AIIB Directive on Market Risk Management

June 1, 2023

1. Overriding Objective

1.1. This Directive on Market Risk Management (Directive) establishes rules, processes and parameters to ensure that the assessment, monitoring and control of market risk arising from the Bank's Treasury and Investment Operations is undertaken in accordance with the *Risk Limits Policy (Sec2016-091)* and the *Asset Liability Management Policy (Sec2017-122)*. To manage these risks, the Bank has developed a set of Directives that ensures compliance with its risk requirements and overall *Risk Appetite Statement.*

1.2. The exercise and interpretation of this Directive shall be consistent with the Bank's *Risk Management Framework (Sec2016-093)* and seeks to give effect to this overriding objective and to ensure that the Bank's market risk-generating activities or products are acceptable in view of the Bank's *Risk Appetite Statement*.

2. Definitions

2.1. **VaR** is the potential loss that could be incurred, due to adverse fluctuations in the market over a certain time horizon and computed with a certain confidence level.

2.2. **sVaR (stressed VaR)** is VaR of the current position with VaR model inputs calibrated to historical data from a period of significant financial stress.

2.3. **Risk factor** is a variable associated with an increased risk.

2.4. **Trading book** is defined as all positions in financial instruments held in the liquidity portfolio.

2.5. **Credit spread** is the difference in yield between a government bond and a debt security with the same or similar maturity but of lesser credit quality in the same currency.

2.6. **Non-US dollar currency liquidity portfolio** is defined as all non-US Dollar denominated positions in financial instruments held in the Bank's liquidity portfolio in support of non-US dollar currency denominated financings.

3. Governance

3.1. Roles and Responsibilities

3.1.1. Chief Risk Officer (CRO)

(a) Reviews the Bank's aggregate market risk profile and sets market risk limits or management trigger points for trading book;
(b) Approves the processes, methodologies and rules adopted to assess market risk;
(c) Approves the key assumptions and limitations of the risk model as well as for monitoring and controlling market risk.

3.1.2. **Chief Financial Officer (CFO)**
(a) Approves Net Interest Income ("NII") and Economic Value of Equity ("EVE") limits;
(b) Sets target duration for the overall balance sheet and for portfolios;
(c) Approves hedging activities and instruments.

3.1.3. **Risk Committee (RC) and Asset and Liability Management Committee (ALCO)** shall exercise their duties in accordance with their respective responsibilities.

3.1.4. **Risk Management Department (RMD)**
(a) Enhances the market risk management framework;
(b) Develops independent risk assessment and monitoring processes;
(c) Oversees compliance with the risk limits set by the Bank's policies and RC;
(d) Identifies material market risk and reports to the RC and Board of Directors ("BoD").

3.1.5. **Office of the Treasurer (TRE)**
(a) Identifies and manages market risk associated with the Bank's business with the objective of protecting its earnings and the economic value of its net worth and reports related matters to the ALCO;
(b) Ensures that Bank's risk profile is consistent with the Bank's risk appetite and limit;
(c) Maintains target duration, NII, EVE, and other limits and principles set by the CFO;
(d) Assesses the appropriateness of financial instruments as hedges given the current economic environment (at least annually) and reports results to the ALCO.

3.1.6. **Office of the Controller (CTL)** performs centralized accounting treatment for treasury and investment operation businesses.

3.2. Matters arising under this Directive that cannot be resolved between respective functions shall be brought to the RC.

4. Risk Identification

4.1. RMD is to ensure embedded market risk of instruments or transactions from TRE and Investment Operations are identified, assessed and managed.

4.2. TRE serves as the first line of defense and shall identify the market risks associated with its activities.

4.2.1. TRE leads the introduction of new instruments or transactions related to market risk. Prior to entering into new trades, TRE shall confirm:

(a) CTL that trades can be captured in the Bank's front office systems and can be accounted for appropriately.

(b) RMD that the corresponding risks can be measured and managed. TRE shall be able to manage new risks on an individual trade and aggregated balance sheet basis.

4.2.2. TRE presents the case for use of any new instruments or transaction types to the ALCO with detail required by the *Asset Liability Management Policy* and RMD establishes appropriate limits for use of the new instruments through the RC.

4.2.3. Any change in strategies, processes or data with a potential impact on capturing and modelling market risk profile shall be communicated to RMD with sufficient notice and approved by the CRO prior to being effective.

5. Risk Assessment

5.1. The Bank maintains a comprehensive suite of risk parameters and limits as part of its Risk Appetite Framework and the applicable levels in relation to a top-down risk allocation. These provide the metrics and basis for monitoring actual risk-taking activity. Risk parameters are quantitative metrics that indicate the quantity, direction and trend over time of a particular type of risk or proxies for the level of risk. Risk parameters also include forward-looking metrics.

5.2. RMD uses risk assessment models approved by the CRO. RMD continuously reviews the market risk assessment models as well as the assumptions, reporting to the RC.

5.3. TRE uses risk assessment models approved by the CFO. RMD validates TRE's market risk assessment models and reviews the assumptions and informs the CFO of the validation and results of the review. Models to be reviewed shall formally be established as key controls.

5.4. RMD shall review model validation results if RMD or TRE uses risk assessment models maintained by outside providers.

