership category combination. Customers having account in multiple legal entities get a separate deposit insurance limit per legal entity. In case of DPA insurance scheme, the limit amount needs to be provided in Stage Insurance Scheme Master table at the granularity of insurance scheme.

The insurance limit is allocated to accounts as per the procedure given below:

1. The application identifies the established relationship flag at a customer level.
2. The accounts are sorted by the specified product type prioritizations.
3. The insurance allocation is done based on the principal balance from the highest to the least, in the order of product type prioritization.
4. The insurance limit available, is allocated to account 1 to n – 1 as per the formula given below:

$$\boldsymbol{Insured\ Amount} = \boldsymbol{If}\ [\{(\boldsymbol{Insurance\ Limit\ Available} - \boldsymbol{Outstanding\ Balance}) \geq \boldsymbol{0}\}; \boldsymbol{Outstanding\ Balance\ else\ 0}]$$

Where,

Insurance Limit Available	:	Limit available post allocation to previous accounts
	=	Insurance Limit Available$_{x-1}$ – Insured Amount $_{x-1}$
x	:	Number of accounts up to the current account to which insured amount is to be allocated
n	:	Total number of accounts of a customer which are eligible for insurance coverage under a given ownership category

5. The remaining available insurance is allocated to the last account i.e. account n for which insurance was not allocated.
6. If insurance limit is available after allocating to the principal balances, it is allocated to the accrued interest from the highest to the least in the order of Product Type prioritization.

An illustration of this procedure is provided below considering a insurance limit of 10,000000 Thailand Baht for each depositor combination under each ownership category for each legal entity. The inputs to this calculation, including account details and customer details are provided below.

Legal Entity	Account Number	Account Balance	Principal Balance	Accrued Interest	Account Holding Type	Primary Holder	Secondary Holder 1	Secondary Holder 2	Insurance Scheme	Availability of Joint Account Balance Split	Number of Account Holders	Principal Balance Per Customer	Accrued Interest Per Customer
Legal Entity 1	100001	959967	959967		Single	Customer A			DPA		1		
Legal Entity 1	100002	100980	95931	5049	Single	Customer A			DPA		1		
Legal Entity 1	100003	124342	112602	11740	Single	Customer A			DPA		1		
Legal Entity 1	100004	80900	73619	7281	Joint	Customer A	Customer B		DPA	Yes	2		
Legal Entity 1	100005	55226	55226		Joint	Customer A	Customer B	Customer D	DPA	No	3	18408.67	0.00
Legal Entity 2	200001	713335	713335		Single	Customer A			DPA		1		
Legal Entity	200002	127132	127132		Joint	Customer B	Customer C		DPA	No	2	63566.00	0.00

Legal Entity	Account Number	Account Balance	Principal Balance	Accrued Interest	Account Holding Type	Primary Holder	Secondary Holder 1	Secondary Holder 2	Insurance Scheme	Availability of Joint Account Balance Split	Number of Account Holders	Principal Balance Per Customer	Accrued Interest Per Customer
2													
Legal Entity 2	200003	138828	124946	13882	Joint	Customer C	Customer B		DPA	Yes	2		
Legal Entity 2	200004	135429	135429		Joint	Customer B	Customer A	Customer C	DPA	No	3	45143.00	0.00
Legal Entity 3	300001	117603	95259	22344	Single	Customer B			FDIC		1		
Legal Entity 3	300002	124775	107121	17654	Single	Customer B			FDIC		1		
Legal Entity 3	300003	76065	76065		Single	Customer C			FDIC		1		
Legal Entity 3	300004	82622	82622		Joint	Customer A	Customer B		FDIC	No	2	41311.00	0.00

Legal Entity	Account Number	Account Balance	Principal Balance	Accrued Interest	Account Holding Type	Primary Holder	Secondary Holder 1	Secondary Holder 2	Insurance Scheme	Availability of Joint Account Balance Split	Number of Account Holders	Principal Balance Per Customer	Accrued Interest Per Customer
Legal Entity 3	300005	113340	113340		Joint	Customer B	Customer A		FDIC	No	2	56670.00	0.00

Customer A Principal Balance	Customer B Principal Balance	Customer C Principal Balance	Customer D Principal Balance	Customer A Accrued Interest	Customer B Accrued Interest	Customer C Accrued Interest	Customer D Accrued Interest
959967.00				0.00			
95931.00				5049.00			
112602.00				11740.00			
47852.35	25766.65			5096.7	2184.3		
18408.67	18408.67		18408.67	0.00	0.00		0.00
713335.00				0.00			
	63566.00	63566.00			0.00	0.00	
	24989.2	99956.8			2776.4	11105.6	
45143.00	45143.00	45143.00		0.00	0.00	0.00	

	95259.00				22344.00		
	107121.00				17654.00		
		76065.00				0.00	
41311.00	41311.00			0.00	0.00		
56670.00	56670.00			0.00	0.00		

The application allocates the insurance limit of Thai Baht 10,000,000 to all eligible accounts as follows:

Insurance Allocation for Customer A

Insurance Scheme	Legal Entity	Account Number	Account Type	Account Currency	Principal Balance	Accrued Interest	Available Insurance Limit	Insured Principal Balance	Available Insurance Limit - Interest	Insured Accrued Interest	Total Insured Amount	Uninsured Principal Balance	Uninsured Accrued Interest	Total Uninsured Amount
Deposit Protection Agency Thailand	Legal Entity 1	100001	Current Account	THB	959967.00	0.00	1000000.00	959967.00	0.00	0.00	959967.00	0.00	0.00	0.00
		100005	Current Account	THB	18408.67	0.00	40033.00	18408.67	0.00	0.00	18408.67	0.00	0.00	0.00
		100004	Savings Account	THB	47852.35	5096.70	21624.33	21624.33	0.00	0.00	21624.33	26228.02	5096.70	31324.72
		100003	Term Deposit	THB	112602.00	11740.00	0.00	0.00	0.00	0.00	0.00	112602.00	11740.00	124342.00
	Legal Entity 2	200001	Current Account	THB	713335.00	0.00	1000000	713335.00	241522.00	0.00	713335.00	0.00	0.00	0.00
		200004	Current Account	THB	45143.00	0.00	286665.00	45143.00	241522.00	0.00	45143.00	0.00	0.00	0.00

Insurance Allocation of Customer B

Insurance Scheme	Legal Entity	Account Number	Account Type	Account Currency	Principal Balance	Accrued Interest	Available Insurance Limit	Insured Principal Balance	Available Insurance Limit - Interest	Insured Accrued Interest	Total Insured Amount	Uninsured Principal Balance	Uninsured Accrued Interest	Total Uninsured Amount
Deposit Protection Agency Thailand	Legal Entity 1	100005	Current Account	THB	18408.67	0.00	1000000.00	18408.67	953640.38	0.00	18408.67	0.00	0.00	0.00
		100004	Savings Account	THB	25766.65	2184.30	981591.33	25766.65	955824.68	2184.30	27950.95	0.00	0.00	0.00
	Legal Entity 2	200002	Current Account	THB	63566.00	0.00	1000000.00	63566.00	863525.40	0.00	63566.00	0.00	0.00	0.00
		200004	Current Account	THB	45143.00	0.00	936434.00	45143.00	863525.40	0.00	45143.00	0.00	0.00	0.00
		200003	Savings Account	THB	24989.20	2776.40	891291.00	24989.20	866301.80	2776.40	27765.60	0.00	0.00	0.00

Insurance Allocation of Customer C

Insurance Scheme	Legal Entity	Account Number	Account Type	Account Currency	Principal Balance	Accrued Interest	Available Insurance Limit	Insured Principal Balance	Available Insurance Limit - Interest	Insured Accrued Interest	Total Insured Amount	Uninsured Principal Balance	Uninsured Accrued Interest	Total Uninsured Amount
Deposit Protection Agency Thailand	Legal Entity 2	200002	Current Account	THB	63566.00	0.00	1000000	63566.00	780228.60	0.00	63566.00	0.00	0.00	0.00
		200003	Current Account	THB	45143.00	0.00	936434.00	45143.00	780228.60	0.00	45143.00	0.00	0.00	0.00
		200004	Savings Account	THB	99956.80	11105.60	891291.00	99956.80	791334.20	11105.60	111062.40	0.00	0.00	0.00

Insurance Allocation of Customer D

Insurance Scheme	Legal Entity	Account Number	Account Type	Account Currency	Principal Balance	Accrued Interest	Available Insurance Limit	Insured Principal Balance	Available Insurance Limit - Interest	Insured Accrued Interest	Total Insured Amount	Uninsured Principal Balance	Uninsured Accrued Interest	Total Uninsured Amount
Deposit Protection Agency Thailand	Legal Entity 1	100005	Current Account	THB	18408.67	0.00	1000000	18408.67	981591.33	0.00	18408.67	0.00	0.00	0.00

2.2.5 Identification of Deposit Stability

Once the insurance limit is allocated at an account level, the application determines the deposit stability as follows:

1. **Stable Deposits**

A stable deposit is that portion of a deposit which is covered by deposit insurance provided by an effective deposit insurance scheme or a public guarantee that provides equivalent protection and which satisfies one of the following conditions:

- It is held in a transactional account by the depositor

  Or

- The depositor has an established relationship with the reporting legal entity.

The application identifies the existence of an established relationship if the depositor meets one of the following criteria:

- Depositor holds more than one account with the bank, of which at least one account should be of a typed other than a deposit.

Or

- The bank has assigned a customer relationship manager to the depositor.

If a deposit is partially covered by insurance and meets the other criteria, the insured portion of such deposits is treated as stable while the uninsured portion is treated as less stable. Stable deposits receive a 5% run-off rate.

2. **Less Stable Deposits**

All insured and uninsured deposit or funding balances that do not meet the stable deposits criteria specified earlier are classified as less stable deposits: This includes:

- Uninsured balance of deposits meeting stable deposits criteria
- Insured balance of deposits which are not transactional account and the customer has no established relationship with the bank
- Deposit balance where the insurance coverage status is Uninsured

Less stable deposits receive a 10% run-off rate.

2.2.6 Treatment of Lien Marked Deposits

A bank does lien marking of a deposit when the bank's own deposit(s) is placed as a security against a loan(s) extended by the bank. It indicates that, when a customer receives a loan from a bank and contractually places the deposits held within the same bank as collateral, then the bank marks the respective deposits as lien marked deposits.

For lien marked deposits, the deposit proceeds are paid out only when the loan against the deposit is repaid in full. This indicates that the deposit placed against the loan, is encumbered for

the entire term of the loan, until it is repaid. Multiple deposits can be placed against multiple lien, such as loans, line of credit, guarantees and so on forming a many to many relationship.

The outflows for lien marked deposits which will not mature within the LCR horizon may be excluded from the LCR calculation if the following conditions are met:

- The loan will not mature or settle in the next 30 days
- The pledge arrangement is subject to a legally enforceable contract disallowing withdrawal of the deposit before the loan is fully settled or repaid
- The amount of deposit to be excluded cannot exceed the outstanding balance of the loan

2.2.6.1 Identification of Lien Marked Deposits

Lien marked deposits are identified in the staging area against deposits by a flag called lien marked indicator. The mapping between deposits which are lien marked and lien against it is of many to many nature and is a download for the application.

2.2.6.2 Treatment of Lien Marked Deposits

When all the conditions mentioned in the guidelines are satisfied, the encumbered portion of lien marked deposits is excluded and hence receives a 0% factor. The unencumbered portion of the lien marked deposits is included and receives appropriate run off rate as applicable.

To cater to lien marked deposits, the following based measures are used in the business assumptions.

- Unencumbered stable balance: This measure populates the portion of stable amount, which is unencumbered.
- Unencumbered less stable balance: This measure populates the portion of less stable amount, which is unencumbered.
- Encumbered balance: This measure populates the encumbered amount of the deposit.

See Regulations Addressed through Business Assumptions for details of the pre seeded assumptions on lien marked deposits.

2.2.7 Secured Funding

For Secured Accounts involving collateral placed or collateral received, there is an option to compute balances and cash flows in two granularities:

- Account level
- Account-collateral level.

This option enables the treatment of partially secured accounts, and granular processing of an account with multiple collaterals. By default, secured funding computations happen at the account

level for partially secured accounts. This can be changed to Account-collateral level by updating the value of the setup master table entry for SEC_TRANS_TREATMENT_PURPOSE_VAL to YES.

Account level:

By default, all computations are done at the Account Level. This means that if there are multiple collaterals securing an account, the collateral level information will be aggregated and processed at an account level.

Account-collateral level:

Collateral level measures, such as the ones at the HQLA Asset level, encumbrance period and so on, are computed at the collateral-account level. This means that if there are multiple collaterals securing an account, the collateral level information is processed at the same account- collateral level without aggregating any data.

2.2.8 Calculation of Contractually Required Collateral

Contractually required collateral is the amount of collateral that is contractually due from one party to the other based on the current exposure and collateral position. This amount has to be paid to the party at the earliest and results in an outflow for the party owing the collateral and inflow to the party to whom the collateral is due. It can be of two types based on the direction of the exposure:

- Contractually Due Collateral
- Contractually Receivable Collateral

2.2.8.1 In Case of Derivatives

2.2.8.1.1 Calculation of Contractually Due Collateral

The application computes the value of collateral that a bank is required to post contractually to its derivative counterparty as per the below procedure:

1. If Secured Indicator = No, then the contractually due collateral is 0. Else,
2. If Secured Indicator = Yes and CSA Type = One way then the contractually due collateral is 0. Else,
3. If Secured Indicator = Yes, CSA Type = Two way and Gross Exposure is >= 0, then the contractually due collateral is 0. Else,
4. If Secured Indicator = Yes, CSA Type = Two way and Gross Exposure is <0, the application computes the contractually due collateral as follows:

$$\boldsymbol{Contractually\ Due\ Collateral} = \boldsymbol{Max}[\mathbf{0}, \{\boldsymbol{Abs}(\boldsymbol{Gross\ Exposure}) - \boldsymbol{Threshold} - \boldsymbol{Collateral\ Posted}\}]$$

Where,

Threshold: Unsecured exposure that a party to a netting agreement is willing to assume before making collateral calls.

The contractually due collateral is assumed to be posted and therefore receives the relevant outflow rate specified by the regulator as part of the pre-configured business assumptions for LCR calculations.

2.2.8.1.2 Calculation of Contractually Receivable Collateral

The application computes the value of collateral that a derivative counterparty is required to post contractually to the bank as per the below procedure:

1. If Secured Indicator = No, then the contractually receivable collateral is 0. Else,
2. If Secured Indicator = Yes and Gross Exposure is <= 0, then the contractually receivable collateral is 0. Else,
3. If Secured Indicator = Yes and Gross Exposure is >0, then the application computes the contractually receivable collateral as follows:

$$\boldsymbol{Contractually\ Receivable\ Collateral} = \boldsymbol{Max}[\mathbf{0}, \{\boldsymbol{Abs}(\boldsymbol{Gross\ Exposure}) - \boldsymbol{Threshold} - \boldsymbol{Collateral\ Received}\}]$$

The contractually receivable collateral does not receive a pre-specified inflow rate from the regulator and is, therefore, excluded from the LCR calculations. However, the application computes this for the purpose of reporting.

2.2.8.2 In case of Other Assets and Liabilities

2.2.8.2.1 Calculation of Contractually Due Collateral

1. If Balance Sheet Category = Asset, then the contractually due collateral is 0. Else,
2. If Balance Sheet Category = Liability, and Secured Indicator = N, then the contractually due collateral is 0. Else,
3. If Balance Sheet Category = Liability, and Secured Indicator = Y, then the application computes the contractually due collateral as follows

$$\boldsymbol{Contractually\ Due\ Collateral} = \boldsymbol{Max}[\mathbf{0}, \{\boldsymbol{EOP\ Balance\ of\ Liability} - \boldsymbol{Collateral\ Posted}\}]$$

2.2.8.2.2 Calculation of Contractually Receivable Collateral

1. If Balance Sheet Category = Liability, then the contractually due collateral is 0. Else,
2. If Balance Sheet Category = Asset, and Secured Indicator = N, then the contractually due collateral is 0. Else,
3. If Balance Sheet Category = Asset, and Secured Indicator = Y then the application computes the contractually due collateral as follows

$$\boldsymbol{Contractually\ Receivable\ Collateral} = \boldsymbol{Max}[\mathbf{0}, \{\boldsymbol{EOP\ Balance\ of\ Asset} - \boldsymbol{Collateral\ Received}\}]$$

2.2.9 Calculation of Excess Collateral

Excess collateral is the value of collateral posted or received that is in excess of the collateral required based on the current levels of exposure and collateral position. This amount can be withdrawn by the party which has provided the collateral in excess of its exposure and results in

an outflow to the party holding the excess collateral and an inflow to the party who has provided the excess collateral. It can be of two types:

- Excess Collateral Due
- Excess Collateral Receivable

2.2.9.1 In Case of Derivatives

2.2.9.1.1 Calculation of Excess Collateral Due

The application computes the value of collateral that a derivative counterparty has posted to the bank, in excess of the contractually required collateral, and therefore can be withdrawn by the counterparty, as per the below procedure:

1. If Secured Indicator = No, then the excess collateral due is 0. Else,
2. If Secured Indicator = Y and Gross Exposure is <=0, the application computes the excess collateral due as follows:

$$\boldsymbol{Excess\ Collateral\ Due} = \boldsymbol{Min}[\boldsymbol{Adjusted\ Collateral\ Received}, \boldsymbol{Non\text{-}segregated\ Collateral\ Received}]$$

Where,

Adjusted collateral received:	Collateral received from the counterparty less customer withdrawable collateral
Customer withdrawable collateral:	Collateral received under re-hypothecation rights that can be contractually withdrawn by the customer within the LCR horizon without a significant penalty associated with such a withdrawal

3. If Secured Indicator = Y and Gross Exposure is >0, the application computes the excess collateral due as follows:

$$\boldsymbol{Excess\ Collateral\ Due} = \boldsymbol{Min}[\boldsymbol{Max}\{0, \boldsymbol{Adjusted\ Collateral\ Received} - \boldsymbol{Gross\ Exposure}\}, \boldsymbol{Non\text{-}segregated\ Collateral\ Received}]$$

The excess collateral due is assumed to be recalled by the counterparty and therefore receives the relevant outflow rate specified by the regulator as part of the pre-configured business assumptions for LCR calculations.

2.2.9.1.2 Calculation of Excess Collateral Receivable

The application computes the value of collateral that the bank has posted to its derivative counterparty, in excess of the contractually required collateral, and therefore can be withdrawn by the bank, as per the below procedure:

1. If Secured Indicator = No, then the excess collateral receivable is 0. Else,
2. If Secured Indicator = Y and Gross Exposure is >=0, the application computes the excess collateral receivable as follows:

$$\boldsymbol{Excess\ Collateral\ Receivable} = \boldsymbol{Min}[\boldsymbol{Adjusted\ Collateral\ Posted}, \boldsymbol{Non} - \boldsymbol{segregated\ Collateral\ Posted}]$$

Where,

Adjusted collateral posted: Collateral posted by the bank less firm withdrawable collateral

Firm withdrawable collateral: Collateral provided under re-hypothecation rights that can be contractually withdrawn by the bank within the LCR horizon without a significant penalty associated with such a withdrawal

3. If Secured Indicator = Y and Gross Exposure is <0, the application computes the excess collateral receivable as follows:

$$\boldsymbol{Excess\ Collateral\ Receivable} = \boldsymbol{Min}[\boldsymbol{Max}\{\boldsymbol{0}, \boldsymbol{Adjusted\ Collateral\ Posted} - \boldsymbol{Abs}(\boldsymbol{Gross\ Exposure})\}, \boldsymbol{Non} - \boldsymbol{segregated\ Collateral\ Posted}]$$

The excess collateral receivable does not receive a pre-specified inflow rate from the regulator and is, therefore, excluded from the LCR calculations. However, the application computes this for the purpose of reporting.

