

Unofficial Translation

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Notification of the Bank of Thailand

No. FPG. 23 /2561

Re: Regulations on Asset Classification and Provisioning of Financial Institutions

1. Rationale

The Bank of Thailand has issued regulations on asset classification and provisioning to ensure that financial institutions have adequate provisions for losses that may occur from their assets, especially loans which are the core assets of financial institutions.

As the Thailand Federation of Accounting Professions under the Royal Patronage of His Majesty the King (TFAC) has issued Thai Financial Reporting Standards 9 (TFRS 9) on financial instruments which will be effective for preparation of financial statements beginning on or after 1 January 2020 in order to be in line with the International Financial Reporting Standards (IFRS), it will consequently have an impact on financial institutions' asset classification, provisioning, and write-off. The Bank of Thailand hereby amended the regulations on asset classification and provisioning of financial institutions to support the implementation of such standards by requiring financial institutions to classify financial assets and commitments into three stages; (1) Financial assets and commitments that are credit impaired (non-performing) (2) Financial assets and commitments that have significant increase in credit risk (under-performing) and (3) Financial assets and commitments that have no significant increase in credit risk (performing), as well as to set aside provisions for expected credit losses, and writing-off assets in accordance with the relevant financial reporting standards.

2. Statutory Power

By virtue of **Section 47** Section 60 and Section 61 of the Financial Institution Business Act B.E. 2551 (2008), the Bank of Thailand hereby issues the regulations on asset classification and provisioning for financial institutions to comply with.

3. Repealed Notification

Notification of the Bank of Thailand No. FPG. 5/2559 Re: Regulations on Asset Classification and Provisioning of Financial Institutions dated 10 June 2016

4. Scope of Application

This notification shall apply to all financial institutions according to the law on financial institution business.

5. Content

5.1 Definitions

“Irrecoverable assets” means assets that have been **written-off** from the accounts.

“Financial assets and commitments that may be irrecoverable” means financial assets and commitments that are classified as:

(1) Financial assets and commitments that are credit impaired (non-performing)

(2) Financial assets and commitments that have significant increase in credit risk (under-performing)

(3) Financial assets and commitments that have no significant increase in credit risk (performing)

Financial assets and commitments that may be irrecoverable also include those that are purchased or originated credit-impaired according to relevant accounting standards.

“Provisions” means reserves set aside for allowances for **expected credit losses** and for impairment of financial assets **and commitments that may be irrecoverable**. Financial institutions shall, at the minimum, set a provision for each stage of classified financial assets **and commitments** according to the rates and regulations specified in this Notification.

“Commitments” means financial commitments which comprise loan commitments and financial guarantee contracts according to relevant accounting standards or as specified by the Bank of Thailand.

“Corporate loans” means corporate loans as defined in the policy statements of the Bank of Thailand on reviews of credits, credit-like transactions, and

contingent liabilities applicable to commercial banks, retail banks, finance companies, and credit foncier companies.

“Accounting standards” means accounting standards and financial reporting standards issued by the Thailand Federation of Accounting Professions under the Royal Patronage of His Majesty the King.

5.2 Requirements regarding the policies on asset classification, provisioning, and write-off

A financial institution shall have in place the written policies regarding asset classification and provisioning for financial assets and **commitments** that may be irrecoverable, together with policies on writing-off irrecoverable assets where such policies must be clearly defined, well-documented and in accordance with the relevant accounting standards. Such policies must be approved by the financial institution’s board of directors, and shall include the following:

(1) Roles and responsibilities of **board** of directors, executives, and relevant staff of the financial institution.

(2) **Criteria for classification and provisioning, which shall at least cover assumptions, qualitative and quantitative factors, and methodologies used for classification and provisioning.**

(3) **Control procedures for the development of models used for classification and provisioning as outlined in Attachment 1.**

(4) **Criteria for asset writing-off.**

(5) Internal control system and accounting policies.

(6) Verification of the accuracy of classification, provisioning, and **write-off**, as well as the reliability of supporting data and documents.

Such policies must be regularly reviewed at least once a year. The reviewed policy and supporting documents used in the reviews, which may be stored in an electronic format, must be kept at the financial institution for the Bank of Thailand’s examination.

5.3 Requirements on the classification of financial assets and commitments

A financial institution shall classify the following financial assets and commitments by account based on its credit risk.

