# 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 http://www.db.com/ir/en/download/20-F 2009 Deutsche Bank.pdf.

# **Capital Structure**

As at 31 December 2009 and 30 June 2009, assets maintained in Thailand for capital funds purpose were Bank of Thailand's Bonds, Thai Government Bonds and Thailand Treasury Bills which 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 2009 and 30 June 2009.

Unit: TTHB

Item	Dec-09	Jun-09
1. Assets required to be maintained under Section 32		18,444,988.68
2. Sum of net capital for maintenance of assets under Section 32 and net balance of inter-office accounts (2.1+2.2)	23,233,791.04	24,833,220.17
2.1 Capital for maintenance of assets under Section 32	17,800,000.00	17,800,000.00
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	5,433,791.04	7,033,220.17
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.

- Organize a monthly local Asset and Liability Committee (ALCO) meeting to monitor all 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.
- Develop 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 all derivatives transactions and securities, monitor failed trade and net inter-office balance as well as assess estimated capital adequacy of the bank before undertaking additional 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 2009 and 30 June 2009.

Unit: TTHB

Minimum capital requirement for credit risk classified by type of assets under the SA	Dec-09	Jun-09
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 government public sector entities (PSEs) treated as claims on financial institutions, and securities firms</li></ol>	1,097,291.98	1,208,875.91
<ol><li>Claims on corporates, non-central government public sector entities (PSEs) treated as claims on corporate</li></ol>	1,726,026.98	1,468,050.26
4. Claims on retail portfolios	208.45	187.91
5. Claims on housing loans	-	-
6. Other assets	28,248.23	270,505.45
Non-performing claims	-	-
First-to-default credit derivatives and Securitisation	-	-
Total minimum capital requirement for credit risk under the SA	2,851,775.64	2,947,619.53

Unit: TTHB

Minimum capital requirement for market risk	Dec-09	Jun-09
Calculate by Standardised approach	2,222,602.84	2,618,672.91
Total minimum capital requirement for market risk	2,222,602.84	2,618,672.91

Unit: TTHB

Minimum capital requirement for operational risk	Dec-09	Jun-09
Calculate by Basic Indicator Approach	329,988.88	357,741.99
Total minimum capital requirement for operational risk	329,988.88	357,741.99

Unit:%

Total risk-weighted capital ratio	Dec-09	Jun-09
Total capital to risk-weighted assets	24.57	22.54

# **Risk Exposure and Assessment**

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

The wide variety of our businesses requires us to identify, measure, aggregate and manage our risks effectively, and to allocate our capital among our businesses appropriately. We manage risk and capital through a framework of principles, organizational structures as well as measurement and monitoring processes that are closely aligned with the activities of our group divisions. The importance of a strong focus on risk management and the continuous need to refine risk management practice have become particularly evident during the financial market crisis. While our risk and capital management continuously evolves and improves, there can be no assurance that all market developments, in particular those of extreme nature, can be fully anticipated at all times.

# **Risk and Capital Management Principles**

The following key principles underpin our approach to risk and capital management:

- Our Management Board provides overall risk and capital management supervision for our consolidated Group. Our Supervisory Board regularly monitors our risk and capital profile.
- We manage credit, market, liquidity, operational, business, legal and reputational risks as well as our capital in a coordinated manner at all relevant levels within our organization. This also holds true for complex products which we typically manage within our framework established for trading exposures.
- The structure of our integrated legal, risk & capital function is closely aligned with the structure of our group divisions.
- The legal, risk & capital function is independent of our group divisions.

# **Risk and Capital Management Organization**

Our Chief Risk Officer, who is a member of our Management Board, is responsible for our Group-wide credit, market, operational, liquidity, business, legal and reputational risk management as well as capital management activities and heads our integrated legal, risk & capital function.

Two functional committees, which are both chaired by our Chief Risk Officer, are central to the legal, risk & capital function.

- Our Risk Executive Committee is responsible for management and control of the aforementioned risks across our consolidated Group. To fulfill this mandate, the Risk Executive Committee is supported by subcommittees that are responsible for dedicated areas of risk management, including several policy committees and the Group Reputational Risk Committee.
- The responsibilities of the Capital and Risk Committee include risk profile and capital planning, capital capacity monitoring and optimization of funding.

Dedicated legal, risk & capital units are established with the mandate to:

- Ensure that the business conducted within each division is consistent with the risk appetite that the Capital and Risk Committee has set within a framework established by the Management Board;
- Formulate and implement risk and capital management policies, procedures and methodologies that are appropriate to the businesses within each division;
- Approve credit, market and liquidity risk limits;
- Conduct periodic portfolio reviews to ensure that the portfolio of risks is within acceptable parameters; and
- Develop and implement risk and capital management infrastructures and systems that are appropriate for each division.

The heads of our legal, risk & capital units, which are amongst the members of our Risk Executive Committee, are responsible for the performance of the units and report directly to our Chief Risk Officer.

Our finance and audit departments support our legal, risk & capital function. They operate independently of both the group divisions and of the legal, risk & capital function. The role of the finance department is to

help quantify and verify the risk that we assume and ensure the quality and integrity of our risk-related data. Our audit department performs risk-oriented reviews of the design and operating effectiveness of our internal control procedures.

# **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.

#### **Management Committees**

Our Local management committees are as below:

#### Executive Committee (EXCO)

The EXCO is chaired by Chief Country Officer. Other permanent members are Chief Operating Officer, Business Heads, Head of Compliance, Head of Finance and Branch Operations.

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

# Asset and Liability Committee (ALCO)

The ALCO is chaired by the Treasurer responsible for Deutsche Bank AG, Bangkok Branch or delegate. Other permanent members include the Chief Country Officer, Head of Global Markets, Global Transaction Banking, Private Wealth Management, the Head of Finance, the Chief Operating Officer, representatives of Market Risk Management and Credit Risk Management.

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 all 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

# Operations Committee (OPCO)

The OPCO is chaired by Chief Operating Officer. Other permanent members are Operation's Department Heads, Heads of Finance, Head of Human Resources, Head of Compliance, Head of Audit and Head of Corporate Real Estate Services.

The committee provides a forum for managing all 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 all 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 all Internal Audit Reports and monitor audit points and ensure that appropriate actions are taken to resolve any 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 reputational and regulatory and compliance issues.
- Update new product and new operational process development & implementation.
- Manage staffs and trainings issues.

