HSBC

2015

The Hongkong and Shanghai Banking Corporation Limited, Bangkok Branch

Pillar 3 Disclosures at 31 December 2015

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Cautionary statement regarding forward-looking statements

The *Pillar 3 Disclosures 2015* contains certain forward-looking statements with respect to the financial condition of The Hongkong and Shanghai Banking Corporation Limited, Bangkok Branch ('the Bank'), results of operations capital position and business.

Statements that are not historical facts, including statements about the Bank's beliefs and expectations, are forward-looking statements. Words such as 'expects', 'anticipates', 'intends', 'plans', 'believes', 'seeks', 'estimates', 'potential' and 'reasonably possible', variations of these words and similar expressions are intended to identify forward-looking statements. These statements are based on current plans, estimates and projections, and therefore undue reliance should not be placed on them. Forward-looking statements speak only as of the date they are made. The Bank makes no commitment to revise or update any forward-looking statements to reflect events or circumstances occurring or existing after the date of any forward-looking statements.

Forward-looking statements involve inherent risks and uncertainties. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement. These factors include, but are not limited to

- changes in general economic conditions in the markets in which we operate,
- changes in government policy and regulation, including the monetary, interest rate and other policies of central banks and other regulatory authorities, and
- factors specific to the Bank including discretionary risk-weighted asset ('RWA') growth and our success in adequately identifying the risks we face, such as the incidence of loan losses or delinquency, and managing those risks (through account management, hedging and other techniques).

Introduction

Purpose

This document comprises the Bank's Pillar 3 disclosures on capital and risk management at 31 December 2015 to meet the regulatory disclosure requirements under the Bank of Thailand ('the BoT') Notification dated 2 May 2013, Re: The Public Disclosure of Capital Maintenance for Commercial Banks.

Additional relevant information may be found in the Bank's annual financial statements for the year ended 31 December 2015.

Key regulatory information

Regulatory capital

THB 20,100m

- up 7.2%

2014: THB 18,749m

Capital ratio

17.4%

2014: 19.1%

The Hongkong and Shanghai Banking Corporation Limited is a subsidiary of HSBC Holdings plc ('HSBC' or 'the Group').

Regulatory framework

The Bank calculates capital according to the announcement of the BoT regarding a capital adequacy framework based on Basel III framework : 'A global regulatory framework for more resilient banks and banking systems' issued by the Basel Committee on Banking Supervision ('Basel Committee').

Basel III has been developed from Basel II: 'International Convergence of Capital Measurement and Capital Standard'. The supervisory objectives are to strengthen the regulatory capital framework to bear potential loss in normal situation as well as in crisis, building on the three pillars of the Basel II framework. The reforms raise both the quality and quantity of the regulatory capital base and enhance the risk coverage of the capital framework. They are underpinned by a leverage ratio that serves as a backstop to risk-based capital measures. A number of macroprudential elements in the capital framework are introduced to help prevent systemic risks arising from pro-cyclicality and from the interconnectedness of financial institutions.

The Basel framework is structured around three 'pillars': the Pillar 1 minimum capital requirements and the Pillar 2 supervisory review process are complemented by Pillar 3 market discipline. The aim of Pillar 3 is to produce disclosures which allow market participants to assess the scope of application by banks of the Basel Committee's framework and the rules in their jurisdiction, their capital condition, risk exposures and risk management processes, and hence their capital adequacy. Pillar 3 requires all material risks to be disclosed, enabling a comprehensive view of a bank's risk profile.

Regulatory development

Capital conservation buffer
To align with the Basel III framework, the BoT contemplates a capital conservation buffer ('CCB'). The CCB was designed to ensure banks build up capital outside periods of stress that can be drawn down when losses are incurred and is set at 2.5%. The BoT will phase in this buffer from 1 January 2016 to 1 January 2019.

Pillar 3 disclosures 2015

The Pillar 3 Disclosures 2015 comprise all information required under Pillar 3, both quantitative and qualitative in accordance with Section 5.3.3 of the BoT's notification Re: Regulations on Capital Supervision for Commercial Banks.

The Pillar 3, market discipline, complements the minimum capital requirements and the supervisory review process. The aim is to encourage market discipline by developing a set of disclosure requirements, both quantitative and qualitative which allow market participants to assess certain specified information on the scope of application by banks of the Basel framework and the rules in their jurisdiction, their capital condition, risk exposures and risk assessment processes, and hence their capital adequacy.

Frequency
We published comprehensive Pillar 3 disclosures annually with an update of certain quantitative capital requirement disclosures, including market risk information, at the half year.

Media and location
The *Pillar 3 Disclosures 2015* on a standalone basis are available on our website: www.hsbc.co.th, whereas the Pillar 3 Disclosures 2015 of HSBC Holdings plc and its subsidiaries on a consolidated level and other information on HSBC are available on HSBC Group's website: www.hsbc.com.

Verification
Whilst the *Pillar 3 Disclosures 2015* are not required to be externally audited, the document has been appropriately verified internally in accordance with the Bank's policies on disclosure and its financial reporting and governance processes.

Scope of permissions

Credit risk

The Basel framework applies three approaches of increasing sophistication to the calculation of Pillar 1 credit risk capital requirements. The most basic level, the standardised approach ('SA'), requires banks to use external credit ratings to determine the risk weightings applied to rated counterparties. Other counterparties are grouped into broad categories and standardised risk weightings are applied to these categories.

The next level, the internal ratings-based ('IRB') foundation approach, allows banks to calculate their credit risk capital requirements on the basis of their internal assessment of counterparty's probability of default ('PD'), but subjects their quantified estimates of exposure at default ('EAD') and loss given default ('LGD') to standard supervisory parameters. Finally, the IRB advanced approach allows banks to use their own internal assessment in both determining PD and quantifying EAD and LGD.

For credit risk, with the BoT's approval, we have adopted the standardised approach.

Counterparty credit risk in both the trading and non-trading books is the risk that the counterparty to a transaction may default before completing the satisfactory settlement of the transaction. Three approaches for calculating counterparty credit risk and determining exposure values are defined by Basel: standardised, mark-to-market and internal model method ('IMM'). These exposure values are used to determine capital requirements under one of the credit risk approaches; standardised, IRB foundation and IRB advanced.

