# Quantitative and Qualitative Disclosures about Credit, Market and Other Risk

#### Scope of Basel II application

Deutsche Bank Aktiengesellschaft ("Deutsche Bank AG"), headquartered in Frankfurt am Main, Germany, is the parent institution of the Deutsche Bank group of institutions, which is subject to the supervisory provisions of the Banking Act and the SolvV. The Deutsche Bank AG, Bangkok Branch is a segment of Deutsche Bank Aktiengesellschaft and is not a separately incorporated legal entity. Risk management process of Deutsche Bank AG, Bangkok Branch follows risk management process of parent bank.

Included in the following section on quantitative and qualitative disclosure about credit, market and other risks is information regarding to Basel II of Deutsche Bank AG, Bangkok Branch according to Bank of Thailand's related notifications. Certain portions excerpted from disclosure of Parent bank. More information of parent bank can be found under website

https://www.db.com/ir/en/download/Annual\_Financial\_Statements\_and\_Management\_Report\_Deutsche\_B ank\_AG\_2015.pdf

### **Capital Structure**

As at 31 December and 30 June 2015, assets maintained in Thailand for capital funds purpose were Bank of Thailand's Bonds and Thai Government Bonds which are funded from borrowings from other Deutsche Bank branches outside Thailand. The assets maintained and the source of funds were qualified as the bank capital funds as they were fully met with the conditions as specified according to Section 32 of the Financial Institutions Businesses Act B.E. 2551.

The table below presents Deutsche Bank AG, Bangkok Branch's capital structure as at 31 December and 30 June 2015.

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Capital Structure of Foreign Bank Branch

		Unit. TIND
Item	Dec-15	Jun-15
1. Assets required to be maintained under Section 32	18,183,053.92	18,257,842.55
2. Sum of net capital for maintenance of assets under Section 32 and net balance of inter-office accounts (2.1+2.2)	28,630,510.88	36,753,465.53
2.1 Capital for maintenance of assets under Section 32	17,800,000.00	17,800,000.00
2.2 Net balance of inter-office accounts which the branch is the debtor (the creditor) to the head office and other branches located in other countries, the parent company and subsidiaries of the head office	10,830,510.88	18,953,465.53
3. Total regulatory capital (3.1-3.2)	17,800,000.00	17,800,000.00
3.1 Total regulatory capital before deductions (The lowest amount among item 1 item 2 and item 2.1)	17,800,000.00	17,800,000.00
3.2 Deductions	-	-

# **Capital Adequacy**

The following key principles are our approach to monitor capital adequacy of Deutsche Bank AG, Bangkok Branch.

 Organizes a monthly local Asset and Liability Committee (ALCO) meeting to monitor relevant risk dimensions and setting internal targets to maintain capital adequacy and a sufficient capital buffer as required by Bank of Thailand as well as calibrate the needs of the business divisions to the availability of capital.

- Accommodates the implementation of an Internal Capital Adequacy Assessment Process (ICAAP) required by Bank of Thailand which comes to effective in 2011. Deutsche Bank AG, Bangkok Branch has incorporated a large borrower concentration risk, sector concentration risk and interest rate in banking book for BIS ratio calculation.
- Develops a business plan to manage the businesses' projection growth and the adequacy of capital.

Besides of the above, Deutsche Bank AG, Bangkok Branch also conducts daily monitoring of deduction items from the capital funds according to Bank of Thailand's notifications i.e. assess fair values at end of day of prior working day of derivatives transactions and securities, monitor failed trades and net interoffice balance as well as assess estimated capital adequacy of the bank before undertaking material derivatives transactions.

The following tables represent minimum capital requirement for credit risk, market risk and operational risk as well as capital ratio of Deutsche Bank AG, Bangkok Branch as at 31 December and 30 June 2015.

		Unit. TTHE
linimum capital requirement for credit risk classified by type of assets under the SA	Dec-15	Jun-15
Performing claims		
<ol> <li>Claims on sovereigns and central banks, multilateral development banks (MDBs), and non-central governement public sector entities (PSEs) treated as claims on sovereigns</li> </ol>	-	-
<ol> <li>Claims on financial institutions, non-central governement public sector entities (PSEs) treated as claims on financial institutions, and securities firms</li> </ol>	2,241,589.85	2,194,151.43
<ol><li>Claims on corporates , non-central governement public sector entities (PSEs) treated as claims on corporate</li></ol>	2,929,625.02	2,898,986.9
4. Claims on retail portfolios	80.78	75.10
5. Claims on housing loans	-	-
6. Other assets	11,177.17	12,156.5
Non-performing claims	-	-
First-to-default credit derivatives and Securitisation	-	-
Total minimum capital requirement for credit risk under the SA	5,182,472.82	5,105,370.0

Unit: TTHB

Unit · TTHB

Minimum capital requirement for market risk	Dec-15	Jun-15
Calculate by Standardised approach	2,860,368.08	2,717,320.22
Total minimum capital requirement for market risk	2,860,368.08	2,717,320.22

		Unit : TTHB
Minimum capital requirement for operational risk	Dec-15	Jun-15
Calculate by Basic Indicator Approach	236,113.93	252,175.64
Total minimum capital requirement for operational risk	236,113.93	252,175.64

Unit:%

Total risk-weighted capital ratio	Dec-15	Jun-15
Total capital to risk-weighted assets	18.28	18.74

#### **Risk Exposure and Assessment**

#### **Risk and Capital Management**

Deutsche Bank actively takes risks in connection with its business and as such the following principles underpin risk management within the Bank:

- Risk is taken within a defined risk appetite.
- Every risk taken needs to be approved within the risk management framework.
- Risk taken needs to be adequately compensated.
- Risk should be continuously monitored and managed

- A strong risk management culture helps reinforcing Deutsche Bank's resilience.

Deutsche Bank expect its employees to behave in a manner that maintains a strong risk culture by taking a holistic approach to managing risk and return and by effectively managing the bank's risk, capital and reputational profile. The consideration of risk is consequently inherent in the Bank's compensation philosophy and is monitored on an ongoing basis.

Employees are responsible for the management and escalation of risks. Deutsche Bank expects employees to exhibit behaviors that support a strong risk culture. To promote this our policies require that behavior assessment is incorporated into our performance assessment and compensation processes. Deutsche Bank has communicated the following risk culture behaviors through various communication vehicles:

- Being fully responsible for our risks;
- Being rigorous, forward looking and comprehensive in the assessment of risk;
- Inviting, providing and respecting challenges;
- Trouble shooting collectively; and
- Placing Deutsche Bank and its reputation at the heart of decisions.

#### **Risk and Capital Management Principles**

The wide variety of the Group's businesses requires Deutsche Bank to identify, measure, aggregate and manage its risks effective, and to allocate its capital among its businesses appropriately. The Group operates as an integrated group through its divisions, business units and infrastructure functions. Risk and capital are managed via a framework of principles, organizational structures and measurement and monitoring processes that are closely aligned with the activities of the divisions and business units:

- Core risk management responsibilities are embedded in the Management Board and appropriately delegated to senior risk management committees responsible for execution and oversight. The Supervisory Board regularly monitors the risk and capital profile.
- Group operates a three-line of defense risk management model whereby front office functions, risk management oversight and assurance roles are played by functions independent of one another.
- Risk strategy is approved by the Management Board on an annual basis and is defined based on the Group Strategic and Capital Plan and Risk Appetite in order to ensure alignment of risk, capital and performance targets.
- Cross-risk analysis reviews are conducted across the group to validate that sound risk management practices and a holistic awareness of risk exist across the organization and to help each business manage the balance between their risk appetite and reward.

- Major risk classes are managed in a coordinated manner via risk management processes, including credit risk, market risk, operational risk, liquidity risk, business risk, reputational risk and risk concentrations.
- Appropriate monitoring, stress testing tools and escalation processes are in place for key capital and liquidity thresholds and metrics. Where applicable modeling and measurement approaches for guantifying risk and capital demand are implemented across the major risk classes.
- Effective systems, processes and policies are a critical component of the bank's risk management capability.
- Recovery planning provides for the escalation path for crisis management governance and supplies Senior Management with a list of actions designed to improve the capital and liquidity positions in a stress event.
- Resolution planning is closely supervised by the BaFin. It provides for a strategy to manage Deutsche Bank in case of default. It is designed to prevent the need for tax payer bailout and strengthen financial stability by the continuation of critical services delivered to the wider economy.

# **Risk and Capital Management Organization**

The Management Board is responsible for independently managing the company with the objective of creating sustainable value in the interest of its shareholders, employees and other stakeholders. The Board has exclusive responsibility for the day-to-day management of Deutsche Bank Group. It is responsible for defining and implementing comprehensive and aligned business and risk strategies for the Group, as well as establishing well-defined risk management functions and guidelines. The Management Board has delegated certain functions and responsibilities to relevant governance committees, in particular the Risk Executive Committee (Risk ExCo) and Capital and Risk Committee (CaR) chaired by the Group's Chief Risk Officer. The Group's Chief Risk Officer (CRO), who is a member of the Management Board, and is responsible for the identification, assessment, management and reporting of risks arising within operations across businesses and risk types. The below functional committees are central to the Risk function.

- The Capital and Risk Committee oversees and controls integrated planning and monitoring of the Group's risk profile and capital capacity, ensuring an alignment of risk appetite, capitalization requirements And funding needs with the Group, divisional and sub-divisional business strategies.
- The Risk Executive Committee identifies controls and manages risks including risk concentrations at the Group. To fulfill this mandate, the Risk Executive Committee is supported by sub-committees that are responsible for dedicated areas of risk management, including several policy committees and the Group Reputational Risk Committee.
- The Cross Risk Review Committee supports the Risk Executive Committee and the Capital and Risk Committee with particular emphasis on the management of Group wide risk patterns. The Cross Risk Review Committee, under a delegation of authority from the Capital and Risk Committee has responsibility for the day-to-day oversight and control of Deutsche Bank Group's Internal Capital Adequacy Assessment Process ("ICAAP") ensuring compliance with respective regulatory requirements and policy setting for local ICAAPs.

Multiple members of the Capital and Risk Committee are also members of the Group Investment Committee, ensuring a close link between both committees as proposals for strategic investments are analyzed by the Group Investment Committee. Depending on the size of the strategic investment it may require approval from the Group Investment Committee, the Management Board or even the Supervisory Board. The development of the strategic investments is monitored by the Group Investment Committee on a regular basis.