2.2.9.2 In case of Other Assets and Liabilities

2.2.9.2.1 Calculation of Excess Collateral Due

1. If Balance Sheet Category = Liability, then the contractually due collateral is 0. Else,
2. If Balance Sheet Category = Asset, and Secured Indicator = N, then the contractually due collateral is 0. Else,
3. If Balance Sheet Category = Asset, and Secured Indicator = Y, then the application computes the contractually due collateral as follows

$$\boldsymbol{Excess\ Collateral\ Due} = \boldsymbol{Min}[\boldsymbol{Max}\{\boldsymbol{0}, \boldsymbol{Adjusted\ Collateral\ Received} - \boldsymbol{EOP\ Balance\ of\ Asset}\}, \boldsymbol{Non} - \boldsymbol{segregated\ Collateral\ Received}]$$

2.2.9.2.2 Calculation of Excess Collateral Receivable

1. If Balance Sheet Category = Asset, then the contractually due collateral is 0. Else,
2. If Balance Sheet Category = Liability, and Secured Indicator = N, then the contractually due collateral is 0. Else,
3. If Balance Sheet Category = Liability, and Secured Indicator = Y, then the application computes the contractually due collateral as follows

$$\boldsymbol{Excess\ Collateral\ Receivable} = \boldsymbol{Min}[\boldsymbol{Max}\{\boldsymbol{0}, \boldsymbol{Adjusted\ Collateral\ Posted} - \boldsymbol{EOP\ Balance\ of\ Liability}\}, \boldsymbol{Non} - \boldsymbol{segregated\ Collateral\ Posted}]$$

2.2.10 Calculation of Downgrade Impact Amount

2.2.10.1 Calculation of Downgrade Impact Amount for Derivatives

The downgrade impact amount for derivatives is calculated as follows:

1. If a downgrade trigger does not exist for the derivatives contract or netting agreement, the downgrade impact amount is 0. Else,
2. If Net Exposure >0, the downgrade impact amount is 0. Else,
3. If Net Exposure <=0, the downgrade impact amount is calculated as follows:

$$\boldsymbol{Downgrade\ Impact\ Amount} = \boldsymbol{Max}[\mathbf{0}, \{\boldsymbol{Abs}(\boldsymbol{Net\ Exposure}) - \boldsymbol{Contractually\ Due\ Collateral}\}]$$

2.2.10.2 Calculation of Downgrade Impact Amount for Other Liabilities

In case of other liabilities, including annuities, that have an associated downgrade, the downgrade impact amount is calculated as follows:

1. If a downgrade trigger does not exist for the liability account, the downgrade impact amount is 0. Else,
2. The downgrade impact amount for liabilities other than derivatives and securitizations is calculated as follows:

$$\boldsymbol{Downgrade\ Impact\ Amount} = \boldsymbol{Max}[\mathbf{0}, (\boldsymbol{EOP\ Balance} - \boldsymbol{Collateral\ Posted})]$$

NOTE: Any liability account that is triggered due to a particular level of ratings downgrade has an outflow corresponding to a pre-specified percentage of the downgrade impact amount. For instance, if a 3-notch downgrade is specified, then the downgrade impact amount will outflow only for those accounts that have a trigger of 1-notch, 2-notches and 3-notches. If a 2-notch downgrade is specified, then the downgrade impact amount will outflow only for those accounts that have a trigger of 1-notch and 2-notches.The ratings downgrade and the outflow percentage as specified by the regulator are part of the pre-configured business assumptions for LCR calculations.

2.2.11 Calculation of Net Derivative Cash Inflows and Outflows

2.2.11.1 Cash Flow Netting at Derivative Contract Level

Cash flows from each derivative contract are netted as follows:

1. If the cash inflows and outflows are denominated in the same currency and occur in the same time bucket:

a. The cash inflows and outflows are summed up and the net value is computed as follows:

$$\boldsymbol{Net\ Cash\ Flow} = \boldsymbol{Cash\ Outflow} - \boldsymbol{Cash\ Inflow}$$

b. If the net cash flow is positive and there is no netting agreement associated with the derivative contract, the value is treated as net derivative cash outflow.

c. If the net cash flow is negative and there is no netting agreement associated with the derivative contract, the value is treated as net derivative cash inflow.

2. If the cash inflows and outflows are denominated in different currencies but settle within the same day:

a. The cash inflows and outflows are summed up after being converted to the reporting currency and the net value is computed.

b. If the net cash flow is positive and there is no netting agreement associated with the derivative contract, the value is treated as net derivative cash outflow.

c. If the net cash flow is negative and there is no netting agreement associated with the derivative contract, the value is treated as net derivative cash inflow.

3. If the cash inflows and outflows are denominated in different currencies and do not settle within the same day:

a. The cash outflows from each derivative contract without an associated netting agreement are summed up and treated as net derivative cash outflow.

b. The cash inflows from each derivative contract without an associated netting agreement are summed up and treated as net derivative cash inflow.

NOTE: If a derivative contract has a netting agreement associated with it, the cash flow is further netted across contracts at the netting agreement level.

2.2.11.2 Cash Flow Netting at Netting Agreement Level

For derivative contracts which have a netting agreement associated with them, the net cash flows computed at the derivative contract level are further netted across multiple contracts under the same netting agreement as follows:

1. In case of derivative contracts, that belong to a single netting agreement, whose payment netting agreement flag is Yes:

a. The cash inflows and outflows occurring in each time bucket, denominated in each currency, are summed up across all contracts whose payment netting agreement flag is Yes and the net value is computed.

b. If the net cash flow is positive, the value is treated as net derivative cash outflow.

c. If the net cash flow is negative, the value is treated as net derivative cash inflow.

2. In case of derivative contracts, that belong to a single netting agreement, whose payment netting agreement flag is No:

a. The cash outflows occurring in each time bucket, denominated in each currency, are summed up separately for each derivative contract whose payment netting agreement flag is No and treated as net derivative cash outflow.

b. The cash inflows occurring in each time bucket, denominated in each currency, are summed up separately for each derivative contract whose payment netting agreement flag is No and treated as net derivative cash inflow.

NOTE: Cash flow netting for netting agreements is done separately for each currency. Cash flows are not netted across currencies, instead, the inflows and outflows converted into the reporting currency are summed up separately to report the net derivatives cash inflow and net derivatives cash outflow at an entity level.

2.2.12 Calculation of Twenty Four Month Look-back Amount

The application computes the 24 month look-back amount, for the purpose of defining outflows due to increased liquidity needs related to market valuation changes on derivatives as per the procedure given below:

- The Mark-to-Market (MTM) value of collateral outflows and inflows due to valuation changes on derivative transactions are captured at a legal entity level. The values over a 24-month historical time window from the "as of date" are identified.
- The application computes the largest 30-day absolute net collateral flow occurring within each rolling 30-day historical time window as follows:

i. The net Mark-to-Market collateral change is computed for each day within a particular 30-day historical time window as follows:

$$\boldsymbol{Net\ MTM\ Collateral\ Change} = \boldsymbol{MTM\ Colateral\ Outflows - MTM\ Collateral\ Inflows}$$

ii. The cumulative net Mark-to-Market collateral change is computed for each day within a particular 30-day historical time window as follows:

$$\boldsymbol{Cumulative\ Net\ MTM\ Collateral\ Change} = \sum_{1}^{i} \boldsymbol{Net\ MTM\ Collateral\ Change}$$

Where,

i : Each day within a particular 30-day historical time window

n : Each 30-day historical time window

iii. The absolute net Mark-to-Market collateral change is computed for each day within the rolling 30-day historical time window as follows:

$$\boldsymbol{Absolute\ Net\ MTM\ Collateral\ Change} = \boldsymbol{Abs}(\boldsymbol{Cumulative\ Net\ MTM\ Collateral\ Change})$$

iv. The largest 30-day absolute net collateral flow occurring within the rolling 30-day historical time window is identified as follows:

$$\boldsymbol{Largest\ 30-day\ Absolute\ Net\ Collateral\ Flow} = \boldsymbol{Max}(\boldsymbol{Absolute\ Net\ MTM\ Collateral\ Change}_i)$$

NOTE: Steps (i) to (iv) are repeated for each rolling 30-day historical time window.

- The 24-month look-back amount is calculated as follows:

$$\boldsymbol{24-Month\ Lookback\ Amount} = \boldsymbol{Max}(\boldsymbol{Largest\ 30-day\ Absolute\ Net\ Collateral\ Flow}_n)$$

Note:

1. This calculation is done for each legal entity separately.
2. The largest 30-day absolute net collateral flow is computed in 30 day blocks on a rolling basis that is first 30-day block is As of Date to As of Date - 29; second 30-day block is As of Date - 1 to As of Date - 30 and so on.
3. The 24 month look-back amount is computed as the maximum of the largest absolute net collateral flow during all rolling 30-day periods in each 24 month period.

   The 24-month look-back calculations are illustrated below considering a 34-day historical time window instead of 24-months. This results in 5 rolling 30-day windows.

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
As of Date to As of Date - 29	As of Date	65	14	51	51	51
	As of Date - 1	65	9	56	107	107
	As of Date - 2	74	83	-9	98	98
	As of Date - 3	71	97	-26	72	72
	As of Date - 4	84	89	-5	67	67
	As of Date - 5	8	57	-49	18	18
	As of Date - 6	40	59	-19	-1	1
	As of Date - 7	42	87	-45	-46	46
	As of Date - 8	100	6	94	48	48

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 9	41	30	11	59	59
	As of Date - 10	45	9	36	95	95
	As of Date - 11	9	32	-23	72	72
	As of Date - 12	59	67	-8	64	64
	As of Date - 13	61	10	51	115	115
	As of Date - 14	22	36	-14	101	101
	As of Date - 15	63	81	-18	83	83
	As of Date - 16	36	3	33	116	116
	As of Date - 17	61	22	39	155	155
	As of Date - 18	94	37	57	212	212
	As of Date - 19	3	18	-15	197	197
	As of Date - 20	13	27	-14	183	183
	As of Date - 21	24	56	-32	151	151
	As of Date - 22	57	75	-18	133	133
	As of Date - 23	66	87	-21	112	112

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 24	33	71	-38	74	74
	As of Date - 25	29	30	-1	73	73
	As of Date - 26	64	25	39	112	112
	As of Date - 27	54	39	15	127	127
	As of Date - 28	51	6	45	172	172
	As of Date - 29	35	31	4	176	176
As of Date - 1 to As of Date - 30	As of Date - 1	65	9	56	56	56
	As of Date - 2	74	83	-9	47	47
	As of Date - 3	71	97	-26	21	21
	As of Date - 4	84	89	-5	16	16
	As of Date - 5	8	57	-49	-33	33
	As of Date - 6	40	59	-19	-52	52
	As of Date - 7	42	87	-45	-97	97
	As of Date - 8	100	6	94	-3	3
	As of Date - 9	41	30	11	8	8

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 10	45	9	36	44	44
	As of Date - 11	9	32	-23	21	21
	As of Date - 12	59	67	-8	13	13
	As of Date - 13	61	10	51	64	64
	As of Date - 14	22	36	-14	50	50
	As of Date - 15	63	81	-18	32	32
	As of Date - 16	36	3	33	65	65
	As of Date - 17	61	22	39	104	104
	As of Date - 18	94	37	57	161	161
	As of Date - 19	3	18	-15	146	146
	As of Date - 20	13	27	-14	132	132
	As of Date - 21	24	56	-32	100	100
	As of Date - 22	57	75	-18	82	82
	As of Date - 23	66	87	-21	61	61
	As of Date - 24	33	71	-38	23	23

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 25	29	30	-1	22	22
	As of Date - 26	64	25	39	61	61
	As of Date - 27	54	39	15	76	76
	As of Date - 28	51	6	45	121	121
	As of Date - 29	35	31	4	125	125
	As of Date - 30	93	68	25	150	150
As of Date - 2 to As of Date - 31	As of Date - 2	74	83	-9	-9	9
	As of Date - 3	71	97	-26	-35	35
	As of Date - 4	84	89	-5	-40	40
	As of Date - 5	8	57	-49	-89	89
	As of Date - 6	40	59	-19	-108	108
	As of Date - 7	42	87	-45	-153	153
	As of Date - 8	100	6	94	-59	59
	As of Date - 9	41	30	11	-48	48
	As of Date - 10	45	9	36	-12	12

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 11	9	32	-23	-35	35
	As of Date - 12	59	67	-8	-43	43
	As of Date - 13	61	10	51	8	8
	As of Date - 14	22	36	-14	-6	6
	As of Date - 15	63	81	-18	-24	24
	As of Date - 16	36	3	33	9	9
	As of Date - 17	61	22	39	48	48
	As of Date - 18	94	37	57	105	105
	As of Date - 19	3	18	-15	90	90
	As of Date - 20	13	27	-14	76	76
	As of Date - 21	24	56	-32	44	44
	As of Date - 22	57	75	-18	26	26
	As of Date - 23	66	87	-21	5	5
	As of Date - 24	33	71	-38	-33	33
	As of Date - 25	29	30	-1	-34	34

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 26	64	25	39	5	5
	As of Date - 27	54	39	15	20	20
	As of Date - 28	51	6	45	65	65
	As of Date - 29	35	31	4	69	69
	As of Date - 30	93	68	25	94	94
	As of Date - 31	51	97	-46	48	48
As of Date - 3 to As of Date - 32	As of Date - 3	71	97	-26	-26	26
	As of Date - 4	84	89	-5	-31	31
	As of Date - 5	8	57	-49	-80	80
	As of Date - 6	40	59	-19	-99	99
	As of Date - 7	42	87	-45	-144	144
	As of Date - 8	100	6	94	-50	50
	As of Date - 9	41	30	11	-39	39
	As of Date - 10	45	9	36	-3	3
	As of Date - 11	9	32	-23	-26	26

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 12	59	67	-8	-34	34
	As of Date - 13	61	10	51	17	17
	As of Date - 14	22	36	-14	3	3
	As of Date - 15	63	81	-18	-15	15
	As of Date - 16	36	3	33	18	18
	As of Date - 17	61	22	39	57	57
	As of Date - 18	94	37	57	114	114
	As of Date - 19	3	18	-15	99	99
	As of Date - 20	13	27	-14	85	85
	As of Date - 21	24	56	-32	53	53
	As of Date - 22	57	75	-18	35	35
	As of Date - 23	66	87	-21	14	14
	As of Date - 24	33	71	-38	-24	24
	As of Date - 25	29	30	-1	-25	25
	As of Date - 26	64	25	39	14	14

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 27	54	39	15	29	29
	As of Date - 28	51	6	45	74	74
	As of Date - 29	35	31	4	78	78
	As of Date - 30	93	68	25	103	103
	As of Date - 31	51	97	-46	57	57
	As of Date - 32	12	31	-19	38	38
As of Date - 4 to As of Date - 33	As of Date - 4	84	89	-5	-5	5
	As of Date - 5	8	57	-49	-54	54
	As of Date - 6	40	59	-19	-73	73
	As of Date - 7	42	87	-45	-118	118
	As of Date - 8	100	6	94	-24	24
	As of Date - 9	41	30	11	-13	13
	As of Date - 10	45	9	36	23	23
	As of Date - 11	9	32	-23	0	0
	As of Date - 12	59	67	-8	-8	8

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 13	61	10	51	43	43
	As of Date - 14	22	36	-14	29	29
	As of Date - 15	63	81	-18	11	11
	As of Date - 16	36	3	33	44	44
	As of Date - 17	61	22	39	83	83
	As of Date - 18	94	37	57	140	140
	As of Date - 19	3	18	-15	125	125
	As of Date - 20	13	27	-14	111	111
	As of Date - 21	24	56	-32	79	79
	As of Date - 22	57	75	-18	61	61
	As of Date - 23	66	87	-21	40	40
	As of Date - 24	33	71	-38	2	2
	As of Date - 25	29	30	-1	1	1
	As of Date - 26	64	25	39	40	40
	As of Date - 27	54	39	15	55	55

Rolling 30-Day Period	Day	Mark-To-Market Collateral Outflows Due To Derivative Transaction Valuation Changes (a)	Mark-To-Market Collateral Inflows Due To Derivative Transaction Valuation Changes (b)	Net Mark-To-Market Collateral Change (c = a – b)	Cumulative Net Mark-To-Market Collateral Change (d = Cumulative c)	Absolute Net Mark-To-Market Collateral Change [e = Abs (d)]
	As of Date - 28	51	6	45	100	100
	As of Date - 29	35	31	4	104	104
	As of Date - 30	93	68	25	129	129
	As of Date - 31	51	97	-46	83	83
	As of Date - 32	12	31	-19	64	64
	As of Date - 33	34	36	-2	62	62

The largest 30-day absolute net collateral flow for each rolling 30-day period and the 24 month look-back value (in this example, the 34 day look-back value) are computed as follows:

Rolling 30-Day Period	Largest 30-Day Absolute Net Collateral Flow [f = Max (e)]	24 Month Look-back Value [Max (f)]
As of Date to As of Date - 29	212	212
As of Date - 1 to As of Date - 30	161	
As of Date - 2 to As of Date - 31	153	
As of Date - 3 to As of Date - 32	144	

Rolling 30-Day Period	Largest 30-Day Absolute Net Collateral Flow [f = Max (e)]	24 Month Look-back Value [Max (f)]
As of Date - 4 to As of Date - 33	140	

2.2.13 Calculation of Operational Amount

The regulator prescribed lower outflow rate for operational deposits is to be applied only to that portion of the EOP balance that is truly held to meet operational needs. LRRCBOT supports a new methodology to compute the operational portion of the EOP balance of operational deposits. The steps involved in computing the operational balance are as follows:

1. All deposits classified as operational as per regulatory guidelines are identified. This is a separate process in LRRCBOT.
2. The EOP balances of eligible operational accounts are obtained over a 90-day historical window including the As of Date i.e. As of Date – 89 days. To identify historical observations, the f_reporting_flag has to be updated as 'Y' for one execution of the Run per day in the Liquidity Risk Solution (LRS) Run Management Execution Summary user interface. The application looks up the balance for such accounts against the Run execution for which the Reporting Flag is updated as "Y" for each day in the past.

   Note:

   The historical time window is captured as a parameter in the SETUP_MASTER table. The default value is 90 days which can be modified by the user. To modify this value, you can update the value under the component code DAYS_HIST_OPER_BAL_CALC_UPD
3. A rolling 5 day average is calculated for each account over the historical window.
4. The average of the 5-day rolling averages computed in step 3 is calculated.
5. The operational balance is calculated as follows:

   Note:

   The calculation of the operational balance can be either a direct download from the staging tables, or through the historical balance approach.

$$\boldsymbol{Operational\ Balance = Min\ (Current\ EOP\ Balance, Average\ Computed\ in\ Step\ 4)}$$

Note:

The operational balance calculation based on historical lookback is optional. You can choose to compute the operational balances using this method or provide the value as a download. To provide the value as download, update the value in the SETUP_MASTER table under the component code HIST_OPERATIONAL_BAL_CALC_UPD as N . If the value is 'Y' then the value would be calculated through historical balance approach.

6. The non-operational balance is calculated as follows:

   $$\boldsymbol{Non-operational\ Balance = Current\ EOP\ Balance - Operational\ Balance}$$

7. The operational insured balance is calculated as follows:

   $$\boldsymbol{Operational\ Insured\ Balance = Min\ (Operational\ Balance, Insured\ Balance)}$$

   The insured and uninsured balances are calculated as part of a separate process i.e. the insurance allocation process which is explained in detail in the relevant section under each jurisdiction.

