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Notification of the Bank of Thailand
No. SorNorSor. 54/2008
Re: Guideline for Calculation of Credit Risk for Commercial Banks

1. Rationale

Financial institutions shall maintain adequate capital in order to support damage that may incur in the future or to compensate unexpected loss. By maintaining higher proportion of capital than its risk, a financial institution can give depositors and creditors confidence that it will be able to fulfill the agreement as well as to support the security and stability of financial institution system. The Bank of Thailand has stipulated that financial institutions shall maintain the capital in proportion to their risk related to assets and obligations of the financial institutions. According to the 1998 Basel Capital Accord (Basel I) guideline, capital shall be maintained in corresponding to credit risk and market risk only. In addition, in order to be able to better reflect risk as prescribed in the Basel II (2004) guideline, additional capital shall be maintained to support operational risk as well.

In this regard, the Bank of Thailand has issued a Notification regarding capital maintenance of financial institutions in accordance with the Financial Institutions Businesses Act B.E. 2551 where the essence of the capital components, guideline of maintaining of capital and risk asset calculation have not been changed and still refer to the Basel I guideline. The Bank of Thailand has consolidated all relevant notifications and circulars and categorizes them into major notifications as follows:

1. The Notification of the Bank of Thailand regarding capital components and guideline on maintaining of capital for commercial banks registered in Thailand; and, the Notification of The Bank of Thailand regarding capital components, guideline on maintaining of capital for branches of foreign banks. These two notifications are separated because there is difference in the principle of the capital components and proportion of capital to total risk assets of commercial banks registered in Thailand and of the foreign bank's branches. The commercial banks registered in Thailand shall maintain capital at least 8.5 percent of total risk assets per capital ratio while the branches of foreign banks shall maintain capital at least 7.5 percent of total risk assets per capital ratio.

2. The Notification of the Bank of Thailand regarding credit risk asset calculation for commercial banks which are applied to both commercial banks registered in Thailand and branches of foreign banks as they have the same principles. The

calculation of credit risk assets is the value of risk assets appeared on and off the balance sheet as a result of the default debtors or counterparties of the financial institution.

3. The Notification of the Bank of Thailand regarding guideline on supervision of market risk and capital maintenance for market risk of financial institutions will describe method of market risk asset calculation for all financial institutions required to maintain capital to support market risk. Market risk assets calculation is the calculation of the value of risk assets appeared on and off balance sheet as a result of the movement of the market price. The market risks consist of interest rate risk, exchange rate risk, equity instrument price and commodities price.

The separation of the notifications mentioned earlier is for the convenience of the financial institutions and relevant parties as well as to be ready for the capital maintenance in accordance with Basel II. In case where the financial institution has been approved by the Bank of Thailand to maintain its capital as prescribed in existing law, such financial institution may continue to follow such guideline without requesting for another approval.

2. Statutory Authority

By virtue of Sections 29, 30 and 71 of the Financial Institutions Businesses Act B.E. 2551, the Bank of Thailand has imposed a guideline on calculation of credit risk for assets and obligations, including financial derivative, for commercial banks registered in Thailand and branches of foreign banks so that it can be applied to the calculation of capital maintenance for commercial banks registered in Thailand and branches of foreign banks as set out by the Bank of Thailand.

3. Scope of Application

This Notification shall apply to all commercial banks established in accordance with laws governing financial institutions businesses.

4. Repealed Notifications and Circulars

Repealed Notifications and Circulars are as prescribed in Attachment 1.

5. Contents

5.1 Calculation credit risk for assets

Commercial banks shall calculate the credit risk assets as follows in order to apply it to the calculation of capital maintenance in accordance with the

Notification of The Bank of Thailand regarding capital components, guideline on maintaining of capital for commercial banks registered in Thailand and the Notification of The Bank of Thailand regarding capital components, guideline on maintaining of capital for branches of foreign banks.

(1) Multiply the book value, on the reporting day, of every item of assets and obligations, as appeared on the financial statement, with the risk weights. If the assets and obligations are in foreign currencies, they shall be converted into Thai Baht **as at the last day of the reporting month with the exchange rate prescribed on the Notification of the Bank of Thailand Re: Accounting for Financial Institutions.**

(2) Multiply each asset with the risk weights as prescribed in 5.2

(3) Multiply each obligations which does not fall under (4), (5) and (6) with the credit conversion factor as prescribed in 5.3, then multiply the outcome with the risk weights of each type of asset as prescribed in 5.2.

(4) **In case of the obligations in the form of financial derivative, as prescribed on Attachment 2, the banks shall calculate the credit equivalent amount (CEA) with current exposure method or original exposure method, then, multiply the outcome with the risk weights of each type of asset as prescribed in 5.2. Details of credit equivalent amount calculation of financial derivatives shall be carried on as prescribed on Attachment 3 and 4.**

Commercial banks, which are required to maintain capital for market risk, shall apply current exposure in calculation of credit equivalent amount for all financial derivatives obligations with all counterparties, or

Commercial banks, which are not required to maintain capital for market risk, may decide to apply either current exposure or original exposure method. However, for the derivatives other than exchange rate derivatives and interest rate derivatives, the banks shall apply current exposure method to such contracts.

(5) **In the case of assets and obligations related to credit derivatives, the bank shall calculate the risk asset by multiplying each asset or obligations with risk weights or credit conversion factor and risk weights in accordance with the guideline prescribed on the Notification of the Bank of Thailand Re: Permission for Commercial Banks to conduct credit derivative transactions and relevant risk weights.**

(6) **In the case of assets and obligations related to securitization, the bank shall calculate the risk asset by multiplying each asset or contingent liability with risk weights or credit conversion factor and risk weights in accordance with the guideline prescribed on the Notification of the Bank of Thailand Re: Permission for Commercial Banks to conduct securitization transactions and relevant risk weights.**

(7) Sum up the outcome of assets in item (2) and obligations in items (3) (4) (5) and (6) to get the outcome of credit risk assets.

5.2 Risk weights for each type of assets

The following deposit or loan means **debtors under credit-like transaction such as hire-purchase debtors, leasing debtors, etc, or** other debtors (right of claim by law) as a result of **trading of assets**, trading of instruments under resold or repurchased agreement and securities borrowing and lending such as repurchased debtors, securities borrowing debtors, transferred margin debtors and cash guaranteed debtors, etc.

5.2.1 Risk weights 0

(1) Cash in baht and foreign currencies;
(2) Deposits at or **loan to** the Bank of Thailand, including accrued interest receivables;

(3) Investments in Thai government securities, or in securities guaranteed by the Ministry of Finance in respect of both principal and interest, or in the Bank of Thailand securities, or credits secured by the aforementioned securities, as well as accrued interest receivables;

(4) Credits guaranteed by the Ministry of Finance in respect of both principal and interest, or any credits resulting from the Cabinet's resolution to reserve for debt repayment, **as well as accrued interest receivables**;

(5) **Deposits**, credits or investments in securities of the government or the central banks of the OECD¹ countries, or credits or investments in securities, unconditionally, guaranteed by such governments or central banks, or **agreed to undertake credit risk** or secured by securities of such governments or central banks, as well as accrued interest receivables.