In classifying the financial assets and commitments of a corporate debtor, a financial institution shall consider the linkage of cash flows among the debtor's accounts, i.e., in the case where the cash inflow in a debtor's account apparently relates to another account of the debtor or the debtor's related parties, all those related accounts shall be classified into the same stage.

(1) Financial assets measured at amortized cost and at fair value through other comprehensive income (except equity investment),

A financial institution shall classify financial assets measured at amortized cost and at fair value through other comprehensive income (except equity investment), not including those that are purchased or originated credit-impaired, into three stages:

(1.1) Financial assets measured at amortized cost and at fair value through other comprehensive income that are credit-impaired (non-performing), such as the following:

(1.1.1) A debtor, **excluding an overdraft debtor**, upon which principal or interest is overdue and unpaid for a cumulative period exceeding **90 days or 3 months** starting from the due date in the contractual conditions or terms or the date that a financial institution makes the claim or call for the repayment, whichever comes first.

(1.1.2) An overdraft debtor who has no credit line, or whose credit line has been revoked, or whose outstanding balance exceeds credit line, or whose contract has expired and no fund has been transferred to the account as repayment of principal or interest exceeding **90 days or 3 months**, starting from **the date first overdrawn without credit line**, or the date which credit line is revoked, or the date which outstanding balance exceeds the credit line, or the maturity date of the contract, as applicable.

(1.1.3) A debtor that is considered unlikely to be repaid in full amount or whose quality has been deteriorated significantly.

(1.1.4) A debtor whose business is unidentified or a debtor who has not earnestly undertaken any businesses or a debtor who has misused the specified purpose of loan.

(1.1.5) A debtor who has intentionally delayed the debt repayment or taken any actions in order to prevent the creditor from receiving the repayment such as fleeing across the border to another jurisdiction, or removing the assets to another person.

(1.1.6) A debtor whom a financial institution is unable to contact or locate, or a debtor has left the domicile stated in the agreement without informing the financial institution.

(1.1.7) A debtor whose business has ceased, or closed down the business operations, or entered the liquidation process.

(1.1.8) A financial asset that is credit-impaired according to relevant accounting standards.

(1.1.9) A financial asset that is indicated as credit-impaired by other reasons as ordered by the Bank of Thailand.

(1.2) Financial assets measured at amortized cost and at fair value through other comprehensive income that have significant increase in credit risk (under-performing), such as the following:

(1.2.1) A debtor, excluding an overdraft debtor and other financial assets measured at amortized cost and at fair value through other comprehensive income classified under 5.3 (1.1), upon which principal or interest is overdue and unpaid for a cumulative period exceeding **30 days or 1 months** starting from the due date in the contractual conditions or terms or the date that a financial institution makes the claim or call for the repayment, whichever comes first.

(1.2.2) An overdraft debtor who has no credit line, or whose credit line has been revoked, or whose outstanding balance exceeds credit line, or whose contract has expired and no fund has been transferred to the account as repayment of principal or interest exceeding **30 days or 1 months**, starting from **the date first overdrawn without credit line**, or the date which credit line is revoked, or the date which outstanding balance exceeds the credit line, or the maturity date of the contract, as applicable.

(1.2.3) A financial asset that has significant increase in credit risk since initial recognition according to relevant accounting standards.

(1.2.4) A financial asset that is indicated as having significant increase in credit risk by other reasons as ordered by the Bank of Thailand.

(1.3) Financial assets measured at amortized cost and at fair value through other comprehensive income that have no significant increase in credit risk (performing), such as the following:

(1.3.1) A debtor, **excluding an overdraft debtor**, upon which neither principal nor interest is overdue.

(1.3.2) An overdraft debtor who has not fully drawn down and whose credit line has not been revoked, or whose contract has not reach maturity, or an overdraft debtor of which accrued interest less than **30 days or 1 month, starting from the due date**.

(1.3.3) Other financial assets measured at amortized cost and at fair value through other comprehensive income that are not classified under 5.3 (1.1) and (1.2).

(1.3.4) A debtor that has a confirmation letter on the acceptance of completed work issued by an authorized government agency within 6 months following the acceptance date, only a portion of loans that has a confirmation letter.

A financial institution shall classify financial assets measured at amortized cost and at fair value through other comprehensive Income that are purchased or originated credit-impaired in accordance with relevant accounting standards, to which the regulations specified under 5.3 (1.1) – (1.3) and 5.6 (1) shall not apply.

