BOCNY Banking Book Hedging Procedure

May 2021

Version	Date Changes Made	Author	Description of Changes
V1.0	December 2019	Yuhan Wu and Xiaohui Wu	Procedure Initiation
V2.0	January 2021	Ying Ping and Xiaohui Wu	Periodic Update
V3.0	May 2021	Yuting Wang and Ping Deng	Update per Head Office New Policy

Identifying Information	
Title	Banking Book Hedging Procedures
Procedure Owner	MRD
Contact Information	Ping Deng
Effective Date	5/26/2021
Location	BoC Policy Library
Document Type	Procedure

Approved by		
MLRC		5/26/2021
		Date

Reviewed by		
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Contents

1. Background

Interest rate risk and foreign exchange ("FX") risk are two types of market risks ("market risk") in a bank's banking book. Risk hedging means a type of risk management activities through which a bank, to manage its market risk exposure, designates derivatives or non-derivative financial instruments as hedging instruments, so that the changes in the fair value or cash flows of hedging instruments are projected to offset the changes in the fair value or cash flows of the hedged items in whole or in part..

Bank of China USA ("BOCNY" or "the Bank") uses financial derivatives to hedge interest rate risk and FX risk in its banking book. This procedure is developed for the Bank to standardize and streamline its hedging activities in order to ensure the effectiveness of the market risk management and facilitate the business growth.

This procedure is to comply with the related policies as below
1). BOC Head Office Policy for Interest Rate Risk in the Banking Book Management
2). Bank of China Limited Administrative Measures for Hedging Market Risk in the Banking Book
3). BOCNY Market Risk Management Policy

2. Scope

This procedure is to provide guidelines for BOCNY departments and satellite branches involved in hedging activities, including Front Line Units (FLUs) - Treasury Department (TRY), Global Markets Department (MKD), Middle Office Department (MOD), Financial Management Department (FMD), Operation Service Department (OSD), Corporate Banking Department (CBD), Commodity Business Center (CBC), Financial Institutions Department (FID), Los Angeles Branch (LAB), Chicago Branch(CHB), Queens Branch (QNB) and Independent Risk Management (IRMs) - Market Risk Management Depart (MRD).

3. Roles & Responsibilities

3.1. Market and Liquidity Risk Management Committee (MLRC)

MLRC is responsible for:
- Reviewing and approving the risk hedging-related bank-wide procedures;
- Approving the bank-wide risk hedging limits according to the bank's risk appetite;
- Reviewing and escalating the limit breaches or raising risk matters to Risk Management & Internal Control Committee (RMICC).

3.2. Treasury Department (TRY)

TRY is responsible for:
- Regularly monitoring the market risk level of the Bank's banking book, and leading relevant departments to adopt risk hedging measures to mitigate the related risks when necessary;

- Managing the Bank's risk hedging activities, which include but are not limited to management of risk hedging related documentations, continuous management and termination of hedging relationships, and disposal of risk hedging instruments;
- Completing the hedging effectiveness assessment when initiate the relationship, within 5 business days of each month, and in a timely manner when major changes occur; and
- Formulating stress scenario, conducting the market risk stress test within 5 business days of each month, and taking necessary measures.

3.3. Financial Management Department (FMD)

FMD is responsible for providing accounting policy and guidance, formulate the financial accounting policies related to hedging activities, and coordinate the disclosure of financial reports related to hedging.

3.4. Global Markets Department (MKD)

MKD is responsible for providing the estimation of hedging cost and executing through their banking book the risk hedging transactions ordered by TRY.

3.5. Middle Office Department (MOD)

MOD is responsible for monitoring the risks of hedging instruments and ensuring the accuracy of the system records for hedging transactions.

3.6. Operation Service Department (OSD)

OSD is responsible for settling the hedging transactions, performing valuation process, recording journal entries and reporting the hedging transactions.

3.7. Market Risk Management Department (MRD)

MRD, as the second line of defence, and hence take the responsibilities including:

- Developing and maintaining the bank-wide hedging procedure;
- Establishing risk limits/thresholds applicable to hedging according to the Bank's risk appetite;
- Overseeing FLUs' risk hedging activities and processes;
- Independently reviewing & challenging the risk hedging practices by FLUs; and
- Completing the hedging effectiveness assessment review within 10 business days of each month and escalate when necessary.