(6) **Deposits**, credits or investments in securities of the government or the central banks of non OECD countries, or credits or investments in securities, unconditionally, guaranteed by such governments or central banks, **or agreed to undertake credit risk or secured by securities of such governments or central banks**, as well as accrued interest receivable, provided that such credits or investments shall be denominated in the national currency and is not in excess of the liabilities of such commercial bank in such currency;

¹ The OECD countries in this notification shall mean member countries of the Organization for Economic Co-operations and Development and the countries of equivalent financial status which are Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, South Korea, Luxemburg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain Sweden, Switzerland, Turkey, United Kingdom, the United States of America and Saudi Arabia.

(7) Deposits, credits or investments in securities of the Financial Institution Development Fund, **the Deposit Protection Agency** or a juristic person whereby all of its shares are held by the Financial Institution Development Fund or **the Deposit Protection Agency**, including credits or investments in securities accepted, given aval, guaranteed, **agreed to undertake credit risks** or loan secured by instruments issued by such juristic person as well as accrued interest receivables;

(8) Credits by rights represented by written instruments of deposits **or bills for borrowing from public**, issued by such commercial bank, **or deposit at the commercial bank** or cash held as security by such commercial bank, **excluded deposits or bills with embedded financial derivatives**, but only to the extent of the amount not exceeding the face value of such instruments or the amount of deposits or cash;

(9) **Credit equivalent amount of financial derivatives which cash held as security by the commercial bank, only to the extent of the amount of such cash;**

(10) Inter-office balances of such commercial bank;

(11) Deferred income tax;

(12) Credits only to the extent of the allowance for classified debts in accordance with the Notification of the **Bank of Thailand Re: Guideline of Classification and Provision of Financial Institutions;**

(13) **Credit, only to the extent of the amount of the deferred hire-purchased interest for hire-purchase debtors and deferred income for leasing debtors;**

(14) Prepaid expenses;

(15) Cash in the process of collection for the benefit of customers;

(16) **Assets resulting from marking to market of financial derivatives;**

(17) **Credit equivalent amount of financial derivative traded in derivative exchange center with daily mark to market and margin call system such as the Thailand Futures Exchange Plc (TFEX), etc.**

(18) **Items which are already deducted from the capital such as goodwill, etc.**

5.2.2 Risk weights 0.2

(1) Deposits, credits or investments in securities issued by commercial banks; or credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by commercial banks; and credits secured by instruments issued by commercial banks as well as accrued interest receivable;

(2) Deposits, credits or investments in securities issued by the Government Housing Banks, the Government Saving Banks, Bank for Agriculture and Agricultural Cooperatives, Export-Import Bank of Thailand, SME Bank or Islamic Banks; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by aforementioned banks; and credits secured by instruments issued by aforementioned banks as well as accrued interest receivable;

(3) Deposits, credits or investments in securities issued by finance companies or credit foncier companies; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such institutions; and credits secured by instruments issued by such institutions as well as accrued interest receivable;

(4) Credits or investments in securities issued by state organizations or state enterprises; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such institutions; and credits secured by instruments issued by such institutions as well as accrued interest receivable;

(5) Deposits, credits or investments in securities issued by commercial banks incorporated in OECD countries; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such commercial banks; and credits secured by instruments issued by such commercial banks as well as accrued interest receivable;

(6) Credits or investments in securities issued by state organizations in the OECD countries; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such institutions; and credits secured by instruments issued by such institutions as well as accrued interest receivable;

(7) Credits or investments in securities issued by international organizations²; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such organizations; and credits secured by instruments issued by such organizations as well as accrued interest receivable;

(8) Deposits, credits or investments in securities issued by commercial banks incorporated in non OECD countries; credits or investments in securities accepted,

² International organizations shall mean the European Investment Bank (EIB), European Bank of Reconstruction and Development (ERBD), International Bank of Reconstruction and Development (IRBD) including International Finance Corporation (IFC), Inter-American Development (IADB), African Development Bank (AFDB), Caribbean Development Bank (CDB) and Nordic Investment Bank (NIB).

given aval or guaranteed or agreed to guarantee credit risk by such commercial banks; and credits secured by instruments issued by such commercial banks as well as accrued interest receivable, the residual maturity of which shall not exceed 1 year;

(9) Export credits under the letters of credit or export credits under other types of documents under which the commercial bank abroad is responsible for payment of goods on behalf of the purchaser. In case where the issuer of the letters of credits or the commercial banks responsible for payment of goods are incorporated banks in non OECD countries, the residual maturity of the letters of credit or period of time for the commercial banks to make payment of goods shall not exceed 1 year;

(10) Any credits for which the cabinet has passed resolutions to allocate budgets for debt repayment but the Bureau of the Budget has not allocated such budgets for more than two years after maturity;

(11) Export credits secured by the Export-Import Bank of Thailand only to the extent of such part, which the right of claim has already been transferred in accordance with the policy to commercial banks.

(12) Investments in securities or mutual funds including any accrued earnings for the amount which the Ministry of Finance has entered into the protection scheme whereby the Ministry of Finance agreed to undertake the risk.

5.2.3 Risk weights 0.35

Housing loans granted to ordinary persons, which commercial banks take a first mortgage on land and/ or buildings as collaterals. The value of such land and buildings shall not be less than the outstanding loans granted, as well as accrued interest receivable.

Each loan shall comply as follows:

- (a) Not exceeding Baht 3 millions; and
- (b) Not exceeding 0.2 percent of total housing loans granted to ordinary persons as prescribed in (a) and credits granted to individual and SME businesses as prescribed in 5.2.5.

5.2.4 Risk weights 0.5

(1) Credits granted to or investments in securities issued by **municipalities**; credits or investments in securities accepted, given aval or guaranteed by **municipalities**; and credits secured by instruments issued by **municipalities**;

(2) Housing loans granted to ordinary persons, which commercial banks take a first mortgage on land and/ or buildings as collaterals. The value of such land and buildings shall not be less than the outstanding loans granted, as well as accrued interest receivable other than 5.2.3;

(3) **Credit equivalent amount** (CEA) of financial derivative obligations, except in case where the credit equivalent amount of such obligations is classified under risk weights less than 0.5.

5.2.5 Risk weights 0.75

(1) Credit granted, under guarantee, to individual including accrued interest receivable in an amount not exceeding Baht 3 millions;

(2) Credit granted, without guarantee, to individual including accrued interest receivable in an amount not exceeding Baht 100,000;

(3) Credit granted to SME businesses including accrued interest receivable in an amount not exceeding Baht 50 millions.

Each credit line shall be as follows:

(a) Include credits granted to related persons. **During the transition period of laws, commercial banks shall use the definition prescribed on Attachment 5;**

(b) Including (a), credit line shall not exceed 0.2 percent of the sum of total credits granted for housing loans to ordinary persons as prescribed in 5.2.3 and credits granted to individual and SME businesses as prescribed in (1), (2) and (3).

5.2.6 Risk weights 1.0

(1) Credits granted or security investment to private sectors and accrued interest receivable;

(2) Deposits, credits or investments in securities issued by commercial banks incorporated in non OECD countries; credits or investments in securities accepted, given aval or guaranteed or agreed to guarantee credit risk by such commercial banks; and credits secured by instruments issued by such commercial banks as well as accrued interest receivable, the residual maturity of which shall not exceed 1 year;

(3) Deposits, credits or investments in securities of government or the central bank of non OECD countries, or credits or investments in securities, unconditionally, guaranteed by such governments or central banks, or agree to undertake credit risk, as well as accrued interest receivable which is not denominated in the national currency or is exceeding the amount of liabilities of such commercial bank in such currency;

(4) Housing loans granted to ordinary 1 persons including accrued interest receivable under risk weights of 0.35, as prescribed in 5.2.3, which become non-performance loan in accordance with the Bank of Thailand's guideline.