(2) Assets not specified under financial assets in 5.3 (1)

Assets not specified under financial assets in 5.3 (1) shall be classified as assets that are credit impaired (non-performing), only for a portion of differences that satisfies one of the following criteria:

(2.1) The foreclosed properties acquired through the debt repayment or the public auction, only for a portion that the book value exceeds the appraised value carried out within the last 12 months, whereby an estimated sale expense shall be deducted from the appraised value before comparing to the book value. In the case where a financial institution undertook the appraisal longer than 12 months, only 50% of appraised value shall be used.

For the foreclosed properties appraisal, a financial institution shall comply with the policy statement of the Bank of Thailand Re: Policy Statement on Appraisal of Collaterals and Foreclosed Properties.

(2.2) Other assets **that are not the foreclosed properties specified under 5.3 (2.1)**, only for a portion that the book value exceeds the fair or expected recoverable value, whereby a financial institution shall estimate the fair or expected recoverable value **according to relevant accounting standards**.

(2.3) An asset specified under 5.3 (2.1) and (2.2) that is indicated as credit-impaired by other reasons as ordered by the Bank of Thailand.

(3) Financial commitments

(3.1) In the case where a financial commitment has cash inflow apparently relates to other financial assets or financial commitments of the debtor or the debtor's related parties, a financial institution shall classify such financial commitment into the same stage as that of other financial assets or financial commitments of the debtor or the debtor's related parties that have cash inflow related with such financial commitment.

(3.2) In the case where a financial commitment has no cash inflow relates to other financial assets or financial commitments of the debtor or the debtor's related parties, a financial institution shall classify such financial commitment according to its credit risk in accordance with relevant accounting standards, to which the regulations specified under 5.3 (1) shall apply as applicable.

In the case that the Bank of Thailand deems any financial asset or commitments as inappropriately classified, the Bank of Thailand may order a financial institution to change its classification.

5.4 Requirements on the provisioning of financial assets and commitments

(1) Financial assets measured at amortized cost and at fair value through other comprehensive income (except equity investment) specified under 5.3 (1) and financial commitments specified under 5.3 (3)

A financial institution shall set aside a provision for financial assets measured at amortized cost and at fair value through other comprehensive income (except equity investment) and financial commitments, excluding those that are purchased or originated credit-impaired assets, according to the following requirements:

(1.1) A financial institution shall use the asset's carrying amount, which includes the outstanding principal balance, the accrued interest, and the undue interest, and other related items according to relevant accounting standards, or the credit equivalent amount as a base value in calculating a provision for financial assets measured at amortized cost and at fair value through other comprehensive income (except equity investment) or financial commitments as applicable.

(1.2) A financial institution shall set aside a provision according to classification of financial assets and financial commitments as the following:

(1.2.1) Financial assets and financial commitments that are credit-impaired (non-performing) and financial assets and financial commitments that have significant increase in credit risk (under-performing)

A financial institution shall set aside a provision at least 100% of its lifetime expected credit losses as calculated from the difference between the asset's carrying amount or the credit equivalent amount according to (1.1) and the expected future cash flows considering possibilities that a debtor may default over the lifetime of financial assets or financial commitments expected by a financial institution, discounted by the effective interest rate according to relevant accounting standards.

(1.2.2) Financial assets and financial commitments that have no significant increase in credit risk (performing)

A financial institution shall set aside a provision at least 100% of its 12-month expected credit losses as calculated from the difference between the asset's carrying amount or the credit equivalent amount according to (1.1) and the expected future cash flows considering possibilities that a debtor may default within the next 12 months, discounted by the effective interest rate according to relevant accounting standards.

(1.3) A financial institution shall approximate the expected future cash flows as follows:

(1.3.1) A financial institution shall determine suitable assumptions and relevant factors in approximating the expected future cash flows in accordance with the current economic conditions and the expected future, and shall review its expected future cash flows at least every accounting period.

(1.3.2) In the case where a financial institution expects to receive a cash flow from sales of a collateral, a financial institution shall use the value of the collateral, estimated according to the policy statement of the Bank of Thailand Re: Policy Statement on Appraisal of Collaterals and Foreclosed Properties, in the calculation of the present value of the expected cash flows from selling the collateral. However, such value shall not exceed the amount specified in a pledge contract, a mortgage contract, a guarantee contract, a business collateral contract, or other collateral contracts in accordance with the law.