#### Audit Committee (Group)

The Audit Committee handles in particular the monitoring of financial accounting, including the accounting process and the effectiveness of the system of internal controls, issues of risk management and especially the effectiveness of the risk management system, as well as the effectiveness of the internal audit system, compliance and the auditing of annual financial statements. It reviews the documentation relating to the annual and consolidated financial statements and discusses the audit reports with the auditor. It prepares the decisions of the Supervisory Board on the annual financial statements and the approval of the consolidated financial statements and discusses important changes to the audit and accounting methods. The Audit Committee also discusses the quarterly financial statements and the report on the limited review of the quarterly financial statements with the Management Board and the auditor prior to their publication. In addition, the Audit Committee issues the audit mandate to the auditor elected by the General Meeting. It resolves on the compensation paid to the auditor and monitors the auditor's independence, qualifications and efficiency. The Head of Internal Audit regularly reports to the Audit Committee on the work done. The Audit Committee is informed about special audits, substantial complaints and other exceptional measures on the part of bank regulatory authorities. It has functional responsibility for taking receipt of and dealing with complaints concerning accounting, internal accounting controls and issues relating to the audit

Group Audit has a Principal Auditor located in Deutsche Bank AG, Bangkok Branch who has a functional reporting line to the Group Audit, Country Head for Singapore and South East Asia. The local Principal Auditor in Deutsche Bank AG, Bangkok Branch is centrally supported by resources from the Group Audit Asia Pacific regional team, headquartered in Singapore.

# **Categories of Risk**

The most important risks we assume are specific banking risks and reputational risks, as well as risks arising from the general business environment.

#### **Specific Banking Risks**

Our risk management processes distinguish among four kinds of specific banking risks: credit risk, market risk, operational risk and liquidity risk. A detailed discussion of these risks.

- Credit risk arises from all transactions that give rise to actual, contingent or potential claims against any counterparty, borrower or obligor (which we refer to collectively as "counterparties"). We distinguish between three kinds of credit risk:
  - Default risk is the risk that counterparties fail to meet contractual payment obligations.
- Country risk is the risk that we may suffer a loss, in any given country, due to any of the following reasons: a possible deterioration of economic conditions, political and social upheaval, nationalization and expropriation of assets, government repudiation of indebtedness, exchange controls and disruptive currency depreciation or devaluation. Country risk includes transfer risk which arises when debtors are unable to meet their obligations owing to an inability to transfer assets to nonresidents due to direct sovereign intervention.
- Settlement risk is the risk that the settlement or clearance of transactions will fail. It arises whenever the exchange of cash, securities and/or other assets is not simultaneous.
- 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.
- Operational risk is the potential for incurring losses in relation to employees, contractual specifications and documentation, technology, infrastructure failure and disasters, external influences and customer relationships. This definition includes legal and regulatory risk, but excludes business and reputational risk.
- Liquidity risk is the risk arising from our potential inability to meet all payment obligations when they come due or only being able to meet these obligations at excessive costs.

# **Reputational Risk**

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

Several policies and guidelines form the framework of our reputational risk management. The primary responsibility for the identification, escalation and resolution of reputational risk issues resides with the business divisions. The risk management units assist and advise the business divisions in ascertaining that reputational risk issues are appropriately identified, escalated and addressed.

The most senior dedicated body for reputational risk issues is our Group Reputational Risk Committee (GRRC). It is a permanent sub-committee of the Risk Executive Committee and is chaired by the Chief Risk Officer. The GRRC reviews and makes final determinations on all reputational risk issues, where escalation of such issues is deemed necessary by senior business and regional management, or required under other Group policies and procedures.

#### **Business Risk**

Business risk describes the risk we assume due to potential changes in general business conditions, such as our market environment, client behavior and technological progress. This can affect our results if we fail to adjust quickly to these changing conditions.

# **Risk Management Tools**

We use a comprehensive range of quantitative tools and metrics for monitoring and managing risks. As a matter of policy, we continually assess the appropriateness and the reliability of our 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. The following are

the most important quantitative tools and metrics we currently use to measure, manage and report our risk:

— Economic capital. Economic capital measures the amount of capital we need to absorb very severe unexpected losses arising from our exposures. "Very severe" in this context means that economic capital is set at a level to cover with a probability of 99.98 % the aggregated unexpected losses within one year. We calculate economic capital for the default risk, transfer risk and settlement risk elements of credit risk, for market risk including traded default risk, for operational risk and for general business risk. We continuously review and enhance our economic capital model as appropriate. Notably during the course of 2009 the economic capital stress tests for market risk were recalibrated to reflect the extreme market moves observed in the later part of 2008. This included extension of the assumed holding periods on credit positions, and significant increases to the shocks applied to equity indices and credit spreads, especially for securitized products. In addition to the recalibration, there were improvements to the economic capital model. These included the addition of stress tests for leveraged exchange traded funds and for gap risk in non-recourse finance in emerging markets. Within our economic capital framework we capture the effects of rating migration as well as profits and losses due to fair value accounting. We use economic capital to show an aggregated view of our risk position from individual business lines up to our consolidated Group level. We also use economic capital (as well as goodwill and unamortized other intangible assets) in order to allocate our book capital among our businesses. This enables us to assess each business unit's risk adjusted profitability, which is a key metric in managing our financial resources. In addition, we consider economic capital, in particular for credit risk, when we measure the risk-adjusted profitability of our client relationships.

— Expected loss. We use expected loss as a measure of our credit and operational risk. Expected loss is a measurement of the loss we can expect within a one-year period from these risks as of the respective reporting date, based on our historical loss experience. When calculating expected loss for credit risk, we take into account credit risk ratings, collateral, maturities and statistical averaging procedures to reflect the risk characteristics of our different types of exposures and facilities. All parameter assumptions are based on statistical averages of up to seven years based on our internal default and loss history as well as external benchmarks. We use expected loss as a tool of our risk management process and as part of our management reporting systems. We also consider the applicable results of the expected loss calculations as a component of our collectively assessed allowance for credit losses included in our financial statements. For operational risk we determine the expected loss from statistical averages of our internal loss history, recent risk trends as well as forward looking expert estimates.

— Value-at-Risk. We use the value-at-risk approach to derive quantitative measures for our trading book market risks under normal market conditions. Our value-at-risk figures play a role in both internal and external (regulatory) reporting. For a given portfolio, value-at-risk measures the potential future loss (in terms of market value) that, under normal market conditions, will not be exceeded with a defined confidence level in a defined period. The value-at-risk for a total portfolio represents a measure of our diversified market risk (aggregated, using pre-determined correlations) in that portfolio.

— Stress testing. We supplement our analysis of credit, market, operational and liquidity risk with stress testing. For credit risk management purposes, we perform stress tests to assess the impact of changes in general economic conditions or specific parameters on our credit exposures or parts thereof as well as the impact on the creditworthiness of our portfolio. For market risk management purposes, we perform stress tests because value-at-risk calculations are based on relatively recent historical data, only purport to estimate risk up to a defined confidence level and assume good asset liquidity. Therefore, they only reflect possible losses under relatively normal market conditions. Stress tests help us determine the effects of potentially extreme market developments on the value of our market risk sensitive exposures, both on our highly liquid and less liquid trading positions as well as our investments. The correlations between market risk factors used in our current stress tests are estimated from volatile market conditions in the past using an algorithm, and the estimated correlations proved to be essentially consistent with those observed during recent periods of market stress. We use stress testing to determine the amount of economic capital we need to allocate to cover our market risk exposure under the scenarios of extreme market conditions we select for our simulations. For operational risk management purposes, we perform

stress tests on our economic capital model to assess its sensitivity to changes in key model components, which include external losses. For liquidity risk management purposes, we perform stress tests and scenario analysis to evaluate the impact of sudden stress events on our liquidity position. In 2009, we have stepped up our efforts to further align our stress testing framework across the different risk types.