5.5. **VaR**

5.5.1. The Bank adopts VaR as a main market risk assessment tool. RMD produces the following VaR figures using models approved by the CRO.

Type	Purpose	Confidence Level (%)	Horizon	Assessment Frequency
cVaR	Risk capital calculation	99.99	1-year	Daily
mVaR	Daily risk monitoring	99	10-day	Daily
sVaR	Level 1 KRI[1] monitoring	99	10-day	Daily

5.5.2. RMD assesses the market risk of the trading book, unhedged interest rate risk of Investment Operations position and the Bank's total currency position.

5.5.3. The Bank uses the 99.99th percentile confidence level and one-year holding period for ECap calculation purposes in aiming for standalone AAA ratings, and the 99th percentile confidence level and a 10-day holding period for monitoring purposes.

5.5.4. RMD calculates sVaR based on a continuous one-year historical period of significant market stress to quantify extreme tail risk calculated over a year horizon.

5.5.5. RMD calculates aggregate VaR and individual risk factor VaRs, such as interest rate risk VaR, foreign exchange rate risk VaR, and credit spread risk VaR.

5.5.6. RMD shall identify any material risk, or risks that when considered in aggregate are material, which are not captured by the VaR model and report to the RC. The RC can decide to charge ECap on these risks.

5.5.7. The CRO may decide to use VaR provided by external asset managers for the assets managed under external asset management programs.

5.6. **ΔNII**

5.6.1. TRE analyses the impact of interest rate changes on future accrued or reported earnings at least quarterly, using scenarios to be set by the Administrative Guidance issued pursuant to this Directive.

5.6.2. The CFO may adopt additional scenarios for the analysis.

5.7. **ΔEVE**

5.7.1. TRE assesses the economic value of on- and off-balance-sheet assets and liabilities at least quarterly using the present value of all future cash flows and the impact of ΔEVE using scenarios set the Administrative Guidance issued pursuant to this Directive.

5.7.2. The CFO may adopt additional scenarios.

[1] Key Risk Indicator

5.8. **Duration.** CFO establishes target duration considering risk capacity and prevailing market conditions and TRE conducts duration analysis and gap analysis at least quarterly for short-term funded, debt-funded, and equity-funded assets respectively.

5.9. **Stress testing.** RMD conducts stress testing for market risk based on the Bank's stress testing methodology.

5.10. **Other market risk parameters.** RMD and TRE may produce and analyze supplementary risk parameters to assess the market risk incurred by the Bank, although no formal limits have been adopted in relation to these parameters.

6. Risk Monitoring and Reporting

6.1. RMD is responsible for monitoring the overall market risk position arising from the Bank's business activities. RMD may introduce additional limits that are consistent with applicable Policies and the Bank's risk appetite.

6.2. The CRO sets the Bank's overall market risk limits, and these limits apply to all TRE transactions, including those managed by or delegated to external asset managers. The CFO or CRO may set detailed sub-limits that comply with such overall limits.

6.3. The CRO conducts an annual review of market risk limits and suggests appropriate limits in line with applicable Policies as well as the Bank's risk appetite and business plan.

6.4. RMD monitors limit utilization for the limits set by any Policies, Directives or the CRO. RMD promptly informs TRE and the CFO of any limit breach.

6.5. TRE monitors, on daily basis, limit utilization for the limits set by the CFO. TRE promptly informs RMD and the CFO of any limit breach.

6.6. If a limit breach occurs, the CRO shall determine in consultation with the CFO and TRE whether, by when, and how to reduce the risk. Exceptions to limits set pursuant to this Directive can only be approved by the CRO. The CRO is responsible for reporting limit breaches and approved exceptions to the RC and/or, as the case may be, to the BoD.

6.7. RMD is responsible for reporting of the Bank's overall market risk profile to the RC, Senior Management, and BoD. RMD reports key risk exposures to keep the Senior Management apprised of the Bank's market risk exposures and highlights the effects of market risk on the Bank's business plans.

6.8. TRE reports market risk exposure on a daily basis. RMD reviews market risk exposure on a daily basis. RMD periodically reports to the RC and TRE reports to the ALCO.

6.9. Market risk reporting includes but is not limited to the following:
(a) Risk parameters listed in this Directive and Risk Appetite Statement;
(b) Limit utilization status as well as limit excess.

7. Non-US Dollar Currency Liquidity Portfolio

7.1. The Non-US dollar currency liquidity portfolio shall be set up and managed by TRE to facilitate non-US dollar currency denominated financings. TRE is responsible for managing the market risk of the Non-US dollar currency liquidity portfolio within the limits set by the CRO.

7.2. TRE shall minimize interest rate risk (including basis mismatches of liability and asset) of the non-US dollar currency liquidity portfolio. Unless funding and financing are arranged back-to-back basis with matching terms, interest rate risk of assets and liabilities shall be hedged.

8. Implementation

8.1. The CRO monitors the implementation of this Directive. The CRO shall prepare and issue the Administrative Guidance: that (1) establishes a detailed methodology for market risk assessment and (2) provides additional content where required to ensure the efficient implementation of this Directive.

8.2. The CFO shall prepare and issue the Administrative Guidance on Equity Duration Management that provides detailed methodology for determining the target duration for the Bank.

8.3. This Directive revokes and replaces the Directive on Market Risk Management of February 26, 2019.