

Unofficial Translation

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Bank of Thailand Policy Guideline

Re: Liquidity Risk Management for Specialized Financial Institutions

1. Rationale

Liquidity risk is one of financial institutions' key risks. Even when Specialized Financial Institutions possess sound financial conditions, without adequate liquidity for payment to depositors and creditors as per existing obligations, Specialized Financial Institutions may not be able to continue their operations.

As a result, the Bank of Thailand, hereby prescribes the Policy Guideline on Liquidity Risk Management for Specialized Financial Institutions, in line with international standards, to ensure that Specialized Financial Institutions use efficient liquidity risk management practices. Specialized Financial Institutions should have a system for liquidity risk assessment and ensure that they have adequate liquidity for payment of debt and other obligations as they fall due or when they are called, in both normal and crisis times. Specialized Financial Institutions should also have an appropriate assets and liabilities structure, risk management oversight that is consistent with stipulated policies, strategies, operational guidelines and risk tolerance, as well as a business continuity plan to cater for a liquidity crisis.

2. Scope of Application

This Policy Guideline shall be applied to Government Savings Bank, Bank for Agriculture and Agricultural Cooperatives, Government Housing Bank, Small and Medium Enterprise Development Bank of Thailand, Export-Import Bank of Thailand, Thai Credit Guarantee Corporation and Secondary Mortgage Corporation.

3. Contents

3.1 Definitions

In this Policy Guideline:

“Specialized Financial Institutions” mean state-owned financial institutions established with each Establishment Act, including Government Savings

Bank, Bank for Agriculture and Agricultural Cooperatives, Government Housing Bank, Small and Medium Enterprise Development Bank of Thailand, Export-Import Bank of Thailand, Thai Credit Guarantee Corporation and Secondary Mortgage Corporation.

“Subcommittee” means a committee established by Specialized Financial Institutions Board of Directors to manage Specialized Financial Institutions’ liquidity risk, for example, the Asset and Liability Management Committee (ALCO).

“Liquidity risk tolerance” means a level of liquidity risk approved by the board of directors of Specialized Financial Institutions commensurate with financial position, fund mobilization capability, business strategy, roles in the financial system as well as other risks and relevant factors. Such liquidity risk level is used to control liquidity risk at a suitable level.

“Survival period” means a minimum period of time in which Specialized Financial Institutions can manage liquidity sufficiently in its business operation under a crisis that adversely affects liquidity and causes the most severe cash outflows. As such, Specialized Financial Institutions define a survival period based on underlying assumptions in such scenario by itself. The determination of survival period depends on several factors, such as ability to access funding sources of Specialized Financial Institutions.

“Liquidity cushion” means good quality, highly liquid and marketable assets which Specialized Financial Institutions should have in sufficient quantity to guard against liquidity risk under normal and stress scenarios. Liquidity cushion depends on Specialized Financial Institutions’ liquidity risk tolerance, stress testing, survival period and qualification of assets.

3.2 Principle

Specialized Financial Institutions should be able to manage liquidity risk efficiently to generate sufficient liquidity for debt repayment and various obligations upon maturity or being called under normal and stress circumstances, in all currencies that Specialized Financial Institutions operate their business with and covering all of their subsidiaries. Moreover, Specialized Financial Institutions should be able to manage and control such risk in accordance with its policy and strategy and maintain such risk within its liquidity risk tolerance approved by the board of directors of Specialized Financial Institutions.

3.3 Regulation

(1) Roles and responsibilities of the board of directors of Specialized Financial Institutions

In liquidity risk management, the board of directors of Specialized Financial Institutions should have the following roles and responsibilities:

(1.1) Approve liquidity risk management policy and strategy including liquidity risk tolerance of Specialized Financial Institutions.

(1.2) Regularly review the policy and strategy including liquidity risk tolerance at least once a year or immediately when there are changes in the environment or business strategy, significant changes of assumptions of behavioral adjustment or stress testing in order to improve policy, strategy and practices commensurate with such changing situations.

(1.3) Control and ensure that senior management or person with power of management implement such policy and strategy by setting procedures for measuring, monitoring, controlling and managing liquidity efficiently as well as maintaining such risk within approved liquidity risk tolerance.

(1.4) Regularly monitor liquidity position and liquidity management efficiency through the sub-committees' reports and contemplate corrective actions when problems or deficiencies are found.

Furthermore, the board of directors of Specialized Financial Institutions shall adhere to its authority and duties prescribed in the Bank of Thailand Notification Re: Specialized Financial Institution Directors' Authorities and Duties which the Bank of Thailand Regards as the Most Important and the Bank of Thailand Notification Re: Corporate Governance of Specialized Financial Institutions as well as other relevant notifications and guidelines.

(2) Organizational structure, duties and responsibilities and personnel

(2.1) Specialized Financial Institutions should have suitable organizational structure and competent personnel and should define clear roles and responsibilities so that liquidity risk can be managed efficiently in accordance with policy and strategy approved by the board of directors of Specialized Financial Institutions.

(2.2) Organizational structure should facilitate monitoring, controlling and examining the operation in accordance with liquidity management policy, strategy and practices of Specialized Financial Institutions. There shall be independent audit and internal control units that directly report to the board of directors of Specialized Financial Institutions through the audit committee (see details in attachment 2).

(2.3) Specialized Financial Institutions should set up a sub-committee such as Asset and Liability Management Committee (ALCO). Regarding the composition of such sub-committee, there should include the management with the decision making power from the business unit that involve in liquidity risk such as the business units whose operation may adversely affect liquidity and the business unit with the duties of liquidity risk management and control. The duties of the sub-committee in liquidity risk management include:

(2.3.1) Formulate liquidity risk management policy and strategy which includes determination of liquidity risk tolerance of Specialized Financial Institutions in order to submit to the board of directors for approval. Such review should be conducted at least once a year or immediately when there are changes in business strategy or the environment that significantly affect liquidity management in order to ensure that such policy and strategy can be improved to accommodate changing situations and guard against existing risks.

(2.3.2) Implement liquidity risk management policy and strategy including liquidity risk tolerance approved by the board of directors of Specialized Financial Institutions by formulating suitable stipulations and practices for liquidity risk management as well as stipulating clear roles, responsibilities and reporting line of those who are involved in liquidity risk management in writing. All involved parties shall be informed for acknowledgement and observance; moreover, checks and balances should be arranged appropriately.

(2.3.3) Control liquidity risk management in accordance with approved policy and strategy including liquidity risk tolerance of Specialized Financial Institutions. Report liquidity position, management approach, identified liquidity-related factors and problems to the board of directors of Specialized Financial Institutions regularly or immediately after significant problems have been identified so that corrective approach could be determined in timely manner.