3.8. Other FLUs

Other FLUs, including Corporate Banking Department (CBD), Commodity Business Center (CBC), Los Angeles Branch (LAB), Chicago Branch (CHB), Queens Branch (QNB), are responsible for:

- Providing accurate business transaction information, including prepayment penalty requirements;
- Notify related departments, including TRY, MRD, MKD and OSD, transactions which may incur interest rate risk and thus the need to be hedged when term sheet is ready to be signed or earlier.

4. Procedure Instructions

4.1. Overview

In accordance with the Bank's market risk appetite, risk limits and other requirements, the Bank shall set the hedging objectives, develop the hedging strategies, and specify the hedging methods with respect to the market risk that needs to be avoided or mitigated.

In carrying out risk hedging, the Bank shall designate hedged items, hedging instruments, and hedging relationships. A new derivative transaction shall be initiated as hedging instrument for a hedged item.

The Bank adopts fair value through profit or loss (hereinafter referred to "FVTPL" for short). The hedging instrument shall be designated at the inception of the hedged item, and the hedging relationship shall remain unchanged until expiration, termination, pre-payment or default of the hedged item. At the same time, related records shall be produced properly in writing or through system.

After conducting the hedging transaction, the Bank shall monitor the hedging relationship on a regular basis, including supervision of the hedged item and the hedging instrument, assessment of combined economic (i.e. FVTPL or net cash flow) effects of the hedge, adjustment of hedge ratio (optional), and update related documentation.

The hedging relationship shall be timely terminated due to the expiration, termination, pre-payment or default of the hedged item. The position of hedging instrument shall be squared after the hedging relationship is terminated.

4.2. Hedging Instruments

The hedging instruments include FX spot, FX forward, FX swap and interest rate swap.

The term of a hedging instrument shall match that of the hedged item. If the term of a hedging instrument is shorter than that of the hedged item, it can only be regarded as a hedge against the corresponding term of the hedged item. In principle, the term of the hedging instrument shall not be longer than that of the hedged item; if there is more than one derivative product or hedged item, the maximum term of the derivative products shall not be longer than the minimum term of the hedged items.

4.3. Hedged Items

A hedged item shall meet the following conditions:

- It is a current balance sheet item or a transaction in pipeline.
- Its fair value shall be measurable.
- The risk components affecting its fair value or cash flows shall be identifiable and measurable.
- Items with similar risk profile can be combined together and designated as a single hedged item.

4.4. Economic relationships of the Hedging

Assessment of economic relationships & Hedge ratio:

- The hedging instruments and the hedged items have fair values or cash flows that generally move in the opposite direction. Such relationship shall be based on a sound economic rationale.
- The aforementioned economic relationship (FVTPL or cash flow) between the hedging instrument and the hedged item shall be assessed by qualitative method and supplemented by quantitative method.
- The bank is prohibited from over-hedging the underlying risk exposure.

4.5. Hedging Documentation

At the inception of a hedging relationship, the Bank shall formally designate the hedging instrument and the hedged item, evaluate the economic relationship of the hedged and hedging items, and create the documentation of such relationship. The documentation shall include:

- Objectives and strategies of risk management in hedging activities.
- Information of the hedged item: key clauses, amount, initial fair value, etc.
- Information of the hedging instrument: key clauses, amount, initial fair value, etc.
- Profile of the risk to be hedged: name and type of the risk, its impact on the hedged item, and other elements.
- Assessment on the economic results (in terms of FVTPL or cash flow) of hedging: qualitative description of the economic relationship between the hedged item and the hedging instrument, quantitative analysis results, hedge ratio, and impact of credit risk.

4.6. Hedging Re-evaluation and Re-balance

The Bank shall continue to assess the effectiveness of risk hedging when they initiate derivative risk hedging and during the period of risk hedging. The assessment shall be conducted at least monthly and in a timely manner when major changes occur, such as the hedged item partially expires or terminates before maturity, or credit risk greatly affects the fair value of hedged items and/or hedging instruments.

In the evaluation of economic results of hedging, the Bank shall assess the combined economic results of the hedging instruments and the hedged items, hedge ratio and impact of credit risk, calculate the change in fair value of the hedging instrument and the hedged item.

