**BOCNY Liquidity Buffer Management Procedure**

**September 2021**

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| **Version** | **Date Changes Made** | **Author** | **Description of Changes** |
| 1.0 | August, 2016 | TRD | Initial Creation |
| 2.0 | January, 2017 | TRD | Update |
| 3.0 | June, 2018 | TRD | Update |
| 4.0 | May, 2019 | TRY | Update |
| 5.0 | July, 2020 | TRY | Update |
| 6.0 | September, 2021 | TRY | Updated with system enhancement; aligned with current business practice and requirements |

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| **Identifying Information** |  |
| **Title** | BOCNY Liquidity Buffer Management Procedure |
| **Procedure Owner** | Treasury |
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| **Effective Date** | September 2021 |
| **Location** | J:\Liquidity and Funding Team\1. Policy & Procedures\1.2 BOC USA Policy & Procedures\Liquidity Funding Procedures 2021\Liquidity Buffer |
| **Document Type** | Procedure |

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| **Approved by** |  | | |
| **SVP & Head of Treasury** |  |  |  | |
| Signature |  | Date | |

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| **Reviewed by** |  | | |
| **EVP** |  |  |  |
| Signature |  | Date |

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1. Executive Summary

The purpose of the Liquidity Buffer Management Procedure (“the Procedure”) is to outline Treasury (TRY) responsibilities and operational procedure to manage the liquidity buffer for Bank of China New York Branch and its satellite branches (collectively “BOC US Branches”, “BOCNY” or “the Branch”).

The liquidity buffer management consists of three components: cash management, liquidity buffer eligible securities management, and liquidity buffer reporting. This document only details the procedures responsible by TRY which pertain to the cash management and liquidity buffer reporting components.

* 1. Rationale

A minimum liquidity buffer is one of the requirements under Enhanced Prudential Standards regulation, which is calculated through the performance of the liquidity stress test. In order to determine whether BOCNY has sufficient liquidity buffer to meet the calculated minimum requirements, Treasury will identify and report the size and component of the liquidity buffer eligible assets as an input for the liquidity stress test.

* 1. Related Policies & Procedures

Related policies include Liquidity Risk Management Policy, BOC EPS Liquidity Stress Test Documentation, Bank of China Combined U.S. Operations Contingency Funding Plan and Bank of China USA Contingency Funding Plan.

1. The Scope

The scope of the Procedure applies to Treasury. In the management of the liquidity buffer, Treasury will follow this Procedure and work with relevant departments such as Global Markets Department (MKD) which executes money market transactions to provide funding support.

1. Liquidity Buffer Requirements

As stated in the Management of High Quality Liquid Asset section in the Liquidity Risk Management Policy, the bank shall hold adequate high quality liquid assets to timely meet liquidity demands defined under stress scenarios. High quality liquid assets shall be unencumbered assets, which may include assets that can be liquidated by sale or pledge.

The buffer is managed by Treasury and must be held in accounts physically located in the United States of America which they can operate unhindered.

The buffer composition must consist of unencumbered, high liquid asset that includes:

Type A: Cash

Type B: Securities issued or guaranteed by the United States, a US government agency, or a U.S. government sponsored enterprise; or

Type C: Any other asset that the foreign banking organization demonstrates to the satisfaction of the Board:

1. Has low credit risk and low market risk;
2. Is traded in an active secondary two-way market that has committed market makers and independent bona fide offers to buy or sell so that a price reasonably related to the last sales price or current bona fide competitive bid and offer quotations can be determined within one day and settled at the price within a reasonable time period conforming with trade custom; and
3. Is a type of asset that investors historically have purchased in periods of financial market distress during which market liquidity has been impaired.

The asset must be unencumbered. For purposes, an asset is unencumbered if it:

1. Is free of legal, regulatory, contractual, or other restrictions on the ability of such company promptly to liquidate, sell or transfer the asset; and
2. Is either:
3. Not pledged or used to secure or provide credit enhancement to any transaction; or
4. Pledged to a central bank or a US government sponsored enterprise, to the extent potential credit secured by the asset is not currently extended by such central bank or U.S. government sponsored enterprise or any of its consolidated subsidiaries.