(1.4) In the case where financial assets and financial commitments can be appropriately classified as having homogenous credit risk characteristics and the quantity of those are large enough to adopt the collective approach with reliable outcome, a financial institution may calculate expected credit losses using a collective approach by group of accounts or by group of debtors.

Under the collective approach, a financial institution shall consider at least the following factors:

(1.4.1) A debtor's specific characteristics such as type of debtors, demographic data (eg. age), occupation or type of industry, and location or region where debtors are located.

(1.4.2) Debt's or transaction's specific characteristics such as type of assets, type of collaterals, ratio of collateral value to total loan and financial commitment, and remaining time to maturity.

(1.4.3) A debtor's account status such as overdue or asset classification status.

(1.5) In the case where a financial institution does not have sufficient data or system to appropriately calculate the present value of the expected cash flows from selling the collateral, a financial institution may refer to collateral values as specified in Attachment 2 and 3 in the calculation of expected credit losses, at the same time, shall prepare an action plan, which shall be kept at the financial institution for the Bank of Thailand's examination, to improve the system and compile sufficient data for a reliable calculation.

(1.6) The assumptions and relevant factors used to calculate expected credit losses and expected future cash flows as stated in 5.4 (1.3) shall cover information on trends and factors that may affect debt serviceability at least the following:

(1.6.1) A financial institution's risk management policies such as policies on credit origination, credit review, asset classification, provisioning, asset write-off, and debt restructuring, together with other related information such as credit trend, loan concentration, collateral concentration, debt restructuring, asset write-off and write-off reversal.

(1.6.2) Changes in regulations or procedures of financial institutions or relevant government agencies such as the Bank of

Thailand, the Revenue Department, the Legal Execution Department, the Department of Land.

(1.6.3) Domestic and external economic factors such as Gross Domestic Product (GDP), policy rate, inflation rate, exchange rate, oil price, unemployment rate.

(1.6.4) Other factors such as competition in a debtor's industry, fluctuation in collateral values, relevant technological progress.

For financial assets measured at amortized cost and at fair value through other comprehensive income or financial commitments that are purchased or originated credit-impaired, a financial institution shall set aside provisions for those financial assets or financial commitments in accordance with relevant accounting standards.

(2) Assets not specified under financial assets in 5.4 (1)

A financial institution shall set aside provisions for assets not specified under financial assets in 5.4 (1) at 100% of the asset value that is classified as assets that are credit impaired (non-performing) according to the classification under 5.3 (2).

In the case where the Bank of Thailand deems that any of the assumptions, factors, or methodologies used by a financial institution in the calculation of provisions is inappropriate, the Bank of Thailand may order the financial institution to set aside additional provisions, change assumptions, change factors or methodologies, or take other additional actions.

5.5 Requirements on asset write-off

(1) A financial institution shall write-off an asset, which it considers, that an entirety or a portion of such assets are not expected to be recovered according to relevant accounting standards which shall at least include:

(1.1) A claim for which a reasonable action has been taken by a financial institution but there is no possibility of repayment because of one of the following:

(1.1.1) A debtor has died or is adjudged as disappearance or there is an evidence of disappearance, and there is no asset left to repay the debt.

(1.1.2) A debtor has closed down the business and is in debt to other creditors who have preferential rights of the asset where the total claims of those creditors exceed the total assets of the debtor.

(1.1.3) A financial institution has taken lawsuit against the debtor or filed an application for participation in debt servicing in the case where the debtor is sued by other creditors, and a decree or order of the court has already been given but the debtor has no asset to repay the debt.

(1.1.4) A financial institution has taken a bankruptcy action against the debtor or filed an application for participation in debt servicing in the case where the debtor is sued by other creditors for bankruptcy action, and in such case, a debt reconciliation has been made with the debtor with the approval of the court or the debtor has been adjudicated a bankrupt and the first distribution of the debtor's assets has already been executed.

(1.2) A claim which is irrecoverable by nature or circumstance.

(1.3) An asset which is impaired, damaged, or worthless.

(2) A financial institution shall comply with the following to control and prevent fraud and corruption:

(2.1) A financial institution shall establish policies, procedures, or guidelines on asset write-off, including internal controls that are clear and verifiable.

(2.2) An asset write-off shall not be for the benefit of the directors, executives, or major shareholders, including those related parties or entities that such persons have beneficial interest.

(2.3) A write-off for the debtors who are directors, executives, major shareholders, related businesses, entities within financial business group, or related parties with beneficial interest in the financial institution, as well as those related to them, shall be approved by the board of directors of such financial institution.