8. The operational uninsured balance is calculated as follows:

   $$\boldsymbol{Operational\ Uninsured\ Balance = Operational\ Balance - Insured\ Operational\ Balance}$$

9. The non-operational insured balance is calculated as follows:

   $$\boldsymbol{Non-operational\ Insured\ Balance = Min\ [Non-operational\ Balance, (Insured\ Balance - Insured\ Operational\ Balance)]}$$

10. The non-operational uninsured balance is calculated as follows:

    $$\boldsymbol{Non-operational\ Uninsured\ Balance = Non-operational\ Balance - Insured\ Non-operational\ Balance}$$

    The operational deposit computation process is illustrated below assuming a 15-day historical window instead of 90-days and for the "as of date" 28th February 2017. The historical balances for 15-days including the "as of date" are provided below.

Clients With Operational Accounts	Eligible Operational Accounts	Historical Time Window														As of Date
		2/14/2017	2/15/2017	2/16/2017	2/17/2017	2/18/2017	2/19/2017	2/20/2017	2/21/2017	2/22/2017	2/23/2017	2/24/2017	2/25/2017	2/26/2017	2/27/2017	2/28/2017
A	10001	102,000	102,125	102,250	102,375	102,500	102,625	102,750	102,875	103,000	103,125	103,250	103,375	103,500	103,625	103,750
	10296	23,500	23,550	23,600	23,650	23,700	23,750	23,800	23,850	23,900	23,950	24,000	24,050	24,100	24,150	24,200
B	31652	65,877	59,259	59,234	59,209	59,184	59,159	59,134	59,109	59,084	59,059	59,034	59,009	58,984	58,959	58,934

The rolling averages and cumulative average are computed as follows:

Clients with Operational Accounts	Eligible Operational Accounts	5-day Rolling Average											Cumulative Average (a)
		2/18/2017	2/19/2017	2/20/2017	2/21/2017	2/22/2017	2/23/2017	2/24/2017	2/25/2017	2/26/2017	2/27/2017	2/28/2017	
A	10001	102,250	102,375	102,500	102,625	102,750	102,875	103,000	103,125	103,250	103,375	103,500	95136
	10296	23,600	23,650	23,700	23,750	23,800	23,850	23,900	23,950	24,000	24,050	24,100	22721
B	31652	60,553	59,209	59,184	59,159	59,134	59,109	59,084	59,059	59,034	59,009	58,984	56931

The operational and non-operational balances are computed as follows:

Clients with Operational Accounts	Eligible Operational Accounts	Current Balance (b)	Operational Balance (c = a – b)	Non-Operational Balance	Insured Balance	Uninsured Balance	Insured Operational Balance	Uninsured Operational Balance	Insured Non-Operational Balance	Uninsured Non-Operational Balance
A	10001	103,750	95,136	8,615	100,000	3,750	95,136		4,865	3,750
	10296	24,200	22,721	1,480		24,200		22,721		1,480
B	31652	58,934	56,931	2,003	58,934		56,931		2,003	

Note:

1. Negative historical balances are replaced by zero for the purposes of this computation.
2. For operational accounts that have an account start date >= historical days including the “as of date”, missing balances are replaced by previous available balance.
3. For operational accounts that have an account start date < historical days including the “as of date”:
    i. Missing balances between account start date and “as of date” are replaced by previous available balance.
    ii. Rolling average is calculated only for the period from account start date to the “as of date”.
4. The methodology to compute operational balance is optional. This can be turned On or Off using the Set up master table, where component code = HIST_OPERATIONAL_BAL_CALC_UPD. The option to provide the operational balance as a download is supported by the application.

2.2.14 Calculation of HQLA Transferability Restriction

Regulators across jurisdictions recognize the existence of liquidity transfer restrictions, for banks that operate in multiple jurisdictions. Such transfer restrictions have implications to the group-wide consolidated LCR calculations and hence require to be treated appropriately. OFS LRS, in the LCR consolidation process, includes the restricted HQLA from a subsidiary in the consolidated stock of HQLA only to the extent of that subsidiary's liquidity needs i.e. its net cash outflow, in accordance with the regulatory requirements. The treatment of transferability restriction during consolidation is as follows:

1. The net cash outflows are computed for a subsidiary, on a consolidated basis. The consolidation entity is the subsidiary itself in this case. If the subsidiary is a leaf level entity, then the net cash outflow is calculated on a standalone basis.
2. The restricted and unrestricted stock of level 1, level 2A and level 2B is computed for the subsidiary on a consolidated basis. The flag F_TRANSFERABILITY_RESTRICTION will be derived as part of processing, based on the account country and currency.
3. The application checks whether the stock of restricted level 1 assets > net cash outflows. If yes, it includes the stock of restricted level 1 assets in the calculation of its immediate parent entity's stock of HQLA up to the extent of its own net cash outflows computed as part of step 1. If no, the entire stock of restricted level 1 assets is included in the consolidated calculations.
4. The application checks whether the stock of restricted level 1 + level 2A assets > net cash outflows. If yes, it includes the stock of restricted level 2A assets in the calculation of its immediate parent entity's stock of HQLA up to the extent of its own net cash outflows computed as part of step 1 less stock of restricted level 1 assets. If no, the entire stock of restricted level 2A assets is included in the consolidated calculations.
5. The application checks whether the stock of restricted level 1 + level 2A + level 2B assets > net cash outflows. If yes, it includes the stock of restricted level 2B assets in the calculation of its immediate parent entity's stock of HQLA up to the extent of its own net cash outflows computed as part of step 1 less stock of restricted level 1 + level 2A assets. If no, the entire stock of restricted level 2B assets is included in the consolidated calculations.
6. The unrestricted level 1, 2A and 2B assets are included fully in the calculation of its immediate parent entity's stock of HQLA.
7. Steps 1 to 6 are repeated for each sub-consolidation level within the organization structure of the consolidation entity till the consolidation entity itself.

Note:

1. The allocation of restricted assets is done in the descending order of asset quality in order to maximize the stock of HQLA.

2. This calculation is part of the LCR consolidation process. To get a complete view of the process, refer Consolidation, where the consolidation process is described.

2.2.15 Calculation of Net Cash Outflows

The net cash outflows are computed after applying the scenario specified by the user, as a set of business assumptions, to the contractual cash flows. The process of computing the net cash outflows is provided below:

1. **Calculation of Total Cash Inflows**

   The application applies the business assumptions, specified on products involving cash inflows, selected as part of the Run. The regulatory assumptions specified in section Regulations Addressed through Business Assumptions are pre-defined and packaged as part of the out-of-the-box Run to determine the inflows over the liquidity horizon. The business assumption adjusted cash inflows occurring over the liquidity horizon are summed up to obtain the total cash inflow. These include inflows from earning assets such as loans, assets that are not eligible for inclusion in the stock of HQLA, derivatives inflows and so on.

2. **Calculation of Total Cash Outflows**

   The application applies the business assumptions, specified on products involving cash outflows, selected as part of the Run. The regulatory assumptions specified in section Regulations Addressed through Business Assumptions are pre-defined and packaged as part of the out-of-the-box Run to determine the outflows over the liquidity horizon. The business assumption adjusted cash outflows occurring over the liquidity horizon are summed up to obtain the total cash outflow. These include outflows from liabilities, derivatives outflows, outflows due to changes in financial conditions such as ratings downgrade and valuation changes and so on.

3. **Calculation of Net Cash Outflow**

   The total net cash outflows is defined as the total expected cash outflows minus total expected cash inflows for the LCR horizon i.e subsequent 30 calendar days. Total expected cash outflows are calculated by multiplying the outstanding balances of various categories or types of liabilities and off-balance sheet commitments by the rates at which they are expected to run off or be drawn down. Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in up to an aggregate cap of 75% of total expected cash outflows. This requires that a bank must maintain a minimum amount of stock of HQLA equal to 25% of the total cash outflows.

   Net cash outflow is computed as follows:

$$\begin{aligned} &\boldsymbol{Net\ Cash\ Outflows}_{\boldsymbol{LCR\ Horizon}} \\ &\quad = \boldsymbol{Total\ Cash\ Outflows}_{\boldsymbol{LCR\ Horizon}} \\ &\quad - \boldsymbol{Minimum}\{\boldsymbol{Total\ Cash\ Inflows}_{\boldsymbol{LCR\ Horizon}}; (75\% \\ &\quad \times \boldsymbol{Total\ Cash\ Outflows}_{\boldsymbol{LCR\ Horizon}}) \end{aligned}$$

Banks will not be permitted to double count items, i.e. if an asset is included as part of the "stock of HQLA" (i.e. the numerator), the associated cash inflows cannot also be counted as cash inflows (i.e. part of the denominator). Where there is potential that an item could be counted in multiple outflow categories, (e.g. committed liquidity facilities granted to cover debt maturing within the 30 calendar day period), a bank only has to assume up to the maximum contractual outflow for that product.

NOTE: The inflow and outflow rates as prescribed by BOT for the purpose of computing LCR are pre-defined within the application and ready to be used. Users are also allowed to define bank specific inflow and outflow rates and apply them to the contractual cash flows in order to view the stock of HQLA, net cash outflows and LCR across multiple scenarios.

2.2.16 Consolidation

The approach to consolidation as per LCR approach followed by OFS LRRCBOT is detailed below:

a. **Identification and Treatment of Unconsolidated Subsidiary**

The application assess whether a subsidiary is to be consolidated or not by checking the regulatory consolidated flag F_REGULATORY_ENTITY_IND against each legal entity. The application consolidates the cash inflows and outflows of a subsidiary and computes the consolidated LCR, only if the subsidiary is a regulatory consolidated subsidiary. If the entity is an unconsolidated subsidiary, the cash inflows and outflows from the operations of such subsidiaries are ignored (unless otherwise specifically included in the denominator of LCR per regulations) and only the equity investment in such subsidiaries is considered as the bank's asset and appropriately taken into the numerator or denominator based on the asset level classification.

For instance, legal entity 1 has 3 subsidiaries, legal entity 2, legal entity 3 and legal entity 4. The regulatory consolidated flag F_REGULATORY_ENTITY_IND for legal entity 4 is 'No'. In such a case, legal entity 4 is treated as a third party for the purpose of consolidation and its assets and cash flows are completely excluded from calculations. Legal entity 1's interest in legal entity 4 including common equity of legal entity 4 and assets and liabilities where legal entity 4 is the counterparty will not be eliminated as legal entity 4 is considered a third party during consolidation.

b. **HQLA Consolidation by Subsidiary Type**

The process of consolidating HQLA differs slightly based on whether the subsidiary is a material entity that is expected to report LCR separately from the parent or not. This is done to ensure consistency in the results when consolidating at a parent level and when calculating the LCR at the material subsidiary level as well. The methods followed for consolidating HQLA are:

i. In case of a material subsidiaries subject to individual LCR requirements, consolidation is done as follows:

- The application identifies whether the subsidiary is a consolidated subsidiary.

- If condition (a) is fulfilled, it identifies whether the consolidated subsidiary is subject to LCR requirement that is, whether the subsidiary in question is a regulated entity.
- If condition (b) is fulfilled, then it calculates the net cash outflow by eliminating all the inter-branch transactions at each country level of the consolidated subsidiary. If the consolidated subsidiary has operations in three countries, then the transaction between all the branches lying in the same country are eliminated. The application consolidates post-haircut restricted HQLA to the extent of the consolidated subsidiary's net cash outflow that is, to the extent required to satisfy minimum LCR requirements of that subsidiary as part of the covered company's HQLA. Restricted HQLA are the assets that have a restriction on their transferability to the parent entity, or are the assets that are denominated in non-convertible currencies.
- It consolidates the entire amount of post-haircut unrestricted HQLA held at the consolidated subsidiary as part of the covered company's HQLA.
- It consolidates all cash inflows and outflows which are part of the net cash flow calculation.

ii. In case of subsidiaries not subject to individual LCR requirements, consolidation is done as follows:

- The application identifies whether the subsidiary is a consolidated subsidiary.
- If condition (a) is fulfilled, it identifies whether the consolidated subsidiary is subject to minimum LCR requirement that is, whether the subsidiary in question is a regulated entity.
- If condition (b) is not fulfilled, it eliminates all inter-company transactions till the level of the immediate parent of the consolidated subsidiary and then calculates the net cash outflow.
- The application consolidates post-haircut restricted HQLA to the extent of the consolidated subsidiary's net cash outflow and the entire amount of post-haircut unrestricted HQLA as part of the covered company's HQLA.
- It consolidates all cash inflows and outflows which are part of the net cash flow calculation.

c. **Consolidated LCR Calculation**

Consolidation is done on a step by step basis based on each level of the organization structure starting from the most granular level. This indicates that intercompany transactions are eliminated at each sub-consolidation level till the final level of the consolidation (generally BHC) is reached. The consolidated HQLA calculated at the level of the immediate subsidiary of the BHC is added to the HQLA held by the BHC. All intercompany cash flows are eliminated and the LCR is calculated in accordance with the LCR approach.

For instance a bank's organization structure is as follows:

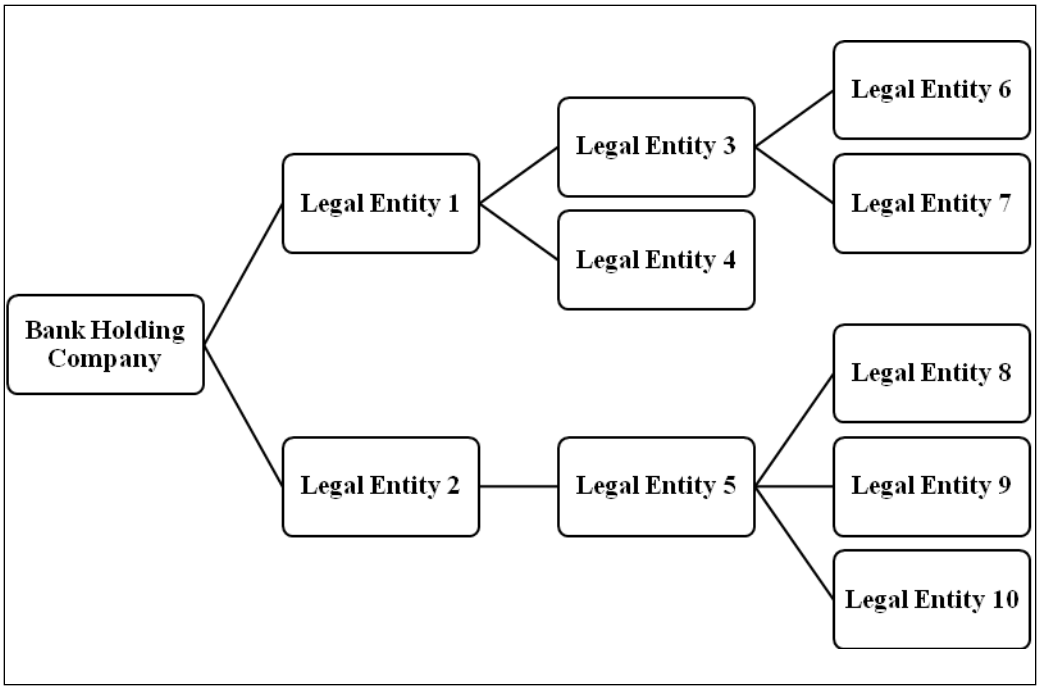

Figure 1 Organization Structure

In this case, at the first level of consolidation, calculation of net cash outflows and HQLA is done on a solo basis for legal entities 6, 7, 8, 9 and 10 as they do not have any subsidiaries. In case of regulated entities i.e. material entities, intercompany transactions are not eliminated; whereas in case of non-regulated entities, intercompany transactions are eliminated to the next level of consolidation that is, legal entities 3 and 5. The restricted HQLA from entities 6 and 7 are consolidated to the extent of their net cash outflows, while the unrestricted HQLA is transferred fully to legal entity 3. The cash inflows and outflows are consolidated to the full extent.

At the second level of consolidation that is, legal entity 3, intercompany transactions are eliminated till legal entity 1, if LE 3 is a non-regulated entity. The HQLA is calculated as a sum of the consolidated restricted and unrestricted HQLA of entities 6 and 7 and the HQLA of legal entity 3. The net cash outflow is calculated based on the cash flows of entities 3, 6 and 7, post elimination of intercompany transactions if applicable. The consolidated HQLA is calculated based on the procedure detailed in point 2 above.

This process continues in a step-by-step manner till the highest parent level i.e. the bank holding company in this example.

2.2.17 Calculation of Liquidity Coverage Ratio

The liquidity coverage ratio is calculated for a legal entity on both solo and consolidated basis. The formula for calculating liquidity coverage ratio is as follows:

$$\textit{Liquidity Coverage Ratio} = \frac{\textit{Stock of High Quality Liquid Asset}}{\textit{Net Cash Outflow}}$$

2.2.17.1 Significant Currency Liquidity Coverage Ratio Calculation

Liquidity coverage ratio is also calculated for each legal entity at the level of each significant currency in order to identify potential currency mismatches. This is done by first identifying significant currencies for a legal entity, at a solo or consolidated level as specified in the Run, as follows:

$$Significant\ Currency = \left[\frac{Total\ Liabilities_{Legal\ Entity,Currency}}{Total\ Liabilities_{Legal\ Entity}} \times 100\right] > 5\%$$

According to the BOT announcement as below, significant currency indicates aggregate of liabilities denominated in that currency amount including off market balance sheet, foreign exchange forward and cross currency swap to 5% or more of the bank's total liabilities.

The application further computes and reports the stock of HQLA, net cash outflows and LCR for each currency identified as significant in the manner detailed in the earlier sections. This calculation is done on both solo and consolidated basis.

2.3 Pre-configured Regulatory LCR Scenario as per BOT

OFS LRRCBOT supports an out-of-the-box BOT LCR which has the regulatory scenario with associated HQLA haircuts, inflow and outflow percentage/ rates pre-configured in the form of business assumptions. This section explains the business assumptions along with the corresponding regulatory reference.

NOTE:

This section provides only the contextual information about all the business assumptions. For more detailed information refer OFS LRS application (UI).

For detailed Processes and Tasks, refer the Run Chart.

The below table lists the Document Identifiers provided in the column Regulatory Reference of Regulations Addressed through Business Assumptions and Regulations Addressed through Business Rules.

Regulation Reference Number	Document Number	Document Name	I
MC	BOT Notification No 9-2558	The Liquidity Coverage Ratio (LCR) Requirement	8
DPA FAQ		A Guide to Deposit Insurance - Frequently Asked Questions	

The list of pre-configured business Rules and assumptions as well as the corresponding reference to the regulatory requirement that it addresses is provided in the tables listed in

sections Regulations Addressed through Business Assumptions and Regulations Addressed through Business Rules.

The column Regulatory Reference for each rule or assumptions has reference to the name of the Document Identifiers such as MC, and should be read in conjunction with the Document Identifier listed in the above table.

2.3.1 Regulation Addressed through Business Rules

The application supports multiple pre-configured rules and scenarios based on BOT specified scenario parameters such as inflow rates, outflow rates, run-offs, haircuts and so on.

