KINGDOM OF CAMBODIA
NATION RELIGION KING

NATIONAL BANK OF CAMBODIA

Unofficial Translation

Number B7.024-299 ProKor

PRAKAS
ON
MARKET RISK FOR CAPITAL ADEQUACY RATIOS IN DEPOSIT-TAKING BANKS AND FINANCIAL INSTITUTIONS

The Governor of the National Bank of Cambodia

- With reference to the Constitution of the Kingdom of Cambodia;
- With reference to the Royal Decree NS/RKT/0723/1675 of July 29, 2023 on the appointment of Her Excellency Chea Serey as Governor General of the National Bank of Cambodia, equivalent to Senior Minister;
- With reference to the Royal Kram NS/RKM/0196/27 of January 26, 1996 promulgating the Law on Organization and Conduct of the National Bank of Cambodia;
- With reference to the Royal Kram NS/RKM/1206/036 of December 29, 2006 promulgating the Law on the Amendment of Article 14 and 57 of the Law on Organization and Conduct of the National Bank of Cambodia;
- With reference to the Royal Kram NS/RKM/1199/13 of November 18, 1999 promulgating the Law on Banking and Financial Institutions;
- Pursuant to the necessity of the National Bank of Cambodia.

Decides

Chapter I
General Provisions

Article 1.- Purpose

The purpose of this Prakas is to provide a measure of the market risk of the implementation of a capital adequacy framework.

Article 2.- Scope

This Prakas is applicable to Deposit-taking Banks and Financial Institutions under the National Bank of Cambodia (NBC)'s supervisory authority, hereinafter referred to as "Institution".

The Institution shall calculate risk-weighted assets (RWA) for market risk both on solo and consolidated basis where relevant.

Article 3.- The thresholds for capital requirement for market risk

The Institution shall calculate the capital requirement for market risk in case of:

- The amount of KHR-equivalent trading book positions of all currencies averaged over 6 months of KHR 40 billion (forty billion riels) and above; or
- The proportion of the amount of KHR-equivalent trading book positions to the total assets, averaged over 6 months of 5% and above.

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Only interest rate risk, equity risk and foreign exchange risk are subject to the calculation of capital requirement for market risk in this Prakas.

In case the amount of KHR-equivalent trading book positions of all currencies averaged over 6 months less than the above thresholds, the Institution shall follow only provisions related to foreign exchange risk.

The reporting template on calculating thresholds of trading book position is provided in Appendix 1.

Article 4.- Definitions

For the purpose of this Prakas, the following terms are defined as follows:

- **Market risk** refers to the risk of losses in on and off-balance sheet positions arising from movements in market prices.
- **Trading book** refers to records of all financial instruments held either with trading purpose or in order to hedge other elements of the trading book.
- **Basis risk** refers to the risk that prices of financial instruments in a hedging strategy are imperfectly correlated, reducing the effectiveness of the strategy.
- **Yield curve risk** refers to the risk associated to adverse shift in the interest rate markets compared to the structure of a fixed income portfolio.
- **Capital requirement** refers to the amount of capital the Institution shall hold as percentage against its total exposures to market risk based on types of exposures.
- **Security** refers to a financial instrument that can be representative of ownership in a company or of creditor relationship such as equities, debt securities, and derivatives.
- **Debt security** refers to a financial instrument that allows issuers to borrow money from investors with a promise to repay principle plus interest, of which may be traded in the market prior to maturity.
- **Convertible debt security** refers to debt issuance that can be convertible at a pre-determined price into common share of the issuer.
- **Derivative** refers to a contract between two or more parties, which derives its value from one or several underlying.
- **External Credit Assessment Institution (ECAI)** refers to external credit rating agencies recognized by the NBC.
- **Interest rate related instrument** refers to any financial instrument that is sensitive to changes in interest rates.
- **Long position** refers to a position where the institution is a net buyer of an asset.
- **Short position** refers to a position where the Institution is a net seller of an asset.
- **Naked short selling** refers to the practice of selling tradable assets of any kind without owning or first borrowing the asset.
- **Matched position** refers to the smaller absolute value of the long and short positions for the calculation of capital requirement for general interest rate risk. For example, if you have a long position of KHR1,200 million and a short position of KHR700 million, the matched position is KHR700 million.
- **Position offsetting** refers to the process of netting long position and short position in the same risk factor (interest rate risk, equity risk or foreign exchange risk).
- **Mark to market** refers to daily changes in the market value of securities or derivatives based on publicly quoted prices (through stock exchanges or market-makers).
- **Notional position** refers to the equivalent position in the underlying instruments valued at their par value or market price when referring to a derivative contract.
- **Option** refers to a derivative contract that offers the right (but not the obligation) to buy or sell a security or other financial asset at an agreed-upon price (strike-price) during a certain period of time or at a specific date (exercise date).