#### **Risk and Capital Strategy**

The legal, risk & capital function annually develops its risk and capital strategy in an integrated process together with the group divisions and Finance, ensuring Group-wide alignment of risk and performance targets. The strategy is ultimately presented to, and approved by, the Management Board. Subsequently, this plan is also presented to, and discussed with, the Risk Committee of the Supervisory Board.

Targets and projections are set for various parameters and different levels of the Group. Performance against these targets is monitored regularly and a report on selected important and high-level targets is brought to the direct attention of the Chief Risk Officer and/or the Management Board. In case of a significant deviation from the targets, it is the responsibility of the divisional legal, risk & capital units to bring this to the attention of their superiors and ultimately the Chief Risk Officer if no mitigation or mitigation strategy can be achieved on a subordinated level.

Amendments to the risk and capital strategy must be approved by the Chief Risk Officer or the full Management Board, depending on significance.

# Structure and Responsibilities of Agencies of Risk Management

Risk management responsibilities conducted by our local management committees which are as below:

### 1) <u>Executive Committee (EXCO)</u>

The EXCO is chaired by Chief Country Officer.

The EXCO provides a forum for managing the issues in Thailand on:

- The businesses potential and development including return of capital and capital allocation
- Development and review of financial budgets
- Co-ordination of coverage of major clients
- Regulatory and reputation issues

### 2) Asset and Liability Committee (ALCO)

The ALCO is chaired by the Treasurer responsible for Deutsche Bank AG, Bangkok Branch or delegate.

The local Asset and Liability Committee (ALCO) provides a forum for managing the capital, liquidity and funding position of Deutsche Bank AG, Bangkok Branch for ensuring regular monitoring of risk positions, capital requirements and regulatory compliance. The ALCO reviews other risk dimensions such as Credit and Market risk as required to comply with the local Internal Capital Adequacy Assessment Process (ICAAP).

Typical Activities are as below:

- Promotion of decisions and policies made on a Deutsche Bank Group level as applicable to the Bank
- Review of regulatory changes, decision making on and monitoring of implementation of adequate processes
- Discuss market developments and stress test results from adverse market movements on the branch's liquidity position
- Ensure compliance with internal and local external requirements (limits/ ratios/ targets) and/or regulatory requirements
- Calibrate the needs of the business divisions to the availability of capital, liquidity and balance sheet and assist them in adjusting their portfolios to the limited availability of these financial resources
- Setting and reviewing (where relevant) specific targets for risk weighted assets (RWA) by business line(if required), balance sheet size, unsecured funding and maximum cash outflow (MCO)
- Monitoring relevant risk dimensions and setting internal targets to maintain capital adequacy and a sufficient capital buffer as required under the local ICAAP
- Assist in setting and reviewing (where relevant) limits/ targets by instrument for volumes, tenor and term structure, as well as market concentration, limits/ guidelines and targets for investor diversification

# 3) **Operations Committee (OPCO)**

The OPCO is chaired by Chief Operating Officer.

The committee provides a forum for managing operation issues, including

- Disseminate information which is relevant to Committee members in order for them to achieve both their and Bank's objectives
- Support the implementation of the Operational Risk Management framework across businesses and ensure that appropriate levels of resources from the members' respective business areas are allocated to participate in the implementation
- Monitor the operational risk profiles of each Division and prioritise actions to be taken to mitigate these risks as appropriate
- Review Internal Audit Reports and monitor audit points and ensure that appropriate actions are taken to resolve outstanding audit points in a timely manner
- Review Operational Risk Management status report, loss reports, etc.
- As appropriate, discuss and resolve cross business issues with a view to manage risk and improve service to the businesses
- Monitor cost development of various operations areas
- Monitor and keep updating regulatory changes and development
- Monitor reputational and regulatory and compliance issues
- Update new product and new operational process development & implementation
- Manage staffs and trainings issues

# 4) Risk and Exposure Committee(REC)

The REC is chaired by the Chief Country Officer.

The REC provides a forum for managing the credit risk of the branch including

- Locally review and approve any new credit, underwriting or other transactions which create or materially alter a credit risk position affecting the Branch;
- Regularly review existing credit risk positions affecting the Branch;
- Discuss and/or address any other credit risk issues that materially impact the Branch or the Thai franchise of Deutsche Bank Group;
- Serve, through the Chairperson or the Head of Risk, as local point of contact in Thailand for any credit risk related issues raised by regulators or auditors.

# 5) Audit Committee

- Group Audit adds value by providing independent and objective assurance to the Management Board of Deutsche Bank Aktiengesellschaft ("Deutsche Bank") and its group companies ("Group"), on the adequacy of the design, effectiveness and efficiency of the risk management system and the systems of internal control. Group Audit also acts as an independent, proactive and forward-looking challenger and adviser to Senior Management of the Group.
- The Group Audit Executive Committee is a Group Audit committee established by the Global Head of Group Audit. Its mandate is to agree on Group Audit's strategy and strategic objectives, structure, policies and procedures and all aspects of Group Audit's operating model.
- The Group Audit Executive Committee may delegate, as part of its normal course of business, specialized areas of responsibility to Sub-Committees.
- Group Audit supports the Management Board in identifying significant known and emerging weaknesses in the control framework, risk exposures, including fraud risks, and in improving

the effectiveness and efficiency of risk management, internal controls, governance processes and systems in a holistic and forward looking manner.

- Group Audit evaluates compliance of the Group's organizational units with policies and procedures, the integrity of the processes ensuring the reliability of the institution's methods and techniques, assumptions and sources of information used in its internal models and the quality and use of qualitative risk identification and assessment tools. Group Audit also plays an integral role in the achievement of the Group's strategic objectives, including the application of the Values & Beliefs, as well as ethical and environmental standards, each as set by the Management Board.
- Group Audit, with strict accountability for confidentiality and safeguarding records, will be granted the complete and unrestricted right, at all times, to obtain all information required to fulfill its responsibilities. To this end Group Audit has unrestricted access to all premises, employees, information and documentation to fulfill its role and the authority to examine any activities, IT systems or entities. Such access is to be provided without undue delay, including, where appropriate, outsourced operations.
- Group Audit's activities are based on a comprehensive, risk-based audit plan. Group Audit maintains and updates an Audit Universe covering the Group's activities and processes, which are segmented through a top-down, three-tier structure consisting of Divisions, Sub-Divisions and Auditable Areas. The risk assessments, methodology and quality underpinning the audit plan are reviewed and refined regularly, at least annually. The audit plan and any material modifications, as defined in the Group Audit Policies, are approved by the Management Board.
- The audit plan covers the Group's activities and processes in a risk-oriented manner, irrespective of whether they are outsourced or not, generally over a three-year period. The audit plan also includes work mandated by regulatory authorities. Sufficient time is included in the plan so that audits required at short notice can be performed as and when required.
- Group Audit prepares written reports or memoranda on each audit and investigation as well as on non audit services and submits them, as defined in the Group Audit Policies, to the responsible Senior Managers, and where required, members of the Management Board. Engagement reports include the audit subject, results evaluation, issues and, as appropriate, remedial actions. In the event of issues rated as critical, these will be highlighted and the report will be promptly submitted to the Management Board.
- If there is no agreement between the audited organizational unit and Group Audit regarding remedial actions, the audited organizational unit may include a statement on this matter in the report.
- The Management Board will be informed at least quarterly of the results of the work of the Group Audit function. Such reports will include issues identified by Group Audit, in particular issues rated as critical, remedial actions and status of remediation and overdue issues. Where applicable, reports will also include findings from other reviewers, including regulators, to identify risks and issues more holistically.

# Categories of Risk

Group is exposed to a variety of risks, amongst them credit, market, operational, liquidity, reputational and business risks.

#### - Credit risk

Credit risk arises from transactions where actual, contingent or potential claims against counterparty, borrower, obligor or issuer (which group refer to collectively as "counterparties") exist, including those claims that Deutsche Bank plan to distribute. These transactions are typically part of our traditional non-trading lending activities (such as loans and contingent liabilities), traded bonds and debt securities available for sale or our direct trading activity with clients (such as OTC derivatives, FX forwards and Forward Rate Agreements). Deutsche Bank manages the respective positions within our market risk and credit risk frameworks. Relevant Group Divisions of Deutsche Bank AG assumes credit risk. Group credit risk is managed via the Risk Executive Committee and those responsible for risk management in the Group Divisions.

Deutsche Bank defines our credit exposure by taking into account transactions where losses might occur due to the fact that counterparties may not fulfill their contractual payment obligations. Credit limits set forth maximum credit exposures group are willing to assume over specified periods. They relate to products, conditions of the exposure and other factors. Credit limits are established by the Credit Risk Management function via the execution of assigned credit authorities. Credit authority is generally assigned to individuals as personal credit authority according to the individual's professional qualification and experience. All assigned credit authorities are reviewed on a periodic basis to help ensure that they are adequate to the individual performance of the authority holder.

Ongoing active monitoring and management of credit risk positions is an integral part of our credit risk management. Monitoring tasks are primarily performed by the divisional risk units in close cooperation with our portfolio management function. The key monitoring focus is on quality trends and on concentrations along the dimensions of counterparty, industry, country and product-specific risks to avoid undue concentrations of credit risk.

Deutsche Bank regularly agrees on collateral to be received from customers in contracts that are subject to credit risk. Collateral is security in the form of an asset or third-party obligation that serves to mitigate the inherent risk of credit loss in an exposure, by either substituting the borrower default risk or improving recoveries in the event of a default. While collateral can be an alternative source of repayment, it does not replace the necessity of high quality underwriting standards.

#### Market risk

Market risk arises from the uncertainty concerning changes in market prices and rates (including interest rates, equity prices, foreign exchange rates and commodity prices), the correlations among them and their levels of volatility. Deutsche Bank assumes market risk in both trading and non-trading activities. The bank uses a combination of risk sensitivities, value-at-risk (VAR), stress testing and economic capital metrics to management market risks and establish limits. Economic capital is the metric that is used to describe and aggregate market risks, both in trading and non-trading portfolios

#### Operational risk

Operational risk is the potential for failure (including the legal component) in relation to employees, Contractual specifications and documentation, technology, infrastructure failure and disasters, external influences and customer relationships. Operational risk excludes business and reputational risk.

The Head of Operational Risk Management chairs the Operational Risk Management Committee, which is a permanent sub-committee of the Risk Executive Committee and is composed of the operational risk officers from our business divisions and our infrastructure functions. It is the main decision-making committee for operational risk management matters.

