Bangkok Bank

Bangkok Bank Public Company Limited

Basel III - Pillar 3 Disclosures

As at December 31, 2017

Bangkok Bank

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Introduction

Bangkok Bank ("the Bank") recognizes that effective risk management and good corporate governance are essential to the stability and sustainable credibility of the Bank and its subsidiaries in the Group ("the Group"). The Bank therefore places great emphasis on continually improving risk management processes and on having a sufficient level of capital to support business operations, at both the Bank level and the Group level.

The use of market discipline is deemed to be an important driver in the enhancement of the risk management system. Therefore disclosures of information regarding capital, risk exposures, risk assessment processes, and capital adequacy are provided at both the Bank level (Solo Basis) and the Group level (Full Consolidation Basis) in accordance with the disclosure requirements of the Bank of Thailand ("BOT").

The complete disclosure report of information regarding capital management in accordance with Basel III - Pillar 3 is provided, of which the quantitative information regarding capital structure, capital adequacy, and market risk assessment is disclosed semi-annually. As for the disclosure of qualitative information, it is updated annually or when there is a material change in the risk management policy. Disclosures will be made for information that the Bank considers to be of material nature. The Pillar 3 disclosure reports will be made available on the Bank's website under the section "About Bangkok Bank/ Investor Relations" within four months after the end of relevant period.

Scope of Application

The disclosure report covers information at both the Bank level (Solo Basis) and the Group level (Full Consolidation Basis). There are 10 companies in the Group consisting of;

- Bangkok Bank Public Company Limited engaged in commercial banking (as the parent company)
- Bangkok Bank Berhad engaged in commercial banking
- Bangkok Bank (China) Company Limited engaged in commercial banking
- BBL Asset Management Company Limited engaged in fund management
- Bangkok Capital Asset Management Company Limited engaged in fund management
- Bualuang Securities Public Company Limited engaged in securities business
- Sinsuptawee Asset Management Company Limited engaged in asset management
- BBL Nominees (Tempatan) Sdn. Bhd engaged in supporting business
- BBL (Cayman) Limited engaged in finance business
- Bualuang Ventures Limited engaged in venture capital

The scope of consolidation for accounting and regulatory purposes has no difference (See Table 6).

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1. Capital Structure and Capital Adequacy

1.1 Capital Structure

The Bank's capital structure according to the regulations on capital requirements under the principles of BOT's Basel III, is revised into Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital.

- Common Equity Tier 1 capital comprises
  1) Paid-up share capital
  2) Premium (discount) on common share
  3) Legal reserves
  4) Reserves appropriated from net profit
  5) Retained earnings after appropriations
  6) Non-controlling interest classified as Common Equity Tier 1
  7) Other reserves
  8) Deductions such as intangible assets
- Additional Tier 1 capital consists of non-controlling interest classified as Tier 1 Capital.
- Tier 2 capital consists of
  1) Long-term subordinated debt instrument subordinated to depositors and general creditors
  2) General provisions for normal assets not exceeding 1.25 percent of credit risk- weighted assets
  3) Non-controlling interest classified as Tier 2

In adopting Basel III, BOT relaxes for new items by allowing to phase in the addition into or deduction from the capital at 20 percent p.a. starting from 2014 to 2018. As for subordinated debt instruments classified as Tier 2 of which the criteria do not meet qualifications under Basel III regarding capability for loss absorbency of the Bank at the point of non-viability i.e. no conversion feature to common shares or written off upon the authority's decision to make financial support to the Bank, BOT requires phasing out capital at 10 percent p.a. starting from 2013 to 2022.

Table 1: Capital Structure

Unit : Million Baht

Capital	The Group		The Bank	
	31 December 2017	30 June 2017	31 December 2017	30 June 2017
Common Equity Tier 1 Capital	**383,841**	**366,709**	**369,261**	**352,369**
Tier 1 Capital	**383,942**	**366,795**	**369,261**	**352,369**
Total Capital	**419,580**	**406,769**	**404,226**	**391,470**

1.2 Capital Adequacy

The objective of the Bank's and the Group's capital management policy is to maintain an adequate level of capital to support growth strategies within an acceptable risk framework, as well as to meet regulatory requirements and market expectations.

In compliance with the BOT's supervisory review process guidelines, the Bank's capital management process assesses the overall risk and capital adequacy under the Internal Capital Adequacy Assessment Process (ICAAP). The process covers assessments of all substantial risks to the Bank's operations under projected normal and stressed scenarios, so that the Bank can effectively manage its risks while ascertaining and ensuring that it has a sound capital base in line with its risk profile. Therefore, the Bank will expand the capital management process to the Group.

The Standardised Approach (SA) is used to measure credit risk, market risk, and operational risk for computing regulatory capital requirements under BOT's Basel III at both the Bank level and the Group level.

Under the principles of Basel III, the BOT requires that commercial banks registered in Thailand and their groups must maintain three minimum capital adequacy ratios: a Common Equity Tier 1 capital adequacy ratio of no less than 4.50 percent, a Tier 1 capital adequacy ratio of no less than 6.00 percent, and a total capital adequacy ratio of no less than 8.50 percent. The aforementioned minimum ratios have yet to include the Capital Conservation Buffer which the BOT is phasing in with an additional capital ratio of more than 0.625 percent p.a. that began on January 1, 2016 rising in increments to more than 2.50 percent on January 1, 2019. In addition, in September 2017 the BOT announced guidelines to identify and regulate Domestic Systemically Important Banks (D-SIBs). The BOT requires the Bank, which is classified as a D-SIB, to have additional capital to meet the Higher Loss Absorbency (HLA) requirement by 1.00 percent, beginning with a 0.50 percent increase from January 1, 2019 followed by a 1.00 percent increase from January 1, 2020 onwards. Consequently, a Common Equity Tier 1 capital adequacy ratio of more than 5.75 percent, a Tier 1 capital adequacy ratio of more than 7.25 percent, and a total capital adequacy ratio of more than 9.75 percent are required to be maintained from January 1, 2017. Effective from January 1, 2019, Common Equity Tier 1 ratio, Tier 1 ratio and total capital ratio must be more than 7.50, 9.00 and 11.50 percent, respectively, of the total risk-weighted assets. And from January 1, 2020, Common Equity Tier 1 ratio, Tier 1 ratio and total capital ratio must be more than 8.00, 9.50 and 12.00 percent, respectively, of the total risk-weighted assets.

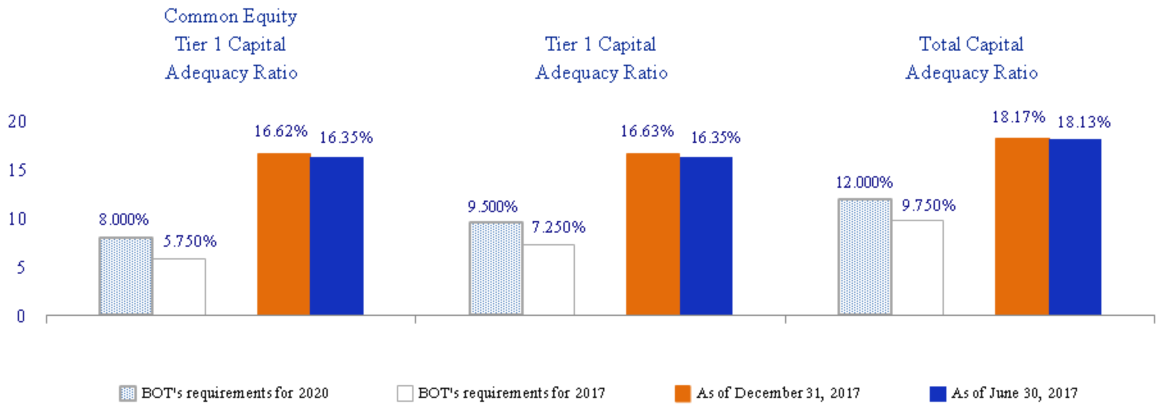
Moreover, BOT may require banks to maintain additional capital for Countercyclical Buffer at maximum 2.50 percent. As at December 31, 2017, the Bank and the Group has adequate capital for such buffers.