- **Repurchase agreement (Repo agreement)** refers to a transaction where one party sells security against cash to another party with the commitment to re-purchase the securities at a specified date at a pre-determined price.
- **Reverse repurchase agreement (Reverse-repo agreement)** refers to a transaction where one party purchases securities against cash to another party with the commitment to re-sell the security at a specified date at a pre-determined price.
- **Arbitrage Strategy** refers to a strategy for making profit by taking advantage of the differences in price across markets.
- **Underlying asset** refers to a financial asset including bond, equity, interest, currency, etc. upon which the price of a derivative is based.

Article 5.- Trading activities excluded from the calculation of capital requirement

The following trading activities are excluded from the calculation of capital requirement:

- Holding positions in commodities; and
- Equity risk applicable to arbitrage strategies.

The NBC may require capital requirement for the above activities or other trading activities in the separate regulation, if needed.

Article 6.- Impermissible trading activities

The Institution shall only trade instruments that are quoted either on a stock exchange or over-the-counter (OTC) market, where the following activities are prohibited:

- Selling options; and
- Doing naked short selling.

Chapter II

Governance and Prudent Valuation Practices

Article 7.- Responsibilities of board of directors and senior management

The board of directors shall establish, approve, and regularly review the market risk management framework. The board of directors is responsible for ensuring that policies, processes and systems are effectively implemented to continuously identify, assess, monitor, control, and address market risks under the direct responsibility of the senior management. The board of directors shall identify and approve risk appetite that the Institution is willing to assume for market risk that specifies the nature, types, and levels of market risk.

The senior management shall ensure within the approved policies by the board that processes and technical systems are able to identify, measure, monitor, report, control or mitigate the market risk. They shall ensure a proper implementation of adequate segregation of duties among those in charge of market transactions, valuation, risk management, record keeping and controls within the Institution.

Article 8.- Risk management

The Institution shall calculate capital requirements for market risk for all instruments that may be subject to interest rate risk, equity risk and foreign exchange risk as of the date on which they were entered into.

The Institution shall manage their market risk in such a way that the market risk capital requirements are met on a continuous basis, including at the close of each business day. The Institution shall ensure that trading activities shall be within the risk limits including during intraday trading.

If the Institution fails to meet the capital requirements at any time, it shall take immediate measures to rectify the situation.

Article 9.- Valuation methodologies

The Institution shall mark-to-market at least daily of all positions at readily available close out prices that are sourced independently in order to come up with the value of positions. In case mark to market is not possible, the Institution shall use face value.

The Institution shall establish and maintain adequate systems and controls sufficient to ensure that the valuation estimates are prudent and reliable. Such systems shall include:

- Documented policies and procedures for the valuation process: 1/- they shall encompass clearly defined responsibilities of the various areas involved in the determination of the valuation, 2/- the precise sources of market information as well as the review of their appropriateness, and 3/- the frequency of independent verification referred to in Article 10 of this Prakas; and
- Clear and independent reporting lines for the risk management unit accountable for the valuation process and independent from the front office (investment function).

Article 10.- Independent price verification

The Institution shall have independent price verification which is distinct from daily mark-to-market. It is the process by which market prices are regularly verified for accuracy. Verification of market prices must be performed by a risk management function independent from the front office, with the objective to reveal any error or bias in the front office pricing. It shall be performed regularly at least monthly or more frequently when needed, depending on the nature and riskiness of the trading activities.

Article 11.- Delineation of trading book and banking book

For the purpose of the capital requirement for market risk, only risk positions negotiated in the trading book may receive capital treatment. However, foreign exchange risk position in both banking book and trading book is subject to capital treatment. These risk positions are composed of instruments that meet the following minimum specifications:

a) There is no legal impediment against selling or fully hedging them; and

b) They are daily fair valued, with any valuation change recognized in the profit and loss account.