In the case where the Bank of Thailand deems a financial institution's write-off practices as inappropriate, the Bank of Thailand may order additional write-offs or other corrective actions.

5.6 Requirements on the classification, provisioning, and asset write-off for restructured financial assets and commitments

(1) A financial institution shall classify a restructured financial asset and commitment according to the policy guideline of the Bank of Thailand Re: Statement on Debt Restructuring as follows:

(1.1) In the case where a financial institution has carried out the debt restructuring because financial position of the debtor deteriorates or the

financial institution expects to be recovered less than full amount, the classification of such restructured debt shall remain the same, either that are credit-impaired (non-performing) or that have significant increase in credit risk (under-performing), until the conditions as specified in relevant account standards or by the Bank of Thailand have been met.

A monitoring system for the restructured debtors must be arranged to closely monitor the performance of such debtors for at least 1 year after the restructuring.

(1.2) In the case where a financial institution has carried out the debt restructuring due to other reasons that not specified under 5.6 (1.1) such as to reduce the interest rate in accordance with the market interest rate reduction in order to maintain good relationship with customers, a financial institution shall classify the restructured debt based on its credit risk as specified under 5.3.

A financial institution shall classify a restructured financial asset measured at amortized cost and at fair value through other comprehensive income or financial commitment that is purchased or originated credit-impaired in accordance with relevant accounting standards.

(2) A financial institution shall set aside provisions for restructured financial assets and commitments or write-off those restructured financial assets according to relevant accounting standards.

In the case where the Bank of Thailand finds any apparent irregularity regarding the debt restructuring, the Bank of Thailand may order a financial institution to rectify, to hire an independent expert to evaluate or review the debt restructuring, to change classification or provisioning, or to take other additional actions.

5.7 Documentation and record keeping

A financial institution shall prepare and maintain all supporting documents used for classification, provisioning, and write-off. Such documentation may be prepared and stored in an electronic format and shall be kept at the financial institution for the Bank of Thailand's examination.

5.8 Classification, provisioning, or write-off that are more stringent than the Bank of Thailand's regulations

A financial institution may apply practices on the classification, provisioning, or write-off for financial assets and commitments that are more stringent than those required by the Bank of Thailand's regulations.

5.9 Loan and commitment review

A financial institution shall conduct a review and prepare a report on the review of loans, commitments, and credit-like transactions in accordance with the policy guidelines of the Bank of Thailand Re: Policy Statement on Bank's Credit Review, or Re: Policy Statement on Finance Companies and Credit Foncier Companies' Credit Review, as applicable.

5.10 Dividend Payment

A financial institution shall not pay dividend or other remuneration to its shareholders in the period during which a financial institution has not yet written-off assets, or has not yet set aside provisions for financial assets and commitments in full.

5.11 In the case where the provision amount calculated according to this Notification is less than the provision amount that a financial institution has already set aside according to Notification of the Bank of Thailand No. FPG. 5/2559 Re: Regulations on Asset Classification and Provisioning of Financial Institutions dated 10 June 2016, the excess provision shall not be reversed and recognised as an income. A financial institution could offset the excess provision when set aside provisions for financial assets and commitments under this Notification.

6. Effective Date

This Notification shall come into force for accounting periods beginning on or after 1 January 2020.

Announced on 31st October 2018

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Operational procedures and controls for developing a model to calculate provisions

(1) In the process of developing a model to calculate provisions, a financial institution must segregate functions and responsibilities for those involved in developing the model, at least the following:

(1.1) A unit or staff responsible for model development must have necessary knowledge and expertise in statistics and mathematics applicable to developing a model to calculate provisions, including knowledge and understanding of the accounting standard for provisioning.

(1.2) A unit or staff responsible for model validation to evaluate the model's robustness and effectiveness in calculating provisions must have qualifications as specified in (1.1) and must be independent of the model development unit or staff as specified in (1.1). In the case of being unable to arrange for a unit or staff, a financial institution may hire an external service provider with qualifications as specified in (1.1) to perform model validation.

(1.3) A unit or staff responsible for auditing operations related to model development must be independent of the unit or staff under (1.1) and (1.2).

(2) A financial institution must prepare relevant documents used in model development, including criteria and methodologies used in setting assumptions, theory selection, model design, model development, and model validation in order to appropriately calculate provisions.