# **Credit Risk Strategy and Process**

# **Credit Risk Management Principle and Strategy**

We measure and manage our credit risk following the below principles:

- In all our group divisions consistent standards are applied in the respective credit decision processes.
- The approval of credit limits for counterparties and the management of our individual credit exposures must fit within our portfolio guidelines and our credit strategies.
- Every extension of credit or material change to a credit facility (such as its tenor, collateral structure or major covenants) to any counterparty requires credit approval at the appropriate authority level.
- We assign credit approval authorities to individuals according to their qualifications, experience and training, and we review these periodically.
- We measure and consolidate all our credit exposures to each obligor on a global consolidated basis that applies across our consolidated Group. We define an "obligor" as a group of individual borrowers that are linked to one another by any of a number of criteria we have established, including capital ownership, voting rights, demonstrable control, other indication of group affiliation; or are jointly and severally liable for all or significant portions of the credit we have extended.

#### **Credit Risk Ratings**

Basic and key element of the credit approval process is a detailed risk assessment of every credit exposure associated with a counterparty. Our risk assessment procedures consider both the creditworthiness of the counterparty and the risks related to the specific type of credit facility or exposure. This risk assessment not only affects the structuring of the transaction and the outcome of the credit decision, but also influences the level of decision-making authority required to extend or materially change the credit and the monitoring procedures we apply to the ongoing exposure.

We have our own in-house assessment methodologies, scorecards and rating scale for evaluating the creditworthiness of our counterparties. Our granular 26-grade rating scale, which is calibrated on a probability of default measure based upon a statistical analysis of historical defaults in our portfolio, enables us to compare our internal ratings with common market practice and ensures comparability between different sub-portfolios of our institution. Several default ratings therein enable us to incorporate the potential recovery rate of defaulted exposures. We generally rate our credit exposures individually, though certain portfolios of securitized receivables are rated on a pool level. When we assign our internal risk ratings, we compare them with external risk ratings assigned to our counterparties by the major international rating agencies, where possible.

#### **Credit Limits**

Credit limits set forth maximum credit exposures we 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 reflects the mandate to approve new credit limits as well as increases or the extension of existing credit limits. Credit authority is generally assigned to individuals as personal credit authority according to the individual's professional qualification and experience.

Where an individual's personal authority is insufficient to establish required credit limits, the transaction is referred to a higher credit authority holder or where necessary to an appropriate credit committee such as the CRM Underwriting Committee. Where personal and committee authorities are insufficient to establish appropriate limits the case is referred to the Management Board for approval.

All assigned credit authorities are reviewed on a periodic basis to ensure that they are adequate. The results of the review are presented to the Group Credit Policy Committee and reported to the Risk Executive Committee.

# **Segregation of Credit Exposures**

Counterparty credit exposure arises from our traditional nontrading lending activities which include elements such as loans and contingent liabilities. Counterparty credit exposure also arises via our direct trading activity with clients in certain instruments which include OTC derivatives, FX forwards and Forward Rate Agreements.

A default risk also arises from our positions in traded credit products such as bonds. This risk is managed using both credit & market risk parameters.

# **Monitoring Default Risk**

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. We monitor all of our credit exposures on a continuing basis using the risk management tools described above.

Credit counterparties are allocated to credit officers within specified divisional risk units which are aligned to respective business units such as Global Banking, Global Markets or Global Transaction Banking. The individual credit officers within these divisional risk units have the most relevant expertise and experience to manage the credit risks associated with these counterparties and their associated credit related transactions. It is the responsibility of each credit officer to undertake ongoing credit monitoring for their allocated portfolio of counterparties. Monitoring of credit risk arising from our trading activities with credit counterparties is undertaken in accordance with industry best practice by reference to various dedicated measures that quantify the expected current and future exposure levels, including the exposure levels under adverse market developments. The credit process for trading instruments requires limits to be established against trading instrument exposures which are monitored by respective credit officers as part of their ongoing counterparty monitoring activities.

We also have procedures in place intended to identify at an early stage credit exposures for which there may be an increased risk of loss. In instances where we have identified counterparties where problems might arise, the respective exposure is generally placed on a watchlist. We aim to identify counterparties that, on the basis of the application of our risk management tools, demonstrate the likelihood of problems well in advance in order to effectively manage the credit exposure and maximize the recovery. The objective of this early warning system is to address potential problems while adequate alternatives for action are still available. This early risk detection is a tenet of our credit culture and is intended to ensure that greater attention is paid to such exposures.

# **Monitoring Traded Default Risk**

Traded credit products such as bonds in our developed markets' trading book are managed by a dedicated risk management unit combining our credit and market risk expertise. We use appropriate portfolio limits and ratings-driven thresholds on single-issuer basis, combined with our market risk management tools to risk manage such positions. Emerging markets traded credit products are risk managed using expertise which resides within our respective emerging markets credit risk unit and market risk management.

# **Economic Capital for Credit Risk**

We calculate economic capital for the default risk, transfer risk and settlement risk as elements of credit risk. In line with our economic capital framework, economic capital for credit risk is set at a level to absorb with a probability of 99.98 % very severe aggregate unexpected losses within one year.

Our economic capital for credit risk is derived from the loss distribution of a portfolio via Monte Carlo simulation of correlated rating migrations. The loss distribution is modeled in two steps. First, individual credit exposures are specified based on parameters for the probability of default, exposure at default and loss given default. In a second step, the probability of joint defaults is modeled through the introduction of economic factors, which correspond to geographic regions and industries. The simulation of portfolio losses is then performed by an internally developed model, which takes rating migration and maturity

effects into account. We allocate expected losses and economic capital derived from this loss distribution down to transaction level to enable management on transaction, customer and business level.

# **Loan Exposure Management Group**

As part of our overall framework of risk management, the Loan Exposure Management Group ("LEMG") focuses on managing the credit risk of loans and lending-related commitments of the international investment-grade portfolio and the medium-sized German companies' portfolio within our Corporate and Investment Bank Group Division.

Acting as a central pricing reference, LEMG provides the respective Corporate and Investment Bank Group Division businesses with an observed or derived capital market rate for loan applications; however, the decision of whether or not the business can enter into the loan remains with Credit Risk Management.

LEMG is concentrating on two primary initiatives within the credit risk framework to further enhance risk management discipline, improve returns and use capital more efficiently:

- to reduce single-name and industry credit risk concentrations within the credit portfolio and
- to manage credit exposures actively by utilizing techniques including loan sales, securitization via collateralized loan obligations, default insurance coverage and single-name and portfolio credit default swaps.

#### **Credit Exposure**

We define our credit exposure by taking into account all transactions where losses might occur due to the fact that counterparties may not fulfill their contractual payment obligations.

#### **Concentrations of Credit Risk**

Significant concentrations of credit risk exist if we have material exposures to a number of counterparties with similar economic characteristics, or who are engaged in comparable activities, where these similarities may cause their ability to meet contractual obligations to be affected in the same manner by changes in economic or industry conditions. A concentration of credit risk may also exist at an individual counterparty level.