Internally, we use the mark-to-market and IMM approaches for managing and monitoring our counterparty credit risk.

Market risk

Market risk is the risk that movements in market risk factors, including foreign exchange rates, commodity prices, interest rates, credit spreads and equity prices will reduce our income or the value of our portfolios.

We have obtained approval from the BoT to apply a combined approach for market risk assessment to determine capital requirements. The standardised approach is used for Specific Interest Rate Risk and the Value at Risk ('VaR') model is used for general market, foreign exchange and interest rate risk.

Operational risk

Basel allows for firms to calculate their operational risk capital requirement under the basic indicator approach, the standardised approach or the advanced measurement approach.

We have adopted the standardised approach in determining our operational risk capital requirements.

Capital

Approach and policy

Our approach to capital management is driven by our strategic and organisational requirements, taking into account the regulatory, economic and commercial environment in which we operate. We aim to maintain a strong capital base to support the development of our business and to exceed regulatory capital requirements at all times.

Our capital management process culminates in the annual Group capital plan, which is approved by the Board. HSBC Holdings plc is the primary provider of equity capital to its subsidiaries and also provides them with non-equity capital where necessary. These investments are substantially funded by HSBC Holdings' issuance of equity and non-equity capital and by profit retention.

We manage our own capital to support our planned business growth and meet our local regulatory requirements within the context of the Group capital plan. Capital generated by us in excess of planned requirements is returned to our Head Office, normally by way of profit remittance, in accordance with the Bank's capital plan.

Composition of regulatory capital

The BoT has issued the notification to revise the components of regulatory capital effective from 1 January 2013. Items that do not reflect true capital are added to the regulatory adjustments to be applied to the regulatory capital i.e. goodwill, intangible assets, gains on sale related to securitisation transactions and significant investments in common shares and warrants to be in line with the Basel III framework. The revised adjustments to regulatory capital are being phased in: starting at 20% on 1 January 2014 and increasing a further 20% each year in order to reach 100% on 1 January 2018. During the transition period, any residual amount not deducted from regulatory capital under the revised adjustments will continue to be subject to the former treatment.

As permitted by the BoT regulation, however, we have elected to accelerate this transition and to apply the revisions in full with effect from 1 January 2014.

Table 1 : Composition of regulatory capital on a Basel III basis during the transition period

	31 December 2015 THBm	Residual regulatory adjustment THBm
Capital fund	20,100	
Less: Regulatory adjustment	-	-
Regulatory capital	**20,100**	

	30 June 2015 THBm	Residual regulatory adjustment THBm
Capital fund	20,100	
Less: Regulatory adjustment	(1)	-
Regulatory capital	**20,099**	

	31 December 2014 THBm	Residual regulatory adjustment THBm
Capital fund	18,750	
Less: Regulatory adjustment	(1)	-
Regulatory capital	**18,749**	

At 31 December 2015, we have an allocated and registered capital fund with the BoT of Baht 20,100 million *(30 June 2015 and 31 December 2014 : Baht* 20,100 *million and Baht* 18,750 *million, respectively)*. The detail can be summarised as follows:

Table 2 : Capital Structure

	31 December 2015 THBm	30 June 2015 THBm	31 December 2014 THBm
Assets maintained under Section 32	**21,268**	**20,848**	**20,940**
Sum of net capital for maintenance of assets under Section 32 and net balance of inter-office accounts			
Net funds brought in to maintenance assets under Section 32	20,100	20,100	18,750
Net balance of inter-office accounts where the branch is the debtor to the head office and other branches of the same juristic person, the parent company and subsidiaries of the head office	14,470	14,148	7,317
Total	**34,570**	**34,248**	**26,067**
Total Capital Fund	**20,100**	**20,100**	**18,750**

Table 3 : Capital Adequacy

Minimum capital requirement for credit risk classified by type of assets under the Standardised Approach

	31 December 2015 THBm	30 June 2015 THBm	31 December 2014 THBm
Performing claims			
Claims on sovereigns and central banks, and multilateral development banks (MDBs)	2	12	13
Claims on financial institutions, non-central government public sector entities (PSEs) treated as claims on financial institutions, and securities firms	1,366	1,338	1,098
Claims on corporates, non-central government public sector entities (PSEs) treated as claims on corporates	7,184	7,075	6,071
Claims on retail portfolios	14	10	10
Claims on housing loans	22	18	18
Other assets	22	24	25
Non-performing claims	96	8	6
Total minimum capital requirement for credit risk	**8,706**	**8,485**	**7,241**

Minimum capital requirement for market risk for positions in the trading book

	31 December 2015 THBm	30 June 2015 THBm	31 December 2014 THBm
Standardised approach - specific interest rate risk	16	-	-
Internal model approach	185	214	160
Total minimum capital requirement for market risk	**201**	**214**	**160**

Remark: The capital requirements for specific interest risk at 31 December 2015 of THB 16 million, arise from the holding of corporate bonds. At 30 June 2015 and 31 December 2014, as the total holding amount of THB Government bonds is less than the Bank's THB liability, a zero percent risk weight was applied according to the BoT regulations. Therefore, there is no capital requirement for specific interest rate risk under the standardised approach for our holdings of THB Government bonds, and there was also no holding of corporate bonds.

Minimum capital requirement for operational risk

	31 December 2015 THBm	30 June 2015 THBm	31 December 2014 THBm
Standardised approach	895	913	951
Total minimum capital requirement for operational risk	**895**	**913**	**951**

Capital ratio

	31 December 2015 %	30 June 2015 %	31 December 2014 %
Total capital to risk-weighted assets	**17.4**	**17.8**	**19.1**

Risk exposure and assessment

Risk management objectives and policies

Overview

All our activities involve, to varying degrees, the measurement, evaluation, acceptance and management of risk or a combination of risks, which we assess on a Group-wide basis. Our risk management framework, employed at all levels of the organisation, ensures that our risk profile remains conservative and aligned to our risk appetite and strategy by fostering continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. It also ensures that we have a robust and consistent approach to risk management at all levels of the organisation and across all risk types.