In calculating the amount of a highly liquid asset included in the buffer, BOCNY must discount the fair market value of the asset to reflect any credit risk and market price volatility of the asset. The investment securities will be applied a discount with reference to regulatory guidance and market practices. The discount source will be documented.

The liquidity buffer must not contain significant concentrations of highly liquid asset by issuer, business sector, region, or other factors related to the bank’s risk, except with respect to cash and securities issued or guaranteed by the United States, a U.S. government agency, or a U.S. government-sponsored enterprise.

1. Cash Management Procedures
   1. Federal Reserve Balance projections

Treasury will forecast the end of day Federal Reserve balance daily. The projection uses the actual Fed Balance from the previous business day and takes into account changes that may affect the end of the day balance. Changes include projected balance for major accounts at BOCNY, expected cash flows from material money market transactions and deposits or lending transactions. In order to provide MKD sufficient time to take potential action, the morning forecast should be completed in the early morning and the midday forecast would be reviewed by 1:00 p.m.

* + 1. Daily Projected Fed Balance Spreadsheet

When all the appropriate columns in *PROJECTED BALANCE FROM GPS* and *TRANSACTIONS OF TODAY* are accounted for the current day, the *NEW PROJECTED* will be the total of the previous day’s *ACTUAL FED* plus *CHANGE FROM PREVIOUS DAY* and *OTHER DAILY CASHFLOW*. The *NEW PROJECTED* should be recorded in the column *MORNING FORECAST* and should exclude any deals done during office hours for the current day. Orders filled overnight (Head Office’s overnight deposit order, borrowing from Asia Market filled by brokers) should be included. For forecast updates made and sent out during the day due to material forecast change made based on new information, the updated number shall be put in the *MIDDAY FORECAST*.

* + 1. Instructions for Global Payment System/ liquidity management systemThe Global Payment System is the bank settlement system that provides real time information.

Finding the *ACTUAL FED* in GPS for the previous business day is outlined in the steps listed below:

1. BOC NY GPS System
2. Application Menu
3. Monitor Menu
4. Fedwire Menu
5. Monitor Display
6. The *Opening Bal* displays the previous business day’s *ACTUAL FED* balance.

Steps to retrieving account balances from GPS:

1. Sign in
2. BOC NY GPS System
3. Application Menu
4. Payment Customer Position
5. Select Customer from drop down menu

List of some major accounts that are considered in the projection calculation:

* BOC Head Office
* BOC Hong Kong
* China Investment Corporation (CIC)
* PBOC-SAFE
* China Development Bank (CDB)
* Chicago Mercantile Exchange (CME)
* Export Import Bank of China (EXIMBOC)

The projected end of day balances for the above major accounts will be retrieved based on the GPS system’s Opening Balance and Projected Balance numbers, except for BOC Head Office, BOC Hong Kong and PBOC.

In addition to the method of retrieving individual customer balances from jGPS, the Intraday Liquidity Management System can be leveraged by using the EoD Fed Balance Projection function to provide a consolidated view of customer balances previously mentioned. The interface between ILMS and jGPS allows the EoD Fed Balance Projection to display figures as they appear in jGPS. This consolidated view of balances in one location reduces time spent on data retrieval for the purpose of enhancing the projection process.

Steps for retrieving customer balances in ILMS:

1. Sign in
2. Navigating the menu choose Application🡪Fed Balance Projection🡪Old Data View🡪*Select desired criteria*🡪Generate
3. To export ILMS into excel format click Download

In order to produce a reasonable forecast in the morning, the projected end of day balance for Bank of China Hong Kong Limited DDA account is assumed to be the 25th percentile of the trailing 12 months balances. For Bank of China Head Office, its DDA accountwill be based on its projected balance, the 25th percentile of the trailing 12 months and communications with Head Office if any.. For PBOC-SAFE, the projected end of day balance is based on the forecast provided by PBOC directly to FID and passed by to TRY, which deemed more accurate and is shared through an email.

The designation of major accounts is subject to change depending on the size, activity of the account.

* + 1. Daily Transactions for Balance Projection

Head Office overnight order is sent by Head Office in the early morning of the current business day (end of Head Office business day).

REPO Head Office/NY will include any proceeds from repo deals. Typically, proceeds from repos will not be added in the first projection of the day (unless a deal was executed on a previous day with the value date being the current day).