(2.3.4) Regularly review assumptions used in information adjustment in accordance with the behaviors of customers or counterparties' behaviors and the environment as well as stress test assumptions at least once every quarter or every time there are significant changes in the environment, business structure and strategy in order to revise assumptions accordingly and present revised assumptions in behavioral adjustment or stress testing to the board of directors of Specialized Financial Institutions for approval.

(3) Policy, strategy and procedure

Specialized Financial Institutions should formulate liquidity risk management policy, strategy and procedure including a contingency plan that is clear and appropriate to business strategy and consistent with business characteristics and complexity, financial position, fund mobilization ability, and roles of Specialized Financial Institutions in the financial system (see details in attachment 1).

(4) Liquidity risk management system

(4.1) Specialized Financial Institutions should have system that can efficiently identify, assess, monitor and control liquidity risk in forward-looking manner by projecting all cash inflows and outflows from assets, liabilities and off-balance sheet items as well as contractual and non-contractual obligations within a suitable time period, covering all currencies and particular currencies that has significant businesses, and liquidity risk of all subsidiaries of Specialized Financial Institutions which Specialized Financial Institutions shall provide liquidity assistance (see details in attachment 3).

Specialized Financial Institutions should take into account the behaviors of customers or counterparties that affect assets, liabilities and off-balance sheet items as well as various circumstances which may cause discrepancy between actual cash inflows, outflows and contracts or the estimation. Therefore, Specialized Financial Institutions should revise the information in conformity with such circumstances and behaviors by referring to historical data, future outlook, Specialized Financial Institutions' strategy, changing environment and relevant factors (see details in attachment 4-6).

(4.2) Specialized Financial Institutions should have a system that provides information on structure of funding sources and period of time in order to monitor disperse funding sources in accordance with approved strategy as well as information on concentration of funding sources relating to counterparties, types of financial tools and instruments, markets, currencies and location of funding source.

(4.3) Specialized Financial Institutions should have necessary infrastructure for facilitating the access to various funding sources under both normal and stress circumstances. Moreover Specialized Financial Institutions should closely monitor factors that may affect fund mobilization ability so as to assess and maintain fund mobilization and borrowing ability under both normal and stress circumstances.

(4.4) Specialized Financial Institutions should have a system to facilitate intraday liquidity management as well as payment and settlement risk management, which specifies and prioritizes significant intraday payments such as

time-specific obligations. Also, the system should have suitable receipt and payment sequences in both Baht and foreign currencies; moreover, it should be able to support all businesses, including a business with irregular cash inflow and outflow that Specialized Financial Institutions must pay special attention and exercise extreme caution such as the case of custodian bank, correspondent bank or settlement bank. Furthermore, Specialized Financial Institutions should consider seeking of loan sources, ability to access funding sources and allocation of assets used as a collateral for intraday borrowing in order to facilitate completely and timely payment and settlement process under both normal and stress circumstances.

(4.5) Specialized Financial Institutions should have a suitable early warning system (see details in attachment 3)

(4.6) Specialized Financial Institutions should have a stress test system.

(4.6.1) Specialized Financial Institutions should perform stress test regularly under various scenarios, including institution-specific crisis, market-wide crisis and combination of both. Such crises may occur for a long period of time or occur temporary. The purpose is to assess risks and impacts on liquidity position of Specialized Financial Institutions and all of their subsidiaries in order to identify factors or weaknesses that may cause liquidity problem to Specialized Financial Institutions; and assure that the current position is consistent with the stipulated liquidity risk tolerance (see details in attachment 5).

(4.6.2) For stress testing, Specialized Financial Institutions should use crucial information including assets, liabilities and off-balance sheet items with both contractual and non-contractual obligations to demonstrate potential impacts on cash inflow and outflow of Specialized Financial Institutions under different stress scenarios.

(4.6.3) Scope and frequency of stress testing depend on size and quantity of transactions that induce risks and Specialized Financial Institutions' roles in the financial system; however, the stress test should be conducted at least once every quarter. There must be stipulation of a suitable survival period under the most stress circumstances which coincides with a period of time in which Specialized Financial Institutions mobilize funds during a crisis. However, Specialized Financial Institutions should conduct a suitable review on assumption setting and provide rationale for such stipulation.

(4.6.4) Specialized Financial Institutions should use stress test results to improve liquidity position, liquidity risk management policy and strategy as well

as the arrangement of contingency plan (see details in attachment 7) and determination of a suitable liquidity cushion.

(4.6.5) The Bank of Thailand may stipulate additional requirements for stress testing under certain scenarios, assumptions and frequency for some or all Specialized Financial Institutions as set out by the Bank of Thailand where appropriate.

(4.7) Specialized Financial Institutions should properly manage assets or collaterals by maintaining sufficient amount of cash or good quality assets that can provide liquidity cushion under normal and stress circumstances which conforms to approved policy and strategy, business model, liquidity risk tolerance and survival period of Specialized Financial Institutions. In case where Specialized Financial Institutions have insufficient quantity of high quality liquid assets to withstand stress circumstances in a tested scenario, it should have an action plan to improve liquidity position as well as policy and strategy immediately. Specialized Financial Institutions should regularly assess quality and liquidity of its assets. The assets used as liquidity cushion should have the following attributes:

(4.7.1) High liquid, no obligations, quickly convertible into cash. Specialized Financial Institutions should determine liquidity cushion's attributes which are suitable and can address various types of crisis, particularly market-wide crisis which may dry up liquidity in the market or cause market dysfunction. Liquidity cushion that is appropriate for such circumstance should be assets which can be used as a loan collateral when borrowing from the Bank of Thailand.

Assets against liquidity risk for short term period during crisis shall be best quality and most liquid assets such as cash, government bond, assets which can be used as a loan collateral when borrowing from the Bank of Thailand. For asset against liquidity risk for longer term period shall be good quality such as Securities listed in Stock Exchange, etc.

(4.7.2) Have suitable dispersion, for example, not highly concentrated in any single series of debt securities.

(4.8) Specialized Financial Institutions should have an efficient information system that supports liquidity risk management by reporting liquidity-related information, stress test results and relevant factors to senior management, sub-committees and the board of directors of Specialized Financial Institutions on regular basis. Hence, such information can be used for review and revision of policy and strategy or formulation of corrective approach in timely manner.

(5) Information disclosure

Specialized Financial Institutions should disclose liquidity-related information – both qualitative and quantitative – to the public regularly and adequately so that related parties can assess liquidity position and efficiency of liquidity management of Specialized Financial Institutions. In addition, information disclosure will also promote transparency and discipline in the financial institution system (see details in attachment 8).