The Institution shall allocate any instrument to the trading book since the inception of the transaction. Instruments that are not assigned in the trading book shall be included in the banking book.

Chapter III

Calculation Method for Risk-Weighted Assets (RWA) for Market Risk

Part 1: Capital charge for market risk

Article 12.- Formula

The capital charge for market risk is calculated as follows:

$$\textbf{Capital charge for market risk} = (CR_{IRR} \times SF_{IRR}) + (CR_{EQ} \times SF_{EQ}) + (CR_{FX} \times SF_{FX})$$

Where:

- CR_{IRR} = Capital Requirement for interest rate risk, plus additional requirement for options risks from debt instruments;
- CR_{EQ} = Capital Requirement for equity risk, plus additional requirement for options risks from equity instruments;
- CR_{FX} = Capital Requirement for foreign exchange risk, plus additional requirement for options risks from foreign exchange instruments;

- SF_{IRR} = Scaling factor for interest rate risk 1.30;
- SF_{EQ} = Scaling factor for equity risk 3.50; and
- SF_{FX} = Scaling factor for foreign exchange risk 1.20.

With the capital charge calculated above, we can derive RWA for Market Risk with the following formula:

RWA for market risk = Capital charge for market risk × 12.50

Article 13.- Calculation of capital requirement

The market risk is assessed on positions in the trading book and it consists of the following two components:

a) **Specific risk** means the risk of loss in value of bank's trading book positions arising from adverse changes in prices of debt securities, equities and their related derivative contracts owing to factors related to the issuers of such debt securities, equities or the underlying instruments held in the trading book;

b) **General market risk** means the risk of loss arising from related financial instrument in trading book due to adverse change in market interest rate, equity price and exchange rate.

Specific risk and general market risk applicable to market risk components are below:

Market risk component	Specific risk	General market risk
Interest rate	Yes	Yes
Equity	Yes	Yes
Foreign exchange	none	Yes
Derivatives	Refer to Appendix 4 and 5	
Options	The positions for the options and the associated underlying are subject to separately calculated capital requirements from other positions in the trading book.	

Part 2: Capital requirement for interest rate risk (CR_{IRR})

Article 14.- Instruments subject to capital requirements for interest rate risk

The instruments covered under capital requirement for interest rate risk apply to the holding of positions in debt securities and other interest-rate-related instruments in the trading book including repo and reverse repo. The covered instruments include all fixed-rate and floating-rate debt securities and other instruments behaving like them including non-convertible preference shares. Convertible bonds shall be treated as debt securities if they trade like debt securities.

The interest rate risk measurement system shall include all interest rate derivatives recorded in the trading book which react to changes in interest rates (e.g. interest rate swaps, bond futures, cross-currency swaps, forward foreign exchange positions, forward rate agreements and other forward contracts). The particular treatment of options is set out in Article 29 of this Prakas.

For the identical financial instruments (the same issuer, coupon, currency and maturity), the Institution shall exclude the offsetting position between long and short positions from capital requirement for interest rate risk, for both specific risk and general market risk. The Institution shall not offset position of financial instruments which are different issues although with the same issuer. A future or forward that is fully offset by its corresponding underlying shall also be fully offset and thus excluded from the calculation of capital requirement.

The Institution shall prepare a report separately for the offsetting position of the identical financial instruments and the offsetting position between derivatives and their underlying. These positions shall be excluded from capital requirement for interest rate risk, specific risk and general market risk.

Article 15.- Interest rate risk components

The interest rate risk is made of two separately calculated components, 1/- the specific risk and 2/- the general market risk. The Institution shall calculate its market risk capital requirement for interest rate risk by identifying the positions (market exposures) in its trading book which have interest rate risk, allocating the positions into individual significant currency portfolios (for general market risk only). The interest rate risk capital requirement is the sum of all specific risk and all general market risk capital requirements for each significant currency portfolio with no offsetting between portfolios of the opposite sign (capital requirements are recorded in absolute value). Significant currency portfolios will be stated in "Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions".

Where the Institution has business in one or more currencies rather than currencies stated in the Guideline, known as residual currency, the Institution may construct a single maturity ladder for those currencies and record, within each appropriate time band, the net long or short positions in each currency, rather than having to use separate maturity ladders for each currency. The Institution shall sum the absolute value of the individual net positions within each time band, irrespective of whether they are long or short positions, to produce a gross position figure.