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
1	LRM - BOT - HQLA Level 1 - Cash and Central Bank Reserve and Undrawn portion of Committed Facilities	This rule reclassifies cash, central bank reserves, and undrawn portion of committed facilities that foreign bank branches have received from its head office, as HQLA level 1 assets, in accordance with the criteria specified by BOT.	The classification of cash and central bank reserves as HQLA level 1 asset, is configured as part of this rule. Additionally, it classifies the undrawn portion of committed facilities that the branches of foreign banks have received from their head office, as HQLA level 1 assets.	Attachment 1 Paragraphs - 1.1.1, 1.1.2; Calculation methodology Paragraph 2
2	LRM - BOT - HQLA Level 1 - Sovereign, Central Bank and MDB Issued Zero Risk Weight Securities	This rule reclassifies securities assigned a zero risk weight, issued by central banks, sovereigns and multilateral development banks, as HQLA level 1 assets, in accordance with the criteria specified by BOT.	The classification of marketable securities assigned a zero risk weight, issued by foreign sovereigns, central banks and multinational development as HQLA level 1 assets is configured as part of this rule.	Attachment 1 Paragraph -1.1.3
3	LRM - BOT - HQLA Level 1 - Sovereign, Central Bank and MDB Guaranteed Zero Risk Weight Securities	This rule reclassifies securities assigned a zero risk weight, guaranteed by central banks, sovereigns and multilateral development banks, as HQLA level 1 assets, in accordance with the criteria specified by BOT.	The classification of marketable securities, assigned a zero risk weight, guaranteed by foreign sovereigns, central banks and multinational development banks, as HQLA level 1 assets is configured as part of this rule.	Attachment 1 Paragraph - 1.1.3
4	LRM - BOT - HQLA Level 1 - Securities Issued by Sovereign and Central Bank with	This rule reclassifies securities issued by foreign sovereigns and central banks, with non-zero risk weight as HQLA level 1 assets, in accordance with the criteria	The classification of marketable securities, issued by foreign sovereigns, central banks and multinational development banks, with non-zero risk weight as HQLA level 1 assets is	Attachment 1 Paragraphs - 1.4.1.1, 1.4.1.2

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
	Non-Zero Risk Weight	specified by BOT.	configured as part of this rule.	
5	LRM - BOT - HQLA Level 1 - Securities guaranteed by Sovereign and Central Bank non-zero Risk Weight	This rule reclassifies securities, guaranteed by foreign sovereigns and central banks with non-zero risk weight as HQLA level 1 assets, in accordance with the criteria specified by BOT.	The classification of marketable securities, guaranteed by foreign sovereigns, central banks and multinational development banks, with non-zero risk weight, as HQLA level 1 assets is configured as part of this rule.	Attachment 1 Paragraphs - 1.4.1.1, 1.4.1.2
6	LRM - BOT - HQLA Level 2A - Sovereign Central Bank and MDB Securities	This rule reclassifies the securities, assigned a zero and non-zero risk weight, either issued or guaranteed by sovereigns, multilateral development banks, as HQLA level 2A assets, in accordance with the criteria specified by BOT.	The classification of marketable securities, assigned a zero and non-zero risk weight, either issued or guaranteed by sovereigns, central banks and multinational development banks as HQLA level 2A assets is configured as part of this rule.	Attachment 1 Paragraph - 1.2.1.1
7	LRM - BOT - HQLA Level 2A - Non-Financial Corporate Bonds and Covered Bonds	This rule reclassifies corporate debt securities and covered bonds as HQLA level 2A assets, in accordance with the criteria specified by BOT.	The classification of debt securities issued by corporates and covered bonds as HQLA level 2A assets is configured as part of this rule.	Attachment 1 Paragraphs - 1.2.1.2, 1.2.1.5
8	LRM - BOT - HQLA Level 2A - Promissory Note and Debt by SFI and PSE	This rule reclassifies debt securities issued by specialized financial institutions and public sector enterprises, as HQLA level 2A assets, in accordance with the criteria specified by BOT. Additionally, it	The classification of debt securities issued by specialized financial institutions and public sector enterprises as HQLA level 2A assets is configured as part of this rule. Additionally, it classifies promissory notes issued by the	Attachment 1 Paragraphs - 1.2.1.3, 1.2.1.4

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		reclassifies the promissory notes issued by the Ministry of Finance as HQLA level 2A assets.	Ministry of Finance as HQLA level 2A assets.	
9	LRM - BOT - HQLA Level 2B - Sovereign, Central Bank and MDB Securities	This rule reclassifies the securities assigned a non-zero risk weight, either issued or guaranteed by sovereigns, central banks, and multilateral development banks, as HQLA level 2B assets in accordance with the criteria specified by BOT.	The classification of marketable securities, assigned a non-zero risk weight, either issued or guaranteed by sovereigns, central banks and multinational development banks as HQLA level 2B assets is configured as part of this rule.	Attachment 1 Paragraph- 1.2.2.1
10	LRM - BOT - HQLA Level 2B - Corporate Issuer - Non Financial Common Equities	This rule reclassifies promissory notes, bills of exchange and corporate debt securities as HQLA level 2B assets, in accordance with the criteria specified by BOT.	The classification of promissory notes, bills of exchange and corporate debt securities, as HQLA level 2B assets is configured as part of this rule.	Attachment 1 Paragraph- 1.2.2.2, 1.2.2.3
11	LRM - BOT - Bank Own Assets - Meets HQLA Operational Requirements Flag Update	This rule identifies whether bank's own assets, both unencumbered assets as well as those placed as collaterals, meet the operational requirements prescribed by BOT guidelines, except for unencumbered assets in the case of placed collateral. In case of unencumbered assets, it updates the Meets HQLA Operational Requirements flag. In case of placed collateral, it updates the	The identification of whether an asset owned by the bank meets the operational requirements set forth by BOT, for its inclusion in the stock of HQLA, is configured as part of this rule.	Attachment 1 Section III

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		Meets HQLA Operational Requirements on Unwind flag.		
12	LRM - BOT - Re-hypothecated Mitigants - Meets HQLA Operational Requirements Flag Update	This rule identifies whether a re-hypothecated mitigant meets the operational requirements prescribed by BOT guidelines, except for being unencumbered. It updates the Meets HQLA Operational Requirements on Unwind flag for unencumbered mitigants.	The identification of whether a collateral received from a counterparty that is further placed as collateral, meets the operational requirements set forth by BOT on unwind, is configured as part of this rule.	Attachment 1 Section III
13	LRM - BOT - Mitigants - Meets HQLA Operational Requirements Flag Update	This rule identifies whether a mitigants meets the operational requirements prescribed by BOT guidelines, to be considered for inclusion in the stock of HQLA. It updates the Meets HQLA Operational Requirements flag for such mitigants.	The identification of whether the collateral received from counterparty meets the operational requirements set forth by BOT is configured as part of this rule.	Attachment 1 Section III
14	LRM - BOT - Instruments - Eligible High Quality Liquid Assets Flag Update	This computation rule updates the HQLA Eligibility flag for bank’s own unencumbered assets classified as HQLA that fulfill the HQLA operational requirements and therefore can be included in the stock of HQLA. Additionally, it updates the Eligible HQLA	The identification of whether a bank's own asset classified as an HQLA, meets all the operational criteria, and is therefore eligible to be included in the stock of HQLA, is configured as part of this rule.	Attachment 1 Section III

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		on Unwind flag for all assets placed as collaterals that are classified as HQLA and fulfill the HQLA operational requirements on unwind and therefore are to be unwound.		
15	LRM - BOT - Mitigants - Eligible High Quality Liquid Assets Flag Update	This computation rule updates the HQLA Eligibility flag for mitigants classified as HQLA that fulfill the HQLA operational requirements prescribed by BOT guidelines, and therefore can be included in the stock of HQLA.	The identification of whether the collateral received from counterparty, classified as an HQLA, meets all the operational criteria and is therefore eligible to be included in the stock of HQLA, is configured as part of this rule.	Attachment 1 Section III
16	BOT LCR - Stock Adjustment Reclassification - Level 1 - Addition	This rule identifies all secured lending and asset exchange transactions involving HQLA that mature within the LCR horizon which are, therefore, required to be unwound and reclassifies them to the appropriate adjustment rule. In case of secured lending transactions, where the collateral received is a non-level 1 HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the amount paid. In case of asset exchange transactions, where the collateral received is a non-level 1 HQLA and the collateral posted in a level	The identification of secured lending and asset exchange transactions required to be unwound, and the amount to be added to the stock of level 1 assets due to such an unwind, is configured as part of this rule.	Attachment 1.1 paragraph 1

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		1 HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the collateral posted.		
17	BOT LCR - Stock Adjustment Reclassification - Level 1 - Deduction	This rule identifies all secured funding and asset exchange transactions involving HQLA that mature within the LCR horizon which are, therefore, required to be unwound and reclassifies them to the appropriate adjustment rule. In case of secured funding transactions, where the collateral posted is a non-level 1 HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the amount received. In case of asset exchange transactions, where the collateral posted is a non-level 1 HQLA, and the collateral received in a level 1 HQLA the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the collateral received.	The identification of secured funding and asset exchange transactions required to be unwound, and the amount to be deducted from the stock of level 1 assets due to such an unwind, is configured as part of this rule.	Attachment 1.1 paragraph 1
18	BOT LCR - Stock Adjustment Reclassification - Level 2A - Addition	This rule identifies all secured funding and asset exchange transactions involving HQLA that mature within the LCR horizon which are, therefore, required to be	The identification of secured funding and asset exchange transactions required to be unwound, and the amount to be added to the stock of level 2A assets due to such an	Attachment 1.1 paragraph 1

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		unwound, and reclassifies them to the appropriate adjustment rule. In case of secured funding transactions, where the collateral posted is a level 2A HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the collateral posted. In case of asset exchange transactions, where the collateral received is HQLA and the collateral posted is a level 2A asset, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the collateral posted.	unwind, is configured as part of this rule.	
19	BOT LCR - Stock Adjustment Reclassification - Level 2A - Deduction	This rule identifies all secured lending and asset exchange transactions involving HQLA that mature within the LCR horizon which are, therefore, required to be unwound, and reclassifies them to the appropriate adjustment rule. In case of secured lending transactions, where the collateral received is a level 2A HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the collateral received. In case of asset exchange transactions,	The identification of secured lending and asset exchange transactions required to be unwound and the amount to be deducted from the stock of level 2A assets due to such an unwind, is configured as part of this rule.	Attachment 1.1 paragraph 1

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
		where the collateral posted is HQLA and the collateral received is a level 2A asset, the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the collateral received.		
20	BOT LCR - Stock Adjustment Reclassification - Level 2B - Addition	This rule identifies all secured funding and asset exchange transactions involving HQLA that mature within the LCR horizon which are, therefore, required to be unwound, and reclassifies them to the appropriate adjustment rule. In case of secured funding transactions, where the collateral posted is a level 2B HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the collateral posted. In case of asset exchange transactions, where the collateral received is HQLA and the collateral posted is a level 2B asset, the type of adjustment to the stock of HQLA due to such an unwind is updated as addition of the collateral posted.	The identification of secured funding and asset exchange transactions required to be unwound, and the amount to be added to the stock of level 2B assets due to such an unwind, is configured as part of this rule.	Attachment 1.1 paragraph 1
21	BOT LCR - Stock Adjustment Reclassification -	This rule identifies all the secured lending and asset exchange transactions involving HQLA that mature within the LCR horizon	The identification of secured lending and asset exchange transactions required to be unwound, and the amount to be deducted from	Attachment 1.1 paragraph 1

Sl. No.	Rule Name	Rule Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No 9-2558
	Level 2B - Deduction	which are, therefore, required to be unwound, and reclassifies them to the appropriate adjustment rule. In case of secured lending transactions, where the collateral received is a level 2B HQLA, the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the collateral received. In case of asset exchange transactions, where the collateral posted is HQLA and the collateral received is a level 2B asset, the type of adjustment to the stock of HQLA due to such an unwind is updated as deduction of the collateral received.	the stock of level 2B assets due to such an unwind, is configured as part of this rule.	

2.3.2 Regulation Addressed through Business Assumptions

The application supports multiple assumptions with pre-configured rules and scenarios based on regulator specified scenario parameters such as HQLA haircuts, inflow and outflow percentage / rates and so on. The list of pre-configured business assumptions and the corresponding reference to the regulatory requirement that it addresses is provided in the following table:

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
Outflows				
1	BOT-Stable retail deposits run-off	Run-offs on the stable portion of deposits from retail customers and SMEs treated as retail	The outflow rate on the stable portion of deposits, from retail customers, and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 5% run-off on the stable portion of retail deposits that are either not encumbered, or the encumbrance period is less than the LCR horizon, which either mature or result in an early withdrawal, without incurring significant penalty, within the LCR horizon.	Attachment 2 Paragraphs (I) 1.2 (1), (2) and (3), Paragraph (I) (2.1)
2	BOT-Unencumbered part of stable retail deposits run-off	Run-offs on the unencumbered portion of stable deposits from retail customers and SMEs treated as retail.	The outflow rate on the unencumbered portion of stable deposits, from retail customers, and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 5% run-off on unencumbered portion of stable deposit, having an encumbrance period greater than the	Attachment 2 Paragraphs (I) 1.2 (1), (2) and (3), Paragraph (I) (2.1)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			LCR horizon, which either mature or result in an early withdrawal, without incurring significant penalty, within the LCR horizon.	
3	BOT-Less stable retail deposits run-off	Run-offs on the less stable portion of deposits from retail customers and SMEs treated as retail.	The outflow rate on the less stable portion of deposits, from retail customers and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 10% run-off on the less stable portion of retail deposits, that are either not encumbered or the encumbrance period is less than the LCR horizon, which either mature or result in an early withdrawal, without incurring significant penalty, within the LCR horizon.	Attachment 2 Paragraph (I) 1.2 (1), (2) and (3), Paragraph (I) (2.1)
4	BOT-Unencumbered part of less stable retail deposit runoff	Run-offs on the unencumbered portion of less stable deposits from retail customers and SMEs treated as retail.	The outflow rate on the unencumbered portion of less stable deposits, from retail customers and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 10% run-off on the unencumbered portion of less stable deposits, having an encumbrance period greater than the LCR horizon, which either mature or result in an early withdrawal, without	Attachment 2 Paragraph (I) 1.2 (1), (2) and (3), Paragraph (I) (2.1)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			incurring significant penalty, within the LCR horizon.	
5	BOT-Other retail deposits with maturity more than 30 days	BOT- Run-offs from other retail deposits with maturity greater than 30 days	The outflow rate on deposits maturing after the LCR horizon from retail customers, and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 0% run-off on EOP balance of deposits having a significant withdrawal penalty on principal, and a 5% run-off on term deposits having significant withdrawal penalty on interest. Additionally, it applies a 5% run-off on EOP balance of term deposits, where early redemption or withdrawal is not allowed.	Attachment 2 Paragraph (I) 1.2 (3), (5) and (6), Paragraph (I) (2.1) and footnote 12
6	BOT-Run-off from encumbered portion of retail deposits	Run-offs on the encumbered portion of deposits from retail customers and SMEs treated as retail.	The outflow rate on the encumbered deposits, from retail customers, and SMEs treated as retail customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 0% run-off on the encumbered balance of deposits maturing after the LCR horizon and having an encumbrance period greater than the LCR horizon.	Attachment 2 Paragraph (I) 1.2 (1), (2), (3) and (4), Paragraph (I) (2.1)
7	BOT-Run-off from retail borrowings	Run-offs on the borrowings from retail customers and SMEs treated as retail.	The outflow rate on the borrowings, from retail customers and SMEs treated as retail	Attachment 2 Paragraph (I) 1.2, Paragraph (I) (2.1) and footnote 12

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			customers, for the purpose of LCR, is pre-defined as part of this assumption. This assumption applies a 10% run-off on EOP balance of borrowings, which either mature or result in an early withdrawal, without incurring significant penalty, within the LCR horizon. This assumption applies a 5% run-off on the EOP balance of borrowings maturing after the LCR horizon, where early redemption or withdrawal is not allowed. Additionally, it applies a 5% run-off on EOP balance of borrowings, which are withdrawn early by incurring significant penalty. Lastly, it applies 0% run-off on EOP balance of borrowings, which are withdrawn early by incurring significant penalty on the principal.	

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
8	BOT - Insured Operational Balance Run-off	Run-offs on the portion of operational balance, from deposits generated by clearing, custody and cash management activities, that is fully covered by deposit insurance.	The outflow rates on the insured portion of the balances held in operational accounts with other financial institutions, for clearing, custody and cash management, are pre-defined as part of this assumption. This assumption applies a 5% run-off on insured operational balances that are covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.1, 2.4 (1)
9	BOT - Uninsured Operational Balance Run-off	Run-off on the portion of operational balance, from deposits generated by clearing, custody and cash management activities, that is not covered by deposit insurance.	The outflow rates on the uninsured portion of the balances held in operational accounts with other financial institutions, for clearing, custody and cash management, are pre-defined as part of this assumption. This assumption applies a 25% run-off on uninsured operational balances that are not covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.1, 2.4 (1)
10	BOT-Outflow from intra-group transactions	Outflows from net intra-group transactions	Outflows from net intra-group transactions, is pre-defined as part of this assumption. This assumption applies a 100% outflow, if the netted value of cash flows at the group level is negative. Another assumption, Inflows from intra-group transactions applies a 100% inflow if	Section 5.3.2

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			the netted value of cash flows at group level is positive.	
11	BOT-Outflows from issued unsecured debt	Outflows from unsecured debts issued by banks through public offering.	Outflows from unsecured debts issued through public offering, bills of exchange and promissory notes issued by the legal entities, are pre-defined as part of this assumption. This assumption applies a 100% run-off on EOP balances of issued securities specified earlier. Additionally, it applies a 0% run-off on the EOP balance of debt securities not issued through public offering.	Attachment 2 Paragraphs (I) 2.3 and 2.4 (6)
12	BOT-Run-off from other borrowings specified by regulator	Outflows from other borrowings specified by the regulators	The outflow rate on other borrowings as part of promotional lending's under the soft loan program, is pre-defined as part of this assumption. This assumption applies a 100% outflow i.e. 0% rollover on such borrowings.	Attachment 2 Paragraph (I) 2.4 (7)
13	BOT-Run-off from additional reserves with central bank	Outflows from additional reserves with central bank	The outflow rate on the additional reserves maintained with central banks, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the minimum reserves maintained with the central bank.	Attachment 1 Paragraph 1.1.2
14	BOT-Secured funding outflows based on secured cash flow	Outflows on annuity contracts, borrowings and deposits from central banks, sovereigns, local governments, PSEs, state	The outflow rates on the annuity contracts, borrowings and deposits from central banks, sovereigns, local governments, PSEs, state	Attachment 2 Paragraph (I) 3

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		enterprises and MDBs.	enterprises, and MDBs, are pre-defined as part of this assumption. This assumption applies the regulatory run-offs applicable to each counterparty type in the form of rollover rates i.e. 1 – run-off rates on secured cash flows.	
15	BOT-Secured cash outflows from other entities	Outflows on annuity contracts and borrowings from entities other than central banks, sovereigns, local governments, PSEs, state enterprises, and MDB.	The outflow rates on the annuity contracts, borrowings from entities other than central banks, sovereigns, local governments, PSEs, state enterprises, and MDBs, are pre-defined as part of this assumption. This assumption applies the regulatory run-offs applicable to each counterparty type in the form of rollover rates i.e. 1 – run-off rates on secured cash flows.	Attachment 2 Paragraph (I) 4
16	BOT-Secured funding outflows based on secured balance	Outflows on repurchase agreement and security lending from entities such as central banks, sovereigns, local governments, PSEs, state enterprises and MDBs.	The outflow rates on the repurchase agreements and security lending's from central banks, sovereigns, local governments, PSEs, state enterprises, and MDBs, are pre-defined as part of this assumption. This assumption applies the regulatory run-off rates applicable to each counterparty type on secured balance.	Attachment 2 Paragraph (I) 5
17	BOT-Secured balance outflows from other entities	Outflows on repurchase agreements and security lending from entities other than central banks, sovereigns, local governments, PSEs, state enterprises, and	The outflow rates on the repurchase agreements and security lending's from entities other than central banks, sovereigns, local governments, PSEs, state enterprises, and	Attachment 2 Paragraph (I) 6