Table 2: Capital Adequacy

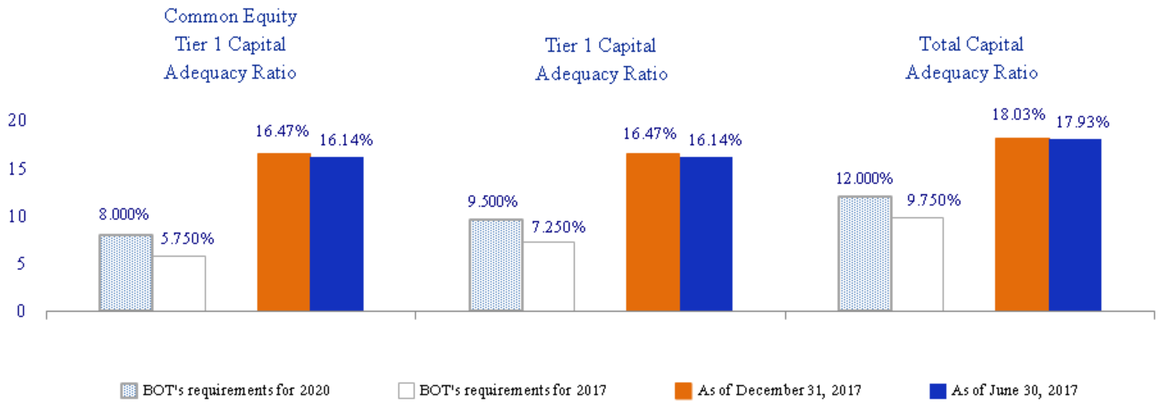
Capital	The Group		The Bank	
	31 December 2017	30 June 2017	31 December 2017	30 June 2017
Common Equity Tier 1 Capital	**16.62%**	**16.35%**	**16.47%**	**16.14%**
Tier 1 Capital	**16.63%**	**16.35%**	**16.47%**	**16.14%**
Total Capital	**18.17%**	**18.13%**	**18.03%**	**17.93%**

Capital Adequacy Ratio

Group Level (Full Consolidation Basis)



Bank Level (Solo Basis)



Remark: The BOT requires commercial banks to maintain an additional Capital Conservation Buffer. The buffer will gradually increase by more than 0.625 percent each year from January 1, 2016 until it reaches more than 2.5 percent in January 1, 2019. And the BOT also requires commercial banks to have additional capital requirement for Higher Loss Absorbency (HLA) requirement by increasing the Common Equity Tier 1 ratio at 1 percent, beginning at 0.50 percent from January 1, 2019 and increasing to be 1.00 percent from January 1, 2020 onwards.

Table 3: Component of Capital

Unit : Million Baht

Component of Capital	The Group		The Bank	
	31 December 2017	30 June 2017	31 December 2017	30 June 2017
Tier 1 Capital	**383,942**	**366,795**	**369,261**	**352,369**
Common Equity Tier 1 Capital	**383,841**	**366,709**	**369,261**	**352,369**
Paid-up share capital	19,088	19,088	19,088	19,088
Premiums on share capital	56,346	56,346	56,346	56,346
Legal reserves	22,000	21,500	22,000	21,500
Reserves appropriated from net profit	96,500	91,500	96,500	91,500
Net profit after appropriations	134,606	126,996	118,714	111,206
[1]Other comprehensive income*	56,126	51,842	57,374	53,237
[2]Deductions from Common Equity Tier 1 Capital*	(825)	(563)	(761)	(508)
Additional Tier 1 Capital	**101**	**86**	**-**	**-**
[3]Non-controlling interest*	101	86	-	-
Tier 2 Capital	**35,638**	**39,974**	**34,965**	**39,101**
[5]Subordinated debenture*	9,535	14,768	9,535	14,768
General provision	26,091	25,198	25,430	24,333
[4]Non-controlling interest*	12	8	-	-
Total Capital	**419,580**	**406,769**	**404,226**	**391,470**

***Component of capital subject to phasing in (out)**

Unit : Million Baht

As at December 31, 2017	The Group		The Bank	
	Classified As Capital	Outstanding Balance for Phasing In (Out)	Classified As Capital	Outstanding Balance for Phasing In (Out)
Phasing in (out) at 20 percent p.a. beginning 2014 - 2018				
[1]Other comprehensive income	56,126	(657)	57,374	(291)
[2]Deductions from Common Equity Tier 1 Capital	(825)	(207)	(761)	(191)
[3]Non-controlling interest	101	(45)	-	-
[4]Non-controlling interest	12	2	-	-
Phasing in (out) at 10 percent p.a. beginning 2013 - 2022				
[5]Subordinated debenture	9,535	(9,535)	9,535	(9,535)

***Component of capital subject to phasing in (out)**

Unit : Million Baht

As at 30 June 2017	The Group		The Bank	
	Classified As Capital	Outstanding Balance for Phasing In (Out)	Classified As Capital	Outstanding Balance for Phasing In (Out)
Phasing in (out) at 20 percent p.a. beginning 2014 - 2018				
[1]Other comprehensive income	51,842	(380)	53,237	13
[2]Deductions from Common Equity Tier 1 Capital	(563)	(141)	(508)	(128)
[3]Non-controlling interest	86	(43)	-	-
[4]Non-controlling interest	8	3	-	-
Phasing in (out) at 10 percent p.a. beginning 2013 - 2022				
[5]Subordinated debenture	14,768	(14,768)	14,768	(14,768)

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Table 4: Minimum Capital Requirements for Each Type of Risks

Unit : Million Baht

Type of Risks	The Group		The Bank	
	31 December 2017	30 June 2017	31 December 2017	30 June 2017
Minimum capital requirements for credit risk	**177,423**	**172,625**	**172,927**	**168,705**
Performing	174,901	170,307	170,429	166,443
- Sovereigns and central banks, Multilateral development banks (MDBs[1]), and Provincial organizations/ Government entities/ State enterprises (PSEs[2]) which have the same risk weight as Sovereigns	3,098	1,677	3,078	1,676
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	8,609	7,663	7,760	7,158
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	125,338	125,442	120,004	120,250
- Retail	14,418	13,342	14,285	13,247
- Residential mortgage loans	7,594	7,358	7,594	7,358
- Other assets	15,844	14,825	17,708	16,754
Non-Performing	2,522	2,318	2,498	2,262
Minimum capital requirements for market risk	**3,716**	**3,259**	**3,478**	**3,148**
- Interest Rate Risk	2,626	2,565	2,585	2,541
- Equity Price Risk	229	108	-	-
- Foreign Exchange Risk	861	586	893	607
- Commodity Price Risk	-	-	-	-
Minimum capital requirements for operational risk	**15,157**	**14,775**	**14,108**	**13,713**
Total minimum capital requirements	**196,296**	**190,659**	**190,513**	**185,566**

Remark

[1] Multilateral Development Banks

[2] Non-central Government Public Sector Entities

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Table 5: Main Features of Regulatory Capital Instruments

	Ordinary share	Subordinated debt 1
Issuer	Bangkok Bank Public Company Limited	Bangkok Bank Public Company Limited Hong Kong Branch
ISIN Code	TH0001010006	USY0606WBQ25 (Reg S) US059895AH54 (144A)
Regulatory treatment		
Instrument type	Common Equity Tier 1	Tier 2 capital
Qualified Basel III	Qualified	Non-qualified
Non-qualified Basel III features	N/A	No loss absorption features
Phased-out or full-amount	Full-amount	Phased-out at 10% p.a.
Eligible at solo/group level	Group & solo	Group & solo
Amount recognized in regulatory capital (Net of phasing out) (Unit: THB Million)	19,088	9,535
Par value	10 Baht	1,000 U.S. Dollar
Accounting classification	Shareholder's equity	Amortized-cost debt
Original date of issuance	Multiple	January 28, 1999
Perpetual or dated	Perpetual	Dated
Original maturity date	No maturity	March 15, 2029
Issuer's authority to call subject to prior supervisory approval	No	No
Optional call date, contingent call date and redemption amount	N/A	The Bank has the option to redeem the subordinated notes if there are changes in or amendments to the tax laws or regulations of Thailand and/or Hong Kong resulted that the Bank has additional amount to pay in respect to the withholding tax. The redemption amount of the notes shall be equal to total outstanding principal plus accrued interest.
Subsequent call dates, if applicable	N/A	Any date after original date of issuance

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Table 5: Main Features of Regulatory Capital Instruments (Continued)

	Ordinary share	Subordinated debt 1
Coupons / dividends		
Fixed or floating dividend/coupon	Discretionary dividend amount	Fixed rate
Coupon rate and any related index	Distributable profit that has been declared as dividend	9.025 % p.a.
Existence of a dividend stopper	No	No
Fully discretionary, partially discretionary or mandatory	Fully discretionary	Mandatory by BOT
Existence of step up or other incentive to redeem	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible
Write-down feature	No	No
Position in subordination hierarchy in liquidation	The ordinary shareholders shall of the return of capital in a winding-up at the last position.	The subordinated noteholders shall of the return of capital in a winding-up after preferred shareholders, depositors and general creditors.