(6) Operating system used in creation of report

Specialized Financial Institutions should develop an operating system that can create report forms that show net liquidity position or cash inflow and outflow for uses in its liquidity risk management as set out by the Bank of Thailand (see details in attachment 9).

(7) Liquidity risk report preparation

Specialized Financial Institutions should prepare and submit liquidity risk report as stipulated to encourage Specialized Financial Institutions to have a good monitoring and analysis, also to develop an integral standard database in order to enhance risk management of Specialized Financial Institutions and financial system be more efficiently (see details in attachment 10).

4. Effective Date

This Policy Guideline shall be effective on 1 January 2017 onwards.

Announced on 11th October 2016

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Attachments

1. Liquidity risk management policy and strategy
2. Internal control system pertaining to liquidity risk management
3. Liquidity risk management system
4. Data adjustment in accordance with customer or counterparty's behaviors under normal circumstances (behavioral adjustment)
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10. Liquidity Risk Reports

Liquidity risk management policy and strategy

1. Formulation of policy and strategy

1.1 In the formulation of liquidity risk management policy and strategy which includes determination of liquidity risk tolerance, Specialized Financial Institutions should adopt a conservative approach and consider all factors which may affect liquidity risk management in every perspective. For example,

- (1) Business size and characteristics, roles and importance of Specialized Financial Institutions in the financial system;
- (2) Dispersion and volatility of funding sources as well as ability to access funding sources;
- (3) Quantity and quality of existing assets;
- (4) Reliability and ability to fulfill contractual obligations of existing funding sources and standby facilities;
- (5) Constraints on legal and supervisory regulations of domestic, foreign and cross-border country where Specialized Financial Institutions operate their business in; practices and time period required for transferring liquidity and collateralized assets;
- (6) Size and complexity of foreign currency transactions and ability to access foreign currency sources of fund;
- (7) Business, transactions or off-balance sheet items that cause cash flow uncertainty such as guarantee obligation, derivatives transaction or conduct of duties as correspondent bank or custodian bank;
- (8) Specialized Financial Institutions' obligations in the provision of liquidity support for a subsidiary, various risk types that may affect Specialized Financial Institutions' liquidity such as credit risk, market risk, operational risk, legal risk, settlement risk and reputation risk.

1.2 Specialized Financial Institutions should convey and communicate the information to all levels of related management to ensure that they understand the policy and strategy which includes liquidity risk tolerance of Specialized Financial Institutions so that they can assess and compare benefits received from the execution of transactions and potential liquidity risk and acknowledge and perform their duties and responsibilities pertaining to liquidity risk management under normal and stress circumstances.

2. Liquidity risk management policy and strategy

Liquidity risk management policy and strategy should be coherent and indicated in writing format. The information stipulated in liquidity risk management policy and strategy should at least include:

2.1 Liquidity risk tolerance consistent with business policy, strategy and complexity, financial position, fund mobilization ability and roles of Specialized Financial Institutions in the financial system under normal and stress circumstances.

2.2 Structure of assets, liabilities, obligations and off-balance sheet items, where there is a suitable distribution between sources of funds and uses of funds without overly depending on any single source, for example, no concentration among a few number of large creditors, investors or depositors. Accordingly, sources of funds and uses of funds should be identified in terms of time periods (short-term, medium-term and long-term), particularly valued source of fund such as focusing on small or large depositor, and valued use of fund, for example, focusing on approval of which type of loan. In this regard, relationship between source of fund or use of fund should be considered.

2.3 Coherent strategies for fund mobilization, access to funding sources, maintaining relationship with funding sources, and observing factors that may affect ability to access funding sources such as stability of the capital which should be closely monitored by Specialized Financial Institutions.

2.4 Guidelines on liquidity risk management in Thai Baht and foreign currencies for internal units of Specialized Financial Institutions, and their subsidiaries, which include assistance method, credit line or constraints on the provision of assistance as well as relevant laws and rules. Specialized Financial Institutions should determine a ceiling for liquidity assistance for their subsidiaries in order to prevent the spread of liquidity problems from one juristic person to another.

2.5 Tools, ratios or ceilings used by Specialized Financial Institutions to measure and control liquidity risk; degree of dependency on capital from various sources in terms of composition, characteristics, financial tools and maturity period (see details in attachment 3).

2.6 Level or quantity of each type of performing, and highly liquid assets which Specialized Financial Institutions should have as liquidity cushion under normal and stress circumstances.

2.7 Operating units responsible for liquidity risk management under normal and stress circumstances.

2.8 Policy and process pertaining to the consideration of liquidity-related costs, benefits and risks and pertaining to the determination of internal pricing, performance appraisal, approval of crucial, new transactions. Objectively, each business group's operation emphasizes cost-benefit consideration and liquidity risk arising from various transactions at the same time.

2.9 Liquidity risk reporting system, frequency and scope of the report, and persons who receive the report.

2.10 Assumptions for data adjustment in accordance with customer or counterparty's behaviors and for stress testing under various scenarios; and a survival period that is suitable and consistent with time period required by Specialized Financial Institutions to mobilize funding during a crisis (see details in attachment 4-6).

2.11 Early warning system that identifies tools or indicators reflecting degree of liquidity irregularities which are used to gauge when a situation starts to signal a crisis alert and when to implement a contingency plan (trigger point) including to notify the Bank of Thailand immediately when alert signal is identified (see details in attachment 3).

2.12 Contingency plan, which is coherent and in writing form, supports various crisis conditions (institution-specific crisis, market-wide crisis and a combination of both) as well as details of process, procedure and method of liquidity crunch management in any circumstances which are flexible and detailed enough for practical implementation (see details in attachment 7).

Internal control system pertaining to liquidity risk management

1. Specialized Financial Institutions should have an internal control system which is consistent with liquidity risk management policy and strategy and a regular monitoring system which is to ensure the consistency between liquidity risk management and stipulated procedure.

2. In case a liquidity problem arises, a responsible person shall report the problem to a manager at a suitable level immediately after the problem is found and consider notifying the sub-committee and the board of directors of Specialized Financial Institutions about the problem, depending on degree of severity, in order to determine a corrective approach promptly. Specialized Financial Institutions should have clear stipulations that cover degree of severity, problem analysis, corrective approaches and certain responsible persons.

3. Specialized Financial Institutions should regularly conduct a back test to compare actual data and estimated data based on assumptions at least once every quarter to check the validity of assumption-setting and behavioral adjustment. Specialized Financial Institutions should keep actual data for a suitable period of time but no less than one year such as rollover of fixed deposit customers, maximum withdrawal amount per day in each month and drawdown under loan commitment. In addition, back test results or reports should also be kept for the Bank of Thailand's examination.