(5) Investment in mutual fund.

In cases where commercial bank is able to calculate daily net value of any mutual fund in accordance with the net value of assets of which the issuer of such mutual fund is holding, the bank may select the risk weight of the such assets in accordance with the proportion, type and amount that the fund actually invests in each cases as stipulated by this Notification instead of the risk weight in 5.2.6.

(6) Land, buildings, equipments, other fixed assets and foreclosed assets

(7) Other assets not specified risk weights in 5.2

5.2.7 Risk weights 1.5

Credits granted to individual and SME businesses as well as accrued interest receivable under risk weigh 0.75, as prescribed in 5.2.5, which become non-performance loan in accordance with the Bank of Thailand's guideline.

5.3 Credit Conversion Factor for obligations under 5.1(3)

5.3.1 Credit conversion factor 1.0

(1) Giving aval to bills, accepting bills, guaranteeing loans and guaranteeing the selling, discounting and rediscounting of bills;

(2) Endorsing bills for which the endorsees have the right of recourse;

(3) Asset purchasing contracts which commercial banks shall comply unconditionally;

(4) Guaranteeing, taking guarantee or creating obligations in any forms of commercial banks due to the sale of assets;

(5) Obligations in accordance with the agreements to sell instruments under repurchase agreement under the calculation method prescribed on Attachment 6;

(6) Obligations in accordance with the securities borrowing and lending agreements under the calculation method prescribed on Attachment 6;

(7) Guarantee on raising capital or other guarantees for the benefit of the borrowing of any person.

5.3.2 Credit conversion factor 0.5

(1) Obligations, which depend on customers' operational performance such as performance guarantee of the construction contract, guarantee on bid bond, guarantee on performance bond, etc;

(2) Guarantee on selling of instruments or firm underwriting securities;

(3) **Guarantee on payment of goods**

(4) **Guarantee on tax payment such as income tax of foreigners who work in Thailand with a plan to leave the country, excise tax, imported tax or tax refund, etc.;**

(5) **Guarantee to court such as guarantee of lawsuit proceeding or court's ruling;**

(6) **Guarantee on water payment, water meter, electric payment or electric meter**

(7) **Guarantee on advance payment**

(8) **Guarantee under other contracts such as guarantee on aliens' immigration, guarantee on charging fuel on synergy card or star card, etc.;**

(9) **Guarantee on retention/warranty bond**

5.3.3 Credit conversion factor 0.2

Obligations for import of goods under letter of credit with or without supporting document, as well as **acceptance on unmatured trade bills.**

5.3.4 Credit conversion factor 0

(1) Bills for collection;

(2) Line of credit unused by customers;

(3) Shipping guarantee;

(4) Obligations which commercial banks can cancel at any time;

(5) Other obligations not specified the credit conversion factor under 5.3.

6. Relaxation

6.1 In granting housing loans to ordinary persons as prescribed in 5.2.3, commercial banks may apply the risk weight of 0.5 under 5.2.4 in calculating the capital maintenance. However, if the banks decide to use the risk weight under 5.2.3, the bank will not be able to reuse the risk weight of 0.5 under 5.2.4 later.

In case of the commercial banks which, currently, use the risk weight of 0.5 under 5.2.4 as the work system and the distribution of the credit portfolio of the banks is not ready, the banks may choose to use the risk weight under 5.2.3 when the banks are ready.

6.2 In granting credits to individual and SME businesses as prescribed in 5.2.5, commercial banks may choose to use the risk weight 1.0 under 5.2.6 in calculating the capital maintenance. However, if the banks decide to use the risk weight under 5.2.5, the bank will not be able to reuse the risk weight of 1.0 under 5.2.6 later.

In case of the commercial banks which, currently, use the risk weight of 1.0 under 5.2.6 as the work system and the distribution of the credit portfolio of the banks is not ready, the banks may choose to use the risk weight under 5.2.5 when the banks are ready.

7. Effective Date

This Notification shall enter into force on and from the day following the date of its publication in the Royal Gazette.

Announced on the 3rd day of August, 2008

(Mrs. Tarisa Watanagase)
Governor
Bank of Thailand

Repealed Notifications and Circulars of Bank of Thailand

No.	Issued Date	Type of Document	Document No.	Subject
1	1 May 1962	Notification of the MOF		Remarks on Commercial Banking Act B.E. 2505 (in relation to the calculation of credit risk assets)
2	21 Dec 1992	Circular of the BOT	NorWor. (Wor) 1541/1992	Submission of the State Enterprises' Name-list
3	25 May 1993	Notification of the BOT		Stipulation on maintenance of Capital Funds by Locally Incorporated Commercial Banks (Edition 3) 1993 (Circular of the BOT No. NorWor. (Wor) 839/1993 Re: Amendment on Risk Weight of Assets dated 1 Jun 1993)
4	23 Jun 1993	Circular of the BOT	NorWor.(Wor) 903/1993	Submission of the State Enterprises' Name-list
5	23 Dec 1996	Circular of the BOT	ThorPorTor. NgorPhor.(Wor) 3288/1996	Calculation of Credit Risk Assets on Obligations under the Guarantee Contract
6	17 Dec 2003	Circular of the BOT	ThorPorTor. SorNorSor (31) Wor. 2662/2003	Revocation of the Circular Regarding Risk Weight of Loans to Financial Institutions
7	30 Dec 2005	Notification of the BOT		Stipulation on Maintenance of Capital Funds in Relation to Calculation of Credit Risk Assets by Branches of Foreign Banks (Circular of the BOT No. ForNorSor (21) Wor. 32/2006 Re: Stipulation on Maintenance of Capital Funds by Branches of Foreign Banks dated 8 Feb 2006)

No.	Issued Date	Type of Document	Document No.	Subject
8	27 Jan 2006	Notification of the BOT		Stipulation on Maintenance of Capital Funds in Relation to Calculation of Credit Risk Assets by Locally Incorporated Commercial Banks (Circular of the BOT No. ForNorSor (21) Wor. 31/2006 dated 8 Feb 2006)
9	22 Mar 2007	Circular of the BOT	ThorPorTor. ForNorSor.(21)Wor. 532/2007	Indebtedness of Local Administration Organization
10	22 Mar 2007	Circular of the BOT	ThorPorTor. ForNorSor.(21)Wor. 533/2007	Indebtedness of Local Administration Organization

Types of Derivatives Contract

Exchange Rate Derivatives are as follows:

- (1) Foreign Exchange Forward Contracts**
- (2) Foreign Exchange Futures**
- (3) Currency Option Purchase**
- (4) Cross Currency Swaps**
- (5) Other derivatives with similar characteristics**

Interest Rate Derivatives are as follows:

- (1) Forward Rate Agreements**
- (2) Interest Rate Futures**
- (3) Interest Rate Options Purchase**
- (4) Interest Rate Swaps**
- (5) Other derivatives with similar characteristics**

Bond Derivatives are as follows:

- (1) Bond Forwards**
- (2) Bond Futures**
- (3) Bond Option Purchase**
- (4) Other derivatives with similar characteristics**

Equity Derivatives are as follows:

- (1) Equity Forwards**
- (2) Equity Futures**
- (3) Equity Options Purchase**
- (4) Equity Linked Swaps**
- (5) Other derivatives with similar characteristics**

Commodity Derivatives are as follows:

- (1) Commodity Forwards**
- (2) Commodity Futures**
- (3) Commodity Options Purchase**
- (4) Commodity Swaps**
- (5) Other derivatives with similar characteristics**

Credit Derivatives are:

Credit Derivative Contracts in trading book and total rate of return swaps contract which have to maintain capital to cope with the counterparty risk in accordance with the Notification of BOT Re: Permission for Commercial Bank to conduct Credit Derivatives Transactions.