Article 16.- Specific risk

The capital requirement for specific risk is calculated as the aggregate weighted sum of absolute value of all long positions and short positions in interest-rate-related instruments. Individual positions are weighted by their respective risk weights reflecting their qualities and maturities. For that purpose of this Prakas, the interest-rate-related positions are split between three categories "Government", "Qualifying" and "Others".

a. The category "Government" includes:
    - All forms of government paper issued by the Royal Government of Cambodia or fully guaranteed by the Royal Government of Cambodia;
    - Debt securities issued by National Bank of Cambodia; or
    - Debt securities issued or fully guaranteed by other governments or central banks that have an updated rating by a recognized External Credit Assessment Institution (ECAI), reflective of the current issuing country's creditworthiness.
b. The category "Qualifying" includes:
    - Debt securities issued or fully guaranteed by multilateral development banks including The World Bank Group, The International Bank for Reconstruction and Development (IBRD), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), the International Development Association (IDA), the Asian Development Bank (ADB), The New Development Bank (NDB), the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD). These debt securities shall have investment grade rating by at least one recognized ECAI;
    - Other debt securities rated investment grade by at least one recognized ECAI and the issuer has securities listed on a recognized stock exchange; or
    - Debt securities rated investment grade by at least two recognized ECAIs.
c. The category "Others" includes any debt securities that do not qualify for their categorization as "Government" and "Qualifying".

Risk weight for specific risk related to interest-rate instruments is provided in Appendix 3.

Article 17.- **General market risk**

The capital requirement for general market risk is calculated as the sum of four components:

- 100% of the aggregate amount of net positions of all significant currencies and gross position of residual currencies regardless of sign +/- in the whole trading book for capital requirement to address directional risk;
- 10% of the matched positions in each time band for capital requirement of vertical disallowance to address the basis risk;
- A 40%, 30% or 100% of the matched positions within and across different time zones for capital requirement of horizontal disallowance to address the yield curve risk; and
- A capital requirement for positions in interest-rate-related options, in accordance with the provisions of Article 29 of this Prakas.

A detailed explanation of how to calculate the sum of four components above is provided in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions.

Article 18.- **Interest rate derivatives**

The capital requirement for interest rate risk shall include all interest rate derivatives and off balance-sheet instruments in the trading book which react to change in interest rates. Derivatives shall be first converted into positions in the relevant underlying instruments and become subject to specific risk and general market risk capital requirement if applicable (in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions). To determine the capital requirement, the amount to be included is the market value of the principal amount of the underlying instrument or of the notional underlying resulting from prudent valuation guidance sets out in Article 9 of this Prakas.

Summary of capital requirement for interest rate derivatives is provided in Appendix 4.

Article 19.- **Specific risk for interest rate derivatives**

Interest rate and cross currency swaps, forward rate agreements (FRAs), forward foreign exchange contracts, interest rate futures, and futures on an interest rate index are not subject to a capital requirement for specific risk. However, in the case of contracts where the underlying is a debt security or an index representing a basket of debt securities, a capital requirement for specific risk applies in accordance with the specific risk of the issuer as set out in Article 16 of this Prakas.

Article 20.- **General market risk for interest rate derivatives**

Positions in all derivatives are subject to capital requirement for general market risk similarly to on balance sheet instruments (cash positions) subject only to an exemption for fully offsetting positions in identical instruments as specified in Article 4 and 14 of this Prakas. Rules and steps of interest rate derivatives treatment are described in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions.

Part 3: Capital requirement for equity risk (CR_{EQ})

Article 21.- Intruments subject to capital requirements for equity risk

The equity risk applies to holding of positions in all instruments that exhibit a market behavior similar to equities in the trading book. Equity risk capital requirements will apply to the positions in the trading book on the following instruments:

- Common stocks (whether with or without voting right);
- Convertible preferred stocks;
- Convertible debt securities, when they trade like equities;

- Equity derivatives; and
- Any other instruments exhibiting equity characteristics.

Opposite positions in each identical equity or stock index in the same market may be offset, resulting in a single “net long position” or “net short position” to which the specific risk and general market risks apply. For example, futures in a given equity may be offset against an opposite cash position in the same equity.

Article 22.- Equity risk components

The capital requirement for equities is the sum of two separately calculated charges for specific risk of holding positions in individual equities and general market risk of holding equity positions in the market as a whole.