Risk management is embedded through:

- a strong risk culture, with personal accountability for decisions;
- a formal risk governance framework, with clear and well understood risk ownership, standards and policies;
- the alignment of risk and business objectives, with integration of risk appetite into business planning and capital management;
- the alignment of remuneration with our risk framework and risk outcomes; and
- an independent, expert global risk function ('Global Risk').

Risk culture

HSBC has long recognised the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. It is reinforced by the HSBC Values and our Global Standards. Our risk management framework is underpinned by our risk culture which is instrumental in aligning the behaviours of individuals with the Group's risk profile and our attitude to assuming and managing risk.

Risk governance

Our strong risk governance reflects the importance placed by the Board and the Group Risk Committee ('GRC') on shaping the Group's risk strategy and managing risks effectively.

The Board, advised by the GRC, requires and promotes a strong risk governance culture which shapes the Group's attitude to risk. The Board and the GRC oversee the maintenance and development of a strong risk management framework by continually monitoring the risk environment, top and emerging risks facing the Group and mitigating actions planned and taken.

Strong risk governance is supported by:

- a clear policy framework of risk ownership;
- a globally consistent risk appetite framework through which the types and quantum of risk that we are prepared to accept in executing our strategy are articulated and monitored; and
- the accountability of all staff for identifying, assessing and managing risks in accordance with the three lines of defence model.

We use the three lines of defence model underpin our approach to strong risk management. It defines responsibilities for: identifying, assessing, measuring, managing, monitoring and mitigating risks; encouraging collaboration; and enabling efficient coordination of risk and control activities.

- The first line of defence owns the risks and is responsible for identifying, recording, reporting and managing them and ensuring that the right controls and assessments are in pace to mitigate these risks.
- The second line of defence sets the policy and guidelines for managing the risks and provides advice, guidance and challenge to the first line of defence on effective risk management.
- The third line of defence is Internal Audit which helps the Board and Executive Management to protect the assets, reputation and sustainability of the Group.

Global Risk, headed by the Group Chief Risk Officer ('GCRO'), is responsible for enterprise-wide risk oversight including the establishment of global policy, the monitoring of risk profiles, and forward looking risk identification and management. Global Risk also has functional responsibility for risk management in support of HSBC's global businesses and regions through an integrated network of Risk sub-functions which are independent from the sales and trading functions of our businesses. This independence ensures the necessary balance in risk/return decisions.

Global Risk:

- forms part of the second line of defence, with responsibility for setting policy and for providing oversight and challenge of the activities conducted by the first line;
- supports our global businesses, regions, countries and global functions in the development and achievement of strategic objectives;
- fosters development of a conservative but constructive Group risk culture;
- works with global businesses, regions and global functions in the setting and monitoring of risk appetite;
- carries out central approvals, controls, risk systems design and the analysis and reporting of management information;
- addresses risk issues in dealings with external stakeholders including regulators and analysts;
- is jointly responsible with Global Finance for the delivery of enterprise-wide stress testing; and
- in addition to 'business as usual' operations, engages with business development activities such as new product approval and post-implementation review, and acquisition due diligence.

In Thailand, the Risk Management Committee ('RMC') is chaired by the Chief Executive Officer ('CEO') with membership made up of senior managers. The RMC is the Bank's senior designated risk management committee as defined by the HSBC Regional Office in Hong Kong which is responsible for setting risk appetite and approving definitive risk policies and controls.

The members of Risk Management Committee are the Chief Risk Officer, Chief Financial Officer, Chief Operating Officer, Treasurer, Head of Global Banking and Head of Commercial Banking. The RMC meeting is chaired by CEO and convened on a monthly basis.

Risk appetite

Risk appetite is a key component in our management of risk. It describes the types and quantum of risks that we are willing to accept in achieving our medium and long-term strategic objectives. Within HSBC, risk appetite is managed through the Global Risk Appetite Framework and articulated in a risk appetite statement ('RAS'), which is annually approved by the Board on the advice of the GRC.

Our risk appetite framework is underpinned by the following core characteristics:

- Strong capital position
- Liquidity and funding management
- Risk return relationship
- Sustainable and diversified earnings mix
- Reputation risk
- Financial crime compliance
- Regulatory compliance

Risk measurement and reporting systems

The purpose of our risk measurement and reporting systems is to ensure that, as far as possible, risks are comprehensively captured with all the attributes necessary to support well-founded decisions, that those attributes are accurately assessed and that information is delivered in a timely way for those risks to be successfully managed and mitigated.

Risk measurement and reporting systems are also subject to a governance framework designed to ensure that their build and implementation are fit for purpose and that they are functioning properly. Risk information technology ('IT') systems development is a key responsibility of the Global Risk function, while the development and operation of risk rating and management systems and processes are ultimately subject to the oversight of the Board.

We continue to invest significant resources in IT systems and processes in order to maintain and improve our risk management capabilities. A number of key initiatives and projects to enable consistent data aggregation, reporting and management, and work towards meeting our Basel Committee data obligations are in progress. Group policy promotes the deployment of preferred technology where practicable. Group standards govern the procurement and operation of systems used in the Group to process risk information within business lines and risk functions.

Risks managed by HSBC

The principal risks associated with our banking operation are described in the tables below.

Risks	Arising from	Measurement, monitoring and management of risk
Credit risk		
The risk of financial loss if a customer or counterparty fails to meet an obligation under a contract.	Credit risk arises principally from direct lending and trade finance but also from certain other products such as guarantees and derivatives.	Credit risk is: • **measured** as the amount which could be lost if a customer or counterparty fails to make repayments. In the case of derivatives, the measurement of exposure takes into account the current mark-to-market value to the Bank of the contract and the expected potential change in that value over time caused by movements in market rates; • **monitored** within limits approved by individuals within a framework of delegated authorities. These limits represent the peak exposure or loss to which the Bank could be subjected should the customer or counterparty fail to perform its contractual obligations; and • **managed** through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers.
Liquidity and funding risk		
The risk that we do not have sufficient financial resources to meet our obligations as they fall due or that we can only do so at excessive cost.	Liquidity risk arises from mismatches in the timing of cash flows. Funding risk arises when the liquidity needed to fund illiquid asset positions cannot be obtained at the expected terms and when required.	Liquidity and funding risk is: • **measured** using internal metrics including stressed operational cash flow projections, coverage ratios and advances to core funding ratios; • **monitored** against the liquidity and funding risk framework and overseen by Asset and Liability Management Committees; and • **managed** on a stand-alone basis with no reliance on any Group entity.