In order to monitor and manage credit risks, we use a comprehensive range of quantitative tools and metrics. Credit limits relating to counterparties, countries, products and other factors set the maximum credit exposures that we intend to incur.

#### **Credit Valuation Adjustment**

We establish a counterparty credit valuation adjustment for OTC derivative transactions to cover expected credit losses. The adjustment amount is determined at each reporting date by assessing the potential credit exposure to all counterparties, taking into account any collateral held, the effect of netting under a master agreement, expected loss given default and the credit risk for each counterparty based on historic default levels.

The credit valuation adjustments are significant for certain monoline counterparties. These credit valuation adjustments are assessed using a model-based approach with numerous input factors for each counterparty, including the likelihood of an event (either a restructuring or insolvency), an assessment of any potential settlement in the event of a restructuring, and recovery rates in the event of either restructuring or insolvency.

#### **Treatment of Default Situations under Derivatives**

Unlike in the case of the standard loan assets, we generally have more options to manage the credit risk in our OTC derivatives when movement in the current replacement costs of the transactions and the behavior of our counterparty indicate that there is the risk that upcoming payment obligations under the transactions might not be honored. In these situations, we are frequently able under prevailing contracts to obtain additional collateral or terminate the transactions or the related master agreement.

The master agreements executed with our clients usually provide for a broad set of standard or bespoke termination rights which allows us to respond swiftly to a counterparty's default or to other circumstances which indicate a high probability of failure. When our decision to terminate derivative transactions or the related master agreement results in a residual net obligation owed by the counterparty, we restructure the obligation into a non-derivative claim and manage it through our regular work-out process. As a consequence, for accounting purposes we typically do not show any nonperforming derivatives.

#### **Distribution Risk**

We frequently underwrite large commitments with the intention to sell down or distribute most of the risk to third parties. These commitments include the undertaking to fund bank loans and to provide bridge loans for the issuance of public bonds.

For risk management purposes we treat the full amount of all such commitments as credit exposure requiring formal credit approval. This approval also includes our intended final hold. Amounts which we intend to sell are classified as trading assets and are subject to fair value accounting. The price volatility is monitored in our market risk process. To protect us against a value deterioration of such amounts, we may enter into generic market risk hedges (most commonly using related indices), which are also captured in our market risk process.

# **Country Risk**

We manage country risk through a number of risk measures and limits, the most important being:

- Total counterparty exposure. All credit extended and OTC derivatives exposure to counterparties domiciled in a given country that we view as being at risk due to economic or political events ("country risk event"). It includes nonguaranteed subsidiaries of foreign entities and offshore subsidiaries of local clients.
- Transfer risk exposure. Credit risk arising where an otherwise solvent and willing debtor is unable to meet its obligations due to the imposition of governmental or regulatory controls restricting its ability either to obtain foreign exchange or to transfer assets to nonresidents (a "transfer risk event"). It includes all of our credit extended and OTC derivatives exposure from one of our offices in one country to a counterparty in a different country.
- Highly-stressed event risk scenarios. We use stress testing to measure potential risks on our trading positions and view these as market risk.

#### **Country Risk Ratings**

Our country risk ratings represent a key tool in our management of country risk. They are established by an independent country risk research function within our Credit Risk Management function and include:

- Sovereign rating. A measure of the probability of the sovereign defaulting on its foreign or local currency obligations.
- Transfer risk rating. A measure of the probability of a "transfer risk event."
- Event risk rating. A measure of the probability of major disruptions in the market risk factors relating to a country.

All sovereign and transfer risk ratings are reviewed, at least annually, by the Group Credit Policy Committee, a sub-committee of our Risk Executive Committee. Our country risk research group also reviews, at least quarterly, our ratings for the major Emerging Markets countries. Ratings for countries that we view as particularly volatile, as well as all event risk ratings, are subject to continuous review.

We also regularly compare our internal risk ratings with the ratings of the major international rating agencies.

# **Country Risk Limits**

We manage our exposure to country risk through a framework of limits. The bank specifically limits and monitors its exposure to Emerging Markets. For this purpose, Emerging Markets are defined as Latin America (including the Caribbean), Asia (excluding Japan), Eastern Europe, the Middle East and Africa. Limits are reviewed at least annually, in conjunction with the review of country risk ratings. Country Risk limits are set by either our Management Board or by our Group Credit Policy Committee, pursuant to delegated authority.

# **Monitoring Country Risk**

We charge our group divisions with the responsibility of managing their country risk within the approved limits. The regional units within Credit Risk Management monitor our country risk based on information provided by our finance function. Our Group Credit Policy Committee also reviews data on transfer risk.

#### **Problem Loans**

Our problem loans consist mainly of our impaired loans. Our Credit Risk Management regularly assesses whether there is objective evidence that a loan or group of loans is impaired. A loan or group of loans is impaired and impairment losses are incurred if

- there is objective evidence of impairment as a result of a loss event that occurred after the initial recognition of the asset and up to the balance sheet date (a "loss event"),
- the loss event had an impact on the estimated future cash flows of the financial asset or the group of financial assets, and
- a reliable estimate of the loss amount can be made.

The impairment loss is generally calculated on the basis of discounted expected cash flows using the original effective interest rate of the loan. For troubled debt restructurings (as defined below) the original effective interest rate before modification of terms is used.

The second component of our problem loans are nonimpaired problem loans, where no impairment loss is recorded but where either known information about possible credit problems of borrowers causes management to have serious doubts as to the ability of such borrowers to comply with the present loan repayment terms or that are 90 days or more past due but for which the accrual of interest has not been discontinued.

# Allowance for doubtful accounts

The Bank provides allowance for doubtful accounts equal to the estimated collection losses that may be incurred in the collection of loans and receivables. The estimated losses are based on historical collection experience and a review of the current status of the loans and receivables.

The Bank of Thailand has guidelines for establishing a minimum level of allowance for doubtful accounts, which is primarily determined by applying specified percentages to the different classifications of financing in conjunction with the consideration of collateral valuation. Financing classifications are based principally on the period that a financing is past due. The Bank has set up the allowance for doubtful accounts according to the Bank of Thailand regulations.

With reference to the Bank of Thailand's directive, the Bank has classified its loan portfolios into six categories, primarily based on the non-accrual period. For loans classified as pass and special-mention, the calculation of allowances for doubtful accounts is based on the regulatory minimum percentage requirement, taking into consideration the collateral value, where the collateral type and date of the latest appraisal are qualifying factors. For loans classified as sub-standard, doubtful and doubtful of loss, the allowance on these accounts is set at 100 percent of the difference between the outstanding book value of the debt and the present value of future cashflows expected to be received or the expected proceeds from the disposal of collateral in accordance with Bank of Thailand's criteria.

The allowance for doubtful accounts is charged as an expense in each accounting year. Bad debts written off or recovered are recorded as charges or credits, respectively, to the allowance for doubtful accounts.

#### Troubled debt restructuring

Losses on troubled debt restructuring resulting from the reduction of principal and accrued interest and other restructuring concessions including modification of terms, asset transfer, debts to equity swap, etc. are recognised as expenses in the statement of income.