**Guideline on calculating Credit Equivalent Amount (CEA) for
Financial Derivative Obligations**

The calculation of credit equivalent amount (CEA) for financial derivatives can be performed under two methods; 1) Original Exposure Method and 2) Current Exposure Method.

(1) Original Exposure Method

Credit Equivalent Amount (CEA) of current credit exposure is equal to sum of credit equivalent amount without netting agreement and credit equivalent amount with netting agreement as follow:

$$\text{CEA}_{\text{of each customer}} = \text{CEA}_{\text{without Netting Agreement}} + \text{CEA}_{\text{with Netting Agreement}}$$

(a) In case of full conditions contract without netting agreement as prescribed on Attachment 4

Credit equivalent amount (CEA) of current credit exposure can be calculated as follow:

$$\text{CEA} = \sum_{i=1}^n (\text{Notional Amount}_i * \text{CCF}_{i \text{ table 1}})$$

or equal to the sum of the product of notional amount¹ of exchange rate derivatives and interest rate derivative of such counterparty and relevant Credit Conversion Factor (CCF) as prescribed on Table 1.

¹ Notional Amount used in CEA calculation mentioned on this Notification means the amount of money stated on the financial derivative contract. In this regard, the financial derivatives contract which is derived from the sub derivatives or has leveraged the contractual amount or exchange of structured product for many time, the bank shall use the sum of contractual amount of sub transaction used in calculation of the money the bank is expected to receive in the most beneficial circumstance that may incur (Effective Notional Amount) instead of the actual amount on the financial derivative. In case of the original exposure method, the product of the notional amount of digital option and the relevant CCF will not exceed the payoff of the digital option and will not exceed the payoff of digital option contract less the mark to market in case of the current exposure. The example of effective notional amount is shown on Attachment 3.1

Table 1 Credit Conversion Factor (CCF) of Exchange Rate and Interest Rate Derivatives under Original Exposure Method for full conditions contract without netting agreement

Maturity	Exchange Rate Derivative	Interest Rate Derivative
Less than 14 days	0	0
Less than 1 year	0.02	0.005
Over 1 year to 2 years	0.05	0.01
Every additional year	0.03	0.01

The maturity of financial derivative shall start from the trading date.

(b) In case of full conditions contract with netting agreement as prescribed on Attachment 4

Credit equivalent amount of current credit exposure can be calculated as follow:

$$CEA = \sum_{i=1}^n (\text{Notional Amount}_i * CCF_{i \text{ table 2}})$$

or equal to the sum of the product of notional amount¹ of exchange rate derivative and interest rate derivative of each counterparty and relevant credit conversion factor (CCF) as prescribed on Table 2.

Table 2 Credit Conversion Factor (CCF) of Exchange Rate and Interest Rate Derivatives under Original Exposure Method for full conditions contract with Netting Agreement

Maturity	Exchange Rate Derivative	Interest Rate Derivative
Less than 14 days	0	0
Less than 1 year	0.0150	0.0035
Over 1 year to 2 years	0.0375	0.0075
Every additional year	0.0225	0.0075

The maturity of financial derivative shall start from the trading date.

(2) Current Exposure Method

Current exposure method is a method for calculating credit equivalent amount (CEA) of current credit exposure by taking into account of the present fair value and the potential future credit exposure (PFCE). The present fair value of financial derivative is the mark to market value, while the potential future credit exposure (PFCE) is derived from the estimation which will reflect potential risk through out the remaining time of the contract.

The credit equivalent amount (CEA) of current credit exposure is equal to the sum of credit equivalent amount of contract without netting agreement and credit equivalent amount of contract with netting agreement as follow:

$$\text{CEA of each customer} = \text{CEA without Netting Agreement} + \text{CEA with Netting Agreement}$$

In case there are more than one contract with netting agreement (or more than one netting sets), the credit equivalent amount of each netting set shall be calculated first, then, added together to get total credit equivalent amount.

(2.1) In case of the full conditions contact without netting agreement,

Credit equivalent amount (CEA) of financial derivative can be calculated as follow:

$$\begin{aligned} \text{CEA without netting agreement} &= \text{CCE} + \text{PFCE}_{\text{Gross}} \\ \text{where } \text{CCE} &= \sum_{i=1}^n \text{CCE}_i, \text{CCE}_i \geq 0 \\ \text{PFCE}_{\text{Gross}} &= \sum_{j=1}^n (\text{Notional Amount}_j * \text{CCF}_{j \text{ table 3}}) \end{aligned}$$

or equal to the total of:

(a) sum of profit from mark to market (MTM) of the current credit exposure (CCE) and

(b) sum of potential future credit exposure (PFCE_{Gross}) which is equal to the product of notional amount¹ of current credit exposure and relevant credit conversion factor as prescribed in Table 3.

Table 3 Credit conversion facton of financial derivative under Current Exposure Method^{1/}

Remaining time to Maturity ^{2/}	Type of derivatives							
	Exchange Rate and Gold	Interest Rate	Equity Instrument	Valuable Metal ^{3/}	Other Commodities	Debt Instrument ^{4/}		
						Government	Qualified	Unqualified
Less than 14 days	0	0	0.06	0.07	0.10	0	0.05	0.10
Less than 1 year	0.01	0	0.06	0.07	0.10	0	0.05	0.10
Over 1 year to 5 years	0.05	0.005	0.08	0.07	0.12	0.005	0.05	0.10
Over 5 years	0.075	0.015	0.10	0.08	0.15	0.015	0.05	0.10

^{1/} The credit derivative in trading book shall use the credit conversion factor as prescribed on the Notification of the Bank of Thailand Re: Permission for commercial banks to conduct credit derivative transaction.

^{2/} In case there is receipt or payment made on the date which is set in advance after adjustment of reference rate which cause the market value of the contract to be zero, the remaining time to maturity means the remaining period before the next adjustment of reference rate. In case there is a mark to market of financial derivative and cash is required as collateral in accordance with the Credit Support Annex or other similar contracts, the remaining time to maturity should be the valuation time plus the holding period which is equal to 10 days.

^{3/} Valuable metal, except gold.

^{4/} Debt instrument shall be divided into 3 types; debt instrument referencing government bond, debt instrument referencing other debt instrument which is qualified and debt instrument referencing other debt instrument which is unqualified in accordance with the guideline on capital maintenance for interest rate risk under specific risk as prescribed on the Notification of the Bank of Thailand Re: Guideline on Market Risk Supervision and Capital Maintenance to support market risk for Financial Institutions.