Risks	Arising from	Measurement, monitoring and management of risk
Market risk		
The risk that movements in market factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices, will reduce our income or the value of our portfolios.	Exposure to market risk is separated into two portfolios: • trading portfolios comprise positions arising from market-making and warehousing of customer derived positions. • non-trading portfolios comprise positions that primarily arise from the interest rate management of our commercial banking assets and liabilities, financial investments designated as available for sale and held to maturity.	Market risk is: • **measured** in terms of value at risk, which is used to estimate potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence; • **monitored** using measures including the sensitivity of net interest income and the sensitivity of structural foreign exchange which are applied to the market risk positions within each risk type; and • **managed** using risk limits approved by the Group Management Board ('GMB') for HSBC Holdings and our various global businesses. These units are allocated across business lines and to the Group's legal entities.
Operational risk		
The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk.	Operational risk arises from day to day operations or external events, and is relevant to every aspect of our business.	Operational risk is: • **measured** using both the top risk analysis process and the risk and control assessment process, which assess the level of risk and effectiveness of controls; • **monitored** using key indicators and other internal control activities; and • **managed** primarily by global business and functional managers. They identify and assess risks, implement controls to manage them and monitor the effectiveness of these controls utilising the operational risk management framework. Global Operational Risk is responsible for the framework and for overseeing the management of operational risks within global businesses and global functions.
Compliance risk		
The risk that we fail to observe the letter and spirit of all relevant laws, codes, rules, regulations and standards of good market practice, and incur fines and penalties and suffer damage to our business as a consequence.	Compliance risk is part of operational risk, and arises from rules, regulations, other standards and Group policies, including those relating to anti-money laundering, anti-bribery and corruption, counter-terrorist and proliferation financing, sanctions compliance and conduct of business.	Compliance risk is: • **measured** by reference to identified metrics, incident assessments (whether affecting the Bank or the wider industry), regulatory feedback and the judgement and assessment of the compliance officer in our global businesses and functions; • **monitored** against our compliance risk assessments and metrics, the results of the monitoring and control activities of the second line of defence functions, including the Financial Crime Compliance and Regulatory Compliance sub-functions, and the results of internal and external audits and regulatory inspections; and • **managed** by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to assure their observance. Proactive risk control and/or remediation work is undertaken where required.

Risks	Arising from	Measurement, monitoring and management of risk
Reputational risk		
The risk of failure to meet stakeholder expectations as a result of any event, behaviour, action or inaction, either by the Bank itself, our employees or those with whom we are associated, that might cause stakeholders to form a negative view of HSBC. This may result in financial or non-financial impacts, loss of confidence, or other consequences.	Primary reputational risks arise directly from an action or inaction by the Bank, its employees or associated parties that are not the consequence of another type of risk. Secondary reputational risks are those arising indirectly and are a result of another risk caused either by the Bank, its employees or associated third parties.	Reputational risk is: • **measured** by reference to our reputation as indicated by our dealings with all relevant stakeholders, including media, regulators, customers and employees; • **monitored** through a reputational risk management framework; and • **managed** by every member of staff and is covered by a number of policies and guidelines.

Pillar 2 and ICAAP

Pillar 2

The processes of internal capital adequacy assessment and supervisory review are known as Pillar 2. Within Pillar 2, in addition to the minimum capital requirements for Pillar 1 risks, any supplementary requirements for those risks and in addition any requirements for risk categories not captured by Pillar 1. The risk categories to be covered under Pillar 2 depend on the specific circumstances of a firm and the nature and scale of its business. Pillar 2 also estimates capital needed to compensate for any shortcomings in management, governance or controls, and to guard against unexpected losses while these deficiencies are addressed.

Internal capital adequacy assessment

Through the Internal Capital Adequacy Assessment Process ('the ICAAP'), we examine our risk profile to ensure that capital resources:

- remain sufficient to support our risk profile and outstanding commitments;
- exceed current regulatory requirements and HSBC is well placed to meet those expected in the future;
- allow the Bank to remain adequately capitalised in the event of a severe economic downturn stress scenario; and
- remain consistent with our strategic and operational goals.

The ICAAP is examined by the BoT as part of its supervisory review and evaluation process. This examination informs the regulator's view of our Pillar 2 capital requirements.

Preserving our strong capital position remains a priority, and the level of integration of our risk and capital management helps to optimise our response to business demand for regulatory capital.

Credit risk

Overview and objective

Credit risk is the risk of financial loss if a customer or counterparty fails to meet a payment obligation under a contract. It arises principally from direct lending and trade finance, but also from off-balance sheet products such as guarantees and derivatives, and from the holdings of debt and other securities. Credit risk represents our largest regulatory capital requirement. This includes a capital requirement for counterparty credit risk in the banking and trading books.

The principal objectives of our credit risk management are:

- to maintain a strong culture of responsible lending, and a robust credit risk policy and control framework;
- to both partner and challenge our businesses in defining, implementing and continually re-evaluating our credit risk appetite under actual and stress scenario conditions; and
- to ensure there is independent, expert scrutiny of credit risks, their costs and their mitigation.

We use the Standardised Approach to calculate capital requirement for credit risks. Non-performing claims represent classified assets/loans under substandard, doubtful, doubtful loss and loss accounts according to the BoT's guideline. The specific provision has been provided for non-performing assets/loans based on the estimated losses which were calculated by discounting expected future cash flows (inclusive of the value of security). The general provision has been calculated based on collective impairment for which historical loss rate experience, time value and economic factors have been taken into account.