The capital requirement for specific risk is 8% of gross equity position (after offsetting long and short positions in the same issue). An Institution’s gross equity position is the sum of the absolute values of all long equity positions and all short equity positions.

The capital requirement for general market risk is 8% of the difference between the sum of all long positions and the sum of all short positions in equities, i.e. 8% of the overall net position, in an equity market.

Separate calculation of capital requirements shall be carried out for each market in which an Institution holds equities. The total capital requirement is the sum of the calculations for each market.

An example of capital requirement calculation for equity is provided in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions.

Article 23.- Equity derivatives

Equity derivatives and other off-balance sheet positions in the trading book that are affected by changes in equity prices must be included in the computation of capital requirements for equity risk both specific risk and general market risk. This applies to derivatives on both individual equities and equity indices.

The capital requirement for positions in equity options is set out in Article 29 of this Prakas.

Article 24.- Capital requirements for equity derivatives

For the calculation of capital requirements for equity derivatives, the Institution shall first convert positions in equity derivatives into the relevant underlying equities, where:

- Futures and forward contracts relating to individual equities are reported at current market prices of the underlying equities,
- Futures relating to stock indices are reported as the marked-to-market value of the notional underlying equity portfolio, or
- Equity swaps are treated as two notional positions.

Summary of capital requirement for equity derivatives is provided in Appendix 5.

Part 4: Capital requirement for foreign exchange risk (CR_{FX})

Article 25.- Capital requirement for foreign exchange risk

The capital requirement for foreign exchange risk shall be 8% of the “overall net open position”.

Article 26.- Measuring position in foreign currencies and gold

The capital requirement for foreign exchange risk covers the risk of holding positions in foreign currencies and gold, whether the positions are in the banking book or in the trading book.

The Institution shall calculate positions of foreign currencies and gold in two steps as follow:

- First, measure the net open position in each currency and gold; and
- Second, measure the “overall net open position” in foreign currencies and then add on the absolute net open position in gold.

Article 27.- Measuring the net open position in each currency and gold

The Institution’s net open position in each currency and gold are calculated as the sum of:

- the net spot position (i.e. all asset items less all liability and capital items, including accrued interest, denominated in the currency in question);
- the net forward position (i.e. all amounts to be received less all amounts to be paid under forward foreign exchange transactions, including currency futures and the principal on currency swaps not included in the spot position);
- Guarantees and other similar instruments that are certain to be called and are likely to be irrecoverable; and
- Any other item representing a profit or loss in foreign currencies.

The capital requirement for positions in options on foreign exchange are treated separately in Article 29 of this Prakas.

When measuring the foreign exchange risk, the Institution is not allowed to offset between positions in different currencies. The treatment of net open position for foreign exchange risk is provided in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions.

Article 28.- Measuring the “overall net open position”

The “overall net open position” is obtained by aggregating the absolute values of:

- the sum of the net short positions or the sum of the net long positions, whichever is the greater; plus
- Net position in gold (whether short or long position).

An example of capital requirement calculation for foreign exchange risk is provided in the separate guideline on the Implementation of “Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions”.

Part 5: The capital requirement for options

Article 29.- Purchase of call or put options

The Institution can purchase options (whether call or put options) for the purpose of hedging only.

Positions in options and the associated underlying (cash or forward) are considered apart from all other positions and subject to separately calculated capital requirements that incorporate both requirements for specific risk and general market risk. The capital requirements for options are summarized in the following table:

Positions	**Capital Requirement**
Long cash and long put options Or Short cash and long call options	The capital requirement = the market value of the underlying security **x** **(**Specific risk charge **+** General market risk charge) **-** in the money. (For options with a maturity longer than 6 months, the amount of the options “in the money” will be considered as equal to zero)

These capital requirements are then added to the capital requirements for the relevant risk categories (interest rate risk, equity risk and foreign exchange risk). Lastly, these capital requirements are multiplied by a scaling factor that depends on the risk class (1.30 for interest rate risk, 3.50 for equity risk and 1.20 for foreign exchange risk).

An example of capital requirement calculation for options is provided in separate Guideline on the Implementation of Prakas on Market Risk for Capital Adequacy Ratio in Deposit-taking Banks and Financial Institutions.