(2.2) In case of the full conditions contract with netting agreement as prescribed on Attachment 4,

Credit equivalent amount of financial derivative can be calculated as follow:

$$\text{CEA}_{\text{with Netting Agreement}} = \text{NCCE} + \text{PFCE}_{\text{Net}}$$

Where:

(a) sum of Net Current Credit Exposure (NCCE) which is the sum of net profit and loss from mark to market of derivative contract under netting agreement of current credit exposure. In case where the fair value is positive, such value shall be use for the net current credit exposure. However, if the mark to market value is negative, the net current credit exposure shall be zero.

(b) sum of potential future credit exposure (PFCE_{Net}) of derivative contract under netting agreement can be calculated as follows:

$$\text{PFCE}_{\text{Net}} = 0.4 * \text{PFCE}_{\text{Gross}} + 0.6 * \text{NGR} * \text{PFCE}_{\text{Gross}}$$

where $\text{NGR} = \frac{\text{NCCE}}{\text{CCE}}$

The Net to Gross Ratio (NGR) is equal to the ratio of net current credit exposure, calculated as prescribed on 2.2 (a) divided by current credit exposure, calculated as prescribed on 2.1(a). There are 2 calculation methods which commercial banks may choose to apply, however, the chosen method shall be apply constantly.

- In calculating net to gross ratio (NGR) for each counterparty, commercial banks shall apply $\text{NCCE}_{\text{Individual}}$ and $\text{CCE}_{\text{Individual}}$ which calculated from all financial derivative contracts with netting agreement of that particular counterparty.

- In calculating net to gross ratio (NGR) for all counterparties (Aggregate Approach), commercial banks shall apply $\text{NCCE}_{\text{Aggregate}}$ and $\text{CCE}_{\text{Aggregate}}$ which is the sum of $\text{NCCE}_{\text{Individual}}$ and $\text{CCE}_{\text{Individual}}$ of all counterparties for contracts with netting agreement where the bank shall apply this NGR in calculating PFCE_{Net} for all counterparties.

In calculating $PFCE_{Net}$, the banks shall take into account the result of the netting agreement. In case the netting agreement causes the net current credit exposure (NCCE) to be 0, causing in net to gross ratio (NGR) to be 0, therefore $PFCE_{Net}$ is equal to 0.4 of $PFCE_{Gross}$. However, if the contacts are contracts without netting agreement causing net current credit exposure (NCCE) to be equal to current credit exposure (NGR), resulting in net to gross ratio (NGR) equal to 1, then , $PFCE_{Net}$ is equal to $PFCE_{Gross}$

Offsetting of contracts

In case of the foreign exchange forward contracts or other similar type of contracts which the notional amount is equal to the actual cash flow received and paid on both buying and selling sides, commercial banks may offset the contract with reverse transactions which have the same maturity date and same currency pair if such contracts are contracts under netting agreement.

(a) **Original Exposure Method:** the bank shall multiply notional amount, paid on both buying and selling sides under the same maturity date, with relevant credit conversion factor (Table 1: Contract without netting agreement and Table 2: Contract with netting agreement), then offset the products. The difference shall be counted as credit equivalent amount.

(b) **Current Exposure Method:**

- In calculating current credit exposure (CCE) and net current credit exposure (NCCE), commercial bank shall offset the fair value of the contracts, then add the differences to the current credit exposure (CCE) and net current credit exposure (NCCE) of the rest of the contracts in order to get the sum of CCE and NCCE under such counterpart.

- In calculating $PFCE_{Gross}$, commercial banks shall multiply the notional amount, on both buying and selling sides under the same maturity date, with relevant credit conversion factor prescribed on Table 3, then offset the products. The difference is the $PFCE_{Gross}$ of the contract under netting agreement. $PFCE_{Gross}$ is then added to the other $PFCE_{Gross}$ in order to get the sum of $PFCE_{Gross}$ of that contract counterpart. Then calculate $PFCE_{Net}$ with the method prescribed in 2.2(b)

The examples of credit equivalent amount calculation under original exposure method and current exposure method are prescribed on Attachment 3.2 and the Report Form in Excell File as prescribed on Attachment 3.3.

Example of Effective Notional Amount Calculation

Notional Amount / Effective Notional Amount

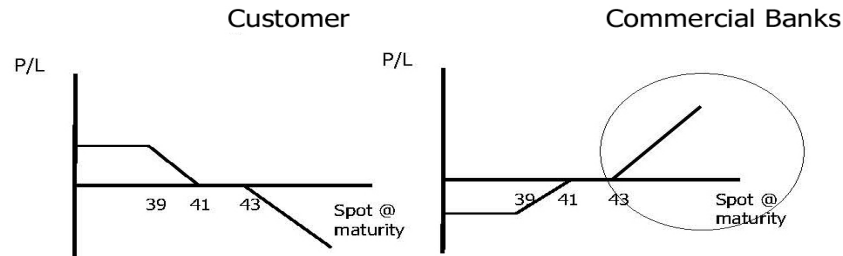
- Notional Amount means amount of money stated on the contract
- Effective Notional Amount means the financial derivative contract calculated from the sum of notional amount of all sub-transactions which is used to calculate the return under the most beneficial situation that may incur for
 - (1) the development from sub financial derivative such as Seagull; or
 - (2) the leverage of the notional amount; or
 - (3) the multiple exchange of the notional amount (Structure Product).
- Under the original exposure method, the product of notional amount of digital option contract and the relevant credit conversion factor (CCF) will not exceed the payoff value of such contract. Under current exposure method, the product of notional amount of digital option contract and the relevant credit conversion factor (CCF) will not exceed the payoff value deducted by the mark to market value.

- 1. Effective Notional of the financial derivatives which develop from sub derivatives such as Seagull:** In case the customer is an exporter who is obligated to receive payment in USD in the future

Components

No.	Customer	Commercial Bank
1	Buy USD Put/THB Call @ 41 Notional Amount 1M\$	Sell USD Put/THB Call @ 41 Notional Amount 1M\$
2	Sell USD Call/THB Put @ 43 Notional Amount 1M\$	<u>Buy</u> USD Call/THB Put @ 43 Notional Amount 1M\$
3	Sell USD Put/THB Call @ 39 Notional Amount 1M\$	<u>Buy</u> USD Put/THB Call @ 39 Notional Amount 1M\$

Effective Notional: Seagull



Scenario	Exercise	Effective Notional
Spot \leq 39	- Customer exercise Put @ 41 - Bank exercise Put @ 39	Even though the bank may exercise put option with Notional Amt. of 1M, it is an exercise for reducing loss (as same as customer exercise put option). Therefore in this scenario, notional = 0
39 < Spot < 41	Customer exercise Put @ 41	N/A
41 \leq Spot \leq 43	No exercise option	N/A
Spot > 43	Bank exercise Call @ 43	Call option / Notional amt. 1 M

Under existing rules

Including all transactions which the bank is a buyer, therefore, the risked assets for this transaction that bank shall include are

1. USD Call/THB Put @ 43
2. USD Put/THB Call @ 39

Under effective notional rule

Under the principles of effective notional, scenario which commercial banks obtain the most benefits will be considered. It can be seen that even though the bank may purchase 2 options, there is no scenario that the bank has a chance to exercise both options simultaneously. Therefore, single lending limit in this case, only the call options which the bank purchase from the customer shall be consider as effective notional amount which is equal to 1M

2. Effective notional amount of financial derivative with leveraged notional amount such as IRS Notional amount of Baht 1,000 M, pay 8% and receive 2 (THBFX) is equal to 2 IRS contracts of Baht 1,000 M notional amount each. Each contract will pay a fix

rate at 4% and receive floating rate at the THBFIX. Therefore, the effective notional amount is equal to Baht 2,000 M.