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Table 6: Reconciliation of Regulatory Capital and Financial Statement under Consolidated Supervision

The Group capital | **Unit : Million Baht**

Item	31 December 2017 Amount	30 June 2017 Amount	References based on balance sheet under the consolidated supervision
Tier 1 capital			
Common Equity Tier 1 Capital			
Paid-up common shares after deducting treasury shares	19,088	19,088	A
Premiums on share capital	56,346	56,346	B
Legal reserves	22,000	21,500	C
Reserves appropriated from net profit	96,500	91,500	D
Net profit after appropriation	134,606	126,996	E
Other comprehensive income			
Revaluation surplus on land building and condominium appraisal	23,499	23,970	F
Revaluation surplus (deficit) of available for sale equity and debt securities	38,390	32,058	G
Foreign currency translation differences	(5,763)	(4,186)	H
Other owner changes items	-	-	
Total CET1 capital before regulatory adjustments and deduction	**384,666**	**367,272**	
Regulatory adjustments on CET1	-	-	
Regulatory deduction on CET1			
Intangible assets (Software computer license)	(825)	(563)	I
Total regulatory deduction on CET1	**(825)**	**(563)**	
Total CET1	**383,841**	**366,709**	
Additional Tier 1 capital			
Non-controlling interest	101	86	J
Total Tier 1 capital	**383,942**	**366,795**	
Tier 2 capital			
Proceeds from issuing subordinated debt securities	9,535	14,768	K
General provision	26,091	25,198	L
Non-controlling interest	12	8	M
Total Tier 2 capital	**35,638**	**39,974**	
Total regulatory capital	**419,580**	**406,769**	

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Table 6: Reconciliation of Regulatory Capital and Financial Statement under Consolidated Supervision (Continued)

Balance sheet under the consolidated supervision [1]

Unit : Million Baht

Items	31 December 2017	30 June 2017	References for the Group capital items
	Amount	Amount	
Assets			
Cash	65,473	51,782	
Interbank and money market items, net	437,738	514,488	
Claim on securities	7	8	
Derivative assets	27,360	26,103	
Investments, net	591,720	514,825	
Investments in subsidiaries and associates, net	1,460	1,362	
Loans to customers and accrued interest receivables, net			
Loans to customers	2,004,496	1,978,947	
Accrued interest receivables	5,061	3,888	
Total Loans to customers and accrued interest receivables	**2,009,557**	**1,982,835**	
Less Deferred revenue	(507)	(556)	
Less Allowance for doubtful accounts	(137,711)	(127,396)	
Qualified as capital	(26,091)	(25,198)	L
Less Revaluation allowance for debt restructuring	(2,310)	(2,522)	
Total Loans to customers and accrued interest receivables, net	**1,869,029**	**1,852,361**	
Customers' liabilities under acceptances	1,433	1,291	
Properties for sale, net	11,415	11,298	
Premises and equipment, net	43,834	44,366	
Other Intangible assets, net	1,032	704	
Deduction from capital	(825)	(563)	I
Deferred tax assets	3,676	3,535	
Securities business receivables - cash accounts	5,301	3,928	
Collateral placed with financial counterparties	3,203	2,698	
Other assets, net	13,629	12,383	
Total assets	3,076,310	3,041,132	
Liabilities			
Deposits	2,310,743	2,297,918	
Interbank and money market items, net	133,584	114,537	
Liabilities payable on demand	13,643	13,065	
Liabilities to deliver securities	421	869	
Derivative liabilities	21,002	19,530	
Debt issued and borrowings	107,190	131,595	
Debt instruments that are qualified as capital	9,535	14,768	K
Bank's liabilities under acceptances	1,433	1,291	
Provisions	13,504	12,848	
Deferred tax liabilities	5,743	5,751	
Other liabilities	67,040	58,939	
Total liabilities	2,674,303	2,656,343	

Table 6: Reconciliation of Regulatory Capital and Financial Statement under Consolidated Supervision (Continued)

Balance sheet under the consolidated supervision[1]

Unit : Million Baht

Items	31 December 2017 Amount	30 June 2017 Amount	References for the Group capital items
Owner' Equity			
Share capital			
Authorized share capital			
Preferred shares	17	17	
Common shares	39,983	39,983	
Issued and paid-up share capital			
Common shares	19,088	19,088	A
Premium on share capital			
Premium on common shares	56,346	56,346	B
Other comprehensive income	56,283	52,282	
Qualified as capital	56,126	51,842	F, G, H
Retained earnings			
Appropriated			
Legal reserve	22,000	21,500	C
Others	96,500	91,500	D
Unappropriated	151,507	143,816	
Qualified as capital	134,606	126,996	E
Total shareholders' equity	401,724	384,532	
Non-controlling interest	283	257	
Qualified as Tier 1 capital	101	86	J
Qualified as Tier 2 capital	12	8	M
Total owner's equity	402,007	384,789	
Total liabilities and owner's equity	3,076,310	3,041,132	

Remark

[1] The scope of consolidation for accounting and regulatory purposes has no difference.

2. Information Related to the Risks

The effective risk management is fundamental to good banking practice of the Bank and the Group. Accordingly, the Bank has established guidelines for managing risk in each area of the business of the Bank and the Group to ensure that proper risk management mechanisms are in place. Over the past few years, the Bank proactively identified, monitored and analyzed major risk factors which could affect the financial operations of the Bank and the Group and, where necessary, has adjusted their organizational structure and risk management processes. This is to ensure that their risk management systems are effective and in line with international standards and are in accordance with the BOT guidelines.

The Risk Management Committee, the Board of Executive Directors and the senior management all play significant roles in prescribing and reviewing the sufficiency of the risk management policy and system. They also define the risk management strategy, and monitor and control the risk of the Bank and the Group to be at an appropriate level, in compliance with the risk management policy approved by the Board of Directors.

The risk management process of the Bank and the subsidiaries in the Group comprises the identification of significant risks which may potentially impact business operations, the assessment of each type of risk, the monitoring and control of risks to an appropriate level, and the reporting of the status for each type of risk to relevant parties so as to enable them to manage and/or handle the risks in a timely manner.

The key principle of risk management is based on each business unit being responsible for continuously managing its relevant risk exposures and ensuring each risk remains within the approved limits and is in compliance with the overall risk management policy approved by the Board of Directors, while the Risk Management Division is responsible for monitoring and controlling the overall risks on a regular basis. The Risk Management Division and all risk-generating units are audited by the Audit and Control Division to assess the effectiveness, adequacy and appropriateness of the internal control systems.

The approach used by the Bank and the subsidiaries in the Group for the management of credit risk, market risk and operational risk are as follows:

2.1 Credit Risk

Credit Risk is the risk that arises from the inability of borrowers or counterparties to perform their obligations under contractual agreements in relation to lending, investment and other contractual activities, for example the borrowers' failure to repay principal and/or interest as agreed in the contract.

2.1.1 Credit Risk Management

The Bank has established credit underwriting processes which include the formulation of the credit policy, credit risk ratings for customers, and the establishment of different levels of delegation of authority for credit approval, depending upon the type of business and/or the size of the credit line. In considering, the approval of loans in general, the Bank considers the purpose of the loan and assesses the repayment ability of the applicant, taking into account the applicant's operating cash flows, business feasibility, management capability, and collateral coverage. The Bank performs credit reviews which include reviewing credit risk rating on a regular basis. In order to effectively monitor and manage its credit risks, the Bank has, therefore, set up the following divisions.

- Risk Management Division is responsible for analyzing and reporting to management on the status of various risks of the Bank, as well as proposing recommendations for the review of the overall risk policy of the Bank in anticipation of, and in compliance with, new rules, regulations and international standards. The division is also responsible for overseeing the management of each type of risk to comply with the Bank's risk management policy.

- Credit Management Division is responsible for managing risks related to credit extension by supervising and monitoring credit extensions in accordance with the Bank's credit policies. The Credit Management Division comprises the Credit Policy unit, the Credit Acceptance unit, the Portfolio Management unit, the Risk Asset Review unit, the Special Asset Management unit, the Loan Recovery and Legal unit, and the Bank Property unit. The functions of each unit are summarized below
  - Credit Policy unit oversees the credit policy framework and coordinates the improvement and adjustment of the credit policy. It is also responsible for disseminating the credit policy, credit standards and credit processes; for monitoring and overseeing exceptional cases which are inconsistent with the credit policy; and for gathering various inputs which may be used for improving the credit policy.
  - Credit Acceptance oversees the quality of credit extensions to ensure they are in line with the credit policy and credit underwriting standards, reviews the appropriateness of loan structures as well as the results of customers' credit risk ratings, promotes the development of a good credit culture, and maintains a systematic and reliable credit extension process.
  - Portfolio Management unit is responsible for analyzing and making recommendations for adjustments to the portfolio structure, recommending the appropriate portfolio composition and the provision of reserves for loan losses at the portfolio level, developing and overseeing credit risk management tools and methodologies, constructing credit databases, and overseeing related management standards.
  - Risk Asset Review unit is charged with reviewing credit quality and credit management processes, assessing the adequacy of loan loss reserves, and evaluating compliance with credit policy, regulations and credit underwriting standards.
  - Special Asset Management unit is responsible for managing non-performing loans, and for determining and executing strategies for the resolution and restructuring of troubled loans.
  - Loan Recovery and Legal unit is responsible for taking legal actions, negotiating loan settlements, and seizing collateral for sale by public auction.
  - Bank Property unit is responsible for managing and selling foreclosed assets obtained from loan recovery processes and from legal actions.

For the credit process, credit applications are first considered by the business units and then submitted to the Credit Acceptance unit. The unit conducts additional analysis to help mitigate credit risk by ensuring that the proposals comply with the Bank's credit policies in areas such as credit underwriting standards, credit risk rating, and collateral appraisal. In handling non-performing loans, there is a specific unit to manage and resolve such loans. The Bank also has an independent unit to review credit quality and credit management processes; assess the adequacy of loan loss reserves for non-performing loans; evaluate the effectiveness in complying with credit policy, regulations and credit underwriting standards; and assess the appropriateness of portfolio composition, the adequacy of capital and the effectiveness of stress testing as specified by the Bank and the BOT. All the above units report to the senior management, the Board of Executive Directors and the Risk Management Committee on a regular basis.