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		MDBs.	MDBs, are pre-defined as part of this assumption. This assumption applies the regulatory run-off rates applicable to each counterparty type based on secured balance.	
18	BOT-Outflows from collateral swap	Outflows on collateral swap transactions.	The outflow rates on collateral swaps, are pre-defined as part of this assumption. This assumption applies the outflows applicable to the market value of received collateral, when the collateral placed under a swap transaction is of lower or equal quality than the collateral received, as the difference between the liquidity haircuts applicable to the placed and received collateral. A 0% inflow rate is applied, when the underlying asset received is used for covering short positions.	Attachment 2 Paragraph (I) 7
19	BOT-Outflows on non-operational part of operational account	Outflows on the non-operational balances of fundings, classified as an operational deposit, provided by corporates, SMEs, sovereigns, central banks, local governments, state enterprises or MDBs.	The run-off rates on the non-operational balances held in operational accounts, are pre-defined as part of this assumption. This assumption applies a 100% run-off on non-operational balances provided by non-financial corporates and SMEs. Additionally, for the non-operational balances provided by non-financial corporates and SMEs, sovereigns, central banks, local governments, state enterprises or MDBs, a 20% run-off rate is applied for the	Attachment 2 Paragraph (I) 2.2.1, 2.4 (1)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			accounts that are fully covered by deposit insurance, and a 40 % run-off rate is applied for the accounts that are not fully covered by deposit insurance.	
20	BOT-Non-op part of operational account for other entity	Outflows on the non-operational balance of funding, classified as an operational deposit, provided by entities other than corporates, SMEs, sovereign, central bank, local government, state enterprise or MDB.	The run-off rates on the non-operational balances held in operational accounts provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, state enterprises or MDBs, are pre-defined as part of this assumption. This assumption applies a 100% run-off on non-operational balances.	Attachment 2 Paragraph (I) 2.2.1, 2.4 (1)
21	BOT-Unsecured non-operational funding from SME and corporate	Outflows on the unsecured fundings, provided by corporates or SMEs that are not classified as an operational deposit.	The run-off rates from the unsecured fundings that are not classified as operational deposits, received from corporates or SMEs, are pre-defined as part of this assumption. This assumption applies a 100% run-off on EOP balances from non-operational funding provided by financial customers. Additionally, it applies a 20% run-off on EOP balance from non-operational funding accounts that are fully covered by deposit insurance, and a 40% run-off on the non-operational funding accounts that are not fully covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
22	BOT-Unsecured non-operational funding from SOV,PSE and MDB	Outflows on the unsecured funding, provided by sovereigns, local governments, state enterprises, PSEs or MDBs that is not classified as operational deposits.	The run-off rates from unsecured fundings, that are not classified as operational deposits, received from sovereigns, local governments, state enterprises, PSEs or MDBs, are pre-defined as part of this assumption. This assumption applies a 20% run-off on EOP balances from non-operational funding accounts that are fully covered by deposit insurance, and a 40% run-off on those non-operational funding accounts that are not fully covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)
23	BOT-Unsecured non-operational funding from central bank	Outflows on the unsecured fundings, provided by central banks that are not classified as an operational deposit.	The run-off rates from unsecured fundings, that are not classified as operational deposits, received from central banks, are pre-defined as part of this assumption. This assumption applies a 40% run-off on EOP balances from non-operational funding accounts that are not fully covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)
24	BOT-Unsecured non-op funding from oth fin inst. and entities	Outflows on the unsecured fundings, provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits.	The run-off rates from unsecured fundings, not classified as operational deposits, received from entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, are pre-defined as part of this assumption. This assumption applies a 100%	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2) and (3)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			run-off on EOP balance from non-operational funding accounts that are not fully covered by deposit insurance.	
25	BOT-Unencumbered portion of unsecured nonoperational funding	Outflows on the unencumbered portion of lien marked unsecured deposits, provided by corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits.	The run-off rates on the unencumbered portion of lien marked unsecured deposits, received from corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits, are pre-defined as part of this assumption. This assumption applies a 100% run-off, on unencumbered balance from non-operational deposits by financial customers. This assumption applies a 20% run-off, on unencumbered balances from non-operational deposits that are fully covered by deposit insurance, and a 40% run-off on unencumbered balance from non-operational deposits that are not fully covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2) and (3)
26	BOT-Unencumbered non-op funding from other entities	Outflows on the unencumbered portion of lien marked unsecured deposits, provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that is not classified as an	The run-off rates on the unencumbered portion of lien marked unsecured deposits, received from entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits, are pre-	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2) and (3)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		operational deposit.	defined as part of this assumption. This assumption applies a 100% run-off on unencumbered balance from non-operational deposits by the customers mentioned above.	
27	BOT-Unsecured part of secured non-op funding from Sovereign	Outflows on the unsecured portion of secured funding, provided by sovereigns, local governments or state enterprises that are not classified as operational deposits.	The run-off rates on the unsecured portion of secured fundings, received from sovereigns, local governments or state enterprises, that are not classified as operational deposits, are pre-defined as part of this assumption. This assumption applies a 20% run-off on unsecured balance from non-operational secured deposits that are fully covered by deposit insurance, and a 40% run-off on unsecured balance from non-operational funding accounts that are not fully covered by deposit insurance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)
28	BOT-Unsecured part of secured non-op funding frm COR and SME	Outflows on the unsecured portion of secured fundings, provided by corporates, SMEs, PSEs or MDBs, that are not classified as operational deposits.	The run-off rates on the unsecured portion of secured fundings, received from corporates, SMEs, PSEs or MDBs, that are not classified as operational deposits, are pre-defined as part of this assumption. This assumption applies a 100% run-off on unsecured balance from non-operational funding provided by financial corporates and SMEs. This assumption applies a 40% run-off on unsecured balance from non-operational secured funding that are provided	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			by non-financial corporates and SMEs, PSEs or MDB.	
29	BOT-Unsecured part of secured non-op funding from CB	Outflows on the unsecured portion of secured funding, provided by central banks, that are not classified as operational deposits.	The run-off rates on the unsecured portion of secured funding, received from central banks, that are not classified as operational deposits, are pre-defined as part of this assumption. This assumption applies a 40% run-off on unsecured balance from non-operational secured funding that are provided by central banks.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)
30	BOT-Unsecured part of non-op funding from other entities	Outflows on the unsecured portion of secured fundings, provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits.	The run-off rates on the unsecured portion of secured fundings, received from entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises and MDBs, that are not classified as operational deposits, are pre-defined as part of this assumption. This assumption applies a 100% run-off on unsecured balance from non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2), (3) and (4)
31	BOT-Non-op funding without early withdrawal	Outflows on the unsecured funding, that cannot be withdrawn or redeemed early, provided by corporates & SMEs, sovereigns, local governments, PSEs, state enterprises or MDBs, that are not classified	The run-off rates on the unsecured fundings that cannot be withdrawn or redeemed early, that are not classified as operational deposits, received from corporates and SMEs, sovereigns, local governments, PSEs, state	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		as an operational deposit.	enterprises or MDBs, are pre-defined as part of this assumption. This assumption applies an 80% rollover i.e. 20% run-off on cash flows from non-operational funding provided by the above mentioned entities.	
32	BOT-Non-op funding from CB without early withdrawal	Outflows on the unsecured fundings that cannot be withdrawn or redeemed early, provided by central banks that are not classified as operational deposits.	The outflow rates on the unsecured portion of secured fundings, that are not classified as operational deposits, received from central banks, are pre-defined as part of this assumption. This assumption applies an 80% rollover i.e. 20% run-off on cash flows from non-operational funding provided by the above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)
33	BOT-Non-op funding frm other entity without early withdrawal	Outflows on the unsecured fundings that cannot be withdrawn or redeemed early, provided by entities other than corporates and SMEs, sovereigns, local governments, PSEs, state enterprises, MDBs or central banks, that are not classified as operational deposits.	The outflow rates on the unsecured portion of secured fundings, that are not classified as operational deposits, received from entities other than corporates, SMEs, sovereigns, local governments, PSEs, state enterprises, MDBs or central banks, are pre-defined as part of this assumption. This assumption applies a 50% rollover i.e. 50% run-off on cash flows from non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
34	BOT-Non-op funding withdrawal after 30 days	Outflows on the unsecured fundings, that can be withdrawn, or redeemed prior to maturity but only after LCR horizon, provided by corporates, SMEs, sovereigns, local governments, PSEs, state enterprises or MDBs, that are not classified as operational deposits.	The outflow rates on the unsecured fundings that can be withdrawn, or redeemed prior to maturity but only after LCR horizon, that are not classified as operational deposits, received from corporates, SMEs, sovereigns, local governments, PSEs, state enterprises or MDBs, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on cash flows from non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)
35	BOT-Non-op funding withdrawal after 30 days by CB	Outflows on the unsecured fundings that can be withdrawn, or redeemed prior to maturity but only after LCR horizon, provided by central banks that are not classified as operational deposits.	The outflow rates on the unsecured portion of secured fundings, that are not classified as operational deposits, received from central banks, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on cash flows from non-operational funding provided by central bank.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)
36	BOT-Non-op funding withdrawal after 30 days by other entity	Outflows on the unsecured fundings, that can be withdrawn, or redeemed prior to maturity but only after LCR horizon, provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, state enterprises, or MDBs, that are not classified as operational deposits.	The outflow rates on the unsecured portion of secured fundings, that are not classified as operational deposits, received from entities other than corporates, SMEs, sovereigns, local governments, PSEs, state enterprises, MDBs or central banks, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on cash flows from non-	Attachment 2 Paragraph (I) 2.2.2, 2.4 (3) and (5)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			operational funding provided by above mentioned entities.	
37	BOT-Derivative cash outflows	Net cash outflows from derivative transactions.	The outflow rate on the 30-day cash outflows from derivative transactions is pre-defined as part of this assumption. This assumption applies a 100% outflow on derivative cash outflows, on a net basis in case of derivatives which are part of a netting agreement and on a non-net basis for other derivatives.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.1
389	BOT-Additional Collateral Required Due to Ratings Downgrade	Increased liquidity needs arising from the requirement to post additional collateral due to a 3-notch ratings downgrade.	The outflow rate, on the additional collateral required to be posted on contracts with downgrade triggers, due to a 3-notch ratings downgrade, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the downgrade impact amount arising from a 3-notch ratings downgrade.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.1
39	BOT-Loss of Re-hypothecation Rights Due to Ratings Downgrade	Increased liquidity needs arising from a loss of re-hypothecation rights on assets received as collateral due to a 3-notch ratings downgrade.	The outflow rate, on the additional cash outflows arising on contracts with downgrade triggers, that result in a loss of re-hypothecation rights due to a 3-notch ratings downgrade, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the value of mitigants received under re-hypothecation rights corresponding to accounts	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.1

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			whose downgrade trigger is activated due to the 3-notch ratings downgrade.	
40	BOT - Increased Liquidity Needs Due to Change in Coll Value	Increased liquidity needs arising from the potential change in the value of posted collateral.	The outflow rate on the additional cash outflow due to a potential loss in the market value of non-level 1 assets posted as collateral is pre-defined as part of this assumption. This assumption applies a 100% outflow on the value of non-level 1 posted collateral computed after netting the non-level 1 collateral received under re-hypothecation rights on the same transaction.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.2
41	BOT-Increased Liquidity Needs Due to Market Valuation Change	Increased liquidity needs arising from market valuation changes on derivatives and other transactions.	The outflow rate on the collateral outflows occurring due market valuation changes on derivative and other transactions is pre-defined as part of this assumption. This assumption applies a 100% outflow rate on the largest absolute net 30-day collateral flow occurring during the preceding 24 months under the historical look-back approach.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.6
42	BOT-Increased Liquidity Needs Due To Excess Collateral	Increased liquidity needs arising from excess non-segregated collateral received that can be recalled by the counterparty.	The outflow rate on the excess unsegregated collateral held by a bank, which can potentially be withdrawn by the counterparty, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.3

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			value of excess collateral.	
43	BOT-Increased Liquidity Needs from Contractually Due Coll	Increased liquidity needs arising from collateral that is contractually required to be posted to the counterparty but has not yet been posted.	The outflow rate on the collateral that the bank is contractually required to post to its counterparty, but has not yet posted, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the value of contractually due collateral.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.4
44	BOT-Increased Liquidity Needs Due to Substitutable Coll	Increased liquidity needs arising from contracts that allow a counterparty to substitute lower quality collateral for the current higher quality collateral.	The outflow rate on the collateral that the counterparty can contractually substitute with lower quality collateral is pre-defined as part of this assumption. This assumption applies an outflow rate equal to the difference between the liquidity haircuts of collateral that can be potentially substituted by the counterparty and the collateral that substitutes it.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.2.5
45	BOT-Loss of Funding on Structured Financing Instruments	Loss of funding on asset-backed securities, covered bonds and other structured financing instruments.	The run-off rate on the maturing asset-backed securities, covered bonds and other structured financing instruments is pre-defined as part of this assumption. This assumption applies a 100% run-off on structured financing instruments that mature within the LCR horizon.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.3
46	BOT-Loss of Funding from Financing Facility-Maturing	Loss of funding on asset-backed commercial paper, conduits, securities	The run-off rate on the maturing amounts of asset-backed commercial paper, conduits,	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.4

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
	Debt	investment vehicles and other such financing facilities due to inability to refinance maturing debt.	securities investment vehicles and other such financing facilities is pre-defined as part of this assumption. This assumption applies a 100% run-off on the EOP balance of the structured financing facilities that mature within the LCR horizon. It also applied 100% run-off on the EOP balance of the structured financing facilities that mature beyond the LCR horizon but have redemption notice period of 30 days or less.	
47	BOT-Loss of Funding from Financing Facility - Return of Asst	Loss of funding on asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities due to potential return of assets.	The run-off rate on the returnable assets underlying asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities is pre-defined as part of this assumption. This assumption applies a 100% run-off on the value of the assets that are returnable within the LCR horizon. It also applies a 100% run-off on the value of the assets that are returnable beyond the LCR horizon but have redemption notice period of 30 days or less	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.4
48	BOT-Loss of Funding from Financing Facility -Liquidity Draws	Loss of funding on asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities due to drawdown of	The outflow rate on the undrawn amount available to be drawn down on the liquidity facility extended to the structured financing facility is pre-defined as part of this assumption.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.4

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		liquidity facilities provided by the bank.	This assumption applies a 100% outflow as a drawdown rate on the liquidity facilities extended as support for structured financing purposes.	
49	BOT-Secured non-op funding without early withdrawal	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon, provided by non-financial corporates & SMEs, sovereigns, local governments, PSEs, MDBs or state enterprises, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon that is not classified as an operational deposit received from non-financial corporates & SMEs, sovereigns, local governments, PSEs, MDBs or state enterprises, are pre-defined as part of this assumption. This assumption applies a 80% rollover i.e. 20% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4
50	BOT-Secured non-op frm other entity without early withdrawal	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon, provided by other than corporates & SMEs, sovereigns, central banks, local governments, PSEs, state enterprises or MDBs, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon that is not classified as an operational deposit received from other than corporates & SMEs, sovereigns, central banks, local governments, PSEs, state enterprises or MDBs, are pre-defined as part of this assumption. This assumption applies a 50% rollover i.e. 50% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
51	BOT-Secured Non-op frm central bank without early withdrawal	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon, provided by central banks, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon, that is not classified as an operational deposit, received from central banks, are pre-defined as part of this assumption. This assumption applies a 80% rollover i.e. 20% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities.	Attachment 2 Paragraph (I) 2.2.2, 2.4
52	BOT-Vostro balances from financial corporate and SME	Vostro balances from financial corporate and SME	The run-off rates from vostro balances, that is not classified as an operational deposit, received from financial corporates or SMEs, are pre-defined as part of this assumption. This assumption applies a 100% run-off on EOP balance.	Attachment 2 Paragraph (I) 2.2.2, 2.4 (1), (2) and (3)
53	BOT-Drawdowns on Committed Credit Facility	Drawdowns on committed credit facilities extended to retail customers, SMEs, corporates, sovereigns, banks, central banks, MDBs, PSEs, and other legal entities.	The outflow rate on the undrawn amount available to be drawn down on the committed credit facilities extended to retail customers, SMEs, corporates, sovereigns, banks, central banks, MDBs, PSEs, and other legal entities is pre-defined as part of this assumption. This assumption applies the relevant outflow as a drawdown rate, based on the counterparty type, for the aforementioned counterparties.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.5.1

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
54	BOT-Drawdowns on Liquidity Facilities	Drawdowns on committed liquidity facilities extended to retail customers, SMEs, corporates, sovereigns, banks, central banks, MDBs, PSEs and other legal entities.	The outflow rate on the undrawn amount available to be drawn down on the committed liquidity facilities extended to retail customers, SMEs, corporates, sovereigns, banks, central banks, MDBs, PSEs, and other legal entities is pre-defined as part of this assumption. This assumption applies the relevant outflow as a drawdown rate, based on the counterparty type, for the aforementioned counterparties.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.5.2
55	BOT-Drawdowns on Credit and Liquidity Facilities	Drawdowns on the cash flows occurring on the loan that has been approved but not yet disbursed, within the LCR horizon.	The outflow rate on the cash flows occurring on the loan that has been approved but not yet disbursed, within the LCR horizon is pre-defined as part of this assumption. This assumption applies a 100% outflow rate as a drawdown rate.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.5.1
56	BOT-Other Contingent Funding Obligation Outflows	Outflows related to trade and non-trade finance related instruments.	The outflow rate on the trade and non-trade finance related instruments is pre-defined as part of this assumption. This assumption applies a 0.5% run-off on such trade finance obligations.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.7 and 4.8
57	BOT-Uncommitted Facility Outflows	Drawdowns on uncommitted credit and liquidity facilities extended to customers.	The outflow rate on the undrawn amount available to be drawn down on the uncommitted credit and liquidity facilities extended to customers is pre-defined as part of this assumption. This assumption applies a 0%	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.6

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			drawdown on the uncommitted facilities. The drawdown rates are allowed to be updated to reflect the rates specified by national regulators.	
58	BOT-Non-contractual Obligation Outflows	Outflows from non-contractual obligations related to joint ventures, minority investments, debt buy-back requests, structured products, managed funds and any other similar obligations	The outflow rate on the non-contractual obligations related to joint ventures, minority investments, debt buy-back requests, structured products, managed funds and any other similar obligations is pre-defined as part of this assumption. This assumption applies a 0% outflow rate on the non-contractual obligations. The outflow rate is allowed to be updated to reflect the rates specified by national regulators.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 5.3
59	BOT-Contractual Dividend Payment Outflows	Outflows related to contractual payments of dividends.	The outflow rate on the dividends payable within the LCR horizon is pre-defined as part of this assumption. This assumption applies a 100% outflow on dividends payable.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.10
60	BOT-Outflows Related to Short Positions	Outflows related to customer and bank short positions.	The outflow rate on the customer and firm short positions is pre-defined as part of this assumption. This assumption specifies outflows on the short positions based on assets covering such short positions.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.9 and 4.10
61	BOT-Managed Funds Outflows	Outflows related to managed funds	The outflow rate on the fund value of the fixed income or money market mutual funds which	BOT Notification No 9-2558 - Attachment 2 Paragraphs 5.2

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			are close ended schemes, within the LCR horizon is pre-defined as part of this assumption. This assumption applies a 5% outflow on fund value.	
62	BOT-Secured non-op funding withdrawal after 30 days	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon but withdrawn or redeemed within LCR horizon, provided by corporates, SMEs, sovereigns, local governments, PSEs, MDBs or state enterprises, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon that is not classified as an operational deposit received from corporates, SMEs, sovereigns, local governments, PSEs, MDBs or state enterprises, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities that are withdrawn or redemmed within LCR horizon.	Attachment 2 Paragraph (I) 2.2.2, 2.4
63	BOT-Secured non-op withdrawal after 30 days by central bank	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon but withdrawn or redeemed within LCR horizon, provided by central banks, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon that is not classified as an operational deposit received from central banks, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities that are withdrawn or	Attachment 2 Paragraph (I) 2.2.2, 2.4