Example of calculation of credit equivalent amount

1. According to Original Exposure

Assumption: 3 Exchange rate derivative contacts with Mr. A

CCY (Buy)	CCY (Sell)	Notional Amount (million baht)	Original Maturity	<u>1st Method</u> (Without Netting Agreement)		<u>2nd Method</u> (With Netting Agreement)	
				CCF 1 st Method	Not. Amt.* CCF	CCF 2 nd Method	Not. Amt.* CCF
+USD	-BAHT	5,000	12 days	0.00	0	0.00	0
+USD	-BAHT	10,000	2 months	0.02	200	0.015	150
+USD	-BAHT	100,000	3 years	0.08 (0.05+0.03)	8,000	0.06 (0.0375+ 0.0225)	6,000
CEA = Notional Amount * CCF				8,200		6,150	

Credit risk asset for Mr. A

Without netting = CEA * RW of Mr. A
 = 8,200 * 0.5 = 4,100 million baht

With netting = CEA * RW of Mr. A
 = 6,150 * 0.5 = 3,075 million baht

Example of Current Exposure Calculation

ABC Bank has signed 6 exchange rate agreements with abc Company

CCY (Bought)	CCY (Sold)	Notional Amount	Remaining Maturity	CCF	Notional CCF	Mart to Market	
						Profit	Loss
+USD	-BAHT	5,000	12 days	0	0	5	
+USD	-BAHT	10,000	2 months	0.01	100	10	
+BAHT	-USD	40,000	4 months	0.01	400	20	
+USD	-BAHT	30,000	5 months	0.01	300		10
+BAHT	-USD	50,000	7 months	0.01	500		5
+USD	-BAHT	10,000	3 years	0.05	500	10	
Total					1,800	45	15

Current exposure for the case without netting agreement

Profit from mark to market (CCE) = 45 million baht
 Potential future credit exposure (PFCE_{Gross}) = 1,800 million baht
 Credit equivalent amount (CEA) = 45 + 1,800 = 1,845 million baht

Current exposure for the case with netting agreement

Net profit and loss from mark to market (NCCE) = 45 – 15 = 30 million baht
 Potential future credit exposure (PFCE_{Gross}) = 1,800 million baht
 Net Potential future credit exposure (PFCE_{Net}) = 0.4 * PFCE_{Gross} + (0.6*NGR* PFCE_{Gross})
 NGR = NCCE / CCE = 30 / 45 = 0.66 million baht
 PFCE_{Net} = (0.4*1,800) + (0.6*0.66*1,800)
 = 1,440 million baht
 Credit equivalent amount = 30 + 1,440 = 1,470 million baht

Summary of risk asset of abc company:

1. Under current exposure method without netting agreement
 $CEA = CCE + PFCE_{Gross} = 45 + 1,800 = 1,845$ million baht
 Credit risk assets for abc company = $1,845 * 0.5 = 922.5$ million baht
2. Under current exposure method with netting agreement
 $CEA = NCCE + PFCE_{Net} = 30 + 1,440 = 1,470$ million baht
 Credit risk assets for abc company = $1,470 * 0.5 = 735$ million baht

Example of the case with netting agreement under original exposure method

Assuming that the bank has signed three exchange rate derivative agreements with Mr. A

CCY (Bought)	CCY (Sold)	Notional Amount (million baht)	Original Maturity	<u>1st Method</u> (Without Netting Agreement)		<u>2nd Method</u> (With Netting Agreement)	
				CCF 1 st Method	Not. Amt.* CCF	CCF 2 nd Method	Not. Amt.* CCF
-USD	+BAHT	5,000	2 months	0.02	} 100	0.015	} 75
+USD	-BAHT	10,000	2 months	0.02		0.015	
+USD	-BAHT	100,000	3 years	0.08 (0.05+0.03)	8,000	0.06 (0.0375+0.0225)	6,000
Obligation with Mr. A = Notional Amount * CCF				8,100		6,075	

Credit risk asset for Mr. A

1. Under original exposure method without netting agreement
 $CEA = 8,100$ million baht
 Credit risk assets = $8,100 * 0.5 = 4,050$ million baht
2. Under original exposure method with netting agreement
 $CEA = 6,075$ million baht
 Credit risk assets = $6,075 * 0.5 = 3,037.50$ million baht

2. Example of contract with netting agreement under current exposure method

ABC Bank has signed six exchange rate agreements with abc Company, of which the third and fourth agreements are considered netting agreement

Currency	Currency	Notional Amount	Remaining Maturity	CCF	Notional CCF	Mart to Market	
						Profit	Loss
+USD	-BAHT	5,000	12 days	0	0	5	
+USD	-BAHT	10,000	2 months	0.01	100	10	
+BAHT	-USD	40,000	4 months	0.01	400	20	
+USD	-BAHT	30,000	4 months	0.01	300		10
+BAHT	-USD	50,000	7 months	0.01	500		5
+USD	-BAHT	10,000	3 years	0.05	500	10	
Total					1,800	45	15

Current credit exposure (CCE) = 5+10+(20-10)+10 = 35 million baht

Net Current Credit Exposure (NCCE) = (5+10+(20-10)+10)-5 = 30 million baht

Potential future credit exposure_{Gross} (PFCE_{Gross})
 = (100+500+500) + PFCE_{Gross} from the 3rd and 4th agreements
 = 1,100 + (400-300) = 1,200 million baht

Potential future credit exposure_{Net} (PFCE_{Net})
 NGR = NCCE / CCE = 30 / 35 = 0.86 million baht
 PFCE_{Net} = (0.4 * PFCE_{Gross} + 0.6 * NGR * PFCE_{Gross})
 = 0.4 * 1,200 + 0.6 * 0.86 * 1,200
 = 1,097 million baht

Credit risk asset for Mr. A:

- Under current exposure method without netting agreement
 CEA = CCE + PFCE_{Gross} = 35 + 1,200 = 1,235 million baht
 Credit risk assets = 1,235 * 0.5 = 617.50 million baht
- Under current exposure method with netting agreement
 CEA = NCCE + PFCE_{Net} = 30 + 1,097 = 1,127 million baht

Credit risk assets = 1,127 * 0.5 = 563.50 million baht

.....Bank
**Monthly Report on Risk Assets and Credit Equivalent Amount for Financial
 Derivative
 Ended.....**

Part 1: Risk Asset Value for Financial Derivatives under Original Exposure Method
 Unit: Baht

Original Exposure Method (A)	Credit Equivalent Amount (B)	Risk Assets Value (C) = (A)x(B)
1. Risk Weight = 0		
2. Risk Weight = 0.2		
3. Risk Weight = 0.5		
Total		