In case the troubled debt restructuring modifies the terms of payment, the Bank complies with the Bank of Thailand's criteria requiring the Bank to choose between the collateral method by which a loss amount is to be estimated and/or the net present value method which represents expected cash flow in the future and applying the interest rate on the restructuring date for discounting purposes. Losses from such debt restructuring are recognised in the statement of income.

Subsequent to the troubled debt restructuring, the Bank recalculates fair value of restructuring debt based on aforementioned discount rates as of the last date of the financial statements and makes an adjustment of the valuation on the debt restructuring, if the fair value has changed. The recalculation made to the financial statements is in accordance with the aforementioned Bank of Thailand's criteria. The adjustment in the valuation of restructuring debt shall not cause the book value of restructuring debt to exceed the investment value of restructuring debt.

Restructured loans are classified as performing when the restructured loan agreements have been completed and when there is appropriate evidence that the restructured terms can be met.

#### **Impairment**

The carrying amounts of the Bank's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognised in the statement of income unless it reverses a previous revaluation credited to head office's equity, in which case it is charged to head office's equity.

When a decline in the fair value of an available-for-sale financial asset has been recognised directly in head office's equity and there is objective evidence that the value of the asset is impaired, the cumulative loss that had been recognised directly in head office's equity is recognised in the statement of income even though the financial asset has not been derecognised. The amount of the cumulative loss that is recognised in the statement of income is the difference between the acquisition cost and current fair value, less any impairment loss on that financial asset previously recognised in the statement of income.

#### Calculation of recoverable amount

The recoverable amount of available-for-sale financial assets is calculated by reference to the fair value.

The recoverable amount of a non-financial assets is the greater of the assets' value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

# Reversals of impairment

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised. For financial assets carried at amortised cost and available-for-sale financial assets that are debt securities,

the reversal is recognised in the statement of income. For available-for-sale financial assets that are equity securities, the reversal is recognised directly in head office's equity.

Impairment losses recognised in prior periods in respect of non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss has been recognised.

#### **Settlement Risk**

Our trading activities may give rise to risk at the time of settlement of those trades. Settlement risk is the risk of loss due to the failure of a counterparty to honor its obligations to deliver cash, securities or other assets as contractually agreed.

For many types of transactions, we mitigate settlement risk by closing the transaction through a clearing agent, which effectively acts as a stakeholder for both parties, only settling the trade once both parties have fulfilled their sides of the bargain.

Where no such settlement system exists, the simultaneous commencement of the payment and the delivery parts of the transaction is common practice between trading partners (free settlement). In these cases, we may seek to mitigate our settlement risk through the execution of bilateral payment netting agreements. We are also an active participant in industry initiatives to reduce settlement risks. Acceptance of settlement risk on free settlement trades requires approval from our credit risk personnel, either in the form of preapproved settlement risk limits, or through transaction-specific approvals. We do not aggregate settlement risk limits with other credit exposures for credit approval purposes, but we take the aggregate exposure into account when we consider whether a given settlement risk would be acceptable.

# **Credit Approval & Credit Review Process**

Credit Risk Management (CRM) is responsible for approving credit facilities for any 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). All 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: all 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 any changes of Deutsche Bank's internal credit rating and
  updated situations which may effect the repayment ability of reviewed debtors.
- Annual review by Deutsche Bank AG, Bangkok Branch: In order to monitor their loan portfolio and to comply with Bank of Thailand's regulation. Deutsche Bank AG, Bangkok Branch regularly reviews their debtors on an annual basis. However, Deutsche Bank AG, Bangkok Branch does not have approval authority, it normally submits all of the credit review reports to be acknowledged or approved by the regional office.
- All non-performing loans shall be managed and monitored by the relevant regional or global office.

There is no 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 2009.

General information on credit risk \*

Outstanding amounts of significant on-balance sheet assets and off-balance sheet items <u>before</u> adjusted by credit risk mitigation (Show outstanding at the end of the period)

Unit: TTHB

ltem	2009
1. On-balance sheet assets (1.1 + 1.2 + 1.3)	108,777,306.51
1.1 Net loans 1/	77,143,784.47
1.2 Net Investment in debt securities 2/	30,697,253.05
1.3 Deposits (including accrued interest receivables)	936,268.99
2. Off-balance sheet items 3/ (2.1 + 2.2 + 2.3)	1,525,886,950.29
2.1 Aval of bills, guarantees of borrowing, and letter of credits	2,064,355.49
2.2 OTC derivatives <sup>4/</sup>	1,523,434,385.31
2.3 Undrawn committed line	388,209.48

<sup>\*</sup> Assets on balance sheet <u>not including</u> equity exposures. Off-balance sheet items <u>including</u> equity exposures

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

	2009								
	On-balance sheet assets				Off-balance sheet items 3/				
Country or geographic area of debtor	Total	Net loans <sup>1/</sup>	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	105,764,227.97	74,169,538.71	30,697,253.05	897,436.21	630,585,049.90	286,157.61	629,910,682.80	388,209.48	
2. Asia Pacific (exclude Thailand)	659,212.29	659,212.29	-	-	63,353,242.73	763,451.75	62,589,790.98	-	
3. North America and Latin America	394,639.52	394,639.52	-	-	178,547,551.46	821,135.91	177,726,415.56	-	
4. Africa and Middle East	18,585.87	18,585.87	-	-	6,787,540.77	113,790.77	6,673,750.00	-	
5. Europe	1,925,405.08	1,887,458.91	-	37,946.17	644,714,988.42	79,819.45	644,635,168.97	-	
6. Others	15,235.77	14,349.16	-	886.61	1,898,577.00	-	1,898,577.00		
Total	108,777,306.51	77,143,784.47	30,697,253.05	936,268.99	1,525,886,950.29	2,064,355.49	1,523,434,385.31	388,209.48	

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

<sup>&</sup>lt;sup>47</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>&</sup>lt;sup>37</sup> Excluding accrued interest receivables and net of allowances for revaluation of securities and allowances for impairment of securities

W Before multiplying credit conversion factor

 $<sup>^{\</sup>prime\prime}$  Including equity-related derivatives

<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

	2009					
ltem	Maturity not exceeding 1 year	Maturity exceeding 1 year	Total			
1. On-balance sheet assets (1.1 + 1.2 + 1.3)	100,641,874.14	8,135,432.37	108,777,306.51			
1.1 Net loans 1/	75,713,192.87	1,430,591.60	77,143,784.47			
1.2 Net Investment in debt securities 2/	23,992,412.28	6,704,840.77	30,697,253.05			
1.3 Deposits (including accrued interest receivables)	936,268.99	-	936,268.99			
2. Off-balance sheet items 3 (2.1 + 2.2 + 2.3)	608,820,238.04	917,066,712.25	1,525,886,950.29			
2.1 Aval of bills, guarantees of borrowings, and letter of credits	362,763.45	1,701,592.04	2,064,355.49			
2.2 OTC derivatives	608,257,062.81	915,177,322.50	1,523,434,385.31			
2.3 Undrawn committed line	200,411.77	187,797.71	388,209.48			

<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.