While the day-to-day operational risk management lies with our business divisions and infrastructure functions, the Operational Risk Management function manages the cross divisional and cross regional operational risk as well as risk concentrations and ensures a consistent application of our operational risk management strategy across the bank. Based on this Business Partnership Model Deutsche Bank ensure close monitoring and high awareness of operational risk.

#### Liquidity risk

Liquidity risk is the risk arising from our potential inability to meet payment obligations when they come due or only being able to meet these obligation at excessive costs. Liquidity risk management safeguards. Our ability to meet payment obligations. Our liquidity risk management framework has been an important factor in maintaining adequate liquidity and in managing the funding profile during 2012. The Management Board defines our liquidity risk strategy, and in particular its tolerance for liquidity risk based on recommendations made by Treasury and Capital and Risk Committee.

### - Business risk

Business risk describes the risk assumes due to potential changes in general business condition, such as market environment, client behavior and technological progress.

### - Reputational risk

Within our risk management processes, reputational risk is defined as the risk that publicity concerning a transaction, counterparty or business practice involving a client will negatively impact the public's trust in the organization.

### **Risk Management Tools**

Group uses a broad range of quantitative and qualitative methodologies for assessing and managing risks. As a matter of policy, the bank continually assesses the appropriateness and the reliability of its quantitative tools and metrics in light of our changing risk environment. Some of these tools are common to a number of risk categories, while others are tailored to the particular features of specific risk categories. These quantitative tools and metrics generate amongst other the following kinds of information:

- Information that quantifies the susceptibility of the market value of single positions or portfolios to changes in market parameters (commonly referred to as sensitivity analysis).
- Information that measures aggregate risk using statistical techniques, taking into account the interdependencies and correlations between individual risks.
- Information that quantifies exposures to losses that could arise from extreme movements in market prices or rates, using scenario analysis to simulate crisis situations.

Group's policies and risk limits are aligned with such quantitative tools and metrics across the Group Divisions to effectively manage risks.

Group has a strong commitment to stress testing performed on a regular basis in order to assess the impact of a severe economic downturn on our risk profile and financial position. These exercises complement traditional risk measures and represent an integral part of our strategic and capital planning process. Our stress testing framework comprises regular Group-wide stress tests based on internally defined benchmark and more severe macroeconomic global downturn scenarios. Deutsche Bank includes material risk types such as credit, market, operational, business and liquidity risk into our stress testing exercises. The time-horizon of internal stress tests is one year. Our methodologies undergo regular scrutiny from internal experts as well as regulators to review whether they correctly capture the impact of a given stress scenario. These analyses are complemented by portfolio- and country-specific stress tests as well as regulatory requirements such as an annual reverse stress test. Moreover, a capital planning stress test is performed annually to assess the viability of our capital plan in adverse circumstances and to demonstrate a clear link between risk appetite, business strategy, capital plan and stress testing. An integrated infrastructure allows us to process ad-hoc scenarios that simulate potential imminent financial or geopolitical shocks.

# **Credit Approval & Credit Review Process**

Subject to the governance, process and procedure outlined under section 4 "Risk Exposure Committee", Credit Risk Management (CRM) is responsible for approving credit facilities for credit or lending by Deutsche Bank AG, Bangkok Branch apart from staff loans. The CRM officers with relevant credit authority are based in Asia Pacific Head Office (APHO) in Singapore for local credits and in different global locations for Multi National Credits (MNCs). Credit approvals are made by the relevant regional or global offices as applicable.

According to Deutsche Bank AG, Bangkok Branch management, the credit review procedures performed are as below:

- Regular credit reviews by relevant regional or global offices: debtors or debtors' groups are regularly reviewed subject to the policy and procedures applicable in the relevant regional or global offices and also depending on relevant changes of Deutsche Bank's internal credit rating and updated situations which may affect the repayment ability of reviewed debtors.
- Non-performing loans shall be managed and monitored by the relevant regional or global office.

There is no specific credit review policy for loans granted to Deutsche Bank AG, Bangkok Branch's staff. The loans are granted to existing staff and their repayment is made by deduction from the employee's salary.

The following tables represent outstanding of on-balance sheet assets, off-balance sheet items and provisions of Deutsche Bank AG, Bangkok Branch as at 31 December 2015 and 2014.

General information on credit risk \*

Outstanding amounts of significant on-balance sheet assets and off-balance sheet items before adjusted by credit risk mitigation

(Show outstanding at the end of the period)

		Unit : TTHE
Item	2015	2014
1. On-balance sheet assets (1.1 + 1.2 + 1.3)	66,476,138.69	67,920,185.37
1.1 Net loans 1/	36,502,673.00	41,986,253.82
1.2 Net Investment in debt securities <sup>2/</sup>	29,628,714.78	25,446,670.73
1.3 Deposits (including accrued interest receivables)	344,750.91	487,260.82
2. Off-balance sheet items <sup>3/</sup> (2.1 + 2.2 + 2.3)	2,908,840,919.77	3,341,166,381.4
2.1 Aval of bills, guarantees of borrowing, and letter of credits	1,263,746.11	491,741.39
2.2 OTC derivatives <sup>4/</sup>	2,906,509,386.82	3,340,041,927.04
2.3 Undrawn committed line	1,067,786.84	632,713.02

\* Assets on balance sheet not including equity exposures. Off-balance sheet items including equity exposures

<sup>1/1</sup> Including accrued interest receivables and net of deferred incomes, allowances for doubtful accounts and allowances for revaluation from debt

restructuring and including net loans of interbank and money market.

<sup>2/</sup> Excluding accrued interest receivables and net of allowances for revaluation of securities and allowances for impairment of securities

<sup>3/</sup> Before multiplying credit conversion factor

4/ Including equity-related derivatives

Outstanding amounts of on-balance sheet assets and off-balance sheet items before adjusted credit risk mitigation classified by country or geographic area of debtor

								Unit : TTH
			2	015				
		On-balance sh	neet assets			Off-balance sh	eet items 3/	
Country or geographic area of debtor	rea of debtor Total		Net Investment in debt securities <sup>2/</sup>	Deposits (including accrued interest receivables)	Total	Aval of bills, guarantees of borrowings, and letter of credits	OTC derivatives	Undrawn committed line
1. Thailand	61,094,600.94	33,019,289.57	27,747,204.80	328,106.57	803,242,504.21	612,579.71	801,562,137.66	1,067,786.8
2. Asia Pacific (exclude Thailand)	2,038,110.89	156,600.91	1,881,509.98	-	160,368,408.32	187,440.18	160,180,968.14	-
3. North America and Latin America	1,028,280.35	1,028,280.35	-	-	475,165,332.40	-	475,165,332.40	-
4. Africa and Middle East	123,514.07	123,514.07	-	-	351,446.01	351,446.01	-	-
5. Europe	2,177,767.10	2,174,988.10	-	2,779.00	1,466,653,006.16	38,276.13	1,466,614,730.03	-
6. Others	13,865.34	-	-	13,865.34	3,060,222.67	74,004.08	2,986,218.59	-
Total	66,476,138.69	36,502,673.00	29,628,714.78	344,750.91	2,908,840,919.77	1,263,746.11	2,906,509,386.82	1,067,786.84

Unit : TTHB									
2014									
		On-balance sh	neet assets			Off-balance sh	eet items 3/		
Country or geographic area of debtor	Total	Net loans 1/	Net Investment in debt securities 2/	Deposits (including accrued interest receivables)	Total	Aval of bills, guarantees of borrowings, and letter of credits	OTC derivatives	Undrawn committed line	
1. Thailand	64,268,328.69	38,362,834.01	25,446,670.73	458,823.95	897,233,371.41	172,136.39	896,428,522.00	632,713.02	
2. Asia Pacific (exclude Thailand)	313,081.85	313,081.85	-	-	342,771,861.88	122,616.06	342,649,245.82	-	
3. North America and Latin America	561,591.64	561,591.64	-	-	668,219,898.89	8,396.96	668,211,501.93	-	
4. Africa and Middle East	225,453.98	225,453.98	-	-	188,591.98	188,591.98	-	-	
5. Europe	2,536,415.68	2,523,292.34	-	13,123.34	1,431,755,854.21	-	1,431,755,854.21	-	
6. Others	15,313.53	-	-	15,313.53	996,803.08	-	996,803.08	-	
Total	67,920,185.37	41,986,253.82	25,446,670.73	487,260.82	3,341,166,381.45	491,741.39	3,340,041,927.04	632,713.02	

\* Commercial banks shall classify countries or geographic areas according to guidelines used in their internal management and shall explain supporting reasons

<sup>1/</sup> Including accrued interest receivables and net of deferred incomes, allowances for doubtful accounts and allowances for revaluation from debt restructuring and including net loans of interbank and money market.

<sup>2/</sup> Excluding accrued interest receivables and net of allowances for revaluation of securities and allowances for impairment of securities

<sup>3/</sup> Before multiplying credit conversion factor

Outstanding amounts of on-balance sheet assets and off balance sheet items before credit risk mitigation classified by residual maturity Unit : TTHB

		2015	
ltem	Maturity not exceeding 1 year	Maturity exceeding 1 year	Total
1. On-balance sheet assets (1.1 + 1.2 + 1.3)	62,328,153.44	4,147,985.25	66,476,138.69
1.1 Net loans <sup>1/</sup>	36,288,194.79	214,478.21	36,502,673.00
1.2 Net Investment in debt securities <sup>2/</sup>	26,039,958.65	3,588,756.13	29,628,714.78
1.3 Deposits (including accrued interest receivables)	-	344,750.91	344,750.91
2. Off-balance sheet items $3^{3}$ (2.1 + 2.2 + 2.3)	1,523,475,317.76	1,385,365,602.01	2,908,840,919.77
2.1 Aval of bills, guarantees of borrowings, and letter of credits	1,099,067.36	164,678.75	1,263,746.11
2.2 OTC derivatives	1,521,411,879.70	1,385,097,507.12	2,906,509,386.82
2.3 Undrawn committed line	964,370.70	103,416.14	1,067,786.84

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		2014	
ltem	Maturity not exceeding 1 year	Maturity exceeding 1 year	Total
1. On-balance sheet assets (1.1 + 1.2 + 1.3)	35,789,051.90	32,131,133.47	67,920,185.37
1.1 Net loans <sup>1/</sup>	15,608,425.71	26,377,828.11	41,986,253.82
1.2 Net Investment in debt securities <sup>2/</sup>	20,180,626.19	5,266,044.54	25,446,670.73
1.3 Deposits (including accrued interest receivables)	-	487,260.82	487,260.82
2. Off-balance sheet items $3^{3}$ (2.1 + 2.2 + 2.3)	2,105,676,636.72	1,235,489,744.73	3,341,166,381.45
2.1 Aval of bills, guarantees of borrowings, and letter of credits	488,445.09	3,296.30	491,741.39
2.2 OTC derivatives	2,104,630,074.41	1,235,411,852.63	3,340,041,927.04
2.3 Undrawn committed line	558,117.22	74,595.80	632,713.02

<sup>1/</sup> Including accrued interest receivables and net of deferred incomes, allowances for doubtful accounts and allowances for revaluation from debt restructuring and including net loans of interbank and money market.