4. Specialized Financial Institutions should examine the correctness of liquidity risk management system; have regular reconciliation and review as well as data access security for its information system and reporting system. Moreover, it should oversee and examine liquidity risk management of their subsidiaries which Specialized Financial Institutions must bail out or assist when such companies face liquidity problems. This also includes overseeing proper implementation of stress testing and scenario-setting as well as suitable development of contingency plans of Specialized Financial Institutions and their subsidiaries

5. Specialized Financial Institutions should perform an assessment of the effectiveness and productivity of the liquidity risk management system at least once a year. Such assessment must be conducted by an independent internal unit of Specialized Financial Institutions and reported to the board of directors through the audit committee in order to determine a corrective approach and take corrective actions immediately when the problems or defects are identified. The designated operating unit should have suitable knowledge, competence and skills.

Liquidity risk management system

1. Cash inflow and outflow management system

1.1 Specialized Financial Institutions should have a liquidity risk management system that is suitable with various circumstances which can show projected cash flow mismatch or liquidity gap so as to measure and analyze liquidity risk. The system includes projected cash inflow and outflow from assets, liabilities, off-balance sheet items and various obligations in each time periods which should be arranged properly to support Specialized Financial Institutions to efficiently monitor short-term, medium-term and long-term liquidity management in accordance with the business model. Even though, liquidity management mainly focuses on short-term management, Specialized Financial Institutions should also monitor its medium-term and long-term capital needs in order to be able to recognize signs of problem at an early stage and consider improving and resolving the problem promptly.

1.2 During the first five business days or the first seven calendar days, Specialized Financial Institutions should have cash inflow and outflow management system that can present details on daily basis and frequency of such details may be reduced later. For Specialized Financial Institutions that depend on medium-term funding sources more than short-term ones, it should have projected medium-term cash inflow and outflow to facilitate efficient liquidity management.

1.3 Projected cash inflow and outflow should show net liquidity excess or shortfall balances in each period and cumulative balances under normal and stress circumstances. Such projected cash inflow and outflow should have adjusted data that are consistent with customer or counterparty's behaviors based on suitable assumptions by adhering to a realistic and conservative principles (see details in attachment 4-6).

1.4 In case Specialized Financial Institutions engage in transactions in multiple currencies, it should have a work system that can manage liquidity in Thai Baht and significant foreign currencies individually.

1.5 Specialized Financial Institutions should have projected cash inflow and outflow by taking into consideration foreign exchange rates that may affect cash inflow and outflow as well as liquidity mismatch, conversion from one currency to another, ability to access market or funding sources in such foreign currency, market liquidity and foreign exchange volatility.

1.6 Projected cash inflow and outflow should show information at the levels of Specialized Financial Institutions and overall Specialized Financial Institutions and their subsidiaries, both domestic and international levels.

2. Early warning system

Specialized Financial Institutions should have an early warning system by using tools or indicators that can identify increasing risk stemming from liquidity position, capital needs, emerging dysfunction or looming crisis so that the management can assess situation and consider approaches to deal with the problems. Key elements of an early warning system include:

2.1 Stipulation of definitions and indicators that give various levels of indicative signal by using qualitative or quantitative approaches, for example, downgrade of credit rating, decline of stock price, higher outflow rate of retail depositors, decline of long-term borrowing capacity or changes in ratios that reflect irregularities. In addition, alert levels and trigger points must be identified.

2.2 Stipulation of clear roles and certain responsible persons who deal with every critical issue, such as monitoring and reporting changes in the indicators and coordination between various sections.

2.3 Review and improve the indicators to ensure that they are suitable with situations and circumstances.

2.4 Regular monitor and maintain system to be up-to-date (System monitoring and maintenance).

2.5 When there are liquidity irregularities or emerging crisis which may affect liquidity position and liquidity risk management of Specialized Financial Institutions, for example, when reaching an alert level or a trigger point, designated persons with assigned responsibilities of Specialized Financial Institutions will coordinate with and notify the Specialized Financial Institutions Supervision and Examination Department, Supervision Group (Relationship Manager: RM), Bank of Thailand via telephone immediately after irregularities or a crisis have emerged. In addition, a written report in a form of letter, email or fax must also be submitted on the same business day.

3. Examples of ratios and indicators that identify a liquidity risk level

Specialized Financial Institutions should choose ratios and indicators of liquidity risk that are suitable with its business (internal limits) so that they can be used as tools to measure and control liquidity risk as well as an alert signal and a trigger point. For example,

- (1) Cumulative cash outflows;
- (2) Concentration in assets or liabilities;
- (3) Daily withdrawal ratio;
- (4) Loans to deposits ratio;
- (5) Borrowed funds to total assets ratio;
- (6) Commitments to lend to total assets ratio;
- (7) Liquid to illiquid assets ratio;
- (8) Borrowed funds to deposits or liabilities ratio;
- (9) Short-term mismatch size and cumulative gap in subsequent period as well as mismatch size to liquidity cushion ratio;
- (10) Short-term borrowed funds to total liabilities ratio (in a form of direct loan or issuance of securities) to support mismatch size in different periods;
- (11) Liquid assets to short-term liabilities ratio;
- (12) Loans to capital ratio;
- (13) Some types of high risk liabilities to total liabilities ratio;
- (14) Degree of capital dependency from large depositors or target groups;
- (15) Aging structure of each item of assets, liabilities and obligations;
- (16) Level of short-term liquidity for daily transactions.

Data adjustment in accordance with customer or counterparty's behaviors under normal circumstances (behavioral adjustment)

1. Specialized Financial Institutions should adjust data regarding projected cash inflow and outflow in accordance with customer or counterparty's behaviors and circumstances which affect cash inflow and outflow of assets, liabilities and off-balance sheet items because some types of asset may not receive contractual settlement; or depositors that have a redeemable deposit may not redeem the entire amount; or depositors exercise rollover when term deposits mature; or in case Specialized Financial Institutions grants draw down under loan commitment but the customer has not withdrawn, and so forth. The data adjustment in accordance with customer or counterparty's behaviors and circumstances in each Specialized Financial Institution may differ, depending on its nature of business and operational structure, volume and complexity of transactions as well as other relevant factors.