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

2009								
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	74,178,041.82	-	35,000.00	55,000.00	57,656.73	74,325,698.55	142,653.51	
2. Asia Pacific (exclude Thailand)	668,398.57	-	-	-	-	668,398.57	-	
3. North America and Latin America	400,136.99	-	-	-	-	400,136.99	-	
4. Africa and Middle East	18,844.87	-	-	-	-	18,844.87	-	
5. Europe	1,913,733.04	-	-	-	-	1,913,733.04	-	
6. Others	14,549.12	-	-	-	-	14,549.12	-	
Total	77,193,704.42		35,000.00	55,000.00	57,656.73	77,341,361.15	142,653.51	

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

<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

<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

	2009								
	Loans inclu	iding accrued interest	receivables <sup>1/</sup>	Specific provision for					
Country or geographic area of debtor	General provision	Specific provision	Bad debt written-off during period	Investment in debt securities					
1. Thailand		82,656.73	-	142,653.51					
2. Asia Pacific (exclude Thailand)		-	-	_					
3. North America and Latin America		-	-	-					
4. Africa and Middle East		-	-	-					
5. Europe		-	-	_					
6. Others		-	-	_					
Total	114,919.96	82,656.73	-	142,653.51					

<sup>&</sup>lt;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

		2009				
Type of business	Normal	Special mentioned	Substandard	Doubtful	Doubtful loss	Total
- Agriculture and mining	740,579.51	-	-	-	-	740,579.51
- Manufacturing and commerce	10,620,932.13	-	35,000.00	25,000.00	57,298.62	10,738,230.75
- Real estate business and construction	1,384,203.74	-	-	-	-	1,384,203.74
- Public utilities and services	207,588.12	-	-	-	-	207,588.12
- Housing loans	-	-	-	-	358.11	358.11
-Others (Commercial banks shall use their owns discretion to dertermine significance)						-
Finance business group	63,915,457.08	-	-	-	-	63,915,457.08
Multilateral organization	292,078.00	-	-		-	292,078.00
3. Other service	30,086.47	-	-	30,000.00	-	60,086.47
4. Commodities	2,779.36	-	-	-	-	2,779.36
Total	77,193,704.42	-	35,000.00	55,000.00	57,656.73	77,341,361.15

<sup>\*</sup> 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

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

114,919.96

82,656.73

Unit: TTHB

	2009					
ltem	General provision	Specific provision	Total			
Provisions at the beginning of the period Bad debts written-off during the period Increases or Decreases of provisions during the period	124,398.06 - (9,478.10)	-	217,500.01 - (19.923.32)			
Other provisions (provisions for losses from foreign exchange, provisions	-	-	-			
for merger and sale of businesses) Provisions at the end of the period	114,919.96	82,656.73	197,576.69			

<sup>\*</sup> 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

		2009	
Type of asset	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	29,439,049.56	2,967,472.34	32,406,521.91
1.2 Claims on financial institutions , non-central government public sector entities (PSEs) treated as claims on financial institutions, and securities firms	4,328,775.13	71,116,335.75	75,445,110.87
1.3 Claims on corporates , non-central government public sector entities (PSEs) treated as claims on corporate	13,948,828.94	33,262,911.80	47,211,740.74
1.4 Claims on retail portfolios	2,779.36	-	2,779.36
1.5 Housing loans	-	-	-
1.6 Other assets	31,585,274.48	-	31,585,274.48
2. Non-performing claims	-	-	-
3. First-to-default credit derivatives and Securitisation	-	-	-
Total	79,304,707.47	107,346,719.89	186,651,427.36

<sup>\*</sup> After multiplying with credit conversion factor and specific provision

<sup>\*</sup> Including outstanding amount of loans including accrued interest receivables of interbank anad money market

<sup>&</sup>quot;Including all Repo-style transactions (including Reverse repo transactions)

# Credit risk exposure under the Standardised Approach (SA)

Deutsche Bank AG, Bangkok Branch calculates regulatory capital requirement for credit risk using the Standardised Approach (SA) methodology according to the Bank of Thailand's notification Re: Regulations for Credit Risk Asset Calculations for Commercial Banks Using the Standardised 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, we 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, we 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), we use Senior Unsecured Debt rating while for TRIS Rating, we use company rating.

We 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, we 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, we
  use the higher risk weight.
- Where there are more than 2 credit ratings from the selected ECAI with varying risk weights, we 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, we 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 Standardised Approach (SA) as at 31 December 2009.

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

Unit: TTHB

Type of asset				2009			OIIK. TTTIB
Type or asset	Rated outstanding amount			Unrated outstanding amount			
Risk weight (%)	0	20	50	100	150	0	100
Performing claims							
Claims on sovereigns and central banks, multilateral development banks (MDBs), and non-central governement public sector entities (PSEs) treated as claims on sovereigns	2,489,584.89			·			
Claims on financial institutions , non-central governement public sector entities (PSEs) treated as claims on financial institutions, and securities firms	-	30,636,153.11	9,464,865.62	3,770,825.45	47.27		
Claims on corporates , non-central governement public sector entities (PSEs) treated as claims on corporate		689,868.30	452,984.73	1,313,037.22	-		21,336,189.85
4. Claims on retail portfolios							2,779.36
5. Claims on housing loans							
6. Other assets						31,208,631.45	376,643.03
Risk weight (%)	·		50	100	150		
Non-performing claims			-		-		
Capital deduction items prescribed by the Bank of Thailand							

<sup>\*</sup> After multiplying credit conversion factor

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

#### Collateral held as Security

We regularly agree on collateral to be received from customers in contracts that are subject to credit risk. We also regularly agree 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.

We segregate collateral received into the following two types:

— Financial and other collateral, which enables us to recover all 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, we 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, we enter into collateral support arrangements as described further below.

<sup>&</sup>lt;sup>1/2</sup> For the partian claims with no credit risk mitigation of which risk weight are determined by the proportion of provision to total amount of claims

#### **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 all current and future credit risk positions emerging out of such transactions. To the extent possible, we also use central counterparty clearing services for OTC derivative transactions ("OTC clearing"); we 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, we 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) we also enter into master agreements under which we 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 we apply netting only to the extent we have satisfied ourselves of the legal validity and enforceability of the master agreement in all relevant jurisdictions.

Also, we 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 we believe the collateral support annex is enforceable, we 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, we also estimate the potential future replacement costs of the portfolios over their lifetimes or, in case of collateralized portfolios, over appropriate unwind periods. We measure the potential future exposure against separate limits. We 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 we 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 we 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 we 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. We 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. We also enter into master agreements that provide for an additional termination event upon a party's rating downgrade. We 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, if any, to ensure that the collateral is valid and enforceable at all times.

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 Standardised Approach (SA) as at 31 December 2009.