Chapter IV

Other Provisions

Article 30.- Actions for Institution's limitation

When the Institution taking positions to be recorded in the trading book prove to be unable to make an accurate computation of their market risks, the NBC may:

- Set the capital charge for market risk; or
- Require the Institution to stop all or part of its trading activities.

Similar measures may be taken against the Institution that would unduly include trading activities in their banking book.

The NBC may cease the above measures unless the Institution is able to demonstrate capability to properly calculate market risks.

Article 31- Reporting requirements

The Institution shall prepare report on trading book position of all currencies averaged over the last 6 months from January to June and from July to December and submit to the NBC semi-annually no later than the 10th of January and July respectively by using the reporting template provided in Appendix 1.

The Institution shall submit monthly report on Risk-Weighted Assets (RWA) for Market Risk in Deposit-taking Banks and Financial Institutions on solo basis to the NBC no later than the 10th day of the next month and shall submit quarterly report on a consolidated basis, if any, no later than the 15th day of the first month of the next reporting period by using template provided in Appendix 2.

Chapter V

Sanctions and Fines

Article 32.- Disciplinary sanctions

Any Institution failing to comply with this Prakas shall be penalized according to Article 52 of Law on Banking and Financial Institutions.

Article 33.- Transactional fines

In addition to the above disciplinary sanctions, the NBC may impose transactional fines as follow:

1. Any Institution failing to comply with the provision of Article 31 (reporting requirements) of this Prakas shall be liable to transactional fine of KHR 1,000,000 (one million riels) per day; and
2. Any Institution failing to comply with this Prakas except item 1 of this Article shall be subject to transactional fine of KHR 3,000,000 (three million riels) per day counting from the deadline the NBC requires the Institution to take corrective action.

Chapter VI

Final Provisions

Article 34.- Repeal

The following regulations shall be repealed:

- Prakas N° B7-07-134 Prokor dated August 27, 2007 on the Monitoring of Banks' and Financial Institutions' Net Open Position in Foreign Currency;
- Prakas N° B7-012-184 Prokor dated December 31, 2012 on the Prudential Limits and Regulatory Requirements Applicable to Banking and Financial Institutions Trading in Securities;
- Announcement N° B7-020-868 dated June 10, 2020 on Removal of restriction on net open position in national currency; and
- All provisions contrary to this Prakas.

Article 35.- Implementation

The General Secretary, the General Director of Banking Supervision, the General Director of Policy and International Cooperation, the General Director of Central Banking Operations, the General Cashier, the General Inspector, Directors of all relevant Departments in the National Bank of Cambodia and all Deposit-taking Banks and Financial Institutions under the National Bank of Cambodia's supervisory authority shall strictly implement this Prakas.

Article 36.- Effect

This Prakas shall have effect from the signing date.

Phnom Penh, April 12, 2024

The Governor

Signed and Sealed: **Chea Serey**

To:

- As stated in Article 35 "for implementation"
- Files - archives

Cc:

- All members of the Board of Directors
- Council of Ministers
  "for information"
- Administrative Department of CM
  "for publication in the National Gazette"

Appendix 1

របាយការណ៍ ស្តីពី ប៉ូស៊ីសិនបញ្ជិកាជួញដូរ
សម្រាប់រយៈពេល ៦ខែ ពីខែមករា (កក្កដា)ឆ្នាំ.........ដល់ ខែមិថុនា (ធ្នូ) ឆ្នាំ.........

Report on Trading Book Positions
For the 6-month period from January (July)……...to June (December)……..…

	មករា ដល់ មិថុនា (ឬកក្កដា ដល់ ធ្នូ) **January to June (or July to December)**						ជាមធ្យម **Average**
	មករា (កក្កដា) **Jan. (Jul.)**	កុម្ភៈ (សីហា) **Feb. (Aug.)**	មីនា (កញ្ញា) **Mar. (Sep.)**	មេសា (តុលា) **Apr. (Oct.)**	ឧសភា (វិច្ឆិកា) **May (Nov.)**	មិថុនា (ធ្នូ) **Jun. (Dec.)**	
១. ប៉ូស៊ីសិនបញ្ជិកាជួញដូរសរុបនៅក្នុងតារាងតុល្យការ 1. Total on-balance sheet trading book positions							
ប៉ូស៊ីសិនឧបករណ៍បំណុល *Debt instruments positions*							
ប៉ូស៊ីសិនពីកិច្ចសន្យារីប៉ូ/រីវើសរីប៉ូ និង ប៉ូស៊ីសិនពីការខ្ចីខ្ចីនិងខ្ចីមូលបត្រ *Positions from repo/reverse repo and security borrowing and lending*							
ប៉ូស៊ីសិនឧបករណ៍មូលបត្រកម្មសិទ្ធិ *Equity instruments positions*							
២. ប្រតិបត្តិការឧបករណ៍និស្សន្ទសរុបក្នុងបញ្ជិកាជួញដូរ 2. Total derivative transactions in the trading book							
ឧបករណ៍និស្សន្ទពាក់ព័ន្ធនឹងអត្រាការប្រាក់ និងឧបករណ៍បំណុល *Derivatives linked to interest rate and debt instruments*							