2. The determination of assumptions for adjustment of information in accordance with customer or counterparty's behaviors in the projection of cash inflow and outflow should be sensible and reflect the most realistic liquidity risk. Specialized Financial Institutions should be able to explain underlying reasons and provide adequate information to support assumption-setting that conforms with existing behaviors by using historical cash flow patterns in combination with careful examination of probable projections and future trends. The behavioral adjustment methods for each item may differ, depending on the nature of such item and each Specialized Financial Institution's scrutiny. Key principles for assumption setting are as follows:

2.1 Consistency and suitability, justifiable and adequate support evidences.

2.2 When using historical data to support assumption setting, there should be adequate historical data which are statistically sound. Historical data should be at least one year. In case that new transactions lack in historical data, assumption setting approach and rationales should be reliable and acceptable.

2.3 Specialized Financial Institutions should examine appropriateness of assumption setting based on actual data. The assumptions should be reviewed regularly at least once every quarter or every time there are significant changes in the environment and business structure, strategy and operation in order to revise the assumptions where appropriate. Specialized Financial Institutions should keep

documents that show calculation methods and contain information used in assumption setting for the Bank of Thailand's examination.

3. Specialized Financial Institutions should review internal and external factors that may require revision of assumptions.

3.1 Internal factors, e.g. structure, business strategy, financial soundness, etc.

3.2 External factors, e.g. economic conditions, market liquidity, market competition, interest rate, exchange rate, public sector's borrowing, etc.

4. Examples of key issues that create discrepancy between actual cash inflow and outflow and contractual obligation.

4.1 Customer or counterparty behaviors that affect cash flow in balance sheet items, such as rollover and increased deposit amount. Specialized Financial Institutions should update information on every type of deposit to reflect customer behaviors.

4.2 Customer or counterparty behaviors that affect off-balance sheet items, such as guarantee obligation, unused credit line or derivatives transaction.

4.3 Items that customer or counterparty can promptly withdraw, transfer or exercise the right to execute a transaction promptly; as a consequence, the liquidity of Specialized Financial Institutions are reduced. For example, the withdrawal of committed lines and the exercise of the right on put option.

4.4 Seasonal fluctuation, for example, during Chinese's New Year, a large amount of money may be withdrawn; or after harvest season, a large amount of money may be deposited.

4.5 Repercussions from asset and liability management policy of Specialized Financial Institutions themselves.

Stress test

1. Aside from data adjustment in accordance with customer or counterparty behaviors under normal circumstances (behavioral adjustment), Specialized Financial Institutions should regularly perform stress testing of liquidity risk at least once every quarter by reviewing assumption setting to ensure that assumptions are consistent with the environment, business strategy and relevant factors. Specialized Financial Institutions should keep documents that show calculation methods and contain information used in assumption setting for the Bank of Thailand's examination.

2. Specialized Financial Institutions should perform stress testing under predetermined scenarios and assumptions. Such scenarios should be diverse and at least cover institution-specific crisis and market-wide crisis and a combination of both, including transient, short-term and long-term crisis, which Specialized Financial Institutions assess that they may be a severe case and affect Specialized Financial Institutions tremendously. Assumption-setting method used in the adjustment of the same items under each scenario may be different.

3. To ensure that such scenarios cover liquidity risk that affects Specialized Financial Institutions, in assumption setting Specialized Financial Institutions should consider the followings:

3.1 Business characteristics and weaknesses of Specialized Financial Institutions as well as transactions which customers or counterparties can promptly cancel, withdraw or transfer cash;

3.2 Relationship and linkage between other risks and liquidity risk;

3.3 Linkage between market liquidity and fund mobilization of Specialized Financial Institutions;

3.4 Conservative approach

4. Information from Specialized Financial Institutions' past experiences alone may not be sufficient for assumption setting. Specialized Financial Institutions should use a variety of information in assumption setting, such as information of other domestic financial institutions that have similar size and nature of business operation, information of foreign financial institutions or using projection methods under various assumptions.

5. Determination of stress test scenarios in liquidity stress testing

5.1 Institution-specific crisis

This type of crisis which is caused by poor management affects its position severely and shakes confidence of depositors, creditors and counterparties. Moreover, other financial institutions may also lose confidence. For example, the downgrade of credit rating over two notches that affects the outflows of deposits, the rollover of borrowings and the cost of borrowing of Specialized Financial Institutions. In addition, a situation where Specialized Financial Institutions must shore up liquidity of other juristic person, which shakes confidence in Specialized Financial Institutions' liquidity.

5.2 Market-wide crisis

This crisis refers to macroeconomic crisis or a situation where several financial institutions have liquidity problems, causing a dramatic decline in market liquidity. Such crisis may happen in the country or both domestic and international that affects the country in widespread and multifold simultaneously. Such crisis may originate in the financial institution system before spreading or may be caused by other macro factors such as foreign exchange system, regulatory changes or repercussions from a crisis in other countries which later affects Specialized Financial Institutions.

5.3 Combination of both

Specialized Financial Institutions should stipulate assumptions based on a combination of institution-specific crisis and market-wide crisis; for example, a case when systemic liquidity crisis occurs at the same time as Specialized Financial Institutions' credit rating is downgraded.

6. Examples of factors that should be considered in assumption setting by Specialized Financial Institutions

6.1 Declining market liquidity of assets or reduced asset value - forced sale price may be lower during crisis compared to normal circumstances. Therefore, when performing a stress test, a higher haircut rate should be applied;

6.2 Deposit drain, especially from customers who can promptly make withdrawal under no conditions and transactions that may induce liquidity drain, such as drawdown of approved credit line or customer exercises the right in put option transaction;

6.3 Contractual obligations under a committed credit line with other financial institutions;

6.4 Margin calls and collateral requirement;

6.5 Source of funds in various periods;

6.6 Diminished ability to access a large source of funds or the money market;

6.7 Good relationship with funding sources and degree of commitment and certainty of sources of funds from other financial institutions, such as the downgrade of Specialized Financial Institutions' credit rating may entail reduced credit line obtained from a funding source;

6.8 Provision of liquidity assistance to their subsidiaries and granting of a committed credit line to other persons;

6.9 Capability, constraints and time period in the transfer of liquidity between operating units, juristic persons and across borders;

6.10 Reduced liquidity due to complex transactions;

6.11 Functions of foreign exchange market;

6.12 Impacts from credit rating;

6.13 Readiness of the system and infrastructure to convert assets into cash;

6.14 Estimated future growth of statement of financial position items;

6.15 Repercussions from reputation risk of the organization.

Haircut rate

In the valuation of investment in securities, the board of directors of Specialized Financial Institutions shall approve a haircut rate to reflect changes in asset price in the future in accordance with market conditions and holding period before converting it into cash. Therefore, such haircut rate should be reviewed regularly to reflect changing market conditions. Accordingly, a haircut rate determined by Specialized Financial Institutions for each type of asset should not be lower than haircut rates stipulated by the Bank of Thailand, whereby forced sale price during crisis may be lower than normal price. Hence, when performing a stress test, a higher than usual haircut rate should be used.