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			redemmed within LCR horizon.	
64	BOT-Secured non-op withdrawal after 30 days by other entity	Outflows on the unsecured portion of secured funding maturing beyond LCR horizon but withdrawn or redeemed within LCR horizon, provided by entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, MDBs or state enterprises, that is not classified as an operational deposit.	The run-off rates on the unsecured portion of secured funding maturing beyond LCR horizon that is not classified as an operational deposit received from entities other than corporates, SMEs, sovereigns, central banks, local governments, PSEs, MDBs or state enterprises, are pre-defined as part of this assumption. This assumption applies a 100% rollover i.e. 0% run-off on unsecured portion of cash flows from secured non-operational funding provided by above mentioned entities that are withdrawn or redemmed within LCR horizon.	Attachment 2 Paragraph (I) 2.2.2, 2.4
65	BOT-Other Contractual Obligations to Financial Institutions	Outflows related to other contractual obligations to extend funds within 30 days to financial institutions.	The outflow rate on other contractual obligations to extend funds to financial institutions, not covered in the previous assumptions, is pre-defined as part of this business assumption. This assumption applies a 100% outflow rate on such contractual obligations.	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.10
66	BOT-Other Contractual Obligations to Non-Financial Customers	Outflows related to other contractual obligations to extend funds within 30 days to retail and non-financial wholesale	The outflow rate on the other contractual obligations to extend funds to retail and non-financial corporate customers, in excess of 50%	BOT Notification No 9-2558 - Attachment 2 Paragraphs 4.10 Group (2)

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
		counterparties.	of contractual inflows from such customers within the LCR horizon, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the excess contractual obligation amount.	
			Inflows	
1	BOT - Collateral Swap Inflows	Inflows from collateral swap transactions.	The inflow rates on collateral swaps, are pre-defined as part of this assumption. This assumption applies inflows to the market value of placed collateral, when the collateral placed under a swap transaction is of higher, or equal quality than the collateral received, as the difference between the liquidity haircuts applicable to the placed and received collateral. A 0% inflow rate is applied, when the underlying asset received is used for covering short positions.	Attachment 2 Paragraph (I) 3
2	BOT-Secured lending inflows where collateral is not reused	Inflows from secured lending transactions where the collateral received is not reused to cover customer or firm short positions.	The inflow rates on secured lending transactions where the collateral received is not reused to cover customer, or firm short positions, are pre-defined as part of this assumption. This assumption applies 0%, 15%, 50% and 100% inflow rate, when collateral received is Level 1, Level 2A, Level 2B and	Attachment 2 Paragraph (II) 1.1

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			non-HQLA respectively, on secured balance per collateral (i.e. used portion of Collateral) for secured lending transactions specified above.	
3	BOT-Secured lending inflow where coll reused less than 30d	Inflows from secured lending transactions where the collateral received is reused to cover customer or firm short positions for a period less than the LCR horizon.	The inflow rates on secured lending transactions where the collateral received is reused to cover customer, or firm short positions for a period less than the LCR horizon, are pre-defined as part of this assumption. This assumption applies 0%, 15%, 50% and 100% inflow rate, when collateral received is Level 1, Level 2A, Level 2B and non-HQLA respectively, on secured balance per collateral (i.e. used portion of Collateral) for secured lending transactions specified earlier.	Attachment 2 Paragraph (II) 1.1
4	BOT-Secured lending inflow where coll reused more than 30d	Inflows from secured lending transactions where the collateral received is reused to cover customer or firm short positions for a period greater than the LCR horizon.	The inflow rates on secured lending transactions, where the collateral received is reused to cover customer or firm short positions for a period greater than the LCR horizon, are pre-defined as part of this assumption. This assumption applies a 0% inflow rate on secured balance per collateral (i.e. used portion of Collateral) for secured lending transactions specified earlier.	Attachment 2 Paragraph (II) 1.2

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
5	BOT-Inflows from fully performing loans	Inflows from the fully performing loans and leases.	The inflow rate on the fully performing loans and leases, is pre-defined as part of this assumption. This assumption applies a 50 % inflow (i.e. 50% rollover) on cash flows occurring within LCR horizon from loans and leases extended to retail customers and SMEs who are treated like retail customers, non-financial corporates and wholesale SMEs and other non-financial entities. Additionally, it applies a 100% inflow (i.e. 0% rollover) on cash flow occurring within the LCR horizon from loans and leases extended to central bank and financial entities.	Attachment 2 Paragraph (II) 2.1
6	BOT-Inflows from deposits placed at financial entities	Inflows from deposits placed in banks or other financial entities.	The inflow rate on deposits placed in banks or financial entities, is pre-defined as part of this assumption. This assumption applies a 0% inflow (i.e. 100% rollover) on cash flows from deposits, with financial entities, classified as operational deposits. Whereas it applies a 100%, inflow (i.e. 0% rollover) on cash flows from deposits, with financial entities, classified as non-operational deposit.	Attachment 2 Paragraph (II) 2.1
7	BOT-Inflow from intra-group transactions	Inflows from net intra-group transactions	Inflows from net intra-group transactions, is pre-defined as part of this assumption. This assumption applies a 100% inflow if the netted	Section 5.3.2

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			value of cash flows at a group level is positive. Another assumption, Inflow from intra-group transactions applies 100% outflow if the netted value of cash flows at group level is negative.	
8	BOT-Inflows from soft loan	Inflows from loans issued under the soft loan program	The inflow rate on loans issued as promotional lending under the soft loan program, is pre-defined as part of this assumption. This assumption applies a 100% inflow i.e. 0% rollover on such loans.	Attachment 2 Paragraph (II) 2.2
10	BOT-Inflows from non-HQLA debt securities held by banks	Inflows from securities not included in the stock of HQLA	The inflow rate on the performing debt securities that are excluded from the stock of HQLA, is pre-defined as part of this assumption. This assumption applies a 100% inflow (i.e. 0% rollover) on cash flows from securities classified as other assets, and securities classified as HQLA, but do not meet the eligibility criteria for inclusion in the stock of HQLA. It also applies a 0% inflow (i.e. 100% rollover) on non-performing securities, or securities that are classified as HQLA and meet the criteria for inclusion in the stock of HQLA, to avoid double counting.	Attachment 2 Paragraph (II) 2.3
11	BOT-Derivative cash inflows	Net cash inflows expected over 30 days from derivative transactions.	The inflow rate on the 30-day cash inflows from derivative transactions, is pre-defined as part of this assumption. This assumption applies a	Attachment 2 Paragraph (II) 3.1

Sl. No.	Business Assumption Name	Business Assumption Description	Regulatory Requirement Addressed	Regulatory Reference BOT Notification No FPG. 9 /2558
			100% inflow on derivative cash inflows, on a net basis in case of derivatives, which are part of a netting agreement, and on a non-net basis for other derivatives.	
12	BOT-Inflows from cheques in the process of collection	Inflows from cheque in in the process of collection, which are expected to settle within LCR horizon.	The inflow rate on cheque that are in the process of collection and are expected to be settled within LCR horizon is pre-defined as part of this assumption. This assumption applies a 100% inflow on Uncleared balance Amount.	Attachment 2 Paragraph (II) 2.2
13	BOT-Inflows from unsettled transaction	Inflows from sale of debt securities, equities, money markets and asset backed securities, which are not settled	The inflow rates on the sale of debt securities, equities, money markets and asset-backed securities, which are not settled, is pre-defined as part of this assumption. This assumption applies a 100% inflow on unsettled amount for transactions specified earlier.	Attachment 2 Paragraph (II) 2.2
14	BOT-Outflows from unsettled transactions	Outflows from the purchase of debt securities, equities, money markets and asset backed securities, which are not settled.	The outflow rate on the purchase of debt securities, equities, money markets and asset-backed securities, which are not settled, is pre-defined as part of this assumption. This assumption applies a 100% outflow on the unsettled amount for transactions specified earlier.	Attachment 2 Paragraph (I) 2.4 (7)

3 Net Stable Funding Ratio Calculation

Net Stable Funding Ratio (NSFR) is one of the two minimum standards developed to promote funding and liquidity management in financial institutions. NSFR assesses the bank's liquidity risks over a longer time horizon. Both the standards, complement each other, are aimed at providing a holistic picture of a bank's funding risk profile, and aid in better liquidity risk management practices.

3.1 Overview

NSFR is defined as the amount of available stable funding relative to the required stable funding. Available stable funding refers to the portion of capital and liabilities expected to be reliable over the horizon of 1 year. Required stable funding refers to the portion of assets and off balance sheet exposures over the same horizon. The NSFR ratio is expected to be at least 100%.

$$\left(\frac{Available\ stable\ funding}{Required\ stable\ funding}\right) \geq 100\%$$

3.2 Process Flow

The Available Stable Funding (ASF) factor and Required Stable Funding (RSF) factor is applied through business assumptions and reflects through the execution of a Business as Usual (BaU) run in the OFS LRRCBOT application. The ASF and RSF factors are applied as weights at the account level and the Total ASF and Total RSF is obtained by taking a sum of the all the weighted amounts. The ratio is then computed by the application as the (Total ASF amount)/(Total RSF amount) A set of pre-defined business assumptions for ASF and RSF as defined in the NSFR guidelines are prepackaged in the application. For the complete list of pre seeded ASF and RSF assumptions refer section Regulation Addressed through Business Assumptions.

- Identification of Maturity Bands
- Computation of Available Amount of Stable Funding
- Computation of Required Amount of Stable Funding
- Computation of Derivatives
- Computation of Net Stable Funding Ratio

3.2.1 Identification of Maturity bands

One of the various dimensions used to allocate ASF and RSF factors is the maturity bucket of the instrument. For NSFR computation, maturity bands are used to allocate the factors. The BOT NSFR band is pre-defined as per regulatory guidelines and has values as follows:

- Less than 6 months
- Greater than or equal to 6 months but less than 1 year
- Greater than or equal to one year
- Open maturity

All accounts will be categorized on one of the above bands depending on the maturity date. It must be noted that to categorize any product into open maturity, the Rule "LRM - Classification of Products as Open Maturity" has to be edited and the product must be included in the rule.

3.2.2 Computation of Available Amount of Stable Funding

The available stable funding factor is a pre-determined weight ranging from 0% to 100% which is applied through business assumptions for the accounts falling under the dimensional combinations defined. The weights are as guided by the NSFR standard. The available stable funding is then taken as a total of all the weighted amounts where an ASF factor is applied.

Foreign bank branches can account for the undrawn contractual committed facilities from its head office or other branches which are the same entity and are regional hubs as ASF up to 40% of the minimum ASF required to meet the minimum requirement of NSFR.

The formula for calculating Available Amount of Stable Funding is as follows:

$$\boldsymbol{Available\ Amount\ of\ Stable\ Funding} = \sum_{\boldsymbol{i=1}}^{\boldsymbol{n}} \boldsymbol{Liability_i} * \boldsymbol{Factor_i}$$

$$\boldsymbol{where\ n =\ The\ number\ of\ capital\ and\ liability\ accounts}$$

An example of the application of ASF factor is given below:

Consider an assumption defined with the following dimensional combination and ASF factors, with the based on measure being Total stable balance:

Dimensional Combination			ASF Factor
Product	Retail/Wholesale Indicator	Residual Maturity Band	
Deposits	R	<= 6 months	95%
Deposits	R	6 months - 1 year	95%
Deposits	R	>= 1 year	95%

If there are five accounts falling under the above combination, then after the assumption is applied the resulting amounts with application of ASF factors is as follows:

Account	Stable Balance	ASF Weighted Amount
A1	3400	3230
A2	3873	3679.35
A3	9000	8550
A4	1000	950
A5	100	95

NOTE: LRRCBOT application does not compute ASF items such as Tier 1 and Tier 2 capital, deferred tax liabilities, and minority interest. The items are taken as a download from the OFS Basel application. By updating the latest Basel Run Skey as a setup parameter, the LRRCBOT application picks up the respective standard accounting head balances and applies the respective ASF factors.

In case OFS Basel is not installed, then the items mentioned below must be provided as a download in FCT_STANDARD_ACCT_HEAD table.

- Gross Tier 2 Capital
- Deferred Tax Liability related to Other Intangible Asset
- Deferred Tax Liability related to Goodwill
- Deferred Tax Liability related to MSR
- Deferred Tax Liability related to Deferred Tax Asset
- Deferred Tax Liability related to Defined Pension Fund Asset
- Net CET1 Capital post Minority Interest Adjustment
- Net AT1 Capital post Minority Interest Adjustment

- Total Minority Interest required for NSFR

3.2.3 Computation of Required Amount of Stable Funding

The required stable funding factor is a pre-determined weight ranging from 0% to 100% which is applied through business assumptions for the accounts falling under the defined dimensional combinations. The weights are as guided by the NSFR standard. The required stable funding is then considered as a sum of all the weighted amounts where an RSF factor is applied.

The required stable funding factor is a weight function and is applied in a similar manner as that of the ASF. The formula which is used for calculating the Required Amount of Stable Funding is as follows:

$$\boldsymbol{Required\ Amount\ of\ Stable\ Funding} = \left(\sum_{i=1}^{n} \boldsymbol{Asset_i} * \boldsymbol{Factor_i}\right) + \left(\sum_{i=1}^{m} \boldsymbol{Off\ Balance\ Sheet_i} * \boldsymbol{Factor_i}\right)$$

$$\boldsymbol{where\ n = Number\ of\ asset\ accounts}$$

$$\boldsymbol{where\ m = Number\ of\ off\ balance\ sheet\ accounts}$$

3.2.3.1 Computation of Off Balance Sheet Items

Off balance sheet items are considered under the application of RSF factor, and are given the appropriate factor as guided. Some combinations such as line of credit have a pre-defined RSF factor as guided and are available as pre seeded assumptions. Other off balance sheet products such as Variable Rate Demand Notes (VRDN) and Adjustable Rate Notes (ARN) do not have pre-defined factors and are left to the discretion of the jurisdictions. For such products, the user can define assumptions and apply desired RSF factors as applicable.

3.2.4 Computation of Derivatives

Derivatives are handled through application of both ASF and RSF factors as applicable. They can behave as either an asset or a liability, depending on the marked to market value. Application of factors on derivatives is done on the market value after subtracting variation margin posted/received against the account. The computation is described below:

1. NSFR derivative liabilities = Derivative liabilities – (Total collateral posted as variation margin against the derivative liabilities)
2. NSFR derivative assets = Derivative assets – (Cash collateral received as variation margin against the derivative assets)
3. The factors are then applied as follows:

- **ASF factor application**

ASF amount for derivatives = 0% * Max ((NSFR derivative liabilities –NSFR derivative assets), 0)

- **RSF factor application**

RSF amount for derivatives = 100% * Max ((NSFR derivative assets- NSFR derivative liabilities), 0)

Derivative liabilities refer to those derivative accounts where the market value is negative. Derivative assets refer to those derivative accounts where the market value is positive. Apart from the variation margin, the initial margin against derivative contracts is also treated with the appropriate factor.

3.2.5 Computation of Net Stable Funding Ratio

The Net Stable Funding Ratio is calculated as follows:

$$\textit{Net Stable Funding Ratio} = \frac{\textit{Available Amount of Stable Funding}}{\textit{Required Amount of Stable Funding}}$$

3.3 Pre-configured BOT Regulatory NSFR Scenarios

OFS LRRCBOT supports out-of-the-box BOT NSFR assumptions according to BOT guidelines on the Net stable funding ratio.

This section explains the business assumptions which support NSFR as per BOT master circular BOT Notification No. 1-2561: Regulations on the Net Stable Funding Ratio (NSFR), April 2018.

The below table lists the Document Identifiers provided in the column Regulatory Reference of Regulations Addressed through Business Assumptions .

Regulation Reference Number	Document Number	Document Name	Issued Date
MC	BOT Notification No. 1-2561	Regulations on the Net Stable Funding Ratio (NSFR)	24 Apr 18
DPA FAQ		A Guide to Deposit Insurance - Frequently Asked Questions	

NOTE: This section gives only the contextual information about all the business assumptions. For more detailed information refer OFS LRS application (UI).

3.3.1 Regulation Addressed through Business Assumptions

The application supports multiple assumptions with pre-configured rules and scenarios based on regulator specified NSFR scenario parameters. The list of pre-configured business assumptions and the corresponding reference to the regulatory requirement that it addresses is provided in the following tables:

3.3.1.1 Available Stable Funding Factor

This section enlists all the pre seeded assumptions acting on liabilities and capital items which receive an ASF factor.

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
1	BOT-ASF- Capital items, DTL and minority interest	[BOT]: Tier 1 and Tier 2 capital, deferred tax liabilities and minority interest	This assumption defines the long-term funding sources with effective maturity of one year or more, primarily tier 1 and tier 2 capital instruments along with deferred tax liability and minority interest, which are assigned a 100% ASF factor for the NSFR computation.	MC Paragraphs - 4.2.2 (1.2.1) A and B
2	BOT-ASF- Stable retail deposits with maturity less than 1yr	[BOT]: ASF- Stable and highly stable deposits as defined in the LCR from customers treated as retail.	The ASF factors applicable to the stable portion of deposits, from retail customers and SMEs treated like retail customers for the purposes of LCR are pre-defined as part of this assumption. This assumption applies a 95% ASF factor on the stable portion of the retail deposits and a 100% ASF factor on the stable portion of retail deposits with remaining maturity of 1 year or more.	MC Paragraph - 4.2.2 (1.2.2) 4.2.2 (1.2.1) C
3	BOT-ASF- Stable retail deposits with maturity more than 1yr	[BOT]: ASF- Stable and highly stable deposits as defined in the LCR from customers treated as retail with a remaining maturity of more than 1 yr and cash flow maturity of within 1 year and greater than 1 year.	The ASF factors applicable to the stable portion of deposits, from retail customers and SMEs treated like retail customers for the purposes of LCR, with remaining maturity of more than 1 year with cash flow maturities within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 95% ASF factor on the stable portion of cash flows with cash flow maturity within 1 year and a 100% ASF factor on the stable portion of cash flows with cash flow maturity of 1 year or more.	MC Paragraph - 4.2.2 (1.2.2) 4.2.2 (1.2.1) C
4	BOT-ASF- Less stable retail dep with maturity less than 1yr	[BOT]: ASF- Less stable deposits as defined in the LCR from customers treated as retail.	The ASF factors applicable to the less stable portion of deposits, from retail customers and SMEs treated like retail customers for the purposes of LCR, are pre-defined as part of this assumption. This assumption applies a 90% ASF factor on the stable portion of retail deposits with remaining maturity of less than 1 year	MC Paragraph -4.2.2 (1.2.3) 4.2.2 (1.2.1) C