The Bank has established different measures to control credit risk. For example, the Bank has instituted limits on the amount of total credit extended, contingent liabilities, and investment in a group of borrowers, an industry and a country. All of this will limit the loss of capital due to an economic downturn. Moreover, the Bank monitors and reports on these aspects to the senior management, the Board of Executive Directors and the Risk Management Committee to ensure that there will be adequate capital to safeguard the continuity of business operations in difficult times.

For the subsidiaries in the Group, credit risk management processes similar to that of the Bank have been established, but the organizational structure of the units that are responsible for the supervision and management of credit risk may vary according to the structure of each company.

2.1.2 Classification and Impairment of Assets

The Bank and each subsidiary in the Group follow the guidelines of the BOT and/or the relevant local regulators regarding the classification of assets and relevant provisions. Assets are classified as normal, special mention, substandard, doubtful, doubtful of loss and loss by taking into consideration the length of time in default of payment whether of principal or interest, and also qualitative measures.

Under the Standardised Approach (SA) for measuring capital adequacy, the Bank and the subsidiaries in the Group's provisions are differentiated into Specific Provision and General Provision as follows:

- Specific Provisions include provisions that have been set aside for non-performing loans based on the difference between the book value of such loans and the present value of estimated future cash flows to be received, either from the debtors or from disposal of collateral; and provisions that have been set aside for performing loans in accordance with the minimum guidelines specified by the BOT and/or the relevant regulators. For loans with similar credit risk characteristics, the Collective Approach may be adopted using historical loss information and current observable data to determine the provisioning level. Furthermore, specific provisions include provisions for any off-balance sheet items where a loss may be realized upon settlement of obligations on behalf of such debtors; provisions for other on-balance sheet assets where objective evidence of impairment exists and the impairment loss can be estimated; and unrealized loss on revaluation of securities categorized as trading and available-for-sale. Specific provisions do not include provisions for assets classified as normal which have already been included in Tier 2 capital.
- General Provisions include provisions that have been set aside in excess of the minimum regulatory requirements for potential loss due to changes in economic and legal environment and other factors as outlined above which are not earmarked specifically for any particular debtor; and provisions that have been set aside for assets classified as normal that are included in Tier 2 capital.

The following tables present the quantitative information related to credit risk at the Bank and the Group level as at December 31, 2017 and 2016.

Table 7: Significant on-statement of financial position assets and off-statement of financial position items before credit risk mitigation classified by remaining maturity

Unit: Million Baht

Remaining maturity	The Group 31 December 2017								
	On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables*	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Up to 1 year	972,519	66,988	191,678	9,667	1,240,852	51,337	888,461	29,258	969,056
Over 1 year	1,170,006	400,601	-	17,693	1,588,300	9,098	1,034,242	30,029	1,073,369
Total	**2,142,525**	**467,589**	**191,678**	**27,360**	**2,829,152**	**60,435**	**1,922,703**	**59,287**	**2,042,425**

* Including interbank and money market items but excluding general provisions

Unit: Million Baht

Remaining maturity	The Group 31 December 2016								
	On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables*	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Up to 1 year	889,490	85,458	196,738	8,711	1,180,397	43,003	925,334	14,433	982,770
Over 1 year	1,159,772	356,425	-	15,760	1,531,957	16,150	939,514	54,308	1,009,972
Total	**2,049,262**	**441,883**	**196,738**	**24,471**	**2,712,354**	**59,153**	**1,864,848**	**68,741**	**1,992,742**

* Including interbank and money market items but excluding general provisions

Unit: Million Baht

Remaining maturity	The Bank, 31 December 2017 — On-statement of financial position assets: Net loans and accrued interest receivables*	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Off-statement of financial position items before multiplying by credit conversion factors: Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Up to 1 year	928,325	55,770	148,190	9,356	1,141,641	40,778	870,194	32,526	943,498
Over 1 year	1,156,977	395,301	-	17,692	1,569,970	6,770	1,034,078	30,029	1,070,877
Total	**2,085,302**	**451,071**	**148,190**	**27,048**	**2,711,611**	**47,548**	**1,904,272**	**62,555**	**2,014,375**

* Including interbank and money market items but excluding general provisions

Unit: Million Baht

Remaining maturity	The Bank, 31 December 2016 — On-statement of financial position assets: Net loans and accrued interest receivables*	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Off-statement of financial position items before multiplying by credit conversion factors: Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Up to 1 year	852,486	71,688	150,677	8,281	1,083,132	40,629	901,487	18,016	960,132
Over 1 year	1,144,993	349,049	-	15,760	1,509,802	7,123	939,515	54,308	1,000,946
Total	**1,997,479**	**420,737**	**150,677**	**24,041**	**2,592,934**	**47,752**	**1,841,002**	**72,324**	**1,961,078**

* Including interbank and money market items but excluding general provisions

Table 8: Significant on-statement of financial position assets and off-statement of financial position items before credit risk mitigation classified by customer's country of residence

Unit: Million Baht

	The Group								
	31 December 2017								
Customer's country of residence [1]	On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables[2]	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Thailand	1,711,336	362,163	29,714	25,215	2,128,428	30,289	1,522,914	39,136	1,592,339
Asia	379,014	98,728	133,487	1,316	612,545	29,736	181,566	8,839	220,141
Europe	23,922	1,388	14,893	701	40,904	281	200,120	188	200,589
America	16,035	3,855	10,496	13	30,399	129	9,174	9,729	19,032
Others	12,218	1,455	3,088	115	16,876	-	8,929	1,395	10,324
Total	**2,142,525**	**467,589**	**191,678**	**27,360**	**2,829,152**	**60,435**	**1,922,703**	**59,287**	**2,042,425**

[1] Based on customer's country of residence

[2] Including interbank and money market items but excluding general provisions

Unit: Million Baht

	The Group								
	31 December 2016								
Customer's country of residence [1]	On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables[2]	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Thailand	1,669,455	361,574	24,129	16,860	2,072,018	30,811	1,454,315	50,949	1,536,075
Asia	333,146	74,472	133,635	3,739	544,992	28,026	196,768	13,197	237,991
Europe	25,156	1,628	23,885	3,436	54,105	185	189,463	116	189,764
America	17,352	2,417	12,772	181	32,722	131	14,106	4,479	18,716
Others	4,153	1,792	2,317	255	8,517	-	10,196	-	10,196
Total	**2,049,262**	**441,883**	**196,738**	**24,471**	**2,712,354**	**59,153**	**1,864,848**	**68,741**	**1,992,742**

[1] Based on customer's country of residence

[2] Including interbank and money market items but excluding general provisions

Bangkok Bank

Unit: Million Baht

Customer's country of residence [1]	The Bank 31 December 2017 On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables[2]	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Thailand	1,711,252	355,256	19,428	25,216	2,111,152	30,289	1,522,675	39,137	1,592,101
Asia	321,875	89,116	100,632	1,004	512,627	16,848	163,381	12,107	192,336
Europe	23,922	1,388	14,876	701	40,887	281	200,120	188	200,589
America	16,035	3,855	10,183	13	30,086	130	9,173	9,729	19,032
Others	12,218	1,456	3,071	114	16,859	-	8,923	1,394	10,317
Total	**2,085,302**	**451,071**	**148,190**	**27,048**	**2,711,611**	**47,548**	**1,904,272**	**62,555**	**2,014,375**

[1] Based on customer's country of residence

[2] Including interbank and money market items but excluding general provisions

Unit: Million Baht

Customer's country of residence [1]	The Bank 31 December 2016 On-statement of financial position assets					Off-statement of financial position items before multiplying by credit conversion factors			
	Net loans and accrued interest receivables[2]	Net investment in debt securities	Deposits (including accrued interest receivables)	Derivatives assets	Total	Avals, loan guarantees, letters of credit	OTC derivatives	Undrawn committed lines	Total
Thailand	1,670,033	350,482	16,273	1,520	2,038,308	30,811	1,454,103	50,949	1,535,863
Asia	280,785	64,419	95,827	20,327	461,358	16,625	173,134	16,780	206,539
Europe	25,156	1,628	23,852	1,759	52,395	185	189,463	116	189,764
America	17,352	2,417	12,435	179	32,383	131	14,106	4,479	18,716
Others	4,153	1,791	2,290	256	8,490	-	10,196	-	10,196
Total	**1,997,479**	**420,737**	**150,677**	**24,041**	**2,592,934**	**47,752**	**1,841,002**	**72,324**	**1,961,078**

[1] Based on customer's country of residence

[2] Including interbank and money market items but excluding general provisions

Table 9: Loans and accrued interest receivables (including interbank and money market items) and investment in debt securities before credit risk mitigation classified by customer's country of residence and by asset classification guidelines specified by regulators

Unit: Million Baht

Customer's country of residence*	The Group 31 December 2017						
	Loans and accrued interest receivables						Investment in debt securities: Doubtful of Loss
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total	
Thailand	1,696,652	30,543	11,320	18,442	53,537	1,810,494	46
Asia	373,133	15,129	440	553	2,928	392,183	144
Europe	23,996	293	-	3	52	24,344	-
America	16,205	35	-	6	163	16,409	110
Others	12,538	1	-	8	1	12,548	2
Total	**2,122,524**	**46,001**	**11,760**	**19,012**	**56,681**	**2,255,978**	**302**