The following tables set out credit risk exposure value according to regulatory requirement at 31 December 2015 and 2014.

Credit risk

General information on credit risk exposure

Table 4 : Credit risk exposure of significant on-balance sheet and off-balance sheet exposures before recognised credit risk mitigation at 31 December 2015 and 2014

	31 December 2015		31 December 2014	
	Average exposure value THBm	Exposure value THBm	Average exposure value THBm	Exposure value THBm
On-balance sheet				
Loans and advances, net	109,101	114,885	113,268	109,544
Investments in debt securities, net	81,199	89,339	71,048	73,733
Deposits (including accrued interest receivable)	2,245	3,246	1,562	916
Derivative assets	47,253	47,541	38,261	38,643
Total	**239,798**	**255,011**	**224,139**	**222,836**
Off-balance sheet				
Aval, guarantees and letter of credit	39,274	38,192	36,157	37,239
OTC derivatives	2,776,940	2,723,337	3,258,717	2,738,041
Undrawn commitment	89,497	97,155	74,747	81,132
Total	**2,905,711**	**2,858,684**	**3,369,621**	**2,856,412**

Remark:

- *Loans and advances represent loans to customers and interbank and money market placements including accrued interest receivable and net of deferred revenue and allowances for doubtful accounts.*
- *Investments in debt securities are measured at fair value excluding accrued interest receivable and net of any loss on impairment.*
- *Off-balance sheet represents the notional amounts before the application of a credit conversion factor.*

Table 5 : Credit risk exposure of significant on-balance sheet and off-balance sheet exposures before recognised credit risk mitigation – analysis by country or geographical area at 31 December 2015 and 2014

Exposure values are allocated to region based on the country of incorporation where the exposure was originated.

31 December 2015

Country or geographical area	On-balance sheet					Off-balance sheet			
	Total THBm	**Loans and advances THBm**	**Investments in debt securities THBm**	**Deposits THBm**	**Derivative assets THBm**	**Total THBm**	**Aval, guarantees and letter of credit THBm**	**OTC derivatives THBm**	**Undrawn commitment THBm**
Thailand	224,747	110,635	89,339	3,158	21,615	1,094,994	20,783	980,694	93,517
Asia Pacific (excluding Thailand)	18,202	786	-	12	17,404	1,327,635	4,227	1,323,017	391
North America and Latin America	4,661	-	-	46	4,615	239,679	7,036	229,529	3,114
Africa	2,522	2,522	-	-	-	-	-	-	-
Europe	4,879	942	-	30	3,907	196,376	6,146	190,097	133
Total	**255,011**	**114,885**	**89,339**	**3,246**	**47,541**	**2,858,684**	**38,192**	**2,723,337**	**97,155**

31 December 2014

Country or geographical area	On-balance sheet					Off-balance sheet			
	Total THBm	**Loans and advances THBm**	**Investments in debt securities THBm**	**Deposits THBm**	**Derivative assets THBm**	**Total THBm**	**Aval, guarantees and letter of credit THBm**	**OTC derivatives THBm**	**Undrawn commitment THBm**
Thailand	194,191	105,807	73,733	864	13,787	1,008,437	25,971	907,509	74,957
Asia Pacific (excluding Thailand)	17,999	1,146	-	10	16,843	1,317,658	2,840	1,314,178	640
North America and Latin America	3,912	-	-	1	3,911	281,962	6,280	271,778	3,904
Africa	2,591	2,591	-	-	-	-	-	-	-
Europe	4,143	-	-	41	4,102	248,355	2,148	244,576	1,631
Total	**222,836**	**109,544**	**73,733**	**916**	**38,643**	**2,856,412**	**37,239**	**2,738,041**	**81,132**

Table 6 : Credit risk exposure of significant on-balance sheet and off-balance sheet exposures before recognised credit risk mitigation – analysis by residual maturity at 31 December 2015 and 2014

	31 December 2015			31 December 2014		
	Less than 1 year THBm	Over 1 year THBm	Total THBm	Less than 1 year THBm	Over 1 year THBm	Total THBm
On-balance sheet						
Loans and advances, net	85,556	29,329	114,885	94,460	15,084	109,544
Investments in debt securities, net	59,494	29,845	89,339	43,635	30,098	73,733
Deposits (including accrued interest receivable)	3,246	-	3,246	916	-	916
Derivative assets	11,532	36,009	47,541	6,241	32,402	38,643
Total	**159,828**	**95,183**	**255,011**	**145,252**	**77,584**	**222,836**
Off-balance sheet						
Aval, guarantees and letter of credit	37,775	417	38,192	34,914	2,325	37,239
OTC derivatives	981,844	1,741,493	2,723,337	1,078,906	1,659,135	2,738,041
Undrawn commitment	92,342	4,813	97,155	77,193	3,939	81,132
Total	**1,111,961**	**1,746,723**	**2,858,684**	**1,191,013**	**1,665,399**	**2,856,412**

Table 7 : Outstanding loans including accrued interest receivable and investments in debt securities classified as doubtful loss before recognised credit risk mitigation – analysis by country or geographical area and asset classification as prescribed by the Bank of Thailand at 31 December 2015 and 2014

	31 December 2015					
	Loans including accrued interest receivable					Investments in debt securities classified as doubtful loss
Country or geographic area	Normal THBm	Special mentioned THBm	Substandard THBm	Doubtful loss THBm	Total THBm	THBm
Thailand	111,058	391	15	228	111,692	5
Asia Pacific (excluding Thailand)	794	-	-	-	794	-
Africa and Middle East	2,548	-	-	-	2,548	-
Europe	951	-	-	-	951	-
Total	**115,351**	**391**	**15**	**228**	**115,985**	**5**

	31 December 2014				
	Loans including accrued interest receivable				Investments in debt securities classified as doubtful loss
Country or geographic area	**Normal THBm**	**Special mentioned THBm**	**Doubtful loss THBm**	**Total THBm**	**THBm**
Thailand	106,455	5	365	106,825	7
Asia Pacific (excluding Thailand)	1,158	-	-	1,158	-
Africa and Middle East	2,617	-	-	2,617	-
Total	**110,230**	**5**	**365**	**110,600**	**7**