<sup>2/</sup> Excluding accrued interest receivables and net of allowances for revaluation of securities and allowances for impairment of securities

<sup>3/</sup> Before multiplying credit conversion factor

Outstanding amounts of loans including accrued interest receivables and investment in debt securities before adjusted by credit risk mitigation classifed by country or geographical area of debtor\* and asset classification as prescribed by the Bank of Thailand

							Unit : TTHB
			2015				
Loans including accrued interest receivables <sup>1/</sup>						Specific provision for	
Country or geographic area of debtor	Normal	Special mentioned	Substandard	Doubtful	Doubtful loss	Total	Investment in debt securities
1. Thailand	35,998,860.17	-	-	-	116,422.42	36,115,282.59	14,758.50
2. Asia Pacific (exclude Thailand)	158,181.51	-	-	-	-	158,181.51	-
3. North America and Latin America	441,603.94	-	-	-	-	441,603.94	-
4. Africa and Middle East	124,761.68	-	-	-	-	124,761.68	-
5. Europe	16,198.40	-	-	-	-	16,198.40	-
6. Others	-	-	-	-	-	-	-
Total	36,739,605.70	-	-	-	116,422.42	36,856,028.12	14,758.50

			2014					
Country or geographic area of debtor		Loans including accrued interest receivables <sup>1/</sup> Sp			Loans including accrued interest receivables <sup>1/</sup>			
Country of geographic area of deptor	Normal	Special mentioned	Substandard	Doubtful	Doubtful loss	Total	Investment in debt securities	
1. Thailand	38,532,686.38	-	-	-	111,301.84	38,643,988.22	13,929.68	
2. Asia Pacific (exclude Thailand)	331,279.94	-	-	-	-	331,279.94	-	
3. North America and Latin America	567,249.46	-	-	-	-	567,249.46	-	
4. Africa and Middle East	157,564.40	-	-	-		157,564.40	-	
5. Europe	2,604,156.11	-	-	-		2,604,156.11	-	
6. Others	-	-	-	-		-	-	
Total	42,192,936.29	-	-	-	111,301.84	42,304,238.13	13,929.68	

\* Commercial banks shall classify countries or geographic areas according to guidelines used in their internal management and shall explain supporting reasons

<sup>1/</sup> Including outstanding amounts of loans and interest receivable receivables of interbank and money market

Provisions (General provision and Specific provision) and bad debt written-off during period for loan including accrued interest receivables and investment in debt securities classified by country or geographic area

				Unit : TTHB			
2015							
Country or geographic area of debtor	Loans inc	Loans including accrued interest receivables <sup>1/</sup>					
	General provision	Specific provision	Bad debt written-off during period	Investment in debt securities			
1. Thailand		116,422.42	-	14,758.50			
2. Asia Pacific (exclude Thailand)		-	-	-			
3. North America and Latin America		-	-	-			
4. Africa and Middle East		-	-	-			
5. Europe		-	-	-			
6. Others		-	-	-			
	000 000 70	110,100,10		44 750 50			
Total	236,932.70	116,422.42	-	14,758.50			

Unit : TTHE									
	2014								
Country or geographic area of debtor	Loans inc	Loans including accrued interest receivables <sup>1/</sup>							
	General provision	Specific provision	Bad debt written-off during period	Investment in debt securities					
1. Thailand		111,301.84	-	13,929.68					
2. Asia Pacific (exclude Thailand)		-	-	-					
3. North America and Latin America		-	-	-					
4. Africa and Middle East		-	-	-					
5. Europe		-	-	-					
6. Others		-	-	-					
Total	206,682.47	111,301.84	-	13,929.68					

<sup>1/</sup> Including provision and bad debt written-off during period of loans including accrued interest receivables of interbank and money market

Outstanding amount of loans including accrued interests* before adjusted by credit risk mitigation classified by type of business and by asset
classification specified by the Bank of Thailand

						Unit : TTHE
		2015				
Type of business	Normal	Special mentioned	Substandard	Doubtful	Doubtful loss	Total
- Agriculture and mining	-	-	-	-	59,123.80	59,123.80
- Manufacturing and commerce	15,124,088.17	-	-	-	57,298.62	15,181,386.79
- Real estate business and construction	382,677.53	-	-	-	-	382,677.53
- Public utilities and services	1,635,003.56	-	-	-	-	1,635,003.56
- Housing loans	-	-	-	-	-	-
-Others (Commercial banks shall use their owns discretion to dertermine significance)						
1. Finance business group	19,596,876.53	-	-	-	-	19,596,876.53
2. Multilateral organization	-	-	-	-	-	-
3. Other service	959.91	-	-	-	-	959.91
4. Commodities	-	-	-	-	-	-
Total	36,739,605.70	-	-	-	116,422.42	36,856,028.12

						Unit : TTHE
		2014				
Type of business	Normal	Special mentioned	Substandard	Doubtful	Doubtful loss	Total
- Agriculture and mining	-	-	-	-	54,003.21	54,003.21
- Manufacturing and commerce	15,379,566.65	-	-	-	57,298.63	15,436,865.28
- Real estate business and construction	293,825.49	-	-	-	-	293,825.49
- Public utilities and services	370,159.06	-	-	-	-	370,159.06
- Housing loans -Others (Commercial banks shall use their owns discretion to dertermine significance)	-	-	-	-	-	-
1. Finance business group	26,148,583.55	-	-	-	-	26,148,583.5
2. Multilateral organization	-	-	-	-	-	-
3. Other service	801.54	-	-	-	-	801.54
4. Commodities	-	-	-	-	-	-
Total	42,192,936.29	-	-	-	111,301.84	42,304,238.13

\* Including outstanding amount of loans including accrued interest receivables of interbank anad money market

Provisions (General provision and Specific provision) and bad debt written-off during period for loans including accrued interest receivables\* classified by types of business

			Unit : TTHB
		2015	
Type of business	General provision	Specific provision	Bad debt written-off during period
<ul> <li>Agriculture and mining</li> <li>Manufacturing and commerce</li> <li>Real estate business and construction</li> <li>Public utilities and services</li> <li>Housing loans</li> <li>Others (Commercial banks shall use their owns discretion to dertermine significance)</li> </ul>		59,123.80 57,298.62 - - - - -	- - - - - -
Total	236,932.70	116,422.42	-

			Unit : TTHB		
	2014				
Type of business	General provision	Specific provision	Bad debt written-off during period		
<ul> <li>Agriculture and mining</li> <li>Manufacturing and commerce</li> <li>Real estate business and construction</li> <li>Public utilities and services</li> <li>Housing loans</li> <li>Others (Commercial banks shall use their owns discretion to dertermine significance)</li> </ul>		54,003.21 57,298.63 - - -	- - - -		
Total	206,682.47	111,301.84	-		

\* Including outstanding amount of loans including accrued interest receivables of interbank anad money market

#### Reconciliation of change in provisions (General provision and Specific provision) for loans including accrued interest receivables\*

			Unit : TTHB
ltem		2015	
item	General provision	Specific provision	Total
Provisions at the beginning of the period	206,682.47	111,301.84	317,984.31
Bad debts written-off during the period	-	-	-
Increases or Decreases of provisions during the period	30,250.23	-	30,250.23
Other provisions (provisions for losses from foreign exchange, provisions for merger and sale of businesses)	-	5,120.58	5,120.58
Provisions at the end of the period	236,932.70	116,422.42	353,355.12

2014 ltem General provision Specific provision Total 174,707.69 111,057.08 Provisions at the beginning of the period 285,764.77 Bad debts written-off during the period Increases or Decreases of provisions during the period 31,974.78 31,974.78 \_ Other provisions (provisions for losses from foreign exchange, provisions 244.76 \_ 244.76 for merger and sale of businesses) Provisions at the end of the period 111,301.84 317,984.31 206,682.47

\* Including outstanding amount of loans including accrued interest receivables of interbank and money market

#### Outstanding amounts of on-balance sheet assets and off-balance sheet items\* classified by type of assets under the SA

		2015			2014	Unit : I THB
Type of asset	On balance sheet assets	Off balance sheet item **	Total	On balance sheet assets	Off balance sheet item **	Total
1. Performing claims 1.1 Claims on sovereigns and central banks, multilateral development banks (MDBs), and non-central government public sector entities (PSEs) treated as claims on sovereigns	308,887.49	-	308,887.49	435,403.34	-	435,403.34
1.2 Claims on financial institutions, non-central governement public sector entities (PSEs) treated as claims on financial institutions, and securities firms	6,096,881.25	62,362,769.54	68,459,650.79	2,558,154.34	71,896,881.91	74,455,036.25
<ol> <li>Claims on corporates, non-central governement public sector entities (PSEs) treated as claims on corporate</li> </ol>	18,469,166.70	19,236,656.18	37,705,822.88	19,711,129.99	17,451,870.79	37,163,000.78
1.4 Claims on retail portfolios	950.32	-	950.32	793.53	-	793.53
1.5 Housing loans	-	-	-	-	-	-
1.6 Other assets	29,808,024.45	-	29,808,024.45	28,370,970.85	-	28,370,970.85
2. Non-performing claims	-	-	-	-	-	-
3. First-to-default credit derivatives and Securitisation	-	-	-	-	-	-
Total	54,683,910.21	81,599,425.72	136,283,335.93	51,076,452.05	89,348,752.70	140,425,204.75

\* After multiplying with credit conversion factor and specific provision

\*\* Including all Repo-style transactions (including Reverse repo transactions)

Unit : TTHB

Unit TTHB

#### Credit risk exposure under the Standardized Approach (SA)

Deutsche Bank AG, Bangkok Branch calculates regulatory capital requirement for credit risk using the Standardized Approach (SA) methodology according to the Bank of Thailand's notification Re: Regulations for Credit Risk Asset Calculations for Commercial Banks Using the Standardized Approach (SA).