Effectiveness assessment documents shall be submitted to the risk management department on a monthly basis. The risk management department shall review the completeness and standardization of the documents, and urge the derivatives business department to implement the requirements for assessing the effectiveness of risk hedging; the risk management department shall prompt the derivatives business department which fails to meet the effectiveness assessment requirements to review the hedging strategy and adjust transactions in due course.

The Bank shall determine whether a hedging relationship needs to be re-balanced according to this evaluation results. Re-balancing of hedging is intended to adjust the quantity of the hedging instruments, so as to make sure the hedge ratio can continue meeting the goal for the economic results of hedging.

4.7. Hedging Termination

A hedging relationship may be terminated only under any of the following conditions:

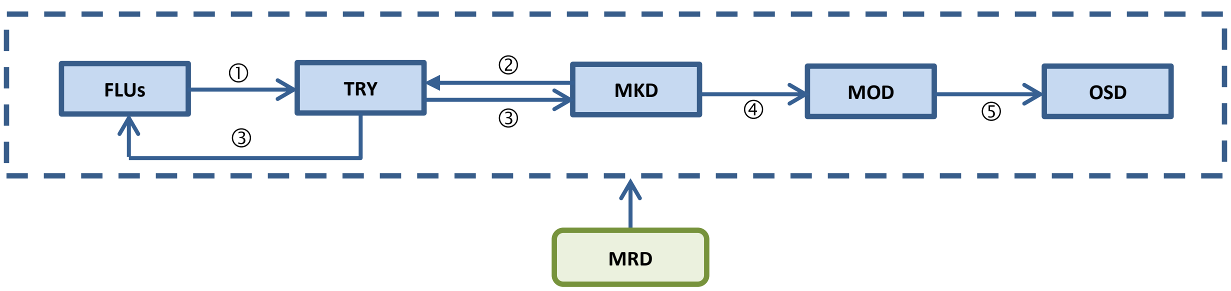
- The hedging relationship is not satisfied with the Bank risk management objectives.
- The economic relationship between the hedged item and the hedging instrument ceases to exist, or the credit risk begins to dominate the changes in fair value attributable to the economic relationship.

4.8. Hedging Process

For IRS hedging process and decision, the steps are showed in the graph below.

All fixed rate loans are required to be hedged by interest rate swap at inception, and the fixed rate loan hedging is only applicable to interest rate risk. Any FV changes of the loan due to credit risk will be taken by loan departments.

In principle, the IRS unwinding cost shall be covered by the yield maintenance in the loan. In principle, the bank should only offer three (3) months window before loan maturity for Borrower to prepay the loan without penalty. Any requirement for a free prepayment period longer than three months must be approved by the Bank's EVPs-in-charge of business lines. To the extent agreed by the clients, the benchmark used in the yield maintenance calculation shall match the reference rate when the fixed rate loan pricing is quoted in term sheet. It is understood that in market practice, yield maintenance payment is commonly calculated based on treasury yield of the comparable duration. The final prepayment penalty should be 1% (floor) or yield maintenance cost, whichever is higher. Any exception on the floor must be approved by the Bank's EVPs-in-charge of business lines.



- Step 1: FLU notifies TRY of a fixed rate loan deal when term sheet is ready to be signed or earlier, providing major loan terms including loan prepayment penalty requirements. TRY will initiate and propose hedging transaction as needed.
- Step 2: MKD provides TRY the estimation of IRS unwind cost.