ឧបករណ៍និស្សន្ទពាក់ព័ន្ធនឹងមូលបត្រកម្មសិទ្ធិ និងសន្ទស្សន៍ភាគហ៊ុន *Derivatives linked to equity price and stock index*							
ឧបករណ៍និស្សន្ទពាក់ព័ន្ធនឹងអត្រាប្តូរប្រាក់ *Derivatives linked to foreign exchange*							
៣. ប៉ូស៊ីសិនអត្រាប្តូរប្រាក់នៃគ្រប់រូបិយបណ្ណ 3. Foreign exchange positions of all currencies							
៤. ប៉ូស៊ីសិនបញ្ជិកាជួញដូរសរុប (១+២+៣) 4. Total trading book positions (1+2+3)							
៥. ទ្រព្យសកម្មសរុប 5. Total assets							
៦. ភាគរយនៃប៉ូស៊ីសិនជួញដូរ (៤÷៥) 6. Percentage of trading book positions (4÷5)							

Appendix 2

របាយការណ៍ ស្តីពី ទ្រព្យសកម្មក្រោយថ្លឹងហានិភ័យសម្រាប់ហានិភ័យទីផ្សារ របស់គ្រឹះស្ថានធនាគារនិងហិរញ្ញវត្ថុទទួលប្រាក់បញ្ញើ

Report on Risk-weighted Assets (RWA) for Market Risk in Deposit-taking Banks and Financial Institutions

លេខសម្គាល់របាយការណ៍ Report ID	
ជំនាន់របាយការណ៍ Report Version	
កាលបរិច្ឆេទ As at	
ឈ្មោះគ្រឹះស្ថាន Institution's Name	
អត្រាប្តូរប្រាក់ក្នុង ១ ដុល្លារអាមេរិក = X រៀល Exchange Rate 1 USD = X Riel	
ឯកតាគិតជាលានរៀល In million Riels	

១.កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអត្រាការប្រាក់ **1. Capital requirement for interest rate risk**	
១.១ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យជាក់លាក់ 1.1 Capital requirement for specific risk	
១.២ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យទីផ្សារទូទៅ 1.2 Capital requirement for general market risk	
១.៣ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអប់ហ្សិនពីឧបករណ៍បំណុល 1.3 Capital requirement for option risks from debt instruments	
សរុបកាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអត្រាការប្រាក់ (ក) Total capital requirement for interest rate risk (A)	
បន្ទុកដើមទុនសម្រាប់ហានិភ័យអត្រាការប្រាក់ (I) = (ក) x ១,៣០ Total capital charge for interest rate risk (I) = (A) x 1.30	
២. កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យមូលបត្រកម្មសិទ្ធិ **2. Capital requirement for equity risk**	
២.១ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យជាក់លាក់ 2.1 Capital requirement for specific risk	
២.២ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យទីផ្សារទូទៅ 2.2 Capital requirement for general market risk	