(3) Model development procedures must be in accordance with sound theoretical ground and international practices and at least include:

(3.1) Procedures for model development with clear roles and responsibilities assigned to those involved, at least must include the following:

(3.1.1) data selection and preprocessing;

(3.1.2) data grouping for model development and for model validation;

(3.1.3) risk factor analysis and selection;

(3.1.4) methodology and model selection;

(3.1.5) model calculation;

(3.1.6) model validation, indicating certain limitations that may affect the model's effectiveness.

(3.2) Procedures for model validation with clear roles and responsibilities assigned to those involved, at least must include the following:

(3.2.1) Test criteria, methodologies, and frequency of model validation.

(3.2.2) Model validation must be regularly done, at least once a year. A financial institution must monitor the effectiveness of the model on a regular basis in accordance with its policy.

(3.2.3) Model validation with respect to the model's grouping, ordering, distribution, stability, and accuracy at both the micro and macro levels.

(3.2.4) Model modification is made based on the validation results. In the case where the validation test fails according to the specified criteria, a financial institution must adjust or modify the model in a timely manner as well as prepare analysis and descriptions of the causes of failure, and set guidelines on model modification to be adopted during the modification process.

(3.3) Data management, accessibility, and storage.

(3.4) Data security, accuracy and reliability check, and ready-to-use data preparation.

In the case where views from an expert is necessary for the procedures outlined in (3.1) or (3.2), a financial institution must provide its rationale, necessity, and other essential details in writing.

A financial institution must prepare reports on model development, validation results, management performance, accessibility, and data storage, and also performance reports on data security, accuracy and reliability check, and ready-to-use data preparation according to (3.1) – (3.4) to the financial institution's board of directors, committees or others who are assigned by the board of directors on a regular basis. Those reports must be kept in accordance with the financial institution's policy for the Bank of Thailand's examination.

(4) Data used in the model may be compiled from a financial institution's internal database, reliable external sources, or pooled data sources. One of those data sources must have at least 5 consecutive years of historical data, and in the case where data from any source has longer historical time series and is significantly related to debtors, the financial institution must use such data from that particular source in the model.

In the case where a financial institution has limited data or there is a change in underwriting practices or credit risk management guidelines, a financial institution must be more prudent in provisioning.

(5) In the case where a financial institution hires an external service provider to develop or validate a model for calculating provisions, a financial institution must be held responsible to data owner as if the model development or validation is conducted by the financial institution itself and must have strict controls for the service provider to comply with the guidelines specified in (2) and (3). In addition, a financial institution must comply with the Bank of Thailand's regulations on outsourcing of financial institutions and additional requirements as follows:

(5.1) A financial institution must clearly set qualifications, selection criteria, and selection process. An external service provider must have knowledge and expertise in the area outsourced and must not have damaged financial status.

(5.2) A financial institution must prepare a written outsourcing contract or agreement, which must cover conditions on scope of the service; responsibilities; service conditions; risk management; internal controls; data security measures; service period; clauses related to revocation, amendment, or renewal; and right of the financial institution to inspect the service provider's operations.

(5.3) A financial institution must have a control process in place for continuous and regular monitoring the operations of the service provider, and must assess the performance of the service provider at least once a year, or whenever the contract is renewed, or after the ending of the contract.

(5.4) A financial institution must require the external service provider hired for model development or validation to disclose relevant details such as data, methodologies, statistics principles, limitations, or development and validation results to the financial institution completely and comprehensive enough for future reference.

(5.5) A financial institution must require the external service provider to prepare and maintain up-to-date operational manuals of which a copy is kept at the financial institution, and to set up training courses or knowledge sharing activities for a financial institution's management and staff to understand relevant methods, work descriptions, and operational processes, including those IT-related.

Summary table of types and values of collaterals that can be used in the calculation of expected credit losses

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
1. Cash	100%	–
2. Commemorative banknotes for special occasions such as banknotes for auspicious coronation and royal wedding, and the 500,000 Baht banknotes to celebrate 50th anniversary coronation and royal wedding	100% of face value	–
3. Right of claims on deposit accounts at financial institutions or promissory notes or bills of exchange issued by financial institutions to get financing from the public In the case where the accounts are owned by third parties and where those accounts have not been placed as collaterals in accordance with the law on business collateral, the owners of the accounts must enter into an agreement to guarantee loans of the debtors and give rights to financial institutions to debit the accounts for debt repayment. In addition, financial institutions must comply with the Amendments to the Civil and Commercial Code for related sections.	100%	–
4. Avals, acceptances, or letters of guarantee in case of: 4.1 Standby Letters of Credit (SBLC) issued by domestic and foreign financial institutions and the Export and Import Bank of Thailand (EXIM Bank)	100% of credit line specified in SBLC	–