* Based on customer's country of residence

Unit: Million Baht

Customer's country of residence*	The Group 31 December 2016						
	Loans and accrued interest receivables						Investment in debt securities: Doubtful of Loss
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total	
Thailand	1,657,803	31,634	8,866	15,894	40,691	1,754,888	1,267
Asia	324,470	14,608	629	149	2,401	342,257	101
Europe	25,141	2	-	1	51	25,195	-
America	17,347	6	-	6	172	17,531	2
Others	4,380	3	-	-	1	4,384	-
Total	**2,029,141**	**46,253**	**9,495**	**16,050**	**43,316**	**2,144,255**	**1,370**

* Based on customer's country of residence

Unit: Million Baht

Customer's country of residence*	The Bank 31 December 2017						
	Loans and accrued interest receivables						Investment in debt securities: Doubtful of Loss
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total	
Thailand	1,696,569	30,543	11,319	18,348	53,537	1,810,316	46
Asia	315,830	14,801	437	553	1,604	333,225	107
Europe	23,996	292	-	4	52	24,344	-
America	16,205	35	-	5	163	16,408	110
Others	12,538	1	-	8	1	12,548	2
Total	**2,065,138**	**45,672**	**11,756**	**18,918**	**55,357**	**2,196,841**	**265**

* Based on customer's country of residence

Unit: Million Baht

Customer's country of residence*	The Bank 31 December 2016						
	Loans and accrued interest receivables						Investment in debt securities: Doubtful of Loss
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total	
Thailand	1,658,390	31,634	8,857	15,800	40,690	1,755,371	1,267
Asia	273,652	11,945	507	148	1,306	287,558	52
Europe	25,141	2	-	1	51	25,195	-
America	17,347	5	-	6	173	17,531	2
Others	4,379	3	-	-	2	4,384	-
Total	**1,978,909**	**43,589**	**9,364**	**15,955**	**42,222**	**2,090,039**	**1,321**

* Based on customer's country of residence

Table 10 : General and specific provisions and bad debt written off for loans and accrued interest receivables (including interbank and money market items) and investment in debt securities classified by customer's country of residence

Unit: Million Baht

	The Group			
	31 December 2017			
Customer's country of residence*	Loans and accrued interest receivables			Investment in debt securities: Specific provision
	General provision	Specific provision	Bad debt written off	
Thailand		99,159	935	3,075
Asia		13,169	221	149
Europe		422	-	-
America		373	-	149
Others		330	-	2
Total	**27,436**	**113,453**	**1,156**	**3,375**

* Based on customer's country of residence

Unit: Million Baht

	The Group			
	31 December 2016			
Customer's country of residence*	Loans and accrued interest receivables			Investment in debt securities: Specific provision
	General provision	Specific provision	Bad debt written off	
Thailand		85,433	1,202	3,084
Asia		9,111	31	106
Europe		39	-	-
America		179	-	2
Others		231	-	-
Total	**25,160**	**94,993**	**1,233**	**3,192**

* Based on customer's country of residence

Unit: Million Baht

Customer's country of residence*	The Bank 31 December 2017 Loans and accrued interest receivables: General provision	Specific provision	Bad debt written off	Investment in debt securities: Specific provision
Thailand		99,064	936	3,075
Asia		11,350	98	112
Europe		422	-	-
America		373	-	149
Others		330	-	2
Total	**25,631**	**111,539**	**1,034**	**3,338**

* Based on customer's country of residence

Unit: Million Baht

Customer's country of residence*	The Bank 31 December 2016 Loans and accrued interest receivables: General provision	Specific provision	Bad debt written off	Investment in debt securities: Specific provision
Thailand		85,338	1,202	3,084
Asia		6,773	-	57
Europe		39	-	-
America		179	-	2
Others		231	-	-
Total	**23,759**	**92,560**	**1,202**	**3,143**

* Based on customer's country of residence

Table 11: Loans and accrued interest receivables (including interbank and money market items) before credit risk mitigation, classified by business type and by asset classification guidelines specified by regulators

Unit: Million Baht

	The Group					
	31 December 2017					
Type of Business	**Normal**	**Special Mentioned**	**Substandard**	**Doubtful**	**Doubtful of Loss**	**Total**
Agriculture and mining	44,439	800	8	1,170	373	46,790
Manufacturing and commercial	736,063	20,467	8,682	13,332	42,718	821,262
Real estate and construction	178,722	5,366	781	905	5,998	191,772
Utilities and services	402,780	13,851	1,157	1,180	3,574	422,542
Housing loans	220,244	2,381	1,009	1,521	3,561	228,716
Others	540,276	3,136	123	904	457	544,896
Total	**2,122,524**	**46,001**	**11,760**	**19,012**	**56,681**	**2,255,978**

Unit: Million Baht

	The Group					
	31 December 2016					
Type of Business	**Normal**	**Special Mentioned**	**Substandard**	**Doubtful**	**Doubtful of Loss**	**Total**
Agriculture and mining	36,986	884	363	50	358	38,641
Manufacturing and commercial	738,939	25,452	5,560	9,045	33,020	812,016
Real estate and construction	168,716	5,051	1,008	1,669	4,071	180,515
Utilities and services	382,796	10,564	1,248	3,074	2,588	400,270
Housing loans	211,884	2,511	1,161	1,400	2,889	219,845
Others	489,820	1,791	155	812	390	492,968
Total	**2,029,141**	**46,253**	**9,495**	**16,050**	**43,316**	**2,144,255**

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Unit: Million Baht

Type of Business	The Bank					
	31 December 2017					
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total
Agriculture and mining	42,570	800	8	1,170	373	44,921
Manufacturing and commercial	709,441	20,402	8,679	13,332	41,416	793,270
Real estate and construction	172,120	5,354	781	905	5,987	185,147
Utilities and services	397,796	13,851	1,157	1,180	3,574	417,558
Housing loans	220,233	2,378	1,009	1,521	3,551	228,692
Others	522,978	2,887	122	810	456	527,253
Total	**2,065,138**	**45,672**	**11,756**	**18,918**	**55,357**	**2,196,841**

Unit: Million Baht

Type of Business	The Bank					
	31 December 2016					
	Normal	Special Mentioned	Substandard	Doubtful	Doubtful of Loss	Total
Agriculture and mining	33,705	883	364	50	358	35,360
Manufacturing and commercial	712,948	23,166	5,535	9,045	31,990	782,684
Real estate and construction	163,355	5,051	912	1,669	4,017	175,004
Utilities and services	379,294	10,564	1,248	3,074	2,588	396,768
Housing loans	211,870	2,509	1,158	1,400	2,880	219,817
Others	477,737	1,416	147	717	389	480,406
Total	**1,978,909**	**43,589**	**9,364**	**15,955**	**42,222**	**2,090,039**

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Table 12: General and specific provisions and bad debt written off for loans and accrued interest receivables (including interbank and money market items) classified by business type

Unit: Million Baht

Type of Business	The Group					
	31 December 2016			31 December 2016		
	General provision	Specific provision	Bad debt written off	General provision	Specific provision	Bad debt written off
Agriculture and mining		1,814	1		911	1
Manufacturing and commercial		70,984	584		59,128	150
Real estate and construction		10,414	78		8,187	14
Utilities and services		19,121	20		17,481	9
Housing loans		5,108	19		4,745	33
Others		6,012	454		4,541	1,026
Total	**27,436**	**113,453**	**1,156**	**25,160**	**94,993**	**1,233**

Unit: Million Baht

Type of Business	The Bank					
	31 December 2017			31 December 2016		
	General provision	Specific provision	Bad debt written off	General provision	Specific provision	Bad debt written off
Agriculture and mining		1,796	1		873	1
Manufacturing and commercial		69,613	462		57,275	119
Real estate and construction		10,298	78		8,035	14
Utilities and services		19,071	20		17,450	9
Housing loans		5,102	19		4,739	33
Others		5,659	454		4,188	1,026
Total	**25,631**	**111,539**	**1,034**	**23,759**	**92,560**	**1,202**

Table 13: Reconciliation of general and specific provisions for loans and accrued interest receivables (including interbank and money market items)

Unit: Million Baht

Item	The Group					
	31 December 2017			31 December 2016		
	General provision	Specific provision	Total	General provision	Specific provision	Total
Beginning balance	25,160	94,993	120,153	24,966	79,913	104,879
Bad debt written off	-	(1,156)	(1,156)	-	(1,233)	(1,233)
Doubtful accounts	2,276	21,201	23,477	194	16,718	16,912
Others	-	(1,585)	(1,585)	-	(405)	(405)
Ending balance	**27,436**	**113,453**	**140,889**	**25,160**	**94,993**	**120,153**

