|  |  |
| --- | --- |
| **Date** | 10/30/2017 |
| **MRA Project Manager** | Charlie Peng |

|  |  |
| --- | --- |
| **MRA #** | FRB-March2017-3 |

|  |  |
| --- | --- |
| **FED MRA#3** | |
| **Description of MRA** | **MRA #3: Improve risk capture in liquidity stress tests**  **Issue**: Bank of China does not currently include potential unsecured debt buy-backs or early maturities of fixed-term deposits in its stress scenarios.  ***Required Action*:** *By September 15, 2017, Management should incorporate the liquidity impact related to the possible buy-backs of outstanding debt and/or early maturities of fixed-term deposits. Notably, unexpected buy-backs prior to contractual maturities could have an immediate impact on available cash balances leaving the firm with less-than-anticipated buffer resources in a funding emergency.* |

|  |  |
| --- | --- |
| **Action Plan** | |
| **Description of Action Item(s) and Detailed Step(s)** | **BOC USA Response**: Due to BOC USA’s minimal unsecured debt issuances and historical data illustrating nominal amounts of early redemption of fixed-term deposits, the Bank assumed that the potential debt buy-back activities and early maturities of fixed-term deposits would be proportionally minimal in stress scenarios. However, Management commits to incorporate any liquidity impact related to the possible buy-backs of outstanding debt and/or early maturities of fixed-term deposits.  **BOC USA Action Plan and Timeline**: The Management will evaluate and leverage both external resources and internal historical data regarding early redemption behavior of fixed-term deposits to derive the early redemption rates in a funding emergency. It will also utilize external and internal data to assess the liquidity impact from potential unsecured debt buy-backs in stress scenarios.  IRM functions will review and validate the assumptions and relevant support data for potential buy-backs and early redemption rate projections. The Management will incorporate the early redemption rates into the liquidity stress testing and assess the impact on the Bank’s liquidity buffer. The methodology utilized for early redemption rates and potential unsecured buy-back rates will be well-documented and obtain the appropriate levels of approval.  The Management will implement the changes regarding early redemption rates or potential unsecured debt buy-back rates by September 15, 2017.  After the discussion meeting with FRB-NY on August 2nd, the Management committed to completing the internal auditing validation by October 31. |

|  |
| --- |
| **Part 1 – Evidence of Project Execution from the First Line of Defense** |

Description of artifacts proving execution of the remediation action: list and describe each individual document.

| **Number** | **Department** | **Description** | **Evidence** | |
| --- | --- | --- | --- | --- |
| First Line of Defense Involved: Financial Management Department (“FMD”), Treasury Department (“TRD”), Corporate Banking Department (“CBD”), Banking Department (“BKD”), Financial Institution Department (“FID”) | | | | |
| 1 | FMD | The Bank’s Financial Management Department (“FMD”) has evaluated and leveraged both external resources and internal historical data to assess the early redemption behavior of fixed-term deposits and derive the early redemption rates under stressed scenarios. The Bank conducted multiple interviews with business lines with respect to time deposit products. Academic research papers were referenced, which provided various early redemption behavior analyses. The result of academic research paper, however, was found not to be directly applicable to the Bank’s assumptions.  The Bank proposed an approach that derived the stressed early redemption rate using internal empirical data. Segmentation of Personal vs. Non-Personal was applied for the estimation of rates. Runoff rates under three stressed scenarios were estimated using different percentiles of historical early redemption rates.  Attached is the latest version of FLU (Front Line Unit)’s remediation documentation. FMD has assessed internal audit's observations and taken immediate actions to enhance the documentation. The actions taken are reflected in the attached documentation. | |  |
| 2 | TRD | Treasury Department (“TRD”) has utilized available external resources and internal data to assess the liquidity impact from potential unsecured debt buy-backs in stress scenarios. Reputational risk was the rational used for buy backs of senior unsecured debt, Yankee CDs and, Brokered CDs. Buy back rates were assigned specific to each scenario and each product utilizing product and market characteristics such as FDIC insurance and investor type.  Attached is the latest version of FLU (Front Line Unit)’s remediation documentation. TRD has assessed internal audit's observations and taken immediate actions to enhance the documentation. The actions taken are reflected in the attached documentation. | |  |

|  |
| --- |
| **Part 2 – Second Line of Defense Review Results** |

| **Number** | **Description** | **Evidence** |
| --- | --- | --- |
| 1 | As an Independent Risk Management (“IRM”) function, the Bank’s Market Risk Management Department (“MRD”) has conducted the independent review and effective challenge on the two FLUs’ proposal of fixed-term deposit early redemption rates and unsecured debt buyback rates. MRD’s review scope covered the data source and quality, theory and assumption, analysis and calculations, results and documentation.  Fixed-term Deposit Early Redemption Rates  The early redemption rate calculation methodology and assumptions are developed primarily based on the Bank’s historical observations, MRD concludes this early redemption rate methodology and assumptions are acceptable.  Brokered CD Early Redemptions & Unsecured Debt Buybacks Rates  The brokered CD early redemption and unsecured debt buyback assumptions are developed primarily based on internal historical data, customer behavior, and industry practice. After review and challenge, MRD concludes the calculation methodology and assumptions are acceptable and the proposed rates are conservative and justifiable.  Attached are the latest versions of IRM (Independent Risk Management) independent review documentation. MRD has assessed internal audit's observations and taken immediate actions to enhance the documentation. The actions taken are reflected in the attached documentation. |  |

|  |
| --- |
| **Part 3 – IAD Validation Review Results** |

Findings and Conclusion:

| **Description** | **Evidence** |
| --- | --- |
| Internal Audit Department (IAD) conducted independent validation on the Bank’s remediation for the MRA by assessing that the data required to determine the liquidity impact was approved and reviewed by management, assessing whether the resulting assumptions were supported with documentation and analysis and assessing the 2nd Line of Defense’s challenge of the assumptions.  **Overall conclusion**: The aggregated tasks evaluated address in a sustainable manner the letter and spirit of the recommendations as stipulated in the MRA in general. However, some tasks are not complete but the impact for the overall MRA remediation is not significant. Based on the test work performed, and in accordance with Bank of China New York Internal Audit rating methodology, IAD has assigned an overall rating of Partially Pass.  Attached is the internal audit validation report and supporting work papers. |  |