Unit: TTHB

	2009		
Type of asset	Eligible financial collateral <sup>1/</sup>	Guarantee and credit derivatives	
Performing assets			
1 Claims on sovereigns and central banks, multilateral development banks (MDBs), and non- central governement public sector entities (PSEs) treated as claims on sovereigns	29,916,937.02	-	
2 Claims on financial institutions, non-central government public sector entities (PSEs) treated as claims on financial institutions, and securities firms	31,573,219.43	-	
3 Claims on corporates, non-central government public sector entities (PSEs) treated as claims on corporate	23,419,660.63	82,476.92	
4 Claims on retail portfolios	-	-	
5 Claims on housing loans	-	-	
6 Other assets	-	-	
Substandard assets			
Total	84,909,817.08	82,476.92	

 $<sup>^{47}</sup>$  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 Standardised Approach (SA)

Deutsche Bank AG, Bangkok Branch calculates regulatory capital requirement for market risk using the Standardised 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 Standardised Approach (SA) as at 31 December 2009.

# 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-09	Jun-09
Interest rate risk  Equity position risk	2,087,563.07	2,354,283.12
Foreign exchange rate risk	- 135,039.77	- 264,389.78
Commodity risk	-	-
Total minimum capital requirements	2,222,602.84	2,618,672.91

# Market risk exposure under the Internal Model Approach (IMA)

The vast majority of our businesses are subject to market risk, defined as the potential for change in the market value of our 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.

The primary objective of Market Risk Management is to ensure that our business units optimize the risk-reward relationship and do not expose it to unacceptable losses. To achieve this objective, Market Risk Management works closely together with risk takers (the business units) and other control and support groups.

We differentiate between two substantially different types of market risk:

- Trading market risk arises primarily through the market-making activities of the Corporate and Investment Bank division. This involves taking positions in debt, equity, foreign exchange, other securities and commodities as well as in equivalent derivatives.
- Nontrading market risk in the form of foreign exchange risk and interest risk arises from our nontrading asset and liability positions. Equity risk stems primarily from loan restructuring. Other nontrading market risk elements are risks arising from asset management and fund related activities as well as model risks in PBC, GTB and PWM, which are derived by shocking assumptions on client behavior in combination with interest rate movements.

#### **Trading Market Risk Management Framework**

Our primary instrument to manage trading market risk is the limit setting process. The Group's Management Board, supported by Market Risk Management, which is part of our independent legal, risk & capital function, sets a Group-wide value-at-risk and economic capital limits for the market risk in the trading book. Market Risk Management sub-allocates this overall limit to our group divisions (e.g., Global Markets and Corporate Finance) and individual business areas (e.g., Global Rates, Global Markets Equity, etc.) based on anticipated business plans and risk appetite. Within the individual business areas, the business heads or Chief Operating Officers may establish business limits by sub-allocating the Market Risk Management limit down to individual portfolios or geographical regions.

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

- Diversification effects: Diversification is a portfolio strategy designed to reduce exposure by combining a variety of positions. Because some investments rise in value while others decline, diversification can help to lower the overall level of risk for a given portfolio.
- Hedging: Hedging involves taking positions in related securities, 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.

Our value-at-risk for the trading businesses is based on our own internal value-at-risk model. In October 1998, the German Banking Supervisory Authority (now the BaFin) approved our internal value-at-risk model for calculating the regulatory market risk capital for our general and specific market risks at Deutsche Bank Group level. 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.

We calculate value-at-risk using a 99 % confidence level and a holding period of one day. This means we 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.

We use historical market data to estimate value-at-risk, with an equally-weighted 261 trading day history. The calculation employs a Monte Carlo simulation technique, and we assume that changes in risk factors follow a certain distribution, e.g., normal or logarithmic normal distribution. To determine our aggregated value-at-risk, we use observed correlations between the risk factors during this 261 trading day 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 all of our 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.

When using value-at-risk estimates a number of considerations should be taken into account. The model is subject to known limitations, many of which manifested themselves in 2008, resulting in a high number of outliers. The Group continuously analyzes potential weaknesses of our value-at-risk model using statistical techniques such as back-testing, but also rely on risk management experience and expert opinion.

Back-testing provides an analysis of the predictive power of the value-at-risk calculations based on actual experience. We 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 Operations, 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 power of our value-at-risk model, which in turn allows us to improve the risk estimation process.

# **Stress Testing and 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, we therefore also perform stress tests in which we value our trading portfolios under extreme market scenarios not covered by the confidence interval of our value-at-risk model.

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.

We 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 all 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. All 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. We 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.

# **Risk Monitoring and Controlling**

The establishment and monitoring of market risk limits is a key control function from the perspective of ensuring that the bank keeps within the overall risk appetite set out by senior management. The 'Market Risk Limits Policy' defines Deutsche Bank Group's policy in terms of market risk limits and establishes the general guidelines to be followed by the various departments involved in the limit setting, adherence, monitoring and review & updating of these limits.

Market Risk Management is responsible for managing market risk within Deutsche Bank AG, Bangkok Branch. Market Risk Management carries out this responsibility in an independent and neutral way, providing a comprehensive and independent view of market risks to Deutsche Bank AG, Bangkok Branch's senior management. The primary objective in carrying out this responsibility is to ensure that the activities of Deutsche Bank AG, Bangkok Branch optimize the risk-reward relationship and do not expose it to unacceptable losses.

Market Risk Operations is responsible for the Standard Reporting. The production of these reports requires the collection and analysis of the data. Market Risk Operations receives the position, P&L and risk sensitivities from Business Area Controlling and are responsible for aggregation of the sensitivities & daily P&L as well as calculation of the Value at Risk, ERS and Stress Testing data in accordance with the methodology set out by Market Risk Management.

Market Risk Management monitors risk levels continuously even where below the relevant risk limit. However, instances may arise where positions exceed the stated limits. Whenever feasible, limit excessions should be pre-approved. In reviewing limit excession requests or involuntary limit excessions (such as may occur with VAR or ERS), Market Risk Management will engage in a discussion with the business regarding the ongoing appropriateness of risk position given the total firm-wide risk profile, liquidation options available, and the risks, rewards and capitals.

The independent monitoring, reporting of excesses and supporting the notification and approval process for market risk limits is the responsibility of Market Risk Operations.

Business heads/Chief Operating Officer and Market Risk Management are informed of the market risk and the usage of the limits via the Daily Market Risk Report produced by Market Risk Operations. Overall Market risk positions of Deutsche Bank AG, Bangkok Branch are reported to the local Asset and Liability Committee (ALCO) for ensuring regular monitoring of risk positions, capital requirements and regulatory compliance as required to comply with the local Internal Capital Adequacy Assessment Process (ICAAP).

# Value-at-Risk of Trading Units of Deutsche Bank AG, Bangkok Branch

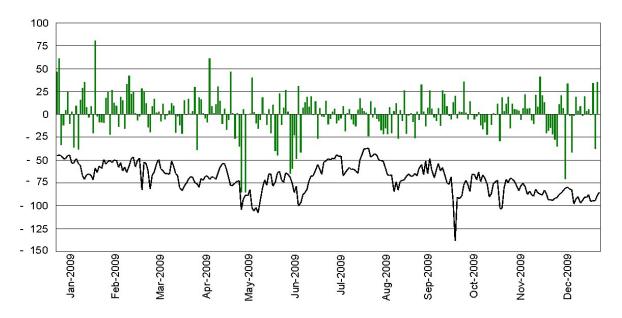
The following table shows the value-at-risk (with a 99 % confidence level and a one-day holding period) of the trading units of Deutsche Bank AG, Bangkok Branch. Diversification effect" reflects the fact that the total value-at-risk on a given day will be lower than the sum of the values-at-risk relating 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 all risk categories occur simultaneously.