In setting risk weights of claims on sovereigns and central banks, claims on financial institutions, claims on securities companies and claims non-central government public sector entities (PSEs) treated as claims on sovereigns and treated as claims on financial institutions, Deutsche Bank use countries rating assessed by External Credit Assessment Institutions (ECAIs) as below:

- 1. Standard and Poor's
- 2. Moody's Investors Service
- 3. Fitch Ratings (Thailand)

In the absence of credit rating from ECAIs, then the rating of the country risk classification of OECD will be used.

In setting risk weights of claims on corporate and claims non-central government public sector entities (PSEs) treated as claims on corporate, Deutsche Bank use rating assessed by External Credit Assessment Institutions (ECAIs) as below:

- 1. Standard and Poor's
- 2. Moody's Investors Service
- 3. Fitch Ratings (Thailand)
- 4. TRIS Rating

For Fitch Ratings (Thailand), Deutsche Bank use Senior Unsecured Debt rating while for TRIS Rating, Deutsche Bank use company rating.

Deutsche Bank then match the debtor's credit rating given by ECAIs with the rating grade as set out in the Bank of Thailand's notification in order to identify the risk weights by type of claims on each debtor.

#### Setting Risk Weights given Multiple Credit Ratings

- Where the claim/debtor has 1 credit rating from the selected ECAI, Deutsche Bank use that rating to assign the risk weight for that claim/debtor.
- Where there are 2 different credit ratings from the selected ECAI with varying risk weights, Deutsche Bank use the higher risk weight.
- Where there are more than 2 credit ratings from the selected ECAI with varying risk weights, Deutsche Bank compare the two lowest risk weights, and use the higher risk weight; except where 2 or more credit ratings correspond to the lowest risk weight, Deutsche Bank use that risk weight.

The table below represents outstanding amount of net on-balance sheet assets and off-balance sheet items (after multiplying credit conversion factor) after adjusted by credit risk mitigation for each type of asset, classified by risk weight under the Standardized Approach (SA) as at 31 December 2015 and 2014.

Unit :TTHB

#### Credit risk exposures under the SA\*

Outstanding amount of net on-balance sheet assets and off-balance sheet items* after adjusted by credit risk mitigation
for each type of asset, classified by risk weight under the SA

Type of asset	2015						
Type of asset		Rate	d outstanding an	nount		Unrated outstandi	ng amount
Risk weight (%)	0	20	50	100	150	0	100
Performing claims							
<ol> <li>Claims on sovereigns and central banks, multilateral development banks (MDBs), and non- central governement public sector entities (PSEs) treated as claims on sovereigns</li> </ol>	308,887.49	-	-	-	-		-
<ol> <li>Claims on financial institutions, non-central governement public sector entities (PSEs) treated as claims on financial institutions, and securities firms</li> </ol>	849,187.71	26,925,893.16	13,517,675.32	14,227,628.96	-		-
<ol> <li>Claims on corporates , non-central governement public sector entities (PSEs) treated as claims on corporate</li> </ol>	219,346.40	2,733,428.17	1,657,700.07	118,901.19	-		32,971,739.82
4. Claims on retail portfolios							950.32
5. Claims on housing loans							-
6. Other assets						29,676,528.29	131,496.15
Risk weight (%)			50	100	150		
Non-performing claims			-	-	-		
Capital deduction items prescribed by the Bank of Thailand							

Type of asset	2014						
Type of asser	Rated outstanding amount					Unrated outstanding amount	
Risk weight (%)	0	20	50	100	150	0	100
Performing claims							
<ol> <li>Claims on sovereigns and central banks, multilateral development banks (MDBs), and non- central governement public sector entities (PSEs) treated as claims on sovereigns</li> </ol>	435,403.34	-	-	-	-		-
<ol> <li>Claims on financial institutions, non-central governement public sector entities (PSEs) treated as claims on financial institutions, and securities firms</li> </ol>	729,796.04	24,779,037.69	16,112,010.69	11,414,472.31	32,579.25		-
3. Claims on corporates , non-central governement public sector entities (PSEs) treated as claims on corporate	377,541.14	1,439,663.27	4,528,576.07	8,945.08	-		30,803,014.85
4. Claims on retail portfolios							793.53
5. Claims on housing loans							-
6. Other assets						28,210,342.73	160,628.12
Risk weight (%)			50	100	150		
Non-performing claims			-	-	-		
Capital deduction items prescribed by the Bank of Thailand							

\* After multiplying credit conversion factor

<sup>10</sup> For the portion claims with no credit risk mitigation of which risk weight are determined by the proportion of provision to total amount of claims

### Credit risk mitigation under the Standardized Approach (SA)

#### **Collateral held as Security**

Deutsche Bank regularly agrees on collateral to be received from customers in contracts that are subject to credit risk. Deutsche Bank also regularly agrees on collateral to be received from borrowers in our lending contracts. Collateral is security in the form of an asset or third-party obligation that serves to mitigate the inherent risk of credit loss in an exposure, by either substituting the borrower default risk or improving recoveries in the event of a default. While collateral can be an alternative source of repayment, it does not replace the necessity of high quality underwriting standards.

Deutsche Bank segregate collateral received into the following two types:

— Financial and other collateral, which enables us to recover relevant or part of the outstanding exposure by liquidating the collateral asset provided, in cases where the borrower is unable or unwilling to fulfill its primary obligations. Cash collateral, securities (equity, bonds), collateral assignments of other claims or inventory, equipment (e.g., plant, machinery, aircraft) and real estate typically fall into this category.

— Guarantee collateral, which substitutes the borrower's ability to fulfill its obligation under the legal contract and as such is provided by third parties. Letters of Credit, insurance contracts, received guarantees and risk participations typically fall into this category.

Additionally, Deutsche Bank actively manage the credit risk of our loans and lending-related commitments through our

specialized unit LEMG. To manage better our derivatives-related credit risk, Deutsche Bank enter into collateral support arrangements as described further below.

#### Credit Exposure from Derivatives

Exchange-traded derivative transactions (e.g., futures and options) are regularly settled through a central counterparty, the rules and regulations of which provide for daily margining of current and future credit risk positions emerging out of such transactions. To the extent possible, Deutsche Bank also use central counterparty clearing services for OTC derivative transactions ("OTC clearing"); Deutsche Bank thereby benefit from the credit risk mitigation achieved through the central counterparty's settlement system.

In order to reduce the credit risk resulting from OTC derivative transactions, where OTC clearing is not available, Deutsche Bank regularly seek the execution of standard master agreements (such as the International Swaps and Derivatives Association's master agreements for derivatives or the German Master Agreement for Financial Derivative Transactions) with our clients. A master agreement allows the netting of rights and obligations arising under derivative transactions that have been entered into under such master agreement upon the counterparty's default, resulting in a single net claim owed by or to the counterparty ("close-out netting"). For parts of the derivatives business (e.g., foreign exchange transactions) Deutsche Bank also enter into master agreements under which Deutsche Bank set off amounts payable on the same day in the same currency and in respect to transactions covered by such master agreements ("payment netting"), reducing our settlement risk.

In our risk measurement and risk assessment processes Deutsche Bank apply netting only to the extent Deutsche Bank have satisfied ourselves of the legal validity and enforceability of the master agreement in relevant jurisdictions.

Also, Deutsche Bank enter into collateral support annexes ("CSA") to master agreements in order to further reduce our derivatives-related credit risk. These collateral support annexes generally provide risk mitigation through periodic (usually daily) margining of the covered exposure. The CSA also provides for the right to terminate the related derivative transactions upon the counterparty's failure to honor a margin call. As with netting, when Deutsche Bank believe the collateral support annex is enforceable, Deutsche Bank reflect this in our exposure measurement.

As the replacement values of derivatives portfolios fluctuate with movements in market rates and with changes in the transactions in the portfolios, Deutsche Bank also estimate the potential future replacement costs of the portfolios over their lifetimes or, in case of collateralized portfolios, over appropriate unwind periods. Deutsche Bank measure the potential future exposure against separate limits. Deutsche Bank supplement the potential future exposure analysis with stress tests to estimate the immediate impact of extreme market events on our exposures (such as event risk in our Emerging Markets portfolio).

The potential future exposure measure which Deutsche Bank use is generally given by a time profile of simulated positive market values of each counterparty's derivatives portfolio, for which netting and collateralization are considered. For limit monitoring Deutsche Bank employ the 95th quantile of the resulting distribution of market values, internally referred to as potential future exposure ("PFE"). The average exposure profiles generated by the same calculation process are used to derive the so-called average expected exposure ("AEE") measure, which Deutsche Bank use to reflect potential future replacement costs within our credit risk economic capital, and the expected positive exposure ("EPE") measure driving our regulatory capital requirements. While AEE and EPE are generally calculated with respect to a time horizon of one year, the PFE is measured over the entire lifetime of a transaction or netting set. Deutsche Bank also employ the aforementioned calculation process to derive stressed exposure results for input into our credit portfolio stress testing.

Certain collateral support annexes to master agreements provide for rating dependent triggers, where additional collateral must be pledged if a party's rating is downgraded. Deutsche Bank also enter into master agreements that provide for an additional termination event upon a party's rating downgrade. Deutsche Bank analyze and monitor potential contingent payment obligations resulting from a rating downgrade in our stress testing approach for liquidity risk on an ongoing basis.

### **Collateral Management Process**

The Bank takes collateral where it is considered necessary to support both on and off balance sheet financial instruments with credit risk. The Bank evaluates each customer's credit worthiness on a case by case basis. The amount of collateral taken, if deemed necessary, is based on management's credit evaluation of the counterparty. The collateral taken includes Bill of Exchange issued by Deutsche Bank, Stand by Letter of Credit and Deposits such as Saving Accounts and Fixed Deposits.

#### **Collateral Monitoring Process**

Whenever collateral is required as part of the credit facilities approval for a particular client or group, Loan Operations Department, which is independent from Relationships Manager or Business, will conduct due diligence of such collateral upon receipt. Each collateral detail is registered and recorded with expiry date to ensure that the collateral is valid and enforceable.

Loan Operations Department monitors collateral on a daily basis. If there is a shortfall in collateral value when compared to client's exposures, Loan Operations Department will further inform the relevant Credit Risk Management for appropriate actions e.g., obtain additional collateral and/or request the client to bring down the exposure as well as reduce the credit facilities.