Remark:

- *Loans represent loans to customers, interbank and money market, including accrued interest receivable and net of deferred revenue.*
- *Investments in debt securities classified as doubtful loss represent unrealised losses on revaluation according to the definition of BoT notification No. 31/2551 dated 3 August 2008 Re: Classification and Provision of the Financial Institutions.*
- *The classification of assets shown above is in accordance with BoT notification No. 31/2551 dated 3 August 2008 Re: Classification and Provision of the Financial Institutions.*

Table 8 : General provision, specific provision and bad debt written-off during the year against loans including accrued interest receivable and investments in debt securities – analysis by country or geographic area at 31 December 2015 and 2014

31 December 2015

Country or geographic area	Loans including accrued interest receivable General provision THBm	Specific provision THBm	Bad debt written-off during the year THBm	Specific provision for investments in debt securities THBm
Thailand		207	120	5
Asia Pacific (excluding Thailand)		-	-	-
Africa and Middle East		-	-	-
Europe		-	-	-
Total	**893**	**207**	**120**	**5**

31 December 2014

Country or geographic area	Loans including accrued interest receivable General provision THBm	Specific provision THBm	Bad debt written-off during the year THBm	Specific provision for investments in debt securities THBm
Thailand		350	1	7
Asia Pacific (excluding Thailand)		-	-	-
Africa and Middle East		-	-	-
Total	**707**	**350**	**1**	**7**

Remark:

- *Specific provisions for investments in debt securities represent unrealised losses on the revaluation of debt securities at the year end.*

Table 9 : Outstanding loans including accrued interest receivable before recognised credit risk mitigation – analysis by type of business and asset classification as prescribed by the Bank of Thailand at 31 December 2015 and 2014

31 December 2015

Type of business	Pass THBm	Special mention THBm	Substandard THBm	Doubtful of loss THBm	Total THBm
Agriculture and mining	2,495	355	-	-	2,850
Financial sector	56,270	-	-	-	56,270
Manufacturing and commerce	47,714	12	-	228	47,954
Real estate business and construction	2,909	-	15	-	2,924
Public utilities and services	5,503	23	-	-	5,526
Housing loan	295	-	-	-	295
Others	166	-	-	-	166
Total	**115,352**	**390**	**15**	**228**	**115,985**

Type of business	31 December 2014 Pass THBm	Special mention THBm	Doubtful loss THBm	Total THBm
Agriculture and mining	2,614	-	-	2,614
Financial sector	61,552	-	-	61,552
Manufacturing and commerce	37,451	5	365	37,821
Real estate business and construction	750	-		750
Public utilities and services	7,479	-	-	7,479
Housing loan	262	-	-	262
Others	122	-	-	122
Total	**110,230**	**5**	**365**	**110,600**

Remark: The classification of assets shown above is in accordance with BoT notification No. 31/2551 dated 3 August 2008 Re: Classification and Provision of the Financial Institutions.

Table 10 : General provision, specific provision and bad debt written-off during the year against loans including accrued interest receivable – analysis by type of business at 31 December 2015 and 2014

Type of business	31 December 2015 General provision THBm	Specific provision THBm	Bad debt written-off during the year THBm
Agriculture and mining		-	-
Financial sector		-	-
Manufacturing and commerce		207	120
Real estate business and construction		-	-
Public utilities and services		-	-
Housing loan		-	-
Others		-	-
Total	**893**	**207**	**120**

Type of business	31 December 2014 General provision THBm	Specific provision THBm	Bad debt written-off during the year THBm
Agriculture and mining		-	-
Financial sector		-	-
Manufacturing and commerce		350	-
Real estate business and construction		-	-
Public utilities and services		-	-
Housing loan		-	-
Others		-	1
Total	**707**	**350**	**1**

Table 11 : Reconciliation of the movement in the general provision and specific provision against loans including accrued interest receivable at 31 December 2015 and 2014

	31 December 2015		
	General provision THBm	**Specific provision THBm**	**Total THBm**
Provisions at the beginning of year	707	350	1,057
Bad debts written-off during the year	-	(120)	(120)
Provisions charge (reversal) during the year	186	(23)	163
Provisions at the end of year	**893**	**207**	**1,100**

	31 December 2014		
	General provision THBm	**Specific provision THBm**	**Total THBm**
Provisions at the beginning of year	484	375	859
Bad debts written-off during the year	-	(1)	(1)
Provisions charge (reversal) during the year	223	(24)	199
Provisions at the end of year	**707**	**350**	**1,057**

Remark: The above information also includes interbank and money market transactions.

Table 12 : Net exposure of on-balance sheet and credit equivalent amount of off-balance sheet before recognised credit risk mitigation classified by type of assets under the Standardised Approach at 31 December 2015 and 2014

	31 December 2015		
	On-balance sheet THBm	**Off-balance sheet THBm**	**Total THBm**
Performing claims			
Claims on sovereigns and central banks, and MDBs	68,614	6,067	74,681
Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	4,075	80,035	84,110
Claims on corporate, PSEs treated as claims on corporate	71,578	26,414	97,992
Claims on retail portfolios	166	-	166
Claims on housing loans	295	-	295
Other assets	47,884	-	47,884
Non-performing claims	36	789	825
Total	**192,648**	**113,305**	**305,953**

	31 December 2014		
	On-balance sheet THBm	**Off-balance sheet THBm**	**Total THBm**
Performing claims			
Claims on sovereigns and central banks, and MDBs	58,052	5,024	63,076
Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	3,868	90,703	94,571
Claims on corporate, PSEs treated as claims on corporate	57,635	22,682	80,317
Claims on retail portfolios	122	-	122
Claims on housing loans	262	-	262
Other assets	39,379	-	39,379
Non-performing claims	15	87	102
Total	**159,333**	**118,496**	**277,829**

Remark:

- *The above information has been presented net of specific provision.*
- *Off-balance sheet amounts have been adjusted by the credit conversion factor and also included repo style transactions.*

Ratings from External Credit Assessment Institutions

Credit risk under the Standardised Approach has been calculated based on the external credit ratings from External Credit Assessment Institutions ('ECAI'). The Bank uses external credit ratings from the following ECAIs which are approved by the BoT.