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
<p>4.2 Avals, acceptances, or letters of guarantee (LG) issued by domestic and foreign commercial banks and the EXIM Bank</p> <p>4.3 Letters of guarantee (LG) issued by Thai Credit Guarantee Corporation (TCG)</p> <p>4.4 Export Credit Insurances issued by the EXIM Bank only the part that the claim is already transferred to financial institutions</p>	<p>95% of value of aval amount, acceptance amount, or guarantee line of LG</p> <p>90% of credit line of LG</p> <p>75% of value of Export Credit Insurance Letter</p>	
<p>5. Guanantees, bonds, or securities issued by the government in case of:</p> <p>5.1 Guarantees from the Ministry of Finance, or the case where the government will allocate budgets for debt repayment, or there is evidence that money will be provided by the government with certainty, or loans to the Bank of Thailand</p> <p>5.2 Government bonds, treasury bills, the Bank of Thailand bonds, Financial Institutions Development Fund bonds, state enterprise bonds of which principal and interest are guaranteed by the government</p> <p>5.3 Securities issued by foreign government that receive the risk weight of 0 in accordance with the Bank of Thailand Notification Re: Regulations on the Calculation of Credit Risk-Weighted Assets for Commercial Banks or Finance companies, as applicable</p>	<p>100% of value of guarantee or credit line given by the government agency</p> <p>100% of market price</p> <p>100% of market price</p>	—

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
<p>6. Cash equivalent collaterals</p> <p>6.1 Marketable securities, both equities and debt securities such as common stocks, preferred stocks, debentures, and debt instruments which are listed on the Stock Exchange of Thailand or securities trading centers, Excluding securities issued by the debtors or their related parties in accordance with Section 4 of the Financial Institutions Business Act B.E. 2551</p> <p>6.2 Gold</p> <p>6.3 Unit trusts that can be used as financial collaterals for credit risk mitigation under the Comprehensive Approach in accordance with the Bank of Thailand Notification Re: Regulations on the Calculation of Credit Risk-Weighted Assets for Commercial Banks under the Standardized Approach (SA), where the market prices of those unit trusts are generally disclosed on a daily basis</p>	<p>95% of market price</p>	<p>At the end of every accounting period</p>
<p>7. Other collaterals</p>		<p>(only financial assets and obligations classified as non-performing and those purchased or originated</p>

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
<p>7.1 Immovable properties such as land, premises, buildings</p> <p>7.2 Transferable and assessable leasehold</p> <p>7.3 Marketable machineries</p> <p>7.4 Vehicles (with insurance) such as cars, motorcycles, airplanes, and ships</p>	<p>90% of appraised value (Use the calculation specified in Attachment 3 in the case where financial assets and obligations are classified as non-performing, or are purchased or originated credit-impaired.)</p>	<p>credit-impaired)</p> <p>every 3 years (every year for depreciation of machineries and vehicles)</p>
<p>7.5 Business with a value of 50 million Baht or less – the definition of “business” is according to the Business Security Act. Guidelines on internal controls must be set and approved from the board of directors of financial institutions to ensure that the assets included in the business value are not placed as collaterals with other financial institutions and to ensure the existence of those assets for both qualitative and quantitative aspects.</p>	<p>60% of appraised value</p>	<p>Every year and within 60 days after the financial assets and obligations have been reclassified as non-performing, or purchased or originated</p>

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
<p>7.6 Intellectual properties that can be legally accepted as collaterals, reliable appraised, and legally taken possession of</p> <p>7.7 Inventories Guidelines on internal controls must be set and approved from the board of directors of financial institutions to ensure that the inventories are not placed as collaterals with other financial institutions and to ensure the existence of those inventories for both qualitative and quantitative aspects.</p> <p>7.8 Claims in accordance with the Business Security Act (non-contractual claims) that are legally transferable, excluding claims in deposit accounts and leasehold as specified in 3. and 7.2, the values of such claims depend on type of debtors, as follows:</p> <p>a. Claims on Thai government agencies, Bank of Thailand, the Financial Institutions Development Fund, and foreign governments that receive a risk weight of 0 in accordance with the Bank of Thailand Notification Re: Regulations</p>	<p>90% of appraised value</p> <p>60% of appraised value (The market value is used in stead of the appraised value in the case of agricultural products traded on the Thailand Futures Exchange)</p> <p>100% of amount that the financial institution has preferred rights over the claims</p>	<p>credit-impaired</p> <p>Every 3 years</p> <p>At the end of every accounting period</p> <p>—</p>