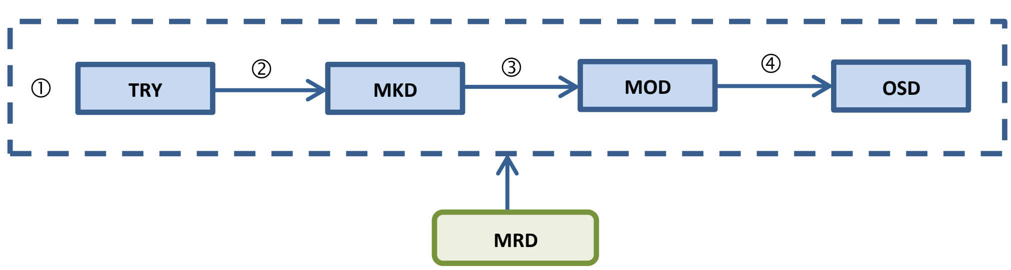
- Step 3: TRY reviews FLU's loan terms to check if the required prepayment penalty could, in general[1], cover the estimated IRS unwind cost.
    - If the prepayment penalty is believed not sufficient to the hedging cost, TRY requests FLU to modify the prepayment penalty terms in the term sheet for TRY to review.
    - If the prepayment penalty could cover the hedging cost, TRY notifies MKD, and MKD then communicates with FLU again to confirm all the transaction details, in case there are any changes; FLU is also required to send the sections related to prepayment penalty payment in loan agreement for TRY to review and confirm that it is documented as agreed in term sheet. At the time of or immediately before the loan closing, FLU should coordinate with TRY and MKD when and how to execute the risk hedging transactions.
- Step 4: After the execution, MKD sends related documents to MOD and notifies FLU and TRY. MOD then monitors and evaluates the risk and valuation of the hedging instruments, and ensures the accuracy of the system records for hedging transactions.
- Step 5: OSD settles the hedging transactions and loan, performs fair-value valuation process, and records journal entries.

TRY reviews the economic results of hedging between the hedged loan and the hedging IRS regularly if the hedging strategy is cash-flow matching. TRY also needs to review the fair value changes of the hedged loan and the hedging IRS regularly if it is fair value hedging.

If prepayment occurs or the credit risk begins to dominate the changes in fair value attributable to the economic relationship for hedged fixed rate loans, FLUs shall inform TRY immediately. TRY then notifies MKD to partially unwind the hedging IRS or risk offsetting IRS, and OSD settles the IRS closure. FLUs work with OSD on the penalty settlement with loan client.

MRD is responsible for developing and maintaining the bank-wide hedging procedures, overseeing overall risk hedging activities and processes, and independently reviewing & challenging the risk hedging practices by FLUs.

For the banking book currency exposure, the steps of hedging process and decision are showed in the graph below:



1. Some potential mismatch resulted by market convention will be exempted from this coverage consideration, such as 1) Loan client will typically have a no longer than 3-month grace period at the end of contractual term to prepay without penalty; 2) Loan client yield maintenance calculation might use Treasury yield instead of SWAP rate.

- Step 1: TRY monitors the Banking Book FX exposures. If FX hedging is needed to mitigate the FX risk, TRY proposes the transactions.
- Step 2: TRY requests MKD to execute the hedging transactions.
- Step 3: After the execution, MKD send related documents to MOD. MOD then monitors and evaluates the performance of the hedging instruments and ensures the accuracy of the system records for hedging transactions.
- Step 4: OSD settles the FX transactions, perform fair-value valuation process, record journal entries.

4.9. Stress Tests

The Bank conduct market risk stress tests on monthly basis, and take necessary measures.

5. Update Requirements

This procedure should be reviewed and updated periodically at least every three (3) years or more frequently to reflect the changes in the Bank's related policies and procedures and the risk management practice. All material changes & updates should be approved by Market and Liquidity Risk Committee.

6. Reference Information

- Bank of China Limited Administrative Measures for Hedging Market Risk in the Banking Book
- Bank of China Limited Policy for Interest Rate Risk in the Banking Book Management
- BOCNY Market Risk Management Policy
- BOCNY Policy on Policies & Procedures

7. Glossary

The glossary lists the definitions and acronyms used in the policy.

Abbreviation	Name
ALCO	Asset Liability Management Committee
BOC	Bank of China Limited
BOCNY	Bank of China USA
CBC	Commodity Business Center
CBD	Corporate Banking Department
CHB	Chicago Branch
FLU	Front Line Unit
FID	Financial Institutions Department

FMD	Financial Management Department
IRM	Independent Risk Management
LAB	Los Angeles Branch
MKD	Global Markets Department
MLRC	Market and Liquidity Risk Management Committee
MRD	Market Risk Management Department
MOD	Middle Office Department
OSD	Operation Services Department
QNB	Queens Branch
RMICC	Risk Management and Internal Control Committee
TRY	Treasury