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			and a 100% ASF factor on the stable portion of retail deposits with remaining maturity of 1 year or more.	
5	BOT-ASF- Less stable retail deposits - Cash flow basis	[BOT]: ASF- Less stable deposits as defined in the LCR from customers treated as retail with a remaining maturity of more than 1 yr and cash flow maturity of less than 1 year and 1 year or more.	The ASF factors applicable to the less stable portion of deposits from retail customers and SMEs treated like retail customers for the purposes of LCR, with remaining maturity of more than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 90% ASF factor on the stable portion of cash flows with cash flow maturity of less than 1 year and a 100% ASF factor on the stable portion of cash flows with cash flow maturity of 1 year or more.	MC Paragraph - 4.2.2 (1.2.3) 4.2.2 (1.2.1) C
6	BOT-ASF- Other funds from retail with mat less than 1yr	[BOT]: Other funding from customers treated as retail.	The ASF factors applicable to the funding other than deposits, from customers who are treated as retail for the purposes of LCR, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on the funding with remaining maturity of less than 6 months and 50% on the funding with remaining maturity between 6 months to 1 year and 100% on the funding with remaining maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C
7	BOT-ASF- Other funds from retail with mat more than 1yr	[BOT]: Other funding from customers treated as retail with an account residual maturity of more than 1 year	The ASF factors applicable to the funding other than deposits, from customers who are treated as retail for the purposes of LCR, with remaining maturity of more than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on cash flows with maturity less than 6 months and a 50% to cash flows with maturity	MC Paragraphs - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			between 6 month to 1 year and a 100% ASF factor on cash flows with maturity of 1 year or more.	
8	BOT-ASF- Op dep with mat less than 1 yr	BOT ASF on the operational portion of operational deposits, generated by clearing, custody and cash management activities, with remaining maturity of less than 1 year.	The ASF factor applicable to the balance held in operational accounts to fulfill operational requirements are pre-defined as part of this assumption. This assumption applies a 50% ASF factor on the operational balances with remaining maturity of less than 1 year.	MC Paragraph - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C
9	BOT-ASF- Non op dep from SME less than 1 yr	BOT ASF on non-operational portion for operational accounts from SMEs AoP, Trusts, partnerships and HUFs not treated as retail, with remaining maturity less than 1 year.	The ASF factor on non-operational portion of operational accounts, from small and medium enterprises, association of persons, trusts, partnerships and Hindu undivided families not treated as retail, with remaining maturity of less than 1 year are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational balances of operational accounts with remaining maturity of less than 1 year.	MC Paragraph - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C
10	BOT-ASF- Non op dep from SME greater than 1 yr	BOT ASF on non-operational wholesale funding, from SMEs AoP, Trusts, partnerships and HUFs not	The ASF factor on non-operational wholesale funding, from small and medium enterprises, association of persons, trusts, partnerships and Hindu undivided families not treated as retail, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational funding with remaining maturity of less than 6 months and a 50% ASF factor on non-operational funding	MC Paragraphs - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		treated as retail.	with remaining maturity between 6 months to 1 year and 100% ASF factor on non-operational funding with remaining maturity of 1 year or more	
11	BOT-ASF- Non op por of dep from SME less than 1 yr	BOT ASF on non-operational wholesale funding, from SMEs AoP, Trusts, partnerships and HUFs not treated as retail, with remaining maturity greater than 1 year and where the cash flow maturity is within 1 year and greater than 1 year	The ASF factor applicable to non-operational cash flows, from SMEs AoP, Trusts, partnerships and HUFs not treated as retail, with remaining maturity of greater than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational cash flows with cash flow maturity of less than 6 months and a 50% ASF factor on non-operational cash flows with remaining maturity between 6 months to 1 year and a 100% ASF factor on non-operational cash flows with cash flow maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.4) D 4.2.2 (1.2.5) A 4.2.2 (1.2.1) C
12	BOT-ASF- Non op funds from CB PSE MDB NDB less than 1 yr	BOT ASF on the non-operational portion of operational deposits, from Central banks, PSE, MDB, NDB, generated by clearing, custody and cash management activities, with remaining maturity of less than 1 year.	The ASF factor applicable to non-operational portion of operational accounts from central banks, public sector entity (PSE), multilateral development bank (MDB), national development bank (NDB), with remaining maturity of less than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational portion of operational accounts from central banks with remaining maturity of less than 1 year and a 50% ASF factor on non-operational portion of operational accounts from central banks, PSE, MDB, and NDB with remaining maturity of less than 1 year.	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.4) C 4.2.2 (1.2.5) A

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
13	BOT-ASF- Non op funds from CB PSE MDB NDB greater than 1 yr	BOT ASF on non-operational funding, from central banks, PSE, MDB, NDB, with remaining maturity greater than 1 year and where the cash flows are maturing within 1 year and greater than 1 year.	The ASF factor applicable to non-operational cash flows from central banks, PSE, MDB, NDB, with remaining maturity of greater than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational cash flows from central banks with cash flow maturity of less than 6 months, a 50% ASF factor for cash flow maturity between 6 months to 1 year, a 50% ASF factor on non-operational cash flows from PSE, MDB, and NDB with cash flow maturity of less than 1 year and a 100% ASF factor on non-operational cash flows from PSE, MDB, and NDB with cash flow maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.4) C 4.2.2 (1.2.5) A
14	BOT-ASF- Non op part of op dep - CB PSE MDB NDB mat in 1 yr	BOT ASF on non-operational funding, from Central banks, financial institutions (banks) PSE, MDB, NDB.	The ASF factor on non-operational funding from central banks, PSE, MDB, NDB, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational funding from central banks with remaining maturity of less than 6 months, a 50% ASF factor for non-operational funding from PSE, MDB, and NDB between 6 months to 1 year and 100% ASF factor on non-operational funding from PSE, MDB, and NDB with remaining maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.4) C 4.2.2 (1.2.5) A
15	BOT-ASF- Non op of op dep oth prty with mat less thn 1 yr	BOT ASF on the non-operational portion of operational deposits, from financial and non-financial corporates, generated by	The ASF factor applicable to non-operational portion of operational accounts from financial and non-financial corporates, with remaining maturity of less than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational portion of operational accounts from financial corporates with remaining maturity of less than 1 year and a 50% ASF factor on non-	MC Paragraphs - 4.2.2 (1.2.4) B 4.2.2 (1.2.5) A 4.2.2 (1.2.1) A

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		clearing, custody and cash management activities, with remaining maturity of less than 1 year.	operational portion of operational accounts from non-financial corporates with remaining maturity of less than 1 year.	
16	BOT-ASF- Non op funds from Corp less than 1 yr	BOT ASF on non-operational funding, from financial and non-financial corporates, with remaining maturity greater than 1 year and where the cash flows are occurring within 1 year and greater than 1 year.	The ASF factor applicable to non-operational cash flows from financial and non-financial corporates, with remaining maturity of greater than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 50% ASF factor on non-operational cash flows from non-financial corporates with cash flow maturity of less than 6 months and between 6 months to 1 year. The assumptions applies a 0% ASF factor on non-operational cash flows from financial corporates with cash flow maturity of less than 6 months and a 50% ASF factor on non-operational cash flows from financial corporates with cash flow maturity between 6 months to 1 year and a 100% ASF factor on non-operational cash flows from financial corporates with cash flow maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.4) B 4.2.2 (1.2.5) A 4.2.2 (1.2.1) A
17	BOT-ASF- Non op funds from Corp greater than 1 yr	BOT ASF on non-operational funding, from financial and non-financial corporates.	The ASF factor on non-operational funding from financial and non-financial corporates, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational funding from financial corporates with remaining maturity of less than 6 months and a 50% ASF factor for non-operational funding from financial corporates with remaining maturity between 6 months to 1 year. The assumptions also applies a 50% ASF factor on non-	MC Paragraphs - 4.2.2 (1.2.4) B 4.2.2 (1.2.5) A 4.2.2 (1.2.1) A

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			operational funding from non-financial corporates with remaining maturity of less than 6 months, between 6 months to 1 year and a 50% ASF factor on non-operational funding from non-financial corporates with remaining maturity of 1 year or more.	
18	BOT-ASF- Non op funds other parties less than 1 yr	BOT ASF on the non-operational portion of operational deposits, from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB, generated by clearing, custody and cash management activities, with remaining maturity of less than 1 year.	The ASF factor applicable to non-operational portion of operational accounts from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB, with remaining maturity less than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor on non-operational portion of operational accounts from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, and sovereign, PSE, MDB and NDB with remaining maturity of less than 1 year.	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.5) C
19	BOT ASF - Non op funds other parties greater than 1 yr	BOT ASF on non-operational funding, from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central	The ASF factor applicable to non-operational funding, from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB, with remaining maturity less than 1 year are pre-defined as part of this assumption. This assumption applies a 0% ASF factor and a 50% ASF factor on non-operational funding from all except retail, SME, AoP, Trusts,	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.5) C

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		banks, sovereign, PSE, MDB and NDB.	partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB with remaining maturity of less than 6 months and between 6 months to 1 year respectively. It applies a 100% ASF factor on non-operational funding from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB with remaining maturity of 1 year or more.	
20	BOT-ASF- Non op part of op dep-corp with mat less than 1yr	BOT ASF on non-operational funding, from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB, with remaining maturity greater than 1 year and where the cash flows are occurring within 1 year and greater than 1 year.	The ASF factor applicable to non-operational cash flows, from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB, with remaining maturity greater than 1 year with cash flow maturity within 1 year and greater than 1 year, are pre-defined as part of this assumption. This assumption applies a 0% ASF factor and 50% ASF factor on non-operational cash flows from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereign, PSE, MDB and NDB with cash flow maturity of less than 6 months and between 6 months to 1 year respectively. It applies a 100 % ASF factor on non-operational cash flows from all except retail, SME, AoP, Trusts, partnerships, HUF, corporates, banks, central banks, sovereigns, PSEs, MDBs and NDBs with cash flow maturity of 1 year or more.	MC Paragraphs - 4.2.2 (1.2.5) A 4.2.2 (1.2.5) C
21	BOT-ASF- Trade date payables	[BOT]: Trade date payables arising from purchases of foreign currencies, financial instruments and commodities that are expected to settle or	The ASF factor applicable to trade payable cash flows arising from purchases of foreign currencies, financial instruments and commodities expected to settle within the standard settlement cycle, are pre-defined in this assumption. This assumption applies 0% ASF factor on the trade payable cash flows.	MC Paragraph - 4.2.2 (1.2.5) D

Sl. No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		have failed but are expected to settle within the standard settlement cycle.		
22	BOT-ASF- Liabilities with open maturity	[BOT]: Secured deposits and all other borrowings and which do not have a stated maturity.	The ASF factor applicable to all the other fundings without any stated maturity are pre-defined in this assumption. This assumption applies 0% ASF factor on all the fundings without any maturity.	MC Paragraph -4.2.2 (1.2.5) B
23	BOT-ASF- Borr and Liabilities with maturities beyond 1 year	[BOT]: Borrowings and liabilities with residual maturities and cash flows falling beyond 1 year.	The ASF factors applicable to all other fundings with remaining maturity of greater than 1 year with cash flow maturity within 1 year, are pre-defined in this assumption. This assumption applies 0% ASF factor on the cash flows.	MC Paragraph - 4.2.2 (1.2.1) C
24	BOT-ASF- Net NSFR Derivative Liabilities	[BOT]: ASF derivative liabilities net of derivative assets, where derivative liability is net of any variation margin posted and derivative asset is net of cash margin received.	The ASF factor applicable to all derivative contracts including netted derivative contracts, where the net aggregate mark to market value of the contracts for an entity including any variation margin adjustment is negative, is pre-defined as part of this assumption. The assumption applies a 0% ASF factor to the derivative liabilities net of derivative assets, where the net aggregate mark to market value of the contracts is negative.	MC Paragraph - 4.2.2 (1.2.5) C

3.3.1.2 Required Stable Funding Factor

This section enlists all the pre seeded assumptions acting on assets and off balance sheet items which receive an RSF factor.

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
1	BOT-RSF- Coins and banknotes	[BOT]: Coins, banknotes, cash and restricted cash held by the bank.	The RSF factor applicable to coins, banknotes, and cash held by the bank, is pre-defined as a part of this assumption. This assumption applies 0% RSF factor on the coins, banknotes, and cash held by bank.	MC Paragraph - 4.2.2 (2.2.1) A
2	BOT-RSF- Central bank reserves	[BOT]: All central bank reserves, including, required reserves and excess reserves.	The RSF factors applicable to required and excess central bank reserves, are pre-defined as a part of this assumption. This assumption applies 0% RSF factor to all central bank reserves.	MC Paragraph - 4.2.2 (2.2.1) B
3	BOT-RSF- Unencumbered claims on central banks	[BOT]: Unencumbered loans and other claims on central banks	The RSF factors applicable to fully performing unencumbered loans and claims on central banks, with remaining maturity of less than 1 year, are pre-defined as part of this assumption. This assumption applies 0%, 50% and 100% RSF factors to the loans and claims on central banks with remaining maturity of less than 6 months, between 6 months and 1 year, and 1 year or more respectively.	MC Paragraphs - 4.2.2 (2.2.1) C 4.2.2 (2.2.5) B 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
4	BOT-RSF- Encumbered claims on central banks	[BOT]: Encumbered loans and other claims on central banks	The RSF factors applicable to fully performing encumbered loans and claims on central banks, maturing within a year and encumbrance period 1 year or more, are pre-defined as part of this assumption. For the qualifying assets with encumbrance period of less than 6 months, the assumption applies 0%, 50%, and 100% RSF factors based on a remaining maturity of less than 6 months, between 6 months and 1 year, and 1 year or more respectively. For assets with encumbrance period of between 6 months and 1 year, the assumption applies 50%, and 100% RSF factors based on a remaining maturity of less than 1 year and 1 year or more respectively. A 100% RSF factor is applied to all assets maturing within a year and encumbrance period of 1 year or more.	MC Paragraph - 4.2.2 (2.2.1) C 4.2.2 (2.2.5) B 4.2.2 (2.3)
5	BOT-RSF- Unenc loans to fin insti secured by level 1 asset	[BOT]: Unencumbered loans to financial institutions where the loan is secured against level 1 assets as defined in the LCR.	The RSF factors applicable on the unencumbered loans given to financial institutions secured by a level 1 asset, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies RSF factor of	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4) 4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			10%,50%,100% on the unencumbered secured loans given to financial institutions secured by level 1 asset with remaining maturity of less than 6 months, 6 months to 1 year and 1 year or more respectively, where the collateral received can be re-hypothecated for the life of loan. The assumption applies RSF factor of 15%,50%,100% on the unencumbered secured loans given to financial institutions secured by level 1 asset with remaining maturity of less than 6 months, 6 months to 1 year and 1 year or more respectively, where the collateral received cannot be re-hypothecated for the life of loan.	
6	BOT-RSF- Encum loans to fin inst secured by level 1 asset	[BOT]: Encumbered loans to financial institutions where the loan is secured against level 1 assets as defined in the LCR.	The RSF factors applicable on the encumbered loans given to financial institutions secured by a level 1 asset, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies relevant RSF factors on the encumbered secured loans based on the encumbrance period and residual maturity. The Level 1 asset received as collateral can further be re-hypothecated to raise funds.	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4) 4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
7	BOT-RSF- Unenc loans to fin inst sec by Non-level 1 assets	[BOT]: Unencumbered loans to financial institutions where the loan is secured against assets belonging to levels other than level 1, as defined in the LCR.	The RSF factors applicable on the unencumbered loans given to financial institutions secured by assets belonging to levels other than level 1, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies RSF factor of 15%, 50%, and 100% on the unencumbered secured loans given to financial institutions secured by assets belonging to levels other than level 1 with remaining maturity of less than 6 months, 6 months to 1 year and 1 year or more respectively.	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4) 4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)
8	BOT-RSF- Encum loans to fin inst sec by Non-level 1 assets	[BOT]: Encumbered loans to financial institutions where the loan is secured against assets belonging to levels other than level 1, as defined in the LCR.	The RSF factors applicable on the encumbered loans given to financial institutions secured by a assets belonging to levels other than level 1, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies relevant RSF factor on the encumbered secured loans based on the residual maturity and encumbrance period of the loan.	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4) 4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)
9	BOT-RSF- Unenc unsecured loans to	[BOT]: Unencumbered unsecured loans excluding overdrafts to financial	The RSF factors applicable on the unencumbered unsecured loans given to	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
	financial instituitions	institutions.	financial institutions, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies RSF factor of 15%, 50%, and 100% on the unencumbered unsecured loans given to financial institutions, with remaining maturity of less than 6 months, 6 months to 1 year and 1 year or more respectively.	4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)
10	BOT-RSF- Enc unsecured loans to financial instituitions	[BOT]: Encumbered unsecured loans to financial institutions.	The RSF factors applicable on the encumbered unsecured loans given to financial institutions, with residual maturity less than 1 year, are pre-defined as a part of this assumption. The assumption applies relevant RSF factor on the encumbered secured loans given to financial institutions based on the residual maturity and encumbrance period of the loan.	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.2.4) 4.2.2 (2.2.5) A 4.2.2 (2.2.8) 4.2.2 (2.3)
11	BOT-RSF- Unenc loans to others, mat less than 1yr	[BOT]: Unencumbered loans with residual maturity less than a year to other counterparties i.e. Non financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns.	The RSF factors applicable to fully performing unencumbered loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns, with remaining maturity of less than 1 year, are per defined as part of this assumption. This assumption	MC Paragraphs - 4.2.2 (2.3) 4.2.2 (2.2.5) D

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			applies 50% RSF factors on the loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns with remaining maturity of less than 1 year.	
12	BOT-RSF- Enc loans to others, mat less than 1yr	[BOT]: Encumbered loans with residual maturity less than a year to other counterparties i.e. Non financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns.	The RSF factors applicable to fully performing encumbered loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns, with remaining maturity of less than 1 year, are per defined as part of this assumption. This assumption applies 50% RSF factors on the encumbered loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns with remaining maturity of less than 1 year.	MC Paragraphs - 4.2.2 (2.3) 4.2.2 (2.2.5) D
13	BOT-RSF- Unenc loans to others, mat more than 1 yr	[BOT]: Unencumbered loans with residual maturity more than a year to other counterparties i.e. Non financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns.	The RSF factors applicable to fully performing unencumbered loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns, with remaining maturity of more than 1 year with standardized risk weights under Basel 2 approach, are per	MC Paragraphs - 4.2.2 (2.3) 4.2.2 (2.2.6) 4.2.2 (2.2.7) B

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			defined as part of this assumption. This assumption applies a 65 % RSF factors on the loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns with remaining maturity of more than 1 year and risk weight more than or equal to 35%. It applies a RSF factor of 85% on the loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns with remaining maturity of more than 1 year and risk weight greater than 35%.	
14	BOT-RSF- Enc Loans to others, mat more than 1yr	[BOT]: Encumbered loans with residual maturity more than a year to other counterparties i.e. Non financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns.	The RSF factors applicable to fully performing encumbered loans to non-financial corporates, retail and small business customers, sovereigns, Public sector enterprises and sovereigns, with remaining maturity of more than 1 year with standardized risk weights under Basel 2 approach, are per defined as part of this assumption. This assumption applies relevant RSF factors on the encumbered loans based on the residual maturity, encumbrance period and the risk	MC Paragraphs - 4.2.2 (2.3) 4.2.2 (2.2.6) 4.2.2 (2.2.7) B

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			weigh associated to the loan.	
15	BOT-RSF- Unenc non HQLA assets	[BOT]:Unencumbered securities, with maturity less than 1 year, which do not qualify as High quality liquid assets under the LCR Rule	The RSF factors applicable to unencumbered securities, with remaining maturity of less than 1 year and which do not qualify, as High quality liquid assets under the LCR Rule, are pre-defined as part of this assumption. The assumption applies a 50% RSF factor on unencumbered securities, which do not qualify as High quality liquid assets under the LCR Rule, with remaining maturity of less than 1 year	MC Paragraph - 4.2.2 (2.2.5) D 4.2.2 (2.2.7) C 4.2.2 (2.3)
16	BOT-RSF- Unenc non HQLA securities mat greater than 1yr	[BOT]:Unencumbered securities, with maturity greater than 1 year which do not qualify as HQLA under the LCR Rule	The RSF factors applicable to unencumbered securities, with remaining maturity of more than 1 year and which do not qualify as High quality liquid assets under the LCR Rule , are pre-defined as part of this assumption. The assumption applies a 85% RSF factor on unencumbered securities, with remaining maturity of more than 1 year, which do not qualify as High quality liquid assets under the LCR Rule.	MC Paragraph -4.2.2 (2.2.5) D 4.2.2 (2.2.7) C 4.2.2 (2.3)
17	BOT-RSF- Encumbered non	[BOT]:Encumbered portion of securities, with maturity less than 1 year which do	The RSF factors applicable to encumbered portion of the securities, with remaining	MC Paragraph -4.2.2 (2.2.5) D 4.2.2 (2.2.7) C