# **Collateral Valuation**

#### Types of collateral where valuations is not required

The following collateral types do not require periodic valuation: Corporate Guarantee, Credit Order, Cross Boarder Bank Guarantee, Cross Boarder Corporate Guarantee, Insurance, Risk Participation, Stand by Letter of Credit, Bill of Exchange and Fixed Deposits.

Types of collateral where valuations is required

Unit Funds, and Pledged of Shares are required to be evaluated periodically using mark-to-market price announced in the Stock Exchange of Thailand index. Frequency depends on the conditions stipulated by Credit Risk Management in the credit approval.

Mortgage properties are required to be evaluated every 2 years by the appraisal companies that have been approved internally.

The following table represents credit risk mitigation under the Standardized Approach (SA) as at 31 December 2015 and 2014.

#### Credit risk mitigation\* under SA

Part of outstanding that is secured by collateral under SA classified by type of assets and collateral

Unit · TTHB 2015 2014 Guarantee and Guarantee and Type of asset Eligible financial Eligible financial credit credit collateral<sup>1/</sup> collateral<sup>1/</sup> derivatives derivatives Performing assets <sup>1</sup> Claims on sovereigns and central banks, multilateral development banks. (MDBs), and non-central governement public sector entities (PSEs) treated as claims on sovereigns  $^{\rm 2}\,$  Claims on financial institutions , non-central governement public sector 12.939.122.22 21.387.140.28 entities (PSEs) treated as claims on financial institutions, and securities firms 3 Claims on corporates , non-central governement public sector entities (PSEs) 4.850.65 33.008.92 5.260.36 29.069.44 treated as claims on corporate 4 Claims on retail portfolios 5 Claims on housing loans 6 Other assets Substandard assets Total 12.943.972.87 33.008.92 21.392.400.64 29.069.44

" Eligible financial collateral that the Bank of Thailand allows to use for risk mitigation. The value after haircut.

#### Market risk

Deutsche Bank AG, Bangkok Branch uses market risk under the Internal Model Approach for the internal risk management.

#### Market risk exposure under the Standardized Approach (SA)

Deutsche Bank AG, Bangkok Branch calculates regulatory capital requirement for market risk using the Standardized Approach (SA) methodology according to the Bank of Thailand's notification Re: Market Risk Supervision Guidelines for Financial Institutions.

The table below represents minimum capital requirements for each type of market risk under the Standardized Approach (SA) as at 31 December and 30 June 2015.

#### Market risk under the Standardised Approach Minimum capital requirements for each type of market risk under the Standardised Approach

		Unit: TTHB
Minimum capital requirements for market risk under the Standardized Approach	Dec-15	Jun-15
Interest rate risk	2,704,102.45	2,542,394.97
Equity position risk	-	-
Foreign exchange rate risk	121,695.64	155,357.07
Commodity risk	34,569.98	19,568.18
Total minimum capital requirements	2,860,368.07	2,717,320.22

### Trading Market Risk

#### Market Risk

The vast majority of the Group's businesses are subject to market risk, defined as the potential for change in the market value of the Group's trading and investing positions. Risk can arise from adverse changes in interest rates, credit spreads, foreign exchange rates, equity prices, commodity prices and other relevant parameters, such as market volatility and market implied default probabilities.

The primary objective of Market Risk Management, a part of the Group's independent Risk function, is to ensure that the business units optimize the risk-reward relationship and do not expose the Group to unacceptable losses outside of its risk appetite. To achieve this objective, Market Risk Management works closely together with risk takers ("the business units") and other control and support groups.

The Group differentiates between three substantially different types of market risk:

- Trading market risk arises primarily through the market-making activities of the Corporate Banking & Securities Corporate Division. This involves taking positions in debt, equity, foreign exchange, other securities and commodities as well as in equivalent derivatives.
- Traded default risk arising from defaults and rating migrations.
- Non-trading market risk arises in various forms. Equity risk arises primarily from nonconsolidated strategic investments, alternative asset investments and equity compensation. Interest rate risk stems from the Group's non-trading asset and liability positions. Structural foreign exchange risk exposure arises from capital and retained earnings in non euro currencies in certain subsidiaries, and represents the bulk of foreign exchange risk in the Group's nontrading portfolio. Other non-trading market risk elements are risks arising from asset management and fund related activities as well as model risks in Private Business Clients ("PBC"), Global Transaction Banking ("GTB") and Private Wealth Management ("PWM"), which are derived by stressing assumptions of client behavior in combination with interest rate movements.

### Trading Market Risk Management Framework

#### Trading Market Risk Management Framework at Deutsche Bank

The Group's primary instrument to manage trading market risk is the limit setting process. The Group's Management Board supported by Market Risk Management, sets Group-wide value-atrisk and economic capital limits for market risk in the trading book. Market Risk Management suballocates this overall limit to the Group's divisions and individual business units within Corporate Banking & Securities Corporate Division (e.g. FIC, Equity, etc.) based on anticipated business plans and risk appetite. Within the individual business units, the business heads establish business limits, by sub-allocating the overall limit down to individual portfolios or geographical regions.

In practice, Market Risk Management sets key limits, which tend to be global in nature, necessary to capture an exposure to a particular risk factor. Business limits are specific to various factors, including a particular geographical region or specific portfolio.

Value-at-risk and economic capital limits are used for managing relevant types of market risk at an overall portfolio level. As an additional and complementary tool for managing certain portfolios or risk types, Market Risk Management sets sensitivity and concentration/liquidity limits.

Business units are responsible for adhering to the limits against which exposures are monitored and reported. The market risk limits set by Market Risk Management are monitored on a daily, weekly and monthly basis. Where limits are exceeded, Market Risk Management is responsible for identifying and escalating those excesses, on a timely basis.

To manage the exposures inside the limits, the business units apply several risk mitigating measures, most notably the use of:

- <u>Portfolio management:</u> Risk diversification arises in portfolios which consist of a variety of positions. Since some investments are likely to rise in value when others decline, diversification can help to lower the overall level of risk profile of a portfolio.
- <u>Hedging</u>: Hedging involves taking positions in related financial assets, including derivative products, such as futures, swaps and options. Hedging activities may not always provide effective mitigation against losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the exposure being hedged.

#### — Quantitative Risk Management Tools

- Value-at-Risk
- Value-at-risk is a quantitative measure of the potential loss (in value) of trading positions due to market movements that will not be exceeded in a defined period of time and with a defined confidence level.
- The Group's value-at-risk for the trading businesses is based on its own internal value-at-risk model. In October 1998, the German Banking Supervisory Authority (now the BaFin) approved the Group's internal value-at risk model for calculating the regulatory market risk capital for the general and specific market risks. Since then the model has been periodically refined and approval has been maintained. Deutsche Bank AG, Bangkok Branch uses VaR measurements only for internal control purposes. Deutsche Bank AG, Bangkok Branch's Regulatory Capital requirement for market risk is calculated using Standardized Approach.
- Deutsche Bank calculate value-at-risk using a 99 % confidence level and a one day holding period. This means Deutsche Bank estimate there is a 1 in 100 chance that a mark-to-market loss from our trading positions will be at least as large as the reported value-at-risk.
- Deutsche Bank use one-year historical market data to calculate value-at-risk. The calculation employs a Monte Carlo Simulation technique, and Deutsche Bank assumes that changes in risk

factors follow a well-defined distribution, e.g. normal, lognormal, or non-normal (T, skew-T, Skew-Normal). To determine its aggregated value-at-risk, Deutsche Bank uses observed correlations between the risk factors during this one-year period.

- Our value-at-risk model is designed to take into account the following risk factors: interest rates, credit spreads, equity prices, foreign exchange rates and commodity prices, as well as their implied volatilities and common basis risk. The model incorporates both linear and, especially for derivatives, nonlinear effects of the risk factors on the portfolio value.
- The value-at-risk measure enables us to apply a constant and uniform measure across trading businesses and products. It allows a comparison of risk in different businesses, and also provides a means of aggregating and netting positions within a portfolio to reflect correlations and offsets between different asset classes. Furthermore, it facilitates comparisons of our market risk both over time and against our daily trading results.
- Back-testing provides an analysis of the predictive ability of the value-at-risk calculations based on actual experience. Deutsche Bank compare the hypothetical daily profits and losses under the buy-and-hold assumption with the estimates from our value-at-risk model.
- A committee chaired by Market Risk Management and with participation from Market Risk Production, Finance and others, meets on every month to discuss back-testing results of Deutsche Bank AG, Bangkok Branch and of individual businesses. The committee analyzes performance fluctuations and assesses the predictive ability of our value-at-risk model, which in turn allows us to improve the risk estimation process.
- Sensitivities
- Sensitivities show the effect on mark to market P&L of a change in an underlying risk factor. Sensitivities are typically used at a desk level by traders to micro-manage their position on an intra-day basis.
- Sensitivities are able to describe the economic effects of risks not catered for by other risk measures (such as VAR) and can be aggregated across numerous businesses which take similar risk. The sensitivities are reflected on the Daily Risk Report which provides an aggregated picture of Deutsche Bank AG, Bangkok Branch's market risk exposure for close of business on the previous day.
- Stress Testing and Event Risk Scenarios (ERS)
- A key limitation of value-at-risk is that it is based on relatively recent historical data, and therefore typically only reflects losses under normal market conditions. To address this, Deutsche Bank perform stress tests in which Deutsche Bank value our trading portfolios under extreme market scenarios not covered by the confidence interval of our value-at-risk model.
- The stress tests are derived from historically observed severe market shocks. The resulting losses from these stress scenarios are then aggregated using correlations observed during periods of market crises, to reflect the change in correlations which occurs during severemarket stress.
- Deutsche Bank AG, Bangkok Branch performs three different types of stress testing to investigate the potential loss under crisis scenario on weekly basis. Global Market Stress Testing - which Deutsche Bank AG, Bangkok Branch's position in each currency are stressed, currency by currency, to see the potential loss under various crisis situations, e.g. foreign currency devaluation, shock in interest rate market and etc. This is the main stress testing for Deutsche Bank AG, Bangkok Branch.
- Deutsche Bank also perform Foreign Exchange Options Stress Testing and Interest Rate Options Stress Testing which is supplements the Global Market Stress Testing and involves non-linear effect from option portfolios that is not captured by Global Market Stress Testing's Scenarios.
- For Emerging Markets, including Thailand, the Group calculates country-specific event risk scenarios (ERS) and assesses these event risk results. A specialist committee reviews the country risk ratings and scenario loss limits monthly. Ad hoc reviews take place as required. For each major emerging markets country (determined by the size of Deutsche Bank's activities in the country), a "tailor-made" stress scenario is determined, which covers a combination of market risk dislocations affecting the major risk factors based on historically observable events or hypothetical situations. By and large, these scenarios are a combination of FX devaluation, credit spreads widening, increasing interest rates and depreciating equity prices. The ERS methodology requires that a variety of scenarios of market parameters be run to simulate the P&L impact of

those market events on the trading positions held by the bank. Positions in emerging markets are included, regardless of which business area or division holds the particular risk.