Unit: Million Baht

Item	The Bank					
	31 December 2017			31 December 2016		
	General provision	Specific provision	Total	General provision	Specific provision	Total
Beginning balance	23,759	92,560	116,319	23,606	77,795	101,401
Bad debt written off	-	(1,034)	(1,034)	-	(1,202)	(1,202)
Doubtful accounts	1,872	21,542	23,414	153	16,183	16,336
Others	-	(1,529)	(1,529)	-	(216)	(216)
Ending balance	**25,631**	**111,539**	**137,170**	**23,759**	**92,560**	**116,319**

Table 14: On-statement of financial position assets and credit equivalent amount of off-statement of financial position items, net of specific provisions, classified by asset type under SA approach

Unit: Million Baht

	The Group					
	31 December 2017			31 December 2016		
Type of Asset	On-statement of financial position assets	Off-statement of financial position items*	Total	On-statement of financial position assets	Off-statement of financial position items*	Total
Performing						
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	584,088	66,405	650,493	517,136	60,359	577,495
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	205,786	46,140	251,926	221,724	48,484	270,208
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	1,456,410	226,531	1,682,941	1,387,520	190,447	1,577,967
- Retail	247,816	10,104	257,920	239,639	10,960	250,599
- Residential mortgage loans	217,778	-	217,778	209,453	-	209,453
- Other assets	287,980	-	287,980	270,101	-	270,101
Non-performing	26,610	1,358	27,968	19,180	1,544	20,724
Total	**3,026,468**	**350,538**	**3,377,006**	**2,864,753**	**311,794**	**3,176,547**

* Including repo-style transactions

Unit: Million Baht

Type of Asset	The Bank					
	31 December 2017			31 December 2016		
	On-statement of financial position assets	**Off-statement of financial position items ***	**Total**	**On-statement of financial position assets**	**Off-statement of financial position items***	**Total**
Performing						
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	559,516	66,405	625,921	489,293	60,360	549,653
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	174,479	47,680	222,159	187,108	48,760	235,868
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	1,399,181	210,927	1,610,108	1,334,817	178,280	1,513,097
- Retail	243,191	10,034	253,225	236,099	10,890	246,989
- Residential mortgage loans	217,764	-	217,764	209,434	-	209,434
- Other assets	303,354	-	303,354	285,225	-	285,225
Non-performing	26,329	1,358	27,687	18,806	1,519	20,325
Total	**2,923,814**	**336,404**	**3,260,218**	**2,760,782**	**299,809**	**3,060,591**

* Including repo-style transactions

2.1.3 Credit Rating

In assigning risk weights for the calculation of risk weighted assets (RWA) using the Standardised Approach (SA) under Basel III, the Bank and the subsidiaries in the Group use credit ratings from the external credit assessment institutions (ECAIs) who meet the qualifications specified by the BOT. The credit rating from Standard & Poor's is applied for sovereign and financial institutions, while the credit ratings from Fitch Ratings (Thailand) and TRIS Rating are applied for corporate. The process of mapping the ECAI's ratings with the borrower risk weights is prescribed by the BOT.

Table 15: On-statement of financial position assets and credit equivalent amount of off-statement of financial position items, net of specific provisions, after credit risk mitigation for each asset type classified by risk weights under SA approach

Unit: Million Baht

Type of Asset	The Group 31 December 2017														
	Rating					No rating									
Risk weight (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	937.5	100/8.5%
Performing															
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	599,256	5,375	24,593	2,456	13,748										
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	-	94,055	109,820	24,751	223		188				2,440				
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	-	119,913	88,080	39,851	32,862	193			2,811		1,315,986				
- Retail										198,900	20,446				
- Residential mortgage loans								186,519		28,726	2,520				
- Other assets						96,688	1,435				184,357	699			
Risk weight (%)	0	20	50	75	100	150									
Non-performing	284	-	2,707	353	17,305	7,166									
Items deducted from capital	826														

Unit: Million Baht

Type of Asset	The Group															
	31 December 2016															
	Rating					No rating										
Risk weight (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	937.5	100/8.5%
Performing															
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	545,696	15,127	4,152	8,526	6,965										
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	-	137,510	58,521	41,226	1,659		-				-				
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	-	77,717	78,952	29,503	40,918	-			5,312		1,272,228				
- Retail										200,856	11,523				
- Residential mortgage loans								182,189		24,738	2,517				
- Other assets						92,599	1,883				171,887	662	24	9	42

Risk weight (%)	0	20	50	75	100	150
Non-performing	345	-	2,417	-	12,515	4,988

Items deducted from capital	497

Unit: Million Baht

Type of Asset	The Bank 31 December 2017														
	Rating					No rating									
Risk weight (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	937.5	100/8.5%
Performing															
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	575,885	4,175	24,593	2,455	13,748										
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	-	77,419	96,503	24,750	223		188				2,440				
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	-	119,913	88,080	39,851	32,862				2,811		1,253,244				
- Retail										197,963	19,586				
- Residential mortgage loans								186,512		28,718	2,520				
- Other assets						94,216	1,393				207,544	201			

Risk weight (%)	0	20	50	75	100	150
Non-performing	284	-	2,703	353	17,029	7,166

Items deducted from capital	761

Unit: Million Baht

Type of Asset	The Bank 31 December 2016														
	Rating					No rating									
Risk weight (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	937.5	100/8.5%
Performing															
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	517,853	15,127	4,152	8,526	6,965										
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial Institutions	-	102,923	58,661	41,226	1,659		-				-				
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	-	77,717	78,752	29,503	40,918				5,311		1,216,408				
- Retail										199,699	11,270				
- Residential mortgage loans								182,179		24,730	2,517				
- Other assets						90,902	1,833				192,372	43	24	9	42

Risk weight (%)	0	20	50	75	100	150
Non-performing	345	-	2,411	-	12,147	4,963
Items deducted from capital	465					

2.1.4 Credit Risk Mitigation

It is a policy of the Bank and the subsidiaries in the Group to mitigate credit risk through the use of collateral to reduce the potential loss which may arise when borrowers are unable or unwilling to repay loans. Documentation relating to collateral must be in order and verified for validity prior to loan drawdown and ongoing compliance with the conditions of the collateral agreement shall be monitored. Processes, procedures and regulations for collateral valuation have been defined, consistent with the BOT's guidelines on collateral valuation and foreclosed assets obtained from debt repayment of financial institutions.

Credit risk mitigations used in the Bank's and the Group's capital adequacy calculation under Basel III - SA approach are as follows:

1. For financial collaterals such as cash, deposits, debt securities and equity securities, the Comprehensive Approach is currently adopted for credit risk mitigation and the Standard Supervisory Haircut specified by the BOT is used.
2. On-balance sheet netting is used for repo-style transactions where the counterparties enter into a Global Master Repurchase Agreement that complies with the BOT guidelines.
3. Guarantees that may be used as credit risk mitigants must be issued by qualified guarantors from either of the following 2 groups:
    - Guarantors which are sovereigns, central banks, provincial organizations, government entities, state enterprises, financial institutions and securities companies, provided that the guarantors must have risk weights lower than the borrower.
    - Corporate guarantors must have risk weights lower than the borrower.

Credit risk mitigation is applied in accordance with the BOT guidelines.

Table 16: Secured portion of credit exposures after on- and off-balance sheet netting for each asset type under SA approach classified by credit risk mitigation types

Unit: Million Baht

	The Group			
	31 December 2017		31 December 2016	
Type of Asset	Financial collateral	Guarantees and credit derivatives	Financial collateral	Guarantees and credit derivatives
Performing				
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	54,997	-	53,822	-
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial institutions	782	32,125	1,957	40,353
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	69,254	33,846	61,051	29,449
- Retail	22,301	16,274	23,049	15,171
- Residential mortgage loans	13	-	9	-
- Other assets	4,800	-	2,995	-
Non-performing	152	297	458	371
Total	**152,299**	**82,542**	**143,341**	**85,344**

Unit: Million Baht

Type of Asset	The Bank			
	31 December 2017		31 December 2016	
	Financial collateral	Guarantees and credit derivatives	Financial collateral	Guarantees and credit derivatives
Performing				
- Sovereigns and central banks, Multilateral development banks (MDBs), and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Sovereigns	54,996	-	53,822	-
- Financial institutions, Securities firms, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Financial institutions	782	32,123	1,950	40,353
- Corporates, and Provincial organizations/ Government entities/ State enterprises (PSEs) which have the same risk weight as Corporates	59,544	33,660	52,315	29,335
- Retail	19,403	16,274	20,849	15,171
- Residential mortgage loans	13	-	9	-
- Other assets	-	-	-	-
Non-performing	152	297	458	371
Total	**134,890**	**82,356**	**129,403**	**85,230**

2.2 Market Risk

Market risk is the risk of loss in on- and off-balance sheet positions of the Bank and the Group arising from movements in market prices such as interest rates, equity prices, foreign exchange rates, and commodity prices.

2.2.1 Market Risk Management

The Bank's market risk arises from financial services activities provided to customers and/or financial institutions. These involve buying and selling foreign exchange and debt securities, as well as financial derivative transactions, such as foreign exchange forward contracts, cross currency swap and interest rate swap. The Bank manages market risk arising from the position from customer-driven transactions to be at acceptable levels by hedging or reducing the risk exposure. Market risk exposures also arise from the Bank's mismatched own asset and liability positions.