- Standard & Poor's Ratings Service;
- Moody's Investors Services;
- Fitch Ratings;
- Fitch Ratings (Thailand);
- TRIS Rating

Data files of external ratings from the nominated ECAIs are matched with the customer records in the centralised credit database.

When calculating the risk-weighted value of an exposure using ECAI risk assessments, risk systems identify the customer in question and look up the available ratings in the central database, according to the BoT's rating selection rules as prescribed in the appendix 4 of the BoT's guideline on Minimum Capital Requirement for Credit Risk under the Standardised Approach. The systems then apply the BoT's prescribed credit quality step mapping to derive from the rating the relevant risk weight.

Table 13 : Net exposure of on-balance sheet and credit equivalent amount of off-balance sheet after recognised credit risk mitigation for each type of assets, classified by risk weight under the Standardised Approach at 31 December 2015 and 2014

	31 December 2015										
	Net exposures after recognised credit risk mitigation – Rated					**Net exposures after recognised credit risk mitigation – Unrated**					
Risk weight	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**50%**	**35%**	**75%**	**100%**
	THBm	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**
Performing claims											
Claims on sovereigns and central banks, and MDBs	110,391	-	57	-	-			-			-
Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	-	37,220	1,960	7,647	-						-
Claims on corporate, PSEs treated as claims on corporate	-	889	3,389	8,328	-						76,590
Claims on retail portfolios										-	166
Claims on housing loans									60	-	235
Other assets						50,771	53				245
Risk weight			**50%**	**100%**	**150%**					**75%**	
Non-performing claims			-	21	804					-	

	31 December 2014										
	Net exposures after recognised credit risk mitigation – Rated					**Net exposures after recognised credit risk mitigation – Unrated**					
Risk weight	**0%**	**20%**	**50%**	**100%**	**150%**	**0%**	**20%**	**50%**	**35%**	**75%**	**100%**
	THBm	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**	**THBm**
Performing claims											
Claims on sovereigns and central banks, and MDBs	108,566	-	313	-	-			-			-
Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	2,111	34,240	629	5,755	-						-
Claims on corporate, PSEs treated as claims on corporate	-	1,668	7,035	3,969	-						63,597
Claims on retail portfolios										-	122
Claims on housing loans									71	-	191
Other assets						46,273	115				266
Risk weight			**50%**	**100%**	**150%**					**75%**	
Non-performing claims			-	15	87					-	

Remark: Off-balance sheet represents the notional amounts after applied credit conversion factor.

Credit risk mitigation

Our approach when granting credit facilities is to do so on the basis of capacity to repay rather than place primary reliance on credit risk mitigation. Depending on a customer's standing and the type of product, facilities may be provided unsecured. Mitigation of credit risk is nevertheless a key aspect of effective risk management and, in a diversified financial services organisation, takes many forms.

Our general policy is to promote the use of credit risk mitigation, justified by commercial prudence and good practice as well as capital efficiency. Specifically, detailed policies cover the acceptability, structuring and terms of various types of business with regard to the availability of credit risk mitigation, for example in the form of collateral security. These policies, together with the setting of suitable valuation parameters, are subject to regular review to ensure that they are supported by empirical evidence and continue to fulfill their intended purpose.

The most common method of mitigating credit risk is to take collateral. In our commercial real estate businesses, a mortgage over the property is usually taken to help secure claims. In the commercial and industrial sectors, charges are created over business assets such as premises, stock and debtors. Facilities to Small and Medium Enterprises are commonly granted against guarantees given by their owners and/or directors.

In the institutional sector, trading facilities are supported by charges over financial instruments such as cash, debt securities and equities. Financial collateral in the form of marketable securities is used in much of the Bank's over-the-counter ('OTC') derivatives activities and in securities financing transactions ('SFT') such as repos, reverse repos, securities lending and borrowing. Netting is used extensively and is a prominent feature of market standard documentation.

Our Global Banking and Markets business utilises credit risk mitigation to manage the credit risk of its portfolios, with the goal of reducing concentrations in individual names, sectors or portfolios. The techniques in use include credit default swaps ('CDS') purchases, structured credit notes and securitisation structures. Buying credit protection creates counterparty credit risk.

Policies and procedures govern the protection of our position from the outset of a customer relationship, for instance in requiring standard terms and conditions or specifically agreed documentation permitting the offset of credit balances against debt obligations and through controls over the integrity, current valuation and, if necessary, realisation of collateral security.

Valuation strategies are established to monitor collateral mitigants to ensure that they will continue to provide the anticipated secure secondary repayment source. Where collateral is subject to high volatility, valuation is frequent; where stable, less so. For market trading activities such as collateralised OTC derivative and SFT, we typically carry out daily valuations in support of margining arrangements. Residential property collateral values are determined through a combination of professional appraisals, market indices or statistical analysis.

For banking book exposures subject to the standardised approach – covered by eligible guarantees, non-financial collateral, or credit derivatives – the exposure is divided into covered and uncovered portions. The covered portion, which is determined after applying an appropriate 'haircut' for currency and maturity mismatch to the amount of the protection provided, attracts the risk weight applicable to the credit quality step associated with the protection provider. The uncovered portion attracts the risk weight associated with the credit quality step of the obligor. For trading book exposures fully or partially covered by eligible financial collateral, the value of the exposure is adjusted under the Financial Collateral Comprehensive Method using supervisory volatility adjustments, including those arising from currency mismatch, which are determined by the specific type of collateral (and, in the case of eligible debt securities, their credit quality) and its liquidation period. The adjusted exposure value is subject to the risk weight associated with the credit quality step of the obligor.

Collateral arrangements

It is our policy to revalue all traded transactions and associated collateral positions on a daily basis. An independent Collateral Management function manages the collateral process including pledging and receiving collateral, investigating disputes and non-receipts.

Eligible collateral types are controlled under a policy to ensure price transparency, price stability, liquidity, enforceability, independence, reusability and eligibility for regulatory purposes. A valuation 'haircut' policy reflects the fact that collateral may fall in value between the date the collateral was called and the date of liquidation or enforcement.