Value-at-risk of trading units		
in THB million	Dec 31, 2009	Dec 31, 2008
Interest rate risk	75.6	41.6
Foreign exchange risk	28.4	11.8
Commodity price risk	-	-
Equity price risk	-	-
Diversification effect	(23.5)	(10.8)
Total	80.6	42.6

An outlier is a hypothetical buy-and-hold trading loss that exceeds our value-at-risk estimate. In our regulatory back-testing in 2009, we observed zero outlier compared to 12 in 2008. We would expect a 99 percent confidence level to give rise to two to three outliers in any one year. This significant improvement in model performance reflects the developments carried out in 2008 and 2009 and the return of markets to more normal volatility and correlation patterns.

# Daily Back Testing Result in 2009

in THB million



#### **Nontrading Market Risk Management**

The majority of the interest rate and foreign exchange risks arising from our nontrading asset and liability positions has been transferred through internal hedges to Global Markets within our Corporate and Investment Bank and is thus managed on the basis of value-at-risk as reflected in our trading value-at-risk numbers. For the remaining risks that have not been transferred through those hedges, in general foreign exchange risk is mitigated through match funding the investment in the same currency and only residual risk remains in the portfolios.

The small contribution to equity risk in our nontrading portfolio results from loan restructuring. However, we have no intention to trade these equities.

In Deutsche Bank Group, Nontrading Market Risk Management function also has the mandate to monitor and manage risks arising from equity compensation and asset management and fund related activities resulting primarily from guaranteed funds. Moreover, our PBC, GTB and PWM businesses are subject to modeling risk with regard to client deposits.

#### **Operational risk**

# **Organizational Structure**

The Global Head of Operational Risk Management is a member of the Risk Executive Committee and reports to the Chief Risk Officer. He chairs the Operational Risk Management Committee, which is a permanent subcommittee of the Risk Executive Committee and is composed of the Operational Risk Officers from the Group's Business Divisions and Infrastructure Functions. It is the main decision-making committee for all operational risk management matters.

While the day-to-day operational risk management lies with the Group's business divisions and infrastructure functions, the Operational Risk Management function manages the cross divisional and cross regional operational risk and ensures a consistent application of the Group's operational risk management strategy across the bank. Based on this Business Partnership Model, which is also shown in the chart below, the Group ensures close monitoring and high awareness of operational risk.

#### Business Partnership Model of Operational Risk Management



# **Managing The Group's Operational Risk**

The Group manages operational risk based on a Group-wide consistent framework that enables the Group to determine the operational risk profile in comparison to the Group's risk appetite and systematically identify operational risks themes to define risk mitigating measures and priorities.

The Group applies a number of techniques to efficiently manage the operational risk in its business, for example:

- The Group performs systematic risk analyses, root cause analyses and lessons learned activities for events above €2 million (around THB 96 million) to identify inherent areas of risk and to define appropriate risk mitigating actions which are monitored for resolution. The prerequisite for these detailed analyses and the timely information of the Group's senior management on the development of the operational risk events and on single larger events is the continuous collection of all losses above € 10,000 (around THB 477,934) arising from operational risk events in the Group's "db-Incident Reporting System".
- The Group systematically utilizes information on external events occurring in the banking industry to ensure that similar incidents will not happen to the Group.
- Key Risk Indicators ("KRI") are used to alert the organization to impending problems in a timely fashion. They allow the monitoring of the Group's control culture as well as the operational risk profile and trigger risk mitigating actions. Within the KRI program the Group captures data at a granular level allowing for business environment monitoring and facilitating the forward looking management of operational risk based on early warning signals returned by the KRIs. The Group captures and monitors key operational risk indicators in the tool "db-Score".
- In the Group's bottom-up Risk and Control Self Assessment ("RCSA") process, which is conducted at least annually, areas with high risk potential are highlighted and risk mitigating measures to resolve issue are identified. In general, RCSAs are performed in the Group's tool "db-SAT". On a regular basis the Group conducts country risk workshop aiming to evaluate risks specific to countries and local legal entities the Group is operating in and take appropriate risk mitigating actions.
- Regular operational risk profile reports for the Group's business divisions, the countries the Group is operating in and selected infrastructure groups are reviewed and discussed with the department's senior management. The regular performance of the risk profile reviews enables the Group to early detect changes to the units risk profile and to take corrective actions.

- Within the Group's tracking tool "db-Track" the Group monitors risk mitigating measures identified via these techniques for resolution.
- Due to the heterogeneous nature of operational risks in certain cases operational risks cannot be fully mitigated. In such cases operational risks are mitigated following the "as low as reasonable possible" principle and the residual risk is formally accepted.
- The Group performs top risk analyses in which the results of the aforementioned activities are considered. The top risk analyses mainly contribute into the annual operational risk management strategy and planning process. Besides the operational risk management strategic and tactical planning the Group defines capital and expected loss targets which are monitored on a regular basis within the quarterly forecasting process.

The organizational structure of Deutsche Bank AG, Bangkok Branch is the same as Deutsche Bank group. Deutsche Bank AG, Bangkok Branch organizes Operations Committee (OPCO) meeting to monitor the operational risk profiles of each division and prioritise actions to be taken to mitigate these risks as appropriate as well as discuss the way to rectify various types of operational losses of each division which captured in Db-Incident Reporting System (dbIRS).

For Deutsche Bank AG, Bangkok Branch, we use the Basic Indicator Approach methodology according to the Bank of Thailand's notification to calculate local regulatory capital for Operational Risk.

# Equity exposure in the banking book

Our equity exposures in the banking book contain only shares received from loan restructuring which we use the market price at end of each month from the Stock Exchange of Thailand to mark to market value of the shares. However, we have no intention to trade these equities.

The table below shows equity exposures in banking book as at 31 December 2009.

Equity exposures	2009
1. Equity exposures	
1.1 Equities listed and publicly traded in the Stock Exchange	
- Book value	3,824.73
- Fair value	10,230.39
1.2 Other equities	-
2. Gains (losses) of sale of equities in the reporting period	-
3. Net surplus (deficit) from revaluation of available for sale equities	6,405.66
4. Minimum capital requirements for equity exposures classified by the calculation methods	
- SA	767.28
- 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 point (bps) changes in interest rate as at 31 December 2009 as per the following table. The internal transactions which transfer the interest rate risk to the trading book have been excluded from the calculation.

# The effect of changes in interest rates\* to net earnings

Currency	2009	
	Effect to net earnings	
Baht	(245,597.00)	
USD	5,954.85	
EURO	(2,042.22)	
Others	(25,041.27)	
Total effect	(266,725.64)	

 $<sup>{}^{\</sup>bullet}$  Use the percentage changes in interest rates of upward 100 bps .