The primary objective of market risk management is to manage the risks resulting from changes in market factors to be at acceptable levels and in line with the overall risk management policy. The Bank and the subsidiaries in the Group have therefore established market risk management policies and specified market risk measurement metrics and limits taking into consideration the nature and complexities of the respective financial activities.

The committee and functional units that are mainly responsible for managing, monitoring and controlling the market risk are:

- The Asset-Liability Management Committee is responsible for establishing and reviewing policies and guidelines for asset and liability management and market risk management as well as monitoring and controlling these risks to be at acceptable levels and in compliance with the risk management policy set by the Risk Management Committee and the Board of Directors.
- The Treasury Division is responsible for executing the trading strategy for the Bank through buying and selling financial products such as foreign exchange, bonds, and derivatives instruments, as well as managing the Bank's foreign exchange risk, interest rate risk and liquidity risk to be within the limits according to ALCO's guidelines and the Bank's acceptable risk level.
- Market Risk unit, which is part of the Risk Management Division, is accountable for assessing, monitoring, reporting and controlling market risk positions against specified limits. The Market Risk unit reports to ALCO and senior management on a regular basis and is responsible for proposing the enhancement of the market risk policies, measurement metrics and limits in response to change in operating environment, the Bank's business plans, and the complexities of financial activities. Moreover, the Market Risk unit coordinates with the subsidiaries of the Group to ensure that their risk management policies and processes are in line with the Bank's practices.

The market risk management practices of the subsidiaries in the Group are similar to the Bank's practices, although the relevant units responsible for overseeing, monitoring and managing the risks may differ depending on each company's organizational structure.

2.2.2 Traded Market Risk

The main traded market risks for the Bank and the Group are interest rate risk and foreign exchange risk.

Risk Assessment and Monitoring for Traded Market Risk

Various tools and measurement techniques are used to assess market risk exposures in the trading book, including:

1. Value-at-Risk (VaR)

VaR is a statistical technique that estimates the maximum potential losses on risk exposures as a result of movements in market rates and prices over a specified time horizon and at a given level of confidence. The Bank uses a historical simulation approach at a 99% confidence level over a one-day holding period to measure interest rate risk (only for general market risk) and foreign exchange risk. Historical Simulation VaR estimates the maximum potential losses assuming plausible future scenarios from the observed historical market movements. To validate the accuracy of the VaR model, the Bank conducts back testing against hypothetical profit and loss of the trading book positions and analyses whether the number of exceptions, i.e. the incidents where hypothetical profit and loss exceed the calculated VaR, are within an acceptable range. Hypothetical profit and loss is calculated by assuming that the previous day's exposures remain unchanged.

2. Other measurements

Apart from the statistical measurement technique, the Bank also uses non-statistical measurements, such as Present Value of a Basis Point (PV01), portfolio size, and mark-to-market profit and loss, to regularly assess major market risk exposures in the trading book as deemed appropriate for each transaction type. The PV01 measures the sensitivity of the value of securities to one basis point change in interest rate.

3. Stress Testing

The Bank performs market risk stress testing on its trading book position at least on a quarterly basis to determine if the impact of potential losses from extreme market movements or crisis situations on the Bank's capital are within the risk tolerance limits. Stress testing also enhances the Bank's understanding of its risk exposures and vulnerability as well as facilitates proactive risk management.

Risk Control for Traded Market Risk

Traded market risk is controlled primarily through a series of limits, such as VaR Limit, PV01 Limit, and Maximum Loss Limit, etc. These limits are specified by ALCO, and approved by the Risk Management Committee, the Board of Executive Directors and the Board of Directors. They are reviewed and updated at least once a year or more frequently when warranted by a material change in circumstances.

By using the historical simulation approach, in 2017 the minimum, maximum and average VaR of the Bank's trading book for a one-day holding period, with a 99 percent confidence level, was Baht 47 million, Baht 132 million and Baht 85 million, respectively. The average VaR in 2017 fell from Baht 152 million in 2016, mainly due to a drop in Interest Rate VaR, as trading position in debt securities in 2017 decreased on average and the volatility of THB interest rate declined significantly.

The subsidiaries in the Group also use, to varying degrees based on the size and complexity of transactions, similar measurement tools and techniques to assess their market risk exposures in the trading book and have specified limits to control these exposures.

Capital Treatment for Traded Market Risk

The Bank currently adopts the Standardised Approach (SA) for the calculation of minimum capital requirement for market risk at both the Bank level and the Group level. In addition, the Bank and the subsidiaries in the Group use VaR models internally to measure, monitor and control traded market risks, as mentioned above in the risk assessment and monitoring section.

Minimum capital requirement for market risk at the Bank and the Group level as at December 31, 2017 and June 30, 2017 are as follows:

Table 17: Minimum capital requirements for market risk based on Standardised Approach (SA)

Unit: Million Baht

	The Group		The Bank	
Capital requirements for market risk	**31 December 2017**	**30 June 2017**	**31 December 2017**	**30 June 2017**
Interest Rate Risk	2,626	2,565	2,585	2,541
Equity Price Risk	229	108	-	-
Foreign Exchange Risk	861	586	893	607
Commodity Price Risk	-	-	-	-
Total Capital Requirement	**3,716**	**3,259**	**3,478**	**3,148**

2.2.3 Interest Rate Risk in the Banking Book (IRRBB)

Interest rate risk in the banking book normally arises when the repricing and/or maturity schedule of assets, liabilities, and off-balance sheet positions are not matched, or when the movements of reference interest rates on assets and liabilities are not correlated, negatively affecting net interest income (NII) and/or economic value of equity (EVE).

Sources of Interest Rate Risk can be classified as follows:

- Repricing risk arises from timing differences in maturity (for fixed rate items) and repricing period (for floating rate items) of the Bank's assets, liabilities, and off-balance sheet positions. Repricing risk is the primary form of interest rate risk.
- Yield curve risk arises from changes in the shape and slope of yield curves arising from unparallel shifts of the yield curves, including yield curve twist.
- Basis risk arises from imperfect correlation of reference interest rates applicable to the Bank's assets, liabilities and off-balance sheet positions.
- Embedded option risk arises from changes in interest rate, causing uncertainty of cash flows due to the options embedded in assets, liabilities and off-balance sheet positions, such as non-maturity deposits and loans without prepayment penalty.

Risk Assessment and Monitoring for IRRBB

The measurement of interest rate risk in the banking book provides an assessment of the potential impact of interest rate change on NII, which will help the Bank and the subsidiaries in the Group to manage the risk and determine alternative balance sheet strategies to achieve business return targets. Furthermore, it also provides an assessment of the potential impact on EVE reflecting the sensitivity of the value of assets, liabilities and off-balance sheet positions to changes in interest rates.

The Bank employs both static analysis tools and dynamic simulation techniques to assess interest rate risk in the banking book, including:

1. Repricing Gap Analysis and Sensitivity Analysis

   Repricing gap analysis is a traditional method widely used to assess the interest rate risk of current balance sheet positions. It captures repricing risk which is a primary form of interest rate risk, but does not capture yield curve risk, basis risk and embedded option risk.

   The Bank uses repricing gap analysis to assess NII impact in the year ahead assuming assets, liabilities and off-balance sheet positions are static and interest rates change immediately across the curves. Repricing gap analysis is also used in conjunction with duration-based weights to estimate the potential impact of interest rate change on EVE.

   The Bank assesses and monitors interest rate risk in the banking book through NII impact and EVE impact on a monthly basis.

2. Net Interest Income Simulation (NII Simulation)

   NII simulation is a more granular and complex technique than repricing gap analysis. The Bank also uses NII simulation to measure interest rate risk because this technique allows for a projection of future NII under various interest rate scenarios, based on current positions of assets, liabilities, and off-balance sheet items, and assumptions regarding new business activities (dynamic position). This includes assumptions regarding the growth in the positions of balance sheet items, maturity profile of new transactions, product pricing, and the launch of new products. NII simulation is able to capture other types of interest rate risks i.e. yield curve risk, basis risk, and embedded option risk.

   The Bank uses NII simulation technique to assess interest rate risk and project future NII from the business plan at least once a year.

3. Stress Testing

   The Bank performs stress testing for interest rate risk in the banking book at least on a quarterly basis using static NII simulation on the current position, to assess the potential negative impact to NII under various stress scenarios. The results of stress testing are analyzed and used to determine alternative balance sheet strategies more suited to the business environment in order to achieve the business return target under an acceptable level of risk.