Asia Borrowings is the total amount of Interbank borrowing from overseas Chinese Banks, which includes deals done through interbank brokers (ICAP and Tradition) at night during non-business hours on orders left by Money Market desk. This would be incorporated into the projection only if applicable.

Money Market will include any borrowing not done through a broker such as Interbranch/affiliate borrowing and lending and any CD issuance or maturity. Normally this field can constantly change as the Money Market desk will take more orders throughout the day. Any deals executed on a previous business day should be included here on its value date.

OTHER DAILY CASHFLOW will include all other known cash flows, which include: investment purchase/sell/maturity and cash flow reports from other departments or satellite branches (the current reporting threshold is any USD cash flow movements of 50 million or above are required to be reported to TRY).

* 1. Broadcast of Daily Fed Balance Projection

The projected end of day balance forecast should be sent daily to the relevant EVPs and Department Heads in the early morning.

Treasury will run another forecast before midday when needed. If the other forecast does not align or project a significant drop in liquidity, there should be another notification to relevant EVPs, Head of Treasury and applicable business department heads.

By midday, Treasury will send the projected end of day fed balance to members of General Management and Financial Management Department for purpose of the Asset Maintenance Ratio monitoring.

From midday to the close of business day, Treasury will monitor Federal Reserve Balance by checking the projected balances for major accounts shown in the GPS account. If there is a material change in the projection, Treasury will notify the relevant EVPs, Head of Treasury and Department Heads.

End of business day near Fed Wire close, Treasury will check the final Federal Reserve Balance and inform the Head of Treasury if there is an unexpected material change in the final balance.

1. Liquidity Buffer Management Reporting Procedures

The Branch’s liquidity buffer composes of Type A, Type B and Type C. Any kind of Type C assets is only included to the Liquidity Buffer if approved by the U.S. Risk and Management Committee.

Treasury will identify the assets that are classified as liquidity buffer. Treasury will use a spreadsheet that includes the following details that test whether an asset is a liquidity buffer: asset type, liquidity buffer classification (A, B, C if applicable), asset location, description, unencumbered status, liquidity buffer concentration and discounted market value that reflects any credit risk and market price risk volatility of asset.

The liquidity buffer position is recalculated based on the following process:

1. Treasury will review the list of liquidity buffer eligible securities and update it depending on new purchases, sell or maturity.
2. Treasury will ensure the liquidity buffer haircut assumptions (e.g. the 14 day yield change and financing haircuts) are accurately reflected in the spreadsheet.
3. Treasury will calculate the liquidity buffer size monthly using the spread sheet by updating the market value and applying the haircut assumptions. The buffer calculation is previous day’s calculation since the amounts will be known on the following day.
4. Treasury will monitor the adequacy of the liquidity buffer size.
5. Treasury will report the liquidity buffer size and composition to the Head of Treasury on a monthly basis. The report will be the previous day’s balance since the exact amounts of certain assets will be available the following day.
6. Treasury will report monthly on the size of the liquidity buffer over the past month and include the spread sheet that is used to calculate the liquidity buffer and the assumptions that are used in the calculation spread sheet; and MRD receives the report in order to perform review and validation.

Monthly calculation and reporting of the liquidity buffer size and composition to the Head of Treasury is deemed sufficient for now as the major component of the buffer is the Federal Reserve balance which is closely monitored and reported daily and the security portion of the buffer has been historically stable while the size is restricted by the Head Office and internal limit. However, the reporting frequency is subject to review and may change depend on the management needs.

1. Procedure Assurance Methods
   1. Awareness Methods

This procedure will be distributed within TRY so that relevant staff is aware of the procedure.

* 1. Update requirements

This Procedure will be reviewed and approved at least annually, and will be updated any time on a need basis. Material revision will require the approval of General Management in charge of the Department. Immaterial revision may be updated by the Head of Treasury.

1. Glossary

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| Abbreviation | Name |
| BOCNY | BOC New York Branch and its satellite branches |
| FMD | The BOCNY Financial Management Department |
| MRD | The BOCNY Market Risk Management Department |
| MKD | The BOCNY Global Markets Department |
| TRY | The BOCNY Treasury |
| U.S. Risk & Management Committee | U.S. Risk & Management Committee |

1. Monthly Liquidity Buffer Report Example