1. Tier 1 instruments

Tier 1 instruments are financial instruments that are unencumbered and transferable without any limitation, and have low liquidity risk and credit risk (credit risk is on par with that of Thai government). They can be used as a collateral in buy-sell transaction of bonds or debt securities in accordance with the Bank of Thailand Regulation Concerning Money Market Services Pertaining to Buy-Sell of Debt Securities with Repurchase Agreement and Sale of the Bank of Thailand's Debt Securities with Primary Dealers or other repo style transactions executed with the Bank of Thailand, such as Thai government bond and Bank of Thailand bond.

Accordingly, discount rate is related to the securities' residual life according to the Bank of Thailand Regulation Concerning Money Market Services Pertaining to Buy-Sell of Debt Securities with Repurchase Agreement and Sale of the Bank of Thailand's Debt Securities with Primary Dealers issued by Financial Markets Operations Group, Bank of Thailand and amendments. Specialized Financial Institutions should continually keep abreast of amended notification regarding such matter.

2. Tier 2 instruments

Tier 2 instruments are financial instruments that are unencumbered and transferable without limitation, and have higher liquidity risk and credit risk than that of Tier 1 instruments. Under normal circumstances, Tier 2 instruments may be considered as highly liquid instruments and can be converted into cash in high amount without entailing much changes in their market prices. However, if a crisis occurs, these instruments may not be liquid and can be converted into cash at a lower price. For example,

- (1) Debt securities not classified as Tier 1 instruments;

- (2) Debt securities issued by a government of OECD countries;
- (3) Common or preferred stocks traded in the Stock Exchange of Thailand;
- (4) Investment units of mutual funds.

Refer to minimum haircut rates for Tier 2 instruments as shown in the table below:

Unit: percent

Instrument	Residual maturity	Issuer	
		Government ¹	อื่น ๆ
Credit rating AA- or equivalent and above	≤ 1 year	0.5	1
	> 1 year but ≤ 5 years	2	4
	> 5 years	4	8
Credit rating BBB- to A+ or equivalent	≤ 1 year	1	2
	> 1 year but ≤ 5 years	3	6
	> 5 years	6	12
Rating BB- to BB+ or equivalent	All maturity	15	100
Equity securities in SET 100		15	
Other equity securities in SET		25	
Investment units of mutual funds		Maximum haircut of securities which funds can invest	
Foreign currency securities		Add 8 percent to haircut rate	
Other securities not classified above		100	

Source: Haircut rate for financial collateral valuation based on a comprehensive method set out in Bank of Thailand Notification Re: Regulations on the Calculation of Credit Risk-Weighted Assets for Specialized financial institutions under the Standardised Approach (SA)

¹ Debt instruments issued by Thai government, state enterprises or state organizations not classified as Tier 1 instruments and debt securities issued by a government of OECD countries

Contingency plan

1. Specialized Financial Institutions should have a contingency plan which elaborates strategies and practices for various crisis situations under stress test scenarios used by Specialized Financial Institutions in stress testing in accordance with the Bank of Thailand's regulations stipulated in this policy guideline. Such contingency plan should be in writing format, coherent and flexible enough for practical implementation.

2. Specialized Financial Institutions should develop a contingency plan for varying levels of crisis, depending on nature and severity of situations such as mild event which can be resolved with interbank borrowing on the same business day or a more severe event. Specialized Financial Institutions should keep a contingency plan at Specialized Financial Institutions for the Bank of Thailand's examination

3. A contingency plan should specify a method for fund mobilization (Contingency Funding Plan: CFP) which is consistent with financial position, Specialized Financial Institutions' roles in the financial system, business strategy, transaction complexity and risks, including liquidity risk stemming from both Specialized Financial Institutions' transactions and customers' transactions.

4. A contingency plan should be consistent with the organization's business continuity plan so that Specialized Financial Institutions' business operation can return to normal quickly after its contingency plan has been implemented.

5. A contingency plan should be tested, reviewed and improved properly and regularly at least once a year, thus assuring that such plan is suitable, personnel understand the plan and the plan can be practically operated in a crisis situation.

6. When developing a contingency plan, Specialized Financial Institutions should consider:

6.1 Stress test results under various scenarios and potential impacts on its ability to access funding sources under each scenario;

6.2 Linkages between method of liquidity arrangement and assets, linkages among market liquidity, fund mobilization of Specialized Financial Institutions, ability to access funding sources, and borrowing relationship with each funding source during a crisis;

6.3 Limitations, opportunities and capability in terms of liquidity and collateral assets transfers between Specialized Financial Institutions and their subsidiaries,

other juristic persons or across borders, rules and legal constraints, procedures, time zone and other relevant factors;

6.4 Characteristics of collaterals used to seek a loan from the Bank of Thailand according to the present regulation, provided that it is not expected that the Bank of Thailand will consider granting additional assistance;

6.5 Obtaining liquidity quickly and in time, especially when market liquidity has dried up, such as obtaining liquidity in a foreign currency when the swap market cannot function normally;

6.6 Tools and indicators in the early warning system;

6.7 Repercussions on the organization's reputation after its contingency plan has been implemented.

7. Information in a contingency plan should at least include:

7.1 Situations in which a contingency plan is used, clear procedure and work process relevant to varying crisis situations. Clearly identify responsible persons and their roles and responsibilities. Designate a coordination team and provide emergency contact information of each responsible person. Operating procedure and process should be described in detail, including notifying the Bank of Thailand about emergency situation, specifying duration or situations for various actions, formulating decision-making process to deal with each issue which should be specifically executed in each period or each situation. In addition, such plan should be flexible enough for practical implementation.

7.2 Situations in which a contingency funding plan will be used. Identify short-term, medium-term and long-term sources of funds; projecting amount that will be obtained from each funding source, such as sale of securities without obligation or borrowing from a committed credit line of other financial institution, swap transactions; and specifying types of asset that will be used as loan collateral as well as sequence of usage of Thai Baht and foreign currencies.

7.3 A contingency plan to deal with urgent intraday settlement and liquidity crunch. Specify how to boost intraday liquidity and seek funding source. In addition, specify types of asset used as loan collateral in Thai Baht and foreign currencies.

7.4 Accurate and timely report of information by specifying types of information, reporting procedure and information report channels which responsible person in each level can use for decision-making.

7.5 Order of priority and how to treat customers and relevant parties in each group such as debtor, creditor and shareholder.