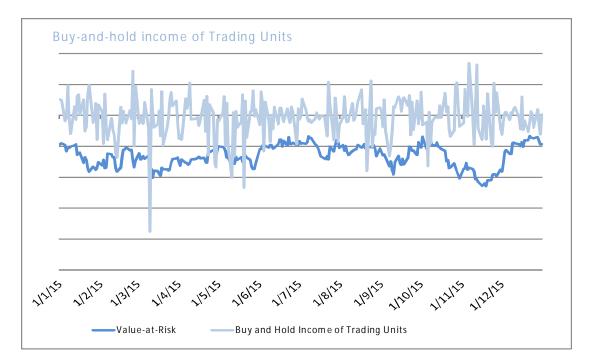
- Our stress testing results are necessarily limited by the number of stress tests executed and the fact that not all downside scenarios can be predicted and simulated. While our risk managers have used their best judgment to define worst case scenarios based upon the knowledge of past extreme market moves, it is possible for our market risk positions to lose more value than even our estimates. Deutsche Bank also continuously assess and refine our stress tests in an effort to ensure they capture material risks as well as reflect possible extreme market moves.
- Value-at-Risk of Trading Units of Deutsche Bank AG, Bangkok Branch
- The following table shows the value-at-risk (with a 99 % confidence level and a one-day holding period) of the trading units of Deutsche Bank AG, Bangkok Branch. "Diversification effect" reflects the fact that the total value-at-risk on a given day will be lower than the sum of the values-at-risk relating to the individual risk classes. Simply adding the value-at-risk figures of the individual risk classes to arrive at an aggregate value-at-risk would imply the assumption that the losses in risk categories occur simultaneously.

Value-at- risk of trading	g units	
in EUR million	Dec 31, 2015	Dec 31, 2014
Interest rate risk	0.5	0.4
Foreign exchange risk	0.05	0.2
Commodity price risk	0	0
Equity price risk	0	0
Diversification effect	(0.04)	(0.1)
Total	0.5	0.5

# **Backtesting of Trading Market Risk**

Backtesting is a procedure used to verify the predictive ability of the value-at-risk calculations involving the comparison of hypothetical daily profits and losses under the buy-and-hold assumption with the estimates from the value-at-risk model. An outlier is a hypothetical buy-and-hold trading loss that exceeds the Group's value-at-risk estimate. In our backtesting in 2015, Deutsche Bank observed 11 outliers driven by market events. Deutsche Bank continues to believe that our value-at-risk model will remain an appropriate measure for our trading market risk under normal market conditions.

The following graph shows the daily buy-and-hold trading results in comparison to the value-at-risk as of the close of the previous business day for the trading days of the reporting period.



#### Non-trading Market Risk

#### - Interest Rate Risk in the Banking Book

- The nature of interest rate risk in the banking book stems from residual asset/liability mismatches. Measuring interest rate risks in the banking book is based upon assumptions with respect to client behavior, future availability of deposit balances and sensitivities of deposit rates versus market interest rates resulting in a longer than contractual effective duration. Additionally, consideration is made regarding early prepayment behavior for loan products.
- The majority of the Group's interest rate risk arising from non-trading asset and liability positions, with the exception of some entities, has been transferred through internal transactions to the Markets business division within the Corporate Banking & Securities Corporate Division. This internally transferred interest rate risk is managed on the basis of value-at-risk, as reflected in trading portfolio figures. Deutsche Bank AG, Bangkok Branch has no interest rate risk in banking book.

# **Operational Risk**

#### **Definition of Operational Risk**

Operational Risk means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, and includes legal risk.

Particular prominent examples of operational risks are the following:

- Fraud Risk arises from an intentional act or omission involving dishonesty, for personal and/or business gain or to avoid personal and/or business loss such as falsification and/or alteration of records and/or reports, facilitation, breach of trust, intentional omission, misrepresentation, concealment, misleading, and abuse of position in order to obtain personal gain, business advantage and/or conceal improper/unauthorized activity.
- —Business Continuity Risk is the risk of incurring losses resulting from the interruption of normal business activities. Interruptions can be caused by: deliberate acts such as sabotage, terrorism, bomb threats, strikes, riots and assaults on the bank's staff; natural calamities such as hurricanes, snow

storms, floods, and earthquakes; or other unforeseen incidents such as accidents, fires, explosions, utility outages, and political unrest.

- Regulatory Compliance Risk is the potential that Deutsche Bank may incur regulatory sanctions (such as restrictions on business activities or enhanced reporting requirements), financial and/or reputational damage arising from its failure to comply with applicable laws, rules and regulations.
- Information Technology Risk is the risk that our Information Technology will lead to quantifiable losses. This comes from inadequate information technology and processing in terms of manageability, exclusivity, integrity, controllability, and continuity.
- Outsourcing (Vendor) Risk arises from adverse events and risk concentrations due to failures in vendor selection, insufficient controls and oversight over a vendor and/or services provided by a vendor and other impacts to the vendor which could not happen to us by nature, severity or frequency.

Legal Risk can materialize in the above risk categories. This is due to the fact that in each category Deutsche Bank may be the subject of a claim or proceedings alleging non-compliance with legal or statutory responsibilities and/or losses allegedly due to inaccurately drafted contracts.

Operational risk excludes business and reputational risk.

### **Organizational Structure**

The Head of Operational Risk Management ("ORM") chairs the Operational Risk Management Committee ("ORMC"), which is a permanent sub-committee of the Risk Executive Committee and is composed of the operational risk officers from our business divisions and our infrastructure functions. It is the main decision-making committee for operational risk management matters.

While the day-to-day operational risk management lies with our business divisions and infrastructure functions, the Operational Risk Management function manages the cross divisional and cross regional operational risk as well as risk concentrations and promotes a consistent application of our operational risk management strategy across the bank. Based on this Business Partnership Model Deutsche Bank aim to maintain close monitoring and high awareness of operational risk.

#### Managing Our Operational Risk

Deutsche Bank manage operational risk based on a group-wide consistent framework that enables us to determine our operational risk profile in comparison to our risk appetite and systematically identify operational risk themes and concentrations to define risk mitigating measures and priorities. The global operational risk framework is applicable to relevant risk types included in the definition for operational risk and thus also applies to each of the above defined individual risk types. The newly established business division NCOU fully applies our global operational risk framework.

In order to cover the broad range of operational risk as outlined in the definition of operational risk, our framework applies a number of techniques. These aim to efficiently manage the operational risk in our business and are used to identify, assess and mitigate operational risk.

The applied techniques are:

- —The continuous collection of operational risk loss events is a prerequisite for operational risk management including detailed analyses, definition of mitigating actions and timely information to senior management. Deutsche Bank collect losses above €10,000 in our "db-Incident Reporting System" ("dbIRS").
- —Our Lessons Learned process is required for events, including near misses, above €1 million. This process includes but is not limited to:

- systematic risk analyses including a description of the business environment in which the loss occurred, including previous events, near misses and event specific Key Risk Indicators ("KRI"),
- -consideration of risk management decisions in respect of the specific risk taken,
- -root cause analyses,
- $-\operatorname{identification}$  of control improvements and other actions to prevent and/or mitigate recurrence, and
- —assessment of the residual operational risk exposure.

The Lessons Learned process serves as an important mean to identify inherent areas of risk and to define appropriate risk mitigating actions. Corrective actions are captured and monitored for resolution via actions plans in our tracking system "dbTrack". Performance of corrective actions and their resolution status is reported on a monthly basis to senior management via the ORMC.

- Deutsche Bank systematically utilize information on external events occurring in the banking industry to prevent similar incidents from happening to us, e. g. by particular deep dive analysis or risk profile reviews.
- In addition to internal and external loss information, scenarios are utilized and actions are derived from them. The set of scenarios consists of relevant external scenarios provided by a public database and internal scenarios. The latter are generated to complete our risk profile.
- Regular operational risk profile reports at group level for our business divisions, the countries in which Deutsche Bank operate and our infrastructure functions are reviewed and discussed with the department's senior management. The regular performance of the risk profile reviews enables us to detect changes to the business unit's risk profiles as well as risk concentrations across the Group early and to take corrective actions.
- Deutsche Bank assess and approve the impact of changes to our risk profile as a result of new products, outsourcings, strategic initiatives and acquisitions and divestments.
- —Once operational risks are identified, mitigation is required following the "as low as reasonably practicable (ALARP)" principle by balancing the cost of mitigation with the benefits thereof and formally accepting the residual operational risk. Risks which contravene applicable national or international regulations and legislation cannot be accepted; once identified, such risks must always be mitigated.
- Deutsche Bank monitor risk mitigating measures identified via operational risk management techniques for resolution within our tracking tool "dbTrack". Higher than important residual operational risks need to be accepted by the ORMC.
- Deutsche Bank perform top risk analyses in which the results of the aforementioned activities are considered. The Top Risk Analyses are a primary input for the annual operational risk management strategy and planning process. Besides the operational risk management strategic and tactical planning Deutsche Bank define capital and expected loss targets which are monitored on a regular basis within a quarterly forecasting process.
- —KRIs are used to monitor the operational risk profile and alert the organization to impending problems in a timely fashion. They allow via our tool "dbScore" the monitoring of the bank's control culture and business environment and trigger risk mitigating actions. KRIs facilitate the forward looking management of operational risk based on early warning signals returned by the KRIs.
- In our bottom-up Self Assessment ("SA") process, which is conducted at least annually, areas with high risk potential are highlighted and risk mitigating measures to resolve issues are identified. In general, it is performed in our tool "dbSAT". On a regular basis Deutsche Bank conduct risk workshops aiming to evaluate risks specific to countries and local legal entities Deutsche Bank are operating in and take appropriate risk mitigating actions.