Part 2: Risk Asset Value for Financial Derivatives under Current Exposure Method
**1. Credit Equivalent Amount (CEA) for financial derivative under current
 exposure method**

Unit: Baht

- 1.1 Current Exposure
 - (a) Current Credit Exposure
 - (b) Net Current Credit Exposure
- 1.2 Potential Future Credit Exposure
 - (a) Sum of PFCE_{Gross} for financial derivatives without netting agreement
 - (b) Sum of PFCE_{Net} for financial derivatives with netting agreement
- 1.3 Credit Equivalent Amount
 - (a) Sum of CEA for financial derivatives without netting agreement
 - (b) Sum of CEA for financial derivatives with netting agreement

2. Risk Asset Value for Financial Derivatives under Current Exposure Method

Current Exposure Method (A)	Credit Equivalent Amount (B)	Risk Assets Value (C) = (A)x(B)
2.1. Risk Weight = 0		
2.2. Risk Weight = 0.2		
2.3. Risk Weight = 0.5		
Total		

Part 3: Total risk asset value for financial derivatives

Original Exposure Method & Current Exposure Method (A)	Credit Equivalent Amount (B)	Risk Assets Value (C) = (A)x(B)
2.1. Risk Weight = 0		
2.2. Risk Weight = 0.2		

2.3. Risk Weight = 0.5		
Total		

-3/14-

Explanation of Report Form of Risk Assets Value and Credit Equivalent Amount for Financial Derivatives

A. General statement

1. This report is a presentation of risk asset amount and credit equivalent amount for financial derivatives calculated under original exposure and current exposure methods.

2. Commercial banks shall refer to the guideline on this notification in calculating the risk asset amount and credit equivalent amount for financial derivatives.

3. Report Submission

3.1 Commercial banks which are not required to maintain capital for supporting market risk shall submit data on risk asset amount for financial derivatives calculated under original exposure method as prescribed in Part 1 and total risk asset amount as prescribed in Part 3. However, in case of derivative contracts with counterparty other than exchange rate derivative and interest rate derivative contracts, commercial banks shall submit data of risk asset amount for financial derivatives calculated under current exposure as prescribed in Part 2.

3.2 Commercial banks which are required to maintain capital for supporting market risk shall submit data on risk asset amount under current exposure method as prescribed in Part 2 and total risk asset amount as prescribed in Part 3.

4. Commercial banks shall submit risk asset amount report and credit equivalent amount for financial derivative as prescribed on the report form on a monthly basis. The amount shall be displayed in Thai Baht and insert a comma “,” after every third digit from the right.

In reporting in Thai Baht equivalent by converting the currency as prescribed on the Notification of the Bank of Thailand Re: Accounting for Financial Institutions, the currency conversion shall be performed as follows:

4.1 In case of financial derivatives in one currency, such as exchange rate derivative between a foreign currency and Thai Baht, commercial banks shall multiply the notional amount in foreign currency with the exchange rate as at the reporting day.

4.2 In case of financial derivatives in multiple currencies, commercial banks shall multiply the purchased notional amount (receiving side) in foreign currencies with the exchange rate as at the reporting day.

5. In order to submit financial derivatives report in the data set **DS_ARS, CL_Arrangement Type, commercial bank shall also report the notional amount or effective notional amount with CCF equal to 0 and risk weight equal to 0** under both original exposure and current exposure methods.

6. Commercial banks shall prepare report in Excel file format with definition as set out by the Bank of Thailand. The template file can be downloaded at www.bot.or.th under Data submission and retrieves from the Bank of Thailand, Template, Report Form for Risk Asset Amount and Credit Equivalent Amount for Financial Derivatives.

7. Commercial banks shall submit the report within 21 days from the last day of the reporting month. The report of the risk assets amount and credit equivalent amount of financial derivatives shall start from the first installment ending **August 31st, 2008** onwards.

The data in Excel file format shall be submitted through DMS Data Acquisition via Extranet (<https://webserv>), select “Submit File”, then, select “Credit Equivalent Amount”, then, select “Credit Equivalent Amount (Monthly)”

8. Any further inquiry regarding this report form, please contact Prudential Policy Department, Financial Institutions Policy Group, the Bank of Thailand at 0-2283-6821, 0-2283-5805.

B. Definitions

Part 1: Risk Asset Value for Financial Derivatives under Original Exposure Method

Commercial banks shall report the credit equivalent amount calculated by multiplying notional principal amount or effective notional amount of financial derivatives with credit conversion factor for both with and without netting agreement as prescribed on this notification only in total amount. The risk asset amount shall be calculated by multiplying credit equivalent amount with risk weight of the counterparty which is not exceeding 0.5. The risk weight of the counterparty shall be in accordance with the guideline prescribed on this notification. The risk weight can be categorized into 3 cases as:

1. Risk weight equals to 0 means the case where counterparty classified under risk weight of 0.

2. Risk weight equals to 0.2 means the case where counterparty classified under risk weight of 0.2.

3. Risk weight equals to 0.5 means the case where a counterparty is classified in other groups.

In addition, the report shall include the sum of credit equivalent amount and the sum of risk asset amount of all 3 cases.

Part 2: Risk Asset Value for Financial Derivatives under Current Exposure Method

1. Credit Equivalent Amount (CEA) for financial derivative under current exposure method is equal to sum of current exposure and potential future credit exposure.

1.1 Current Exposure means fair value of all financial derivatives as at the reporting date as follows:

(a) The sum of profits from mark to market of financial derivatives without netting agreement (Current Credit Exposure: CCE) means sum of profit from mark to market (MTM) of all financial derivatives with each counterparty without netting agreement including CCE amount of all counterparties which shall be reported under 1.1(a) on the report form.

(b) The sum of net profit or loss from mark to market of financial derivatives with netting agreement (Net Current Credit Exposure: NCCE) means sum of net profit or loss from mark to market only on the portion of financial derivatives with netting agreement. NCCE can be calculated as follows:

1. Find total net profit and loss from MTM of all financial derivatives with each counterparty with netting agreement. In case the sum of net current exposure is positive, such value can be used for NCCE and in case the sum of net current exposure is negative or zero, NCCE should be equal to zero.

2. Sum of the results from 1. of all counterparties under netting agreement is the net profit and loss from MTM which shall be reported under 1.1(b) on the report form.

1.2 Potential Future Credit Exposure (PFCE) means potential risk that may incur in the future. PFCE can be reported into 2 categories as follows:

(a) Sum of $PFCE_{Gross}$ for financial derivatives without netting agreement is calculated by multiplying notional principal amount or effective notional amount with credit conversion factor of every financial derivative signed with each counterparty without netting agreement, resulting in $PFCE_{Gross}$ of each counterparty. Then sum $PFCE_{Gross}$ of all counterparties, resulting in total $PFCE_{Gross}$ which shall be reported under 1.2 (a) on the report form.

(b) Sum of $PFCE_{Net}$ for financial derivatives with netting agreement ($PFCE_{Net}$) is calculated by summing $PFCE_{Net}$ of each counterparty with netting agreement in accordance with the guideline prescribed on this notification. Then sum the $PFCE_{Net}$ of all counterparties, resulting in total $PFCE_{Net}$ which shall be reported under 1.2 (b) on the report form.