7.6 Quick respond plans for communicating and managing rumors as well as maintaining reputation of Specialized Financial Institutions. Coherent communication both inside and outside of the organization such as customer, employee, creditor, shareholder and media, including reporting to the regulator.

Unofficial Translation

Information disclosure

Specialized Financial Institutions should disclose information about its liquidity sufficiently and regularly in the financial position statement or financial reports as frequently as financial reporting, of which disclosed information includes both qualitative and quantitative information. Objectively, related parties can be informed of degree of liquidity risk, liquidity risk management and various liquidity-related factors; and are able to assess liquidity risk and efficiency of liquidity risk management of Specialized Financial Institutions. Disclosed information should be easy-to-understand.

1. Qualitative information

Minimum information that should be disclosed by Specialized Financial Institutions include:

- Organizational structure and liquidity risk management policy and strategy of Specialized Financial Institutions which should describe roles and responsibilities of each committee and operating unit involving in liquidity risk management of Specialized Financial Institutions;
- Centralized or decentralized liquidity management structure of Specialized Financial Institutions and their subsidiaries or a combination of both, policies on granting of credit and liquidity assistance for their subsidiaries. In addition, specify types of obligation in liquidity risk management or liquidity assistance provided to other juristic person;
- Structure of sources of funds and uses of funds;
- Policy on possession of highly liquid assets;
- Limits tools as well as systems and methods used in measuring, monitoring, and controlling liquidity risk;
- Summary of stress test method and results;
- Frequency and types of internal liquidity reporting.

2. Quantitative information

Specialized Financial Institutions should disclose adequate quantitative information to related parties to review its liquidity position. Specialized Financial Institutions should determine suitability of information disclosure by themselves, for example:

- Size or amount of liabilities as per residual maturity;
- Size or quantity of liquid assets (liquidity cushion);
- Composition of liquid assets;
- Internal ratios and metrics used by Specialized Financial Institutions to measure, monitor and manage liquidity risk.

Unofficial Translation

Operating system in the creation of liquidity position report

Specialized Financial Institutions should have an operating system that can create net liquidity position report forms that show cash inflow and outflow to present to the personnel who are responsible for liquidity risk management, the sub-committee and the board of directors of Specialized Financial Institutions. Such report form should present accurate, adequate, timely information on regular basis and should be prepared for the Bank of Thailand's examination or sent to the Bank of Thailand immediately upon request.

Such operating system and report should have detailed requirements as follows:

1. The operating system can present information of net liquidity position that shows cash inflow and outflow. The detailed information is shown in different time periods – short-term, medium-term and long-term, and during the first five business days or the first seven calendar days on a daily basis.

2. Information in the aforementioned report should include Specialized Financial Institutions' all key items in terms of assets, liabilities and off-balance sheet items, such as derivatives transactions and guarantee obligation as well as liquidity assistance provided by Specialized Financial Institutions to other juristic person, regardless of contractual obligations, with exception of insignificant items. Specialized Financial Institutions should have documents to prove such insignificance. Nevertheless, the Bank of Thailand's supervisor may review suitability of information present in such report form and order any revision as deemed appropriate.

3. The classification of assets, liabilities and obligations in the report for each period adheres to the followings:

- 3.1 Consider assets, liabilities and obligations based on residual contractual maturity;

- 3.2 Perform adjustment by recognizing customer or counterparty behaviors that affect cash inflow and outflow of various items so that cash flow can reflect real liquidity position under normal circumstances (behavioral adjustment) and stress scenarios.

4. Besides preparing net liquidity position report that includes all currencies, Specialized Financial Institutions should prepare net liquidity position report for each significant currency. If any Specialized Financial Institution has prepared a report for any currency, it should continue to produce such report.

5. The report prepared by Specialized Financial Institutions should be ready for the Bank of Thailand's examination or sent to the Bank of Thailand immediately upon request.

5.1 The monthly net liquidity position in normal scenario report form that already adjusted information according to customer or counterparty behaviors and various circumstances and has evidences that explain underlying assumptions of behavioral adjustment. The information as of the last day of each month is used and such information may be divided into two formats as follows:

5.1.1 Short-term cash inflow and outflow during the next five business days or seven calendar days

Example of time period classification

Period	Calendar day									Total
	T	T+1	T+2	T+3	T+4	T+5	T+6	...	N	

5.1.2 Liquidity mismatch/cash flow projection

Example of time period classification

Period	at call - 1 day	2-7 days	8 days - 1 month	1-3 months	3-6 months	6-12 months	>12 months	Total
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The report format shown in 5.1.1 and 5.1.2 may be consolidated into a single report format.

5.2 The quarterly net liquidity position in stress scenario report form based on the information as of the last day of each quarter is subject to testing under various stress scenarios. Additionally, the report form should have evidences that explain such scenarios and underlying assumptions.

Example of time period classification

Period	T	T+1	T+2	T+3	T+4	T+5	T+6	8 days - 1 month	1-3 months	Total
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6. Conversion from foreign currencies into Thai Baht uses average rate between average buying rates -Telex transfer and average selling rates as of the date of information used in the report which published on the Bank of Thailand's website (www.bot.or.th). However, if there is no information for such currency, Specialized Financial Institutions will use the exchange rate from the trusted source and be prepared the document for the Bank of Thailand's examination or sent to the Bank of Thailand immediately upon request.

Liquidity Risk Reports

1. Report Forms

Liquidity risk report forms consist of

(1) **Liquidity gap report form** (Attachment 10.1)

(2) **Funding concentration report form** (Attachment 10.2)

Specialized Financial Institutions shall also prepare other report forms as stipulated in the regulations e.g. liquidity gap report form for crisis time and liquidity gap report form for each currency with significant position.

2. Frequency and Report Submission

Specialized Financial Institutions shall prepare and submit liquidity gap report form every month. The report, in excel file format, shall be submitted within one month from the end of each month. The first report shall be prepared for data ending January 2018 and then onwards.

3. Liquidity Gap Report Form

For the purpose of analyzing and monitoring data on cash flows in each time bucket, including contractual cash flows and behavioural cash flows.

3.1 Report forms

These report forms require Specialized Financial Institutions to prepare data on cash inflows and outflows resulting from assets, liabilities, off-balance sheet items and other obligations in each time bucket, comprising (1) contractual cash flows and (2) behavioural cash flows. Specialized Financial Institutions **shall prepare two report forms as follows. For each report form, baht position and aggregate foreign currency position shall be reported separately.**

(1) Contractual Liquidity Gap Report Form

(2) Behavioural Liquidity Gap Report Form

Each report form consists of three parts:

Part 1: Cash and investment

Part 2: Cash inflows

Part 3: Cash outflows

In this regard, Specialized Financial Institutions shall report data on the liquidity gap report form (details as per Attachment 10.1). However, Specialized Financial Institutions may choose not to report data where the counterparties are non-resident.