The NII impact for the Bank and the Group of a 100 bps interest rate change using NII Simulation as at December 31, 2017 and 2016 are as follows:

Table 18: Net Interest Income Impact if interest rate rises by 100 bps

Unit: Million Baht

	The Group			
Currency	**31 December 2017**		**31 December 2016**	
	NII Impact	% Earning at Risk	NII Impact	% Earning at Risk
THB	(614)	(0.92%)	(403)	(0.63%)
USD	1,002	1.50%	1,363	2.13%
EUR	70	0.10%	19	0.03%
Others	579	0.87%	431	0.67%
Total NII Impact	**1,037**	**1.56%**	**1,410**	**2.20%**
Estimated NII in next 12 months	**66,625**		**63,998**	

Unit: Million Baht

	The Bank			
Currency	**31 December 2017**		**31 December 2016**	
	NII Impact	% Earning at Risk	NII Impact	% Earning at Risk
THB	(608)	(0.95%)	(437)	(0.71%)
USD	971	1.52%	1,326	2.15%
EUR	70	0.11%	21	0.03%
Others	274	0.43%	237	0.38%
Total NII Impact	**707**	**1.10%**	**1,147**	**1.86%**
Estimated NII in next 12 months	**64,013**		**61,687**	

Risk Control for IRRBB

The Bank monitors and controls interest rate risk by specifying a NII Impact Limit (being the cumulative NII impact within 1 year) and an EVE Impact Limit, assuming interest rates change immediately by 100 bps. These limits are reviewed by ALCO and approved by the Board of Executive Directors, the Risk Management Committee and the Board of Directors at least annually or more frequently when warranted by material changes in circumstances.

The Bank manages the interest rate risk by adjusting its asset and liability structure in line with forecast interest rate trends, taking into consideration the changes in NII impact and EVE impact. The Bank may deploy plain vanilla derivatives, such as interest rate swaps and cross currency interest rate swaps, to hedge or mitigate interest rate risk to be within the risk tolerance limit, and manage the risk in accordance with ALCO's guidelines.

The subsidiaries in the Group with significant interest rate risks in the banking book use repricing gap analysis to assess and control IRRBB in the similar fashion as mentioned above.

2.2.4 Equity Exposure in the Banking Book

Equity price risk is the risk associated with equity price changes resulting in the deterioration of investment value and affecting the Bank's and the Group's capital.

Objectives of equity investment in the banking book are as follows

- To enhance income in terms of dividends and capital gains for medium to long-term investments
- To support core banking business by establishing good relationships with customers and creating networks of strategic investment partners
- To exchange for debt repayments from debt restructuring agreements

The Bank's equity price risk arises from various types of investments in both domestic and overseas markets in order to diversify risk, to enhance returns, and to support the development of the Thai capital market, such as investments in property funds and infrastructure funds. In the past year, the Bank's portfolio of equity investment grew considerably, mainly from investment in domestic and foreign listed companies.

The Bank and the subsidiaries in the Group classify equity investments in the banking book in accordance with the applicable accounting standards, with marketable securities classified as available-for-sale investment, non-marketable securities classified as general investment, investment in subsidiaries and investment in associated companies.

Risk Assessment and Monitoring for Equity Exposure in the Banking Book

The market risk management policy is used as a guideline by the Bank and the subsidiaries in the Group in assessing, monitoring, and controlling equity price risk. Measurement techniques for the assessment of equity price risk can be categorized by equity type as follows:

- Listed equity securities: Fair value is used for risk assessment. Stress testing is performed on a quarterly basis, based on the stress scenarios implied from historical movements of the security exchange indices, to estimate the maximum potential losses that may occur during volatile market conditions.
- Other equity securities: Fair value is used for risk assessment, the reliability of which is reviewed at least annually or more frequently as warranted by market conditions.

In managing equity risk in the banking book, the Bank, as the parent company, controls the ratio of equity exposures to total capital to be in accordance with the BOT's regulation and the Bank's internal guidelines.

Valuation Policy for Equity Exposure in the Banking Book

In establishing the fair value of equity securities, the Bank and the subsidiaries in the Group adopts the following valuation policy:

- Listed equity securities are fair valued by referencing the last bid price on the last business day of the period. If this is not available, the last closing price will be applied. Listed equity securities under rehabilitation are fair valued using the discounted cash flow approach or the net asset value approach, as appropriate.
- Other equity securities that are non-listed equity securities are fair valued using the discounted cash flow approach or the net asset value approach, as appropriate. For unit trusts, the fair value is based on net asset value (NAV) as at the end of the period.

Equity exposure in the banking book for the Bank and the Group as at December 31, 2017 and 2016 are as follows:

Table 19: Equity exposures in the banking book

Unit: Million Baht

	The Group		The Bank	
Equity exposures	**31 December 2017**	**31 December 2016**	**31 December 2017**	**31 December 2016**
Equity exposures *				
• Equity securities listed on a securities exchange (domestic and foreign)				
- Cost value	35,960	26,987	35,960	26,946
- Market value	77,087	61,508	77,087	61,464
• Other equity securities (both in domestic and foreign)	42,728	42,175	71,688	69,044
Gains (losses) on sales of equity securities for the year	8,052	4,051	8,087	2,177
Unrealized gains (losses) on revaluation from available-for-sale equity securities	44,335	37,474	44,173	37,424
Minimum capital for equity exposures under SA approach	10,336	8,948	12,721	11,146

* Net of the impairment charges for the investment in equity securities

2.3 Operational Risk

Operational Risk is the risk of loss from failed or inadequate internal processes, people and systems, or from external events. This includes legal risks, but does not include strategic risks and reputational risks.

The Bank is of the view that good operational risk management is vital to sustainable business success, particularly in the current environment of uncertainty, both domestically and internationally. Thus, effective operational risk management with sufficient coverage of all aspects of operations is a key priority for the Bank and the Group, and includes being well-prepared to deal promptly with unexpected events, including the compliance with regulations in Thailand and overseas which has become more intense.

Furthermore, the Bank pays close attention to quality of customer service and customer care, suitability of selling products and services sold, reinforcement in system security, information management systems, and all electronic/digital channels as well as fraud risk management related to bank products and services such as credit cards, ATM cards and other electronic services to ensure customers' confidence. In relation to a new product launch, the product risks must be well analyzed, assessed and controlled to be at the acceptable level, and the appropriate risk control procedures must be in place.

Operational Risk Management

The process by which the Bank and the subsidiaries in the Group addresses operational risk management covers defining, assessing, monitoring, mitigating and controlling risk. Each unit in the organization is directly responsible for managing its operational risk and for establishing measures to mitigate, monitor and control risk to the designated level by allocating appropriate resources to this effort and for embedding operational risk management as part of the organizational culture.

The Bank has The Operational Risk Management Committee ("ORMC"), comprising senior executives from various business and support units, which is responsible for supporting and overseeing the functioning of the Bank's operational risk management and business continuity management to comply with the Bank's operational risk management policy.

The Bank has established the Operational Risk Management unit within the Risk Management Division to be responsible for operational risk management. This includes monitoring and supporting every unit in implementing the operational risk management framework at the unit level, managing operational risk at the organization level, reviewing operational risk management aspects in product and service development process, calculating the capital requirements for operational risk in line with the Basel framework, and maintaining the operational risk database and analyzing the loss data in the database, etc.

The Bank also ensures the cooperation among Operational Risk Unit, Compliance and Audit and Control Division, in respect of information sharing, analyzing and setting of controls to enhance the efficiency of operational risk management and internal control of the Bank

Likewise, the subsidiaries in the Group have assigned the responsibility for operational risk management at both the unit and the organization level, in line with the Bank's practices, although the relevant units responsible for overseeing, monitoring, and managing operational risk may differ depending on each company's organizational structure.

Operational Risk Assessment and Monitoring

A key principle underlying the operational risk management framework of the Bank and the subsidiaries in the Group is that operational risk management is the responsibility of every staff member in the organization. Everyone in the organization is trained to have a consistent understanding of operational risk, and to cultivate a sustainable operational risk culture as part of day-to-day business activities across the Bank, through Operational Risk Management Tools, e.g. Risk Control Self-assessment (RCSA), so that they are able to accurately and completely identify the operational risks, assess risk, assess the effectiveness of controls, as well as develop options for mitigating risks based on careful analysis, and subsequently to implement the selected solutions to minimize risks. This is followed by systematic monitoring of progress, measurement of potential risk, e.g., Risk Monitoring Information (RMI) and Loss Data Collection, and the use of reporting systems as key elements of compiling and analyzing preventive and control measurements, and/or effectively diminishing operational risk, as well as regular reviews of the entire process.

Loss data arising from operational risk events for the Bank and the subsidiaries in the Group are maintained in a database. Reports on operational risk exposures and operational risk management are provided on a regular basis.

Operational Risk Mitigation

An important mechanism in controlling, preventing, and mitigating operational risk is an effective internal control system with strong participation of management. Each business unit must enforce operational controls vigorously, ensure compliance with regulations including anti-money laundering measures, implement the segregation of duties and procedures for verification and reconciliation, define approval authorities as well as establish limits commensurate with the scale of the business, the business type and level of staff. The reliability of the information technology system and the security measures related thereto is also of paramount importance.

The Bank and the subsidiaries in the Group have implemented Business Continuity Management to enhance their resilience and their capability of responding to unexpected interruptions. The Group has a Business Continuity Management Policy and Business Continuity Plans, which are regularly reviewed and updated in accordance with potential threats, as well as being tested on a regular basis.

The Calculation of Value Equivalent to Operational Risk-weighted Asset

The Bank currently uses the Standardised Approach - Operation Risk (SA-OR) to calculate the value equivalent to operational risk-weighted asset at both the Bank level and the Group level. This calculation approach allocates the gross income into business lines and multiplies with a Beta value each business line as prescribed by the BOT.