1.3 Credit Equivalent Amount (CEA) calculated by adding current exposure under 1.1 to potential future credit exposure under 1.2. Only the total amount shall be displayed by separating in to two cases as follows:

(a) Sum of CEA for financial derivatives without netting agreement is calculated by combining CCE under 1.1(a) and $PFCE_{Gross}$ under 1.2(a)

(b) Sum of CEA for financial derivatives with netting agreement is calculated by combining NCCE under 1.1(b) and $PFCE_{Net}$ under 1.2(b)

2. Risk Asset Value for Financial Derivatives under Current Exposure Method

The reported credit equivalent amount shall be the amount calculated from 1.3 and the reported risk asset value shall be calculated by multiplying such credit equivalent with risk weigh of the counterparty which does not exceed 0.5. The risk weight of counterparty shall be as prescribed on this notification which can be divided into 3 cases as follows:

1. Risk weight equals to 0 means the case where counterparty classified under risk weight of 0.

2. Risk weight equals to 0.2 means the case where counterparty classified under risk weight of 0.2.

3. Risk weight equals to 0.5 means the case where a counterparty is classified in other groups.

In addition, the report shall include the total of credit equivalent amount and risk asset amount of all 3 cases.

Part 3: Total risk asset value for financial derivatives

Commercial banks shall display the credit equivalent amount which is the sum of credit equivalent amount from Part 1 and Part 2, and display total risk asset amount

derived from multiplying such credit equivalent amount with risk weight of the counterparty which does not exceed 0.5. The risk weight of counterparty shall be as prescribed on this notification which can be divided into 3 cases as follows:

-3/18-

1. Risk weight equals to 0 means the case where counterparty classified under risk weight of 0.

2. Risk weight equals to 0.2 means the case where counterparty classified under risk weight of 0.2.

3. Risk weight equals to 0.5 means the case where a counterparty classified in other groups.

In addition, the report shall include the total of credit equivalent amount and risk asset amount of all three cases.

Characteristics of contract with netting agreement

In the case where commercial banks have signed a contract with netting agreement, commercial banks may choose to calculate the contingent liability the same way as obligation under financial derivatives with netting agreement. However, the characteristic of the contract with netting agreement shall be as follows:

1. It shall be in writing, enforced by law and shall be a master agreement covering financial derivatives which commercial banks signed with a particular counterparty with netting agreement.

2. In case where one of the parties has defaulted, bankrupt, closed down or other similar circumstance, under netting agreement contract, commercial banks shall be obligated to repay to the counterparty or receive payment from the counterparty as single legal obligation. Such single legal obligation shall be the sum of profit or loss of mark to market of financial derivatives which commercial bank issued under the same netting agreement contract.

3. The attorneys, who are knowledgeable and understand the netting agreement, have approved in writing that such netting agreement, prescribed in clause 2, can be done without conflict with:

3.1 National Law of the country of which the Head Office of juristic person, which is the counterparty, is located. In addition, if the counterparty is a branch of the foreign juristic person, the netting agreement shall not be in conflict with the law of the country of which such branch is located.

3.2 Law enforcing such transactions and other law related to netting agreement.

4. If the defaulted party is a creditor of the netting agreement, there should not be a condition enforcing the non-defaulted party to make payment in limited amount or make no payment to defaulted party (Walkaway Clause).

Related Parties

“Related Party” means person or debtor who relates to the other person in the following manner;

- (1) a spouse of the debtor,**
- (2) a child of the debtor who is considered a minor,**
- (3) a general partnership in which the debtor or the person stated in (1) or (2) is a partner,**
- (4) a limited partnership in which the debtor or the person stated in (1) or (2) is a general or a limited partner who owns more than 30 percent of total capital of such limited partnership,**
- (5) a company limited in which the debtor or the person stated in (1) or (2) or partnership in (3) or (4), altogether, hold more than 30 percent of total share sold of such company,**
- (6) a limited in which the debtor or the person stated in (1) or (2) or partnership in (3) or (4) or company limited in (5), altogether, hold more than 30 percent of total share sold of such company.**

Guideline on calculating credit risk assets for Private Repo and SBL

1. Private Repo Transactions

1.1 The issuer institutions of the instrument (The borrower)

Principle: Private repo shall be considered as a borrowing guaranteed by the instrument as if it belongs to the issuer because, ultimately, the instrument will be returned to the issuer when the repurchase contract is matured. Therefore, the issuer shall continue maintaining capital for investment in such instrument. In case where the guaranteed instrument is more valuable than the received cash, the borrower institution shall maintain capital for such obligation as well. The different between cash received and value of guaranteed instrument shall be consider as an off-balance sheet item with have credit conversion factor equal to 1.

In addition, in case where the borrower has to commit additional margin (cash or securities) to the lender due to the devaluation of the guaranteed instrument, the borrower shall include this margin in calculation of risk assets and capital maintenance as well. In case where the value of the guaranteed instrument has increased, the borrower may take the guaranteed instrument back and deduct such surplus from calculation risk assets.

1.2 The buyer institutions of the instrument (The lender)

Principle: Private repo shall be considered as a lending with instrument as a collateral. The lending institution shall maintain capital in the same proportion with assets and obligation as for granting normal credit, only for the equivalent amount of principal and collateral. In case where the collateral is devaluated to the level that the collateral value is lower than the principal, the risk weight of exceeding amount of lending over the collateral shall be specified in according with the risk of the counterparty. In case where the lender obtain instrument as collateral, the lender is not required to maintain capital for such instrument because such transaction is not recorded on the lender's accounting.

In addition, in case where the lender has called for additional margin from the borrower or return the collateral due to the change on the value of the collateral, the lender shall include the additional margin; or, deduct or add the returned collateral from the existing collateral in calculating capital, as the case may be.

2. SBL Transactions

2.1 The lending institution of securities

Principle: The lending institution shall be considered as the owner of the borrowed security because, ultimately, the security will be returned to the lender. Therefore, the lending institution shall maintain capital, in accordance to the guideline of capital maintenance, in a proportion of assets and obligations of the institution.

In addition, in conducting SBL transaction, the lending institution is still subjected to additional risk resulting from inability of the counterparty to return the security as agreed on the contract. The lender institution shall maintain capital to support this risk. This risk shall be considered as risk arisen from lending with collateral and guideline on capital maintenance shall be the same as the current lending. Such transaction shall be considered the off-balance sheet transaction with credit conversion factor equal to 1.

In case the lender calls for additional margin or return collateral due to the change on the value of the security lent or collateralized, the lender institution shall include additional margin; add or deduct the returned collateral from the existing collateral, as the case may be, in calculating of capital maintenance.

2.2 The borrowing institution of securities

Principle: The borrowing institution shall maintain capital for collateralized security due to the fact that the borrowing institution is still the owner of such security and, ultimately, such security will be returned to the borrowing institution.

In addition, in conducting SBL transaction, the borrowing institution is still subjected to additional risk resulting from inability of the counterparty to return the collateral as agreed on the contract. The borrowing institution shall maintain capital to support this risk. This risk shall be considered as risk arisen from lending with collateral and such transaction shall be considered as the off-balance sheet transaction with credit conversion factor equal to 1.

In case the borrower has to commit additional margin or take the collateral back due to the change on the value of the borrowed or collateralized security, the lending institution shall include additional margin or deduct the returned collateral from the existing collateral, as the case may be, in calculating of capital maintenance

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