២.៣ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអប់ហ្សិនពីឧបករណ៍មូលបត្រកម្មសិទ្ធិ 2.3 Capital requirement for option risks from equity instruments	
សរុបកាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យមូលបត្រកម្មសិទ្ធិ (ខ) Total capital requirement for equity risk (B)	
បន្ទុកដើមទុនសម្រាប់ហានិភ័យមូលបត្រកម្មសិទ្ធិ (II) = (ខ) x ៣,៥០ Total capital charge for equity risk (II) = (B) x 3.50	
៣.កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអត្រាប្តូរប្រាក់ **3. Capital requirement for foreign exchange risk**	
៣.១ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអត្រាប្តូរប្រាក់ 3.1 Capital requirement for foreign exchange risk	
៣.២ កាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអប់ហ្សិនពីឧបករណ៍ហិរញ្ញវត្ថុពាក់ព័ន្ធនឹងអត្រាប្តូរប្រាក់ 3.2 Capital requirement for option risks from foreign exchange instruments	
សរុបកាតព្វកិច្ចដើមទុនសម្រាប់ហានិភ័យអត្រាប្តូរប្រាក់ (គ) Total capital requirement for foreign exchange risk (C)	
បន្ទុកដើមទុនសម្រាប់ហានិភ័យអត្រាប្តូរប្រាក់ (III) = (គ) x ១,២០ Total capital charge for foreign exchange risk (III) = (C) x 1.20	
បន្ទុកដើមទុនសម្រាប់ទីផ្សារហានិភ័យ (IV) = (I)+(II)+(III) **Total Capital Charge for Market Risk** (IV) = (I)+(II)+(III)	
ទ្រព្យសកម្មក្រោយថ្លឹងហានិភ័យសម្រាប់ហានិភ័យទីផ្សារ *= (IV) x* ***១២,៥០*** ***RWA for Market Risk*** *= (IV) x 12.50*	

Appendix 3

Risk Weight for Specific Risk Related to Interest-Rate Instruments

Categories	External credit assessment	Risk Weight for specific risk
Government	- government paper issued or fully guaranteed by the Royal Government of Cambodia - Debt securities issued by National Bank of Cambodia	0%
	AAA to AA- or equivalent	0%
	A+ to BBB- or equivalent	0.25% (when residual term to final maturity is 6 months or less) 1% (when residual term to final maturity is greater than 6 and up to and including 24 months) 1.60% (when residual term to final maturity is exceeding 24 months)
	BB+ to B- or equivalent	8%
	Below B- or equivalent	12%
	Unrated	8%
Qualifying	AAA ដល់ BBB- or equivalent	0.25% (when residual term to final maturity is 6 months or less)
		1% (when residual term to final maturity is greater than 6 months and up to and including 24 months)
		1.60% (when residual term to final maturity is exceeding 24 months)
Other	BB+ to BB- or equivalent	8%
	Below BB- or equivalent	12%
	Unrated	8%

Appendix 4

Summary of Capital Requirement for Interest Rate Derivatives

<table>
<tr><th>Instrument</th><th>Specific risk</th><th>General market risk</th></tr>
<tr><td colspan="3">Exchange traded futures</td></tr>
<tr><td>- Government debt security</td><td>Yes</td><td>Yes, as two positions</td></tr>
<tr><td>- Corporate debt security</td><td>Yes</td><td>Yes, as two positions</td></tr>
<tr><td>- Index on interest rate (e.g. Libor)</td><td>No</td><td>Yes, as two positions</td></tr>
<tr><td>OTC forward</td><td></td><td></td></tr>
<tr><td>- Government debt security</td><td>Yes</td><td>Yes, as two positions</td></tr>
<tr><td>- Corporate debt security</td><td>Yes</td><td>Yes, as two positions</td></tr>
<tr><td>- Index on interest rate</td><td>No</td><td>Yes, as two positions</td></tr>
<tr><td>FRAs, Swaps</td><td>No</td><td>Yes, as two positions</td></tr>
<tr><td>Forward foreign exchange</td><td>No</td><td>Yes, as one position in each currency</td></tr>
<tr><td colspan="3">Options</td></tr>
<tr><td>- Government debt security</td><td>Yes</td><td rowspan="4">The positions for the options and the associated underlying are subject to separately calculated capital requirements from other positions in the trading book.</td></tr>
<tr><td>- Corporate debt security</td><td>Yes</td></tr>
<tr><td>- Index on interest rate</td><td>No</td></tr>
<tr><td>- FRAs, Swaps</td><td>No</td></tr>
</table>

Appendix 5

Summary of Capital Requirement for Equity Derivatives

Instrument	Specific risk	General market risk
Exchange-traded or OTC-Futures:		
- Individual equity	**Yes**	Yes, as the underlying instrument
- Index	**Yes**	
Options:		The positions for the options and the associated underlying are subject to separately calculated capital requirements from other positions in the trading book.
- Individual Equity	**Yes**	
- Index	**Yes**	