Additional methodologies and tools implemented by the responsible divisions are utilized to complement the global operational risk framework and specifically address the individual risk types. These include but are not limited to:

- Legal Risk Lessons Learned process: The Legal Department is responsible for managing the legal and reputational risk associated with the bank's litigation and regulatory enforcement matters. The Legal Department discharges this responsibility through the management and supervision of these matters by the litigation and regulatory enforcement attorneys ("LRAs") assigned to them, and the regional and global supervision of those LRAs within the Legal Department. The LRAs day-to-day management and oversight of litigation and regulatory enforcement matters may provide a unique perspective on historical practices, possible legal and reputational risk that may result from such historical practices and possible steps that may be taken to mitigate such future risks. Within the operational risk management framework a specific Lessons Learned process for Legal losses is conducted to consider the lessons learnt from litigation and regulatory enforcement actions. This includes permanent involvement of Legal, ORM and the Divisional Operational Risk Officers ("DOROs").
- The outsourcing risk is assessed and managed for outsourcing arrangements individually following the Vendor Risk Management Policy and the overall ORM framework. A broad governance structure is established to promote appropriate risk levels.
- Fraud Risk is managed based on section 25a of the German Banking Act as well as other legal and regulatory requirements on a risk based approach, governed by the Global Anti Fraud Policy and corresponding Compliance and Anti-Money-Laundering (AML) framework. In line with regulatory requirements a global risk assessment is performed on a regular basis. Within the general management of operational risks dedicated Fraud Risk relevant aspects are part of the Self Assessments.
- Deutsche Bank manage Business Continuity ("BC") Risk with our Business Continuity Management ("BCM") Program, which outlines core procedures for the relocation or the recovery of operations in response to varying levels of disruption. Within this program each of our core businesses functions and infrastructure groups institute, maintain and periodically test business continuity plans ("BC Plans") to promote continuous and reliable service. The BCM Program has defined roles and responsibilities, which are documented in corporate standards. Compliance with these standards is monitored regionally by dedicated business continuity teams. Reporting to the Group Resiliency Steering Committee (the delegated authority from the Management Board) is a quarterly requirement. Furthermore, key information of the established BCM control environment is used within the general operational risk management for KRIs.
- The operational risk in Technology Risk is managed within the technology area following international standards for IT management. Applications and IT infrastructure are catalogued and assessed on a regular basis and stability monitoring is established. Key outcomes of the established assessment and control environment are used within the general management or operational risks for KRIs and SAs.

#### Role of Corporate Insurance/Deukona

The definition of our insurance strategy and supporting insurance policy and guidelines is the responsibility of our specialized unit Corporate Insurance/Deukona (CI/D). CI/D is responsible for our global corporate insurance policy which is approved by Deutsche Bank AG Management Board.

Deutsche Bank buys insurance in order to protect ourselves against unexpected and substantial unforeseeable losses. The identification, definition of magnitude and estimation procedures used are based on the recognized insurance terms of "common sense", "state-of-the-art" and/or "benchmarking". The maximum limit per insured risk takes into account the reliability of the insurer and a cost/benefit ratio, especially in cases in which the insurance market tries to reduce coverage by restricted/limited policy wordings and specific exclusions.

CI/D selects insurance partners in strict compliance with the regulatory requirements specified in the Solvency Regulations and the Operational Risks Experts Group recommendation on the recognition of

insurance in advanced measurement approaches. The insurance portfolio, as well as CI/D activities, is audited by Group Audit on a risk-based approach.

Managing the Operational Risk at Deutsche Bank AG, Bangkok Branch

Deutsche Bank AG, Bangkok Branch manages operational risk according to policies and guidelines set locally or by Group that enable the bank to determine the OR profile in comparison to Deutsche Bank's risk appetite and systematically identify OR themes and concentrations to define appropriate risk mitigating measures and priorities. The most important ones are Principles for Managing Operational Risk, Operational Risk Management Events Policy and Procedures.

At country level, the Country Chief Operating Officer is appointed by the country management within Regional management to undertake the responsibility of a Country Operational Risk Officer (CORO). As part of the country governance, in addition to the mandatory and primary divisional OR management, the CORO must be informed by relevant local divisions and functions about OR related matters locally enabling him to fulfill his responsibilities.

CORO has the following responsibilities:

- keeping Country Management and ORM proactively informed regarding local OR developments;
- serving as the primary contact with local regulators in relation to OR management matters and queries (in close cooperation with Government & Regulatory Affairs and ORM);
- Overseeing local legal and/or regulatory requirements regarding OR management and ensuring compatibility with these Principles; and overseeing local regulatory compliance.

The Country Flashcard (CFC) provides a monthly overview of Thailand's operational risk profile. It gives a summary of new operational risk events of the month, trend analysis and including quarterly economic capital (Basic Indicator Approach). The CORO reviews and discusses the risk profile with the Regional ORM. Relevant risk identified and mitigation action agreed will be monitor in dbTrack (central tracking system) until resolution. The CORO also presents the CFC in Thailand OpCo.

Deutsche Bank AG, Bangkok Branch has implemented the risk management processes and systems as being conducted at the Group level. As mentioned above, Deutsche Bank Group has applied an advance model approach (AMA) for operational risk management and implemented the economic capital (EC) to calculate the capital charged while Deutsche Bank AG, Bangkok Branch, with the guidance from the Bank of Thailand, uses the Basic Indicator Approach (BIA) to calculate the capital.

#### Equity exposure in the banking book

Equity investments which are neither consolidated for regulatory purposes nor deducted from the Group's own funds are held as equity positions in the regulatory banking book. In the Group's consolidated balance sheet, these equity investments are either classified as "Financial assets available for sale ("AFS")" or "Equity method investments". An immaterial amount of financial assets designated at fair value through profit and loss which are equity interests is included in the banking book.

#### Accounting and Valuation Policies for Equity Investments

AFS equity instruments are initially recognized at fair value plus transaction costs that are directly attributable to the acquisition of that financial asset. Financial assets classified as AFS are carried at fair value with the changes in fair value generally reported in equity unless the asset is subject to a fair value hedge or is impaired. At each balance sheet date, management assesses whether there is objective evidence that an individual asset is impaired. Objective evidence of impairment includes a significant or prolonged decline in the fair value of the investment below cost. The amount of impairment is the difference between the acquisition cost and current fair value of the asset less previously recognized

impairment. Impairments of AFS equity investments cannot be reversed. Increases in their fair value after impairment are recognized in equity.

Consistent with the valuation of financial instruments, fair value of equity securities is initially and subsequently determined using quoted prices in active markets or valuation techniques, where prices quoted in active markets are not available.

The Group reports investments in associates and joint ventures under the equity method of accounting. Equity method investments are initially recorded at cost, and subsequently increased (or decreased) to reflect both the Group's pro-rata share of the post-acquisition net income (or loss) and other movements included directly in the equity of the entity. Goodwill arising on the acquisition is included in the carrying value of the investment (net of accumulated impairment loss). At each balance sheet date, the Group assesses whether there is objective evidence that the investment in an associate or jointly controlled entity is impaired. If there is objective evidence of impairment, an impairment test is performed by comparing the investment's recoverable amount, which is the higher of its value in use and fair value less costs to sell, with its carrying amount. Equity method losses in excess of the Group's carrying value of the investment in the entity are charged against other assets held by the Group related to the investee. If those assets are written down to zero, a determination is made whether to report additional losses based on the Group's obligation to fund such losses.

The Group holds equity investments with the intent to realize profits by taking advantage of market opportunities as well as for strategic reasons. Only a smaller part of the investments are intended to support a specific business strategy of a business division as part of a complex customer transaction.

From a management point of view, the following group divisions assume responsibility for equity investments the Group entered into:

— The Corporate Investments Group Division ("CI") manages the global principal investment activities of the Group. The principal investment activities include certain credit exposures, certain private equity and venture capital investments, certain private equity fund investments, certain corporate real estate investments, the industrial holdings of the Group and certain other non-strategic investments. Historically, the mission of CI has been to provide financial, strategic, operational and managerial capital to enhance the values of the portfolio companies in which the group division has invested.

- The group divisions Corporate Banking & Securities and Private Clients & Asset Management mainly hold investments in the bank's alternative asset portfolio for profit realization as well as for strategic reasons.

Our equity exposures in the banking book contain only shares received from loan restructuring which Deutsche Bank use the market price at end of each month from the Stock Exchange of Thailand to mark to market value of the shares. However, Deutsche Bank have no intention to trade these equities. The table below shows equity exposures in banking book as at 31 December 2015 and 2014.

#### Equity position of Banking Book

		Unit: TTHB
Equity exposures	2015	2014
1. Equity exposures		
1.1 Equities listed and publicly traded in the Stock Exchange		
- Book value	3,569.02	3,569.02
- Fair value	-	-
- Impairment	(3,569.02)	(3,569.02)
1.2 Other equities	-	-
2. Gains (losses) of sale of equities in the reporting period	-	-
3. Surplus (deficit) from revaluation of available for sale equities	-	-
Deferred tax	-	-
Net surplus (deficit) from revaluation of available for sale equities	-	-
4. Minimum capital requirements for equity exposures classified by the calculation methods		
- SA	-	-
- IRB	-	-
5. Equity values for commercial banks applying IRB which the Bank of Thailand allows to use SA	-	-

#### Interest rate risk exposure in banking book

Please refer to topic "Nontrading Market Risk Management" under section "Market risk exposure under the Internal Model Approach (IMA)" for the internal risk management.

In line with Deutsche Bank Group, the banking book in Deutsche Bank AG, Bangkok Branch does not carry interest rate risk. However, in order to comply with the Bank of Thailand's notification Re: Supervisory Guidelines on Interest Rate Risk in the Banking Book for Financial Institutions, Deutsche Bank AG, Bangkok Branch calculates earnings as a result of upward 100 basis points (bps) changes in interest rate as at 31 December 2015 and 2014 as per the following table. The internal transactions which transfer the interest rate risk to the trading book have been excluded from the calculation.

# Interest rate risk in the banking book The effect of changes in interest rates\* to net earnings

#### Unit: TTHB

Currency	Effect to net earnings		
Currency	2015	2014	
Baht	21,091.93	(20,294.87)	
USD	(90,302.44)	(124,363.61)	
EURO	(17,077.53)	(7,787.43)	
Others	(128.42)	(359.05)	
Total effect	(86,416.46)	(152,804.96)	

\* Use the percentage changes in interest rates of upward 100 bps .

### Composition of capital disclosure requirements as BCBS

Capital during gradually add on/ deduction during Basel III (Transitional period)

As of December 2015, Deutsche Bank Bangkok Branch has no any add on or deduction items from capital during Basel III transitional period.