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
	HQLA assets	not qualify as High quality liquid assets under the LCR Rule	maturity of less than 1 year and which do not qualify as High quality liquid assets under the LCR Rule , are pre-defined as part of this assumption. The assumption applies a 50% RSF factor on encumbered portion of the securities, with remaining maturity of less than 1 year, encumbrance period of less than 1 year and which do not qualify as High quality liquid assets under the LCR Rule. It applies a 100% RSF factor on encumbered portion of the securities, with remaining maturity of less than 1 year, encumbrance period of 1 year or more and which do not qualify as High quality liquid assets under the LCR Rule.	4.2.2 (2.3)
18	BOT-RSF- Enc non HQLA assets mat greater than 1yr	[BOT]:Encumbered portion of securities, with maturity greater than 1 year which do not qualify as HQLA under the LCR Rule	The RSF factors applicable to encumbered portion of the securities, with remaining maturity of more than 1 year and which do not qualify as High quality liquid assets under the LCR Rule, are pre-defined as part of this assumption. The assumption applies a 85% RSF factor on encumbered portion of the securities, with remaining maturity of 1 year or more, encumbrance period of less than 1 year and which do not qualify as High quality liquid	MC Paragraph -4.2.2 (2.2.5) D 4.2.2 (2.2.7) C 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			assets under the LCR Rule. It applies a 100% RSF factor on encumbered portion of the securities, with remaining maturity of 1 year or more, encumbrance period of 1 year or more and which do not qualify as High quality liquid assets under the LCR Rule.	
19	BOT-RSF-Unencumbered level 1 assets	[BOT]: Unencumbered assets which qualify for inclusion in Level 1 of High quality liquid assets as defined in the LCR.	The RSF factors applicable to unencumbered assets, which qualify for inclusion in Level 1 of High quality liquid assets as defined in the LCR, are pre-defined as a part of this assumption. The assumption applies a 5% RSF factor on the unencumbered Level 1 assets.	MC Paragraph - 4.2.2 (2.2.2)
20	BOT-RSF-Unencumbered level 2A and 2B assets	[BOT]: Unencumbered assets which qualify for inclusion in Level 2A and 2B of High quality liquid assets as defined in the LCR.	The RSF factors applicable to unencumbered assets, which qualify for inclusion in Level 2A, and 2B of High quality liquid assets as defined in the LCR, are pre-defined as a part of this assumption. The assumption applies a 15% RSF factor on the unencumbered Level 2A assets and a RSF factor of 50% on the unencumbered Level 2B assets.	MC Paragraphs - 4.2.2 (2.2.4) A 4.2.2 (2.2.5) A
21	BOT-RSF-Encumbered level 1	[BOT]: Encumbered portion of assets which qualify for inclusion in Level 1 of	The RSF factors applicable to encumbered portion of assets, which qualify for inclusion in	MC Paragraphs - 4.2.2 (2.2.2) 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
	assets	High quality liquid assets as defined in the LCR.	Level 1 of High quality liquid assets as, defined in the LCR, are pre-defined as a part of this assumption. The assumption applies 50% and 100% RSF factors on the encumbered portion of Level 1 assets, with encumbrance period of less than 1 year and1 year or more respectively.	
22	BOT-RSF- Encumbered level 2 assets	[BOT]: Encumbered level 2 assets	The RSF factors applicable to encumbered portion of assets, which qualify for inclusion in Level 2A, and 2B of High quality liquid assets as defined in the LCR, are pre-defined as a part of this assumption. The assumption applies 15%, 50% and 100% RSF factors on the encumbered portion of Level 2A assets, with encumbrance period of less than 6 months, between 6 months to 1 year and1 year or more respectively. It applies 50% and 100% RSF factors on the encumbered portion of Level 2B assets, with encumbrance period of less than 1 year and1 year or more respectively.	MC Paragraphs - 4.2.2 (2.2.5) D 4.2.2 (2.3)
23	BOT-RSF- Unencum operational balances with other banks	[BOT]: Operational portion of Unencumbered deposits held at other financial institutions, for operational	The RSF factors applicable to operational portion of unencumbered deposits held at other financial institutions to fulfill the	MC Paragraph - 4.2.2 (2.2.5) C

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		purpose and are subject to the 50% ASF treatment.	operational requirements, with remaining maturity of less than 1 year, are pre-defined as part of this assumption. The assumption applies RSF factor of 50% and 100% on operational portion of unencumbered deposits held at other financial institutions, with remaining maturity of less than 1 year and1 year or more respectively.	
24	BOT-RSF- Unencum non operational balances with other banks	[BOT]: Non-operational portion of Unencumbered deposits held at other financial institutions, for operational purpose and are subject to the 50% ASF treatment.	The RSF factors applicable to non-operational portion of unencumbered deposits held at other financial institutions to fulfill the operational requirements, with remaining maturity of less than 1 year, are pre-defined as part of this assumption. The assumption applies RSF factor of 15%, 50% and 100% on non-operational portion of unencumbered deposits held at other financial institutions, with remaining maturity of less than 6 months, between 6 months to 1 year and1 year or more respectively.	MC Paragraphs - 9.6 D, BIS FAQ July 2016, point 32
25	BOT-RSF- Unencumbered residential mortgage loans	[BOT]: Unencumbered residential mortgage loans which would qualify for a) 35% or lesser risk weight as per Basel 2 Standardised approach for credit risk b)	The RSF factors applicable to unencumbered residential mortgage loans, with standardized risk weights under Basel 2 approach, are per defined as part of this assumption. The	MC Paragraphs - 4.2.2 (2.2.6) A and B 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		higher than 35% risk weight as per Basel 2 Standardised approach for credit risk	assumption applies RSF factors of 50% and 65% on the unencumbered residential mortgage loans, with remaining maturity of less than 1 year and1 year or more respectively, with risk weights less than or equal to 35%. It applies RSF factors of 50% and 85% on the unencumbered residential mortgage loans, with remaining maturity of less than 1 year and1 year or more respectively, with risk weights greater than 35%.	
26	BOT-RSF-Encumbered residential mortgage loans	[BOT]: Encumbered residential mortgage loans which would qualify for a) 35% or lesser risk weight as per Basel 2 Standardised approach for credit risk b) higher than 35% risk weight as per Basel 2 Standardised approach for credit risk	The RSF factors applicable to fully performing encumbered residential mortgage loans, with standardized risk weights under Basel 2 approach, are per defined as part of this assumption. This assumption applies RSF factors of 50% and 65 % on the encumbered residential mortgage loans, with remaining maturity of less than 1 year and greater than equal to 1 year respectively, encumbrance period is less than 1 year and risk weight is less than or equal to 35%. It applies a RSF factor of 100% on the encumbered residential mortgage loans with remaining maturity of	MC Paragraphs - 4.2.2 (2.2.6) A and B 4.2.2 (2.3)

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			more than 1 year, encumbrance period of more than 1 year and risk weight is more than 35%.	
27	BOT-RSF- Trade date receivables	[BOT]: Trade date receivables arising from purchases of foreign currencies, financial instruments and commodities that are expected to settle or have failed but are expected to settle within the standard settlement cycle.	The RSF factor applicable to trade date receivables arising from purchases of foreign currencies, financial instruments and commodities that are expected to settle or have failed but are expected to settle within the standard settlement cycle, are pre-defined as part of this assumption. The assumption applies 0% RSF factor to the trade receivables, which expected to settle within settlement cycle.	MC Paragraphs - 4.2.2 (2.2.1) D

3.3.1.3 Derivatives

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
1	BOT-RSF- Additional Derivative Liability	[BOT]: RSF Additional portion of derivative liabilities to be included as part of RSF.	The RSF factor applicable to all derivative contracts including netted derivative contracts, where the aggregate mark to market value of the contracts prior to any variation margin adjustment is negative, is pre-defined as part of this assumption. The assumption applies a 100% RSF factor to the 20% of negative mark-to-mark value for the aforementioned derivative contracts.	MC Paragraph - 4.2.2 (2.2.8) C
2	BOT -RSF - Net NSFR Derivative Liabilities	[BOT]: RSF derivative liabilities net of derivative assets, where derivative liability is net of any variation margin posted and derivative asset is net of cash margin received.	The RSF factor applicable to all derivative contracts including netted derivative contracts, where the net aggregate mark to market value of the contracts for an entity including any variation margin adjustment is negative, is pre-defined as part of this assumption. The assumption applies a 0% RSF factor to the derivative liabilities net of derivative assets, where the net aggregate mark to market value of the contracts is negative.	MC Paragraph - 4.2.2 (1.2.5) C
3	BOT-RSF- Net NSFR Derivative assets	[BOT]: RSF derivative assets net of derivative liabilities, where derivative liability is net of any variation margin	The ASF factor applicable to all derivative contracts including netted derivative contracts, where the net aggregate mark to market value	MC Paragraph - 4.2.2 (2.2.8) A

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
		posted and derivative asset is net of cash margin received.	of the contracts for an entity including any cash margin adjustment is positive, is pre-defined as part of this assumption. The assumption applies a 100% RSF factor to the derivative assets net of derivative liabilities, where the net aggregate mark to market value of the contracts is positive.	
4	BOT-RSF- Margin for derivatives	[BOT]: RSF Treatment of initial margin posted against derivative transactions.	The RSF factor applicable to the initial margin posted for the derivative contracts is pre-defined as part of this assumption. The assumption applies a 85% RSF factor to the initial margin posted against the derivative contracts.	MC Paragraph - 4.2.2 (2.2.7) A

3.3.1.4 Off-Balance Sheet Items

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
1	BOT-RSF- Credit and liquidity facilities to client	[BOT]: Off balance sheet exposures- Irrevocable, revocable and conditionally revocable credit and liquidity facilities offered to any clients by the bank	The RSF factor applicable to irrevocable, revocable and conditionally revocable credit and liquidity facilities offered to any clients by the bank, is pre-defined as part of this	MC Paragraph - 2.4

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			assumption. The assumption applies a 5% RSF factor to the undrawn amount of irrevocable and conditionally revocable credit and liquidity facilities and RSF factor of 2% in case of revocable credit and liquidity facilities.	
2	BOT-RSF- Guarantees and letters of credit	[BOT]: Off balance sheet exposures- Guarantees and letters of credit	The RSF factor applicable to the Guarantees and Letters of credit offered by the bank, is pre-defined as part of this assumption. The assumption applies a 0.5% RSF factor to the EOP balance of the trade related Guarantees and Letters of credit and RSF factor of 1% for non-trade related Guarantees and Letters of credit.	MC Paragraph - 2.4
3	BOT-RSF- Non contractual obligations type	[BOT]: Non contractual obligations type such as managed funds etc	The RSF factor applicable to the non-contractual obligations type such as managed funds, is pre-defined as part of this assumption. The assumption applies 5% RSF factor to the aforesaid non-contractual obligations amount.	MC Paragraph - 2.4
4	BOT-RSF- Non contractual obligations	[BOT]: Non contractual obligations type such as Adjustable Rate Notes and Variable Rate Demand Notes (VRDNs).	The RSF factor applicable to the non-contractual obligations for structured products such as Variable rate notes (VRDNs), Adjustable rate notes (ARDNs) etc. offered by	MC Paragraph - 2.4

Serial No.	Assumption Name	Assumption Description	Regulatory Requirement Addressed	Regulatory Reference : Notification of the Bank of Thailand No. FPG. 1 /2561
			the bank, is pre-defined as part of this assumption. The assumption applies 100% RSF factor to the EOP balance for aforesaid non-contractual obligations.	
5	BOT-RSF- Debt Buy Back Requests	[BOT]: Non contractual obligations type such as requests for debt repurchases.	The RSF factor applicable to the non-contractual obligations for debt repurchase, is pre-defined as part of this assumption. The assumption applies 10% RSF factor to the debt buy back amount if the bank acts as dealer or market maker and 5% in case the bank is not the market maker or dealer for the debt securities issued or sponsored.	MC Paragraph - 2.4

NOTE: Undrwn contrctual committed facilities is configured as a T2T.

4 Appendix A – Data Transformations/Functions used in LRRCBOT

This section provides information about the Data Transformations (DTs) or functions used in LRRCBOT application.

- **TB_DATE_ASSIGNMENT**

  This function performs the following:

  a. Identifies the dates between the bucket start day and bucket end day.
  b. Populates the intermediate dates based on the chosen FIC-MIS date, in FSI_LRM_TIME_BUCKET_DAYS.
  c. The business day convention (prior, conditional prior, following, no-Adjustment) gets applied, taking into account the holiday calendar applicable for a Legal Entity, and gets populated in FSI_LRM_TIME_BUCKET_DETAILS for each Legal Entity.

- **BOT_INS_UNINS_AMT_CALC**

  This function calculates the insured and uninsured amounts, and updates this information at an account-customer combination in the FSI_LRM_ACCT_CUST_DETAILS table.

- **UPD_PROCESS_SCENARIO_KEY**

  This function updates the process scenario Skey in DIM_FCST_RATES_SCENARIO tables. It performs the following:

  a. Reads the current Run information from FCT_LRM_RUN_PARAM and DIM_RUN tables.
  b. Populates the Contractual/Business as usual Run name, Run type, Run description into DIM_FCST_RATES_SCENARIO table from DIM_RUN.
  c. Updates the process key for current Run in FCT_AGG_BASE_CCY_LR_GAP table storing liquidity risk gap measures in base currency.
  d. Updates the process key for current Run in FCT_AGG_BASE_CCY_LR_GAP table storing liquidity risk gap measures in consolidated currency.
  e. Updates both local and natural, inflow and outflow amount columns in FCT_AGG_CASH_FLOWS using exchange rate conversion.
  f. Updates both inflow and outflow local currency amount columns in FCT_ACCOUNT_CASH_FLOWS using exchange rate conversion.
  g. Updates both local and natural currency amount columns in FCT_LRM_LE_SUMMARY using exchange rate conversion.

- **UPDATE_UNDERLYING_ASSETS**

  This function updates all the attributes of the underlying assets, mitigants or placed collateral of an account such as asset level, fair value, market value, and so on, in the FSI_LRM_INSTRUMENT table. For example, consider a loan contracts for which a mitigant is received. This loan account is captured in STG_LOAN_CONTRACTS table and the mitigant information is captured in STG_MITIGANTS. The link between the loan account and the mitigant is captured in STG_ACCOUNT_MITIGANT_MAP table. From STG_ACCOUNT_MITIGANT_MAP table, data moves to FCT_ACCOUNT_MITIGANT_MAP table.

  The function identifies the account mitigant mapping from FCT_ACCOUNT_MITIGANT_MAP and updates the attributes of the mitigant against the loan account in FSI_LRM_INSTRUMENT table. For example, if the market value of the mitigant is $500, then the function updates the column FSI_LRM_INSTRUMENT.N_UNDERLYING_RECV_LEG_MKT_RCY as $500 for the loan contract account.

  Similarly, consider another example of repo contract where the bank has placed collateral. The repo contract is captured in STG_REPO_CONTRACTS and moved to FSI_LRM_INSTRUMENT table. The collateral placed against the repo contract is captured in STG_PLACED_COLLATERAL table. The relationship between placed collateral and the REPO contract is captured in STG_ACCT_PLACED_COLL_MAP and is moved to FCT_ACCT_PLACED_COLL_MAP.

  The function updates the asset level of the placed collateral against the repo contract in FSI_LRM_ISNTRUMENT table, which indicates that the FSI_LRM_INSTRUMENT.N_UNDERLYING_ASSET_LEVEL_SKEY is updated.

  Similarly, the function updates the following attributes of the underlying asset (Mitigant/Placed Collateral) in FSI_LRM_ISNTURMENT table:

  - N_UNDERLYING_ASSET_LEVEL_SKEY
  - N_UNDERLYING_MKT_RCY
  - N_UNDERLYING_FAIR_RCY
  - F_UNDERLY_QUALIF_UNENCUMB
  - N_UNDERLY_RISK_WEIGHT_SKEY
  - N_UNDERLY_STD_ISSUER_TYPE_SKEY
  - N_UNDERLY_STD_PROD_TYPE_SKEY
  - N_UNDERLYING_INST_BASEL_RATING
  - F_UNDERLY_COLL_COVER_SHORT_POS

- F_UNDRLY_COVER_BANK_SHORT_POS
- F_UNDRLY_COVER_CUST_SHORT_POS
- F_UNDERLY_ISSUER_FINAN_ENTITY
- F_UNDERLY_REHYPOTHECATED_FLAG
- F_UNDERLYING_ISSUER_US_FLAG
- F_UNDERLYING_GUARANTOR_US_FLAG
- F_UNDRLYNG_PLACED_HQLA_FLAG
- F_UNDERLYING_HELD_BY_CLIENT
- F_UNDRLYNG_ASST_SEGREGATED_IND
- N_HQLA_MIT_VAL_RCY
- N_NON_HQLA_MIT_VAL_RCY
- N_EXP_NOT_COV_BY_HQLA_MIT_RCY

These columns are used for calculating the adjustments to be performed in the stock of HQLA process and also in business as usual assumptions.

This DT identifies the underlying asset of an account from the mapping tables (FCT_ACCOUNT_MITIGANT_MAP and FCT_ACCT_PLACED_COLL_MAP), reads the attributes of the underlying asset (mitigant from FCT_MITIGANTS and placed collateral from FSI_LRM_INSTRUMENT) and updates the same against the account in FSI_LRM_INSTURMENT table using the following steps:

a. Assigns the used portion of a placed collateral in FCT_ACCT_PLACED_COLL_MAP table, that is, updates FCT_ACCT_PLACED_COLL_MAP.N_DRWN_PORTION_COLL_AMT.
b. Assigns the underlying asset level.
c. Assigns the underlying asset level Skey of SUBSTITUTABLE COLLATERAL to
    - Derivative Products
    - Non-Derivative Products

    Updates the N_COLL_SUBSTITU_ASSET_LVL_SKEY and N_SBSTBL_ASST_LVL_ENT_SKEY of FSI_LRM_INSTRUMENT table
d. Assigns revised maturity date Skey for ('CS','REVREPO','DRB','SECBORR') product, that is FLI.N_REVISED_MATURITY_DATE_SKEY.

Updates the encumbrance percent in FSI_LRM_INSTRUMENT against the placed collateral records, that is, FLI.N_PERCENT_ENCUMBERED.

5 Appendix B – User Configuration and Settings

5.1 Standard Reclassifications

The regulatory guidelines specify classifications and computations based on certain generic product and party types. Each bank, internally, will have its own product and party types, which differ from bank to bank. In order to ensure consistency in computations, the application supports two standard dimensions based on the regulatory guidelines:

- Standard Product Type
- Standard Party Type

The bank specific product and party types, which are accepted as a download in the staging tables, are required to be reclassified to standard product and party types supported by OFS LRRCBOT respectively.

5.1.1 Standard Product Type Reclassification

Banks should to map their specific product types to the Standard Product Types as part of the rule BOT LCR - Standard Product Type Reclassification. The application then reclassifies the bank product types to Standard Product Types and utilizes the Standard Product Types for further processing.

5.1.2 Standard Party Type Reclassification

Banks are required to map their specific party types to the Standard Party Types as part of the rule LRM - Standard Party Type Reclassification. The application then reclassifies the bank party types to Standard Party Types and utilizes the Standard Party Types for further processing. Party types include customer type, issuer type and guarantor type.

5.2 Mitigant Sub Type Classifications

Banks are required to map their mitigant product types to the Standard Product Types as part of the rule LRM - Mitigant Sub Type Classification. The application then reclassifies the bank mitigant types to Standard product Types, and utilizes this for further processing.

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