Type of collaterals	Value used in calculation of expected credit losses	Appraisal Frequency
<p>on the Calculation of Credit Risk-Weighted Assets for Commercial Banks or Finance Companies, as applicable</p> <p>b. Claims on domestic and foreign commercial banks</p> <p>c. Claims on other persons apart from 7.8 (a) and (b)</p> <p>Financial institutions must ensure that the debtors are responsible for debt repayment under those claims; such claims must be irrevocable in any case. Those claims do not include the case where the debtors are related parties of debtors specified under Section 4 of the Financial Institutions Business Act B.E. 2551</p> <p>7.9 Collaterals not specified in 7.1-7.8 that are approved by the Bank of Thailand</p>	<p>95% of amount that the financial institution has preferred rights over the claims</p> <p>40% of amount that the financial institution has preferred rights over the claims</p> <p>The Bank of Thailand will consider on a case-by-case basis</p>	<p>–</p> <p>–</p> <p>–</p> <p>The Bank of Thailand will consider on a case-by-case basis</p>

Principles on calculation of the present value of expected future cash flows from sales of collaterals (properties, leasehold, machineries, and vehicles) for the financial assets and obligations classified as non-performing and the financial assets and obligations that are purchased or originated credit-impaired in the case where a financial institution does not have sufficient system or data

In the case where a financial institution does not have sufficient system or data or unable to appropriately calculate expected future cash flows from sales of collaterals, the financial institution may apply the collateral values of properties, leasehold, machineries, and vehicles to the calculation of expected credit losses for the financial assets and obligations classified as non-performing and the financial assets and obligations that are purchased or originated credit-impaired as follows:

(1) Properties and leasehold

The following assumptions and factors are applied to the calculation of expected future cash flows from sales of properties and leasehold:

(1.1) The cash flow used for calculation of the present value of expected future cash flow is the appraised collateral value after deducting cost to obtain and cost to sale a collateral, which is set to 90% of the appraised collateral value where the collateral appraisal is conducted according to the Bank of Thailand's regulation specified in 5.4 (1.3).

(1.2) The discount rate used for calculation of the present value of expected future cash flow is equal to the effective interest rate in accordance with relevant accounting standards.

(1.3) The number of years used for calculation of the present value of expected future cash flow is the number of years that the collateral is expected to be sold, which is about 5.5 years.

(2) Marketable machineries

The following assumptions and factors are applied to the calculation of expected future cash flows from sales of marketable machineries:

(2.1) The cash flow used for calculation of the present value of expected future cash flow is 100% of the appraised collateral value where the collateral appraisal is conducted according to the Bank of Thailand's regulation specified in 5.4 (1.3), deducted by

the depreciation of the collateral calculated up to the date that the collateral is expected to be sold.

(2.2) The discount rate used for calculation of the present value of expected future cash flow is equal to the effective interest rate in accordance with relevant accounting standards.

(2.3) The number of years used for calculation of the present value of expected future cash flow is the number of years that the collateral is expected to be sold, which is about 2.5 years.

(3) Vehicles

For hire purchase loans, leasing loans, or loans with an insured vehicle as a collateral, the following assumptions and factors are applied to the calculation of expected future cash flows from sales of an insured vehicle:

(3.1) The cash flow used for calculation of the present value of expected future cash flow is 100% of the appraised collateral value where the collateral appraisal is conducted according to the Bank of Thailand's regulation specified in 5.4 (1.3), deducted by the depreciation of the collateral calculated up to the date that the collateral is expected to be sold.

(3.2) The discount rate used for calculation of the present value of expected future cash flow is equal to the effective interest rate in accordance with relevant accounting standards.

(3.3) The number years used for calculation of the present value of expected future cash flow is the number of years that the collateral is expected to be sold which is about 1 years and about 5.5 years in the case of ships.

In the case where a financial asset or obligation is classified as non-performing, or is purchased or originated credit-impaired upon which principal or interest is past due for more than 12 months, a financial institution cannot use vehicles as collaterals, except in the case of ships, in calculation of the present value of expected future cash flow from sales of collaterals.