3.2 Reporting guidelines

Specialized Financial Institutions shall report cash flows on the contractual liquidity gap report form and behavioural liquidity gap report form according to the following key principles.

(1) Report cash flows that will result from a transaction. Thus, some items e.g. cash inflows and outflows from investment in securities, accrued interest receivables¹, accrued interest payables and derivatives transactions, may not apply for the purpose of reconciling with values in financial statements or off-balance sheet obligations. Nonetheless, report of cash flows shall include all significant items in terms of size and risk profile, for instance, key transactions on the asset side that add to more than 90 percent of total assets, both on- and off-balance sheet, and key transactions on the liability side that add to more than 90 percent of total liabilities, both on- and off-balance sheet.

(2) Do not double report. For example, where interest receivables are reported as part of cash inflows from credits, Specialized Financial Institutions shall not report them again as interest receivables from other assets.

(3) For investment in securities, Specialized Financial Institutions shall use trade date accounting to reflect the legal rights to convert investment into cash flows.

(4) Report cash flows projections of interest receipts, interest payments, margin and other relevant cash flows in different time buckets according to the underlying transactions of such cash flows e.g. credits, deposits or derivatives transactions. If segregation cannot be made, they can be reported under other assets or other liabilities.

(5) Where some assets or liabilities do not generate cash flows e.g. investment in subsidiaries and affiliates, land, buildings or impaired credits, Specialized Financial Institutions shall report their book values in the “Unallocated” time bucket.

(6) Contractual liquidity gap report form – Specialized Financial Institutions shall report contractual cash flows in the relevant time buckets without

¹ e.g. on the reporting date, there is 150 baht of accrued interest receivables in the financial statement. Cash inflows from the part that is due for payment shall be reported in “now” while the rest shall be reported in the relevant time buckets in which inflows are to be received.

considering rollover or new contracts. Reporting shall follow the explanation provided by the Bank of Thailand in Attachment 10.1 which contains further details on the reporting of some assets, liabilities and obligations e.g. investment-related cash flows that need to also take into account the time that Specialized Financial Institutions will have the right to convert them into cash.

(7) Behavioural liquidity gap report form – Specialized Financial Institutions shall report adjusted cash flows that take into account behaviours that can be expected in normal time. Specialized Financial Institutions shall indicate definitions and assumptions used for such behavioural adjustment in the sheet titled “Behavioural Gap Explanation”.

(8) Report data in baht terms, using “million baht” as a unit with three decimal digits. Report “0” in cells with no data. For foreign currency denominated items, convert them into baht using the mid-rate calculated from the average T/T buying rate and the average selling rate of the most recently announced date which appear on the Bank of Thailand website on the reporting date.

4. Funding Concentration Report Form

For the purpose of analyzing and monitoring funding concentration in deposits and borrowings of Specialized Financial Institutions.

4.1 Report form

This report form requires Specialized Financial Institutions to prepare data on funding concentration in deposits and borrowings, including borrowings from repo transactions and debt instruments (bills and debentures) only in case of private placement for depositors, creditors or investors.

The report form consists of two parts:

Part 1: The first 20 groups of depositors, creditors or investors for non-interbank counterparties

Part 2: The first 20 groups of depositors, creditors or investors for interbank counterparties

In this regard, Specialized Financial Institutions shall report data on the funding concentration report form (details as per Attachment 10.2).

4.2 Reporting guidelines

For **non-interbank counterparties**, Specialized Financial Institutions shall report total deposits and borrowings, including borrowings from repo transactions, debt instruments (bills and debentures) only in case of private placement for the first

20 groups of depositors, creditors or investors. The affiliation between the counterparty groups and Specialized Financial Institutions, counterparty types (individual or juristic person) and the proportions to total liabilities shall be indicated. For **interbank counterparties**, Specialized Financial Institutions shall report total deposits and borrowings, including borrowings from repo transactions, debt instruments (bills and debentures) only in case of private placement for the first 20 groups of depositors, creditors or investors. The names, amounts by transaction types (secured or unsecured) and the proportions to total liabilities shall be indicated. Reporting shall follow the following guidelines.

(1) “Funding source” means deposit and borrowing, including borrowing from repo transactions and debt instruments (bills and debentures) only in case of private placement.

(2) “Group” means a group of depositors, creditors or investors and related persons to the aforementioned². For juristic persons, this also includes parent companies, subsidiaries and affiliates. Consideration of related persons, parent companies, subsidiaries and affiliates shall make an exception in case a Thai government organization is a parent. Moreover, for persons who Specialized Financial Institutions deem to exhibit financial interdependence, reporting shall be done as one group. Alternatively, Specialized Financial Institutions may refer to groupings according to their internal guidelines if they are considered to be well aligned overall.

(3) “Interbank” means a counterparty that is Bank of Thailand, commercial bank, finance company, securities company, credit foncier company, any Specialized Financial Institution including Islamic Bank of Thailand (except Thai Credit Guarantee Corporation), savings and credit cooperative, federation of savings and credit cooperative, credit union, life insurance company or Financial Institutions Development Fund situated in Thailand, international financial institution that Thailand is a member or other bank or financial institution registered and situated in a foreign country e.g. central bank, commercial bank and investment bank.

(4) “Non-interbank” means a counterparty that is other than interbank counterparty.

(5) “Related person to Specialized Financial Institutions” means a director, person with power of management, major shareholder of Specialized Financial Institutions and related persons to the aforementioned, including related

² Related person, parent company, subsidiary, affiliate, major shareholder and person with the power of management as per Section 4 of the Financial Institutions Business Act B.E. 2551.

company³, parent company, subsidiary or affiliate. Alternatively, Specialized Financial Institutions may refer to categorization of related persons to Specialized Financial Institutions according to their internal guidelines if they are considered to be well aligned overall. In this regard, if a group contains any individual or juristic person that is related to a Specialized Financial Institution, that group shall be immediately regarded as a related group except where Specialized Financial Institution can explain that the amount is insignificant.

(6) “Total liabilities” mean total liabilities according to the financial statement.

(7) “List of names” shall contain only names of interbank counterparties. If there is more than one interbank counterparty, all of them shall be listed.

³ Related company means a company where Specialized Financial Institutions, Specialized Financial Institutions Directors, persons with the power of management of Specialized Financial Institutions or persons related to the aforementioned, together hold more than 10 percent of the total amount of the company’s shares sold.