Table 14 : Exposure value under the Standardised Approach covered by collateral classified by type of assets and collateral at 31 December 2015 and 2014

	31 December 2015		31 December 2014	
	Eligible financial collateral THBm	Guarantee and credit derivatives THBm	Eligible financial collateral THBm	Guarantee and credit derivatives THBm
Performing claims				
Claims on sovereigns and central banks, and MDBs	6,000	-	4,688	-
Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	43,060	-	55,395	-
Claims on corporate, PSEs treated as claims on corporate	3,020	10,333	488	8,991
Non-performing claims	1	72	1	57
Total	**52,081**	**10,405**	**60,572**	**9,048**

Market risk

Overview and objective

Market risk is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce our income or the value of our portfolios.

Exposure to market risk is separated into two portfolios:

- Trading portfolios comprise positions arising from market-making and the warehousing of customer-derived positions.
- Non-trading portfolios comprise positions that primarily arise from the interest rate management of our commercial banking assets and liabilities, financial investments designated as available-for-sale and held-to-maturity.

We apply similar risk management policies and measurement techniques to both trading and non-trading portfolios. Our objective is to manage and control market risk exposures in order to optimise return on risk while maintaining a market profile consistent with the Group's status as one of the world's largest banking and financial services organisations.

Market risk governance

The management of market risk is principally undertaken in Global Banking and Markets ('GB&M') using risk limits approved by the GMB. Limits are set for portfolios, products and risk types, with market liquidity being a primary factor in determining the level of limits set.

Group Risk is responsible for setting market risk management policies and measurement techniques. Market Product Control, an independent unit from Global Markets (risk taking unit), is responsible for measuring market risk exposures in accordance with the policies defined by Group Risk, and monitoring and reporting these exposures against the prescribed limits on a daily basis.

Market Product Control is required to assess the market risks arising on each product in its business and to transfer them to either its local GB&M for management, or to separate books managed under the supervision of the local Asset and Liability Management Committee ('ALCO'). The aim is to ensure that all market risks are consolidated within operations that have the necessary skills, tools, management and governance to manage such risks professionally.

Market risk measures

The Bank uses a range of tools to monitor and limit market risk exposures. These include sensitivity analysis, VaR and stress testing.

Sensitivity analysis

Sensitivity analysis measures the impact of individual market factor movements on specific instruments or portfolios including interest rates, foreign exchange rates and equity prices, such as the effect of a one basis point change in yield. We use sensitivity measures to monitor the market risk positions within each risk type. Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

Value at risk

VaR is a technique that estimates the potential losses on risk positions in the trading portfolio as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence.

Our VaR models derive plausible future scenarios from past series of recorded market rates and prices, taking into account inter-relationships between different markets and rates such as interest rates and foreign exchange rates. The models also incorporate the effect of option features on the underlying exposures.

The historical simulation models used incorporate the following features:

- historical market rates and prices are calculated with reference to foreign exchange and interest rates, commodity prices, equity prices and the associated volatilities;
- potential market movements utilised for VaR are calculated with reference to data from the past two years; and
- VaR measures are calculated to a 99 percent confidence level and use a one-day holding period.

Although a valuable guide to risk, VaR should always be viewed in the context of its limitations, for example:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;
- the use of a holding period assumes that all positions can be liquidated or the risk offset during that period. This may not fully reflect the market risk arising at times of severe illiquidity, when the holding period may be insufficient to liquidate or hedge all position fully;
- the use of a 99 percent confidence level by definition does not take into account losses that might occur beyond this level of confidence;
- VaR is calculated on the basis of exposures outstanding at close of business and therefore does not necessarily reflect intra-day exposures; and
- VaR is unlikely to reflect loss potential on exposures that only arise under conditions of significant market movement.

Market Product Control is responsible for preparing the VaR report and submitting it to local senior management for their consideration on a daily basis. If there are exceptions, the exception report has to be sent to local senior management and also the regional market risk unit.

We routinely validate the accuracy of our VaR model by back-testing them against both clean and hypothetical profit and loss against the corresponding VaR numbers. Hypothetical profit and loss excludes non-modelled items such as fees, commissions and revenues of intraday transactions.

We would expect on average to see two or three profits, and two or three losses, in excess of VaR at the 99 percent confidence level over a one-year period. The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing.

Stress testing

Stress testing is an important procedure that is integrated into our market risk management tool to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such scenarios, losses can be much greater than those predicted by VaR modelling.

Stress testing is implemented at legal entity, regional and overall Group levels. A standard set of scenarios is utilised consistently across all regions within the Group. Scenarios are tailored to capture the relevant events or market movements at each level. The risk appetite around potential stress losses for the Group is set and monitored against referral limits.

Stressed VaR is primarily used for regulatory capital purposes and is integrated into the risk management process to ensure prudent capital management. Stressed VaR complements other risk measures by providing the potential losses under stressed market conditions. Calculations are based on a continuous one-year period of stress for the trading portfolio, based on the assessment at the Group level.

In addition to Group's stress testing scenarios, we also perform stress testing using the scenarios as specified by the BoT, covering parallel and non-parallel shifts in interest rate yield curves and depreciation and appreciation in major currencies.

Managed risk positions

Interest rate risk

Interest rate risk arises within the trading portfolios, principally from mismatches, as a result of interest rate changes, between the future yield on assets and their funding cost.

This is measured, where practical, on a daily basis. We use a range of tools to monitor and limit interest rate risk exposures. These include the present value of a basis point movement in interest rates, VaR, stress testing and sensitivity analysis.

Through our management of market risk in non-trading portfolios, we mitigate the effect of prospective interest rate movements which could reduce future net interest income, while balancing the cost of such hedging activities on the current net revenue stream.

Foreign exchange risk

Foreign exchange risk arises as a result of movements in the relative value of currencies. In addition to VaR and stress testing, we control the foreign exchange risk within the trading portfolio by limiting the open exposure to individual currencies, and on an aggregate basis.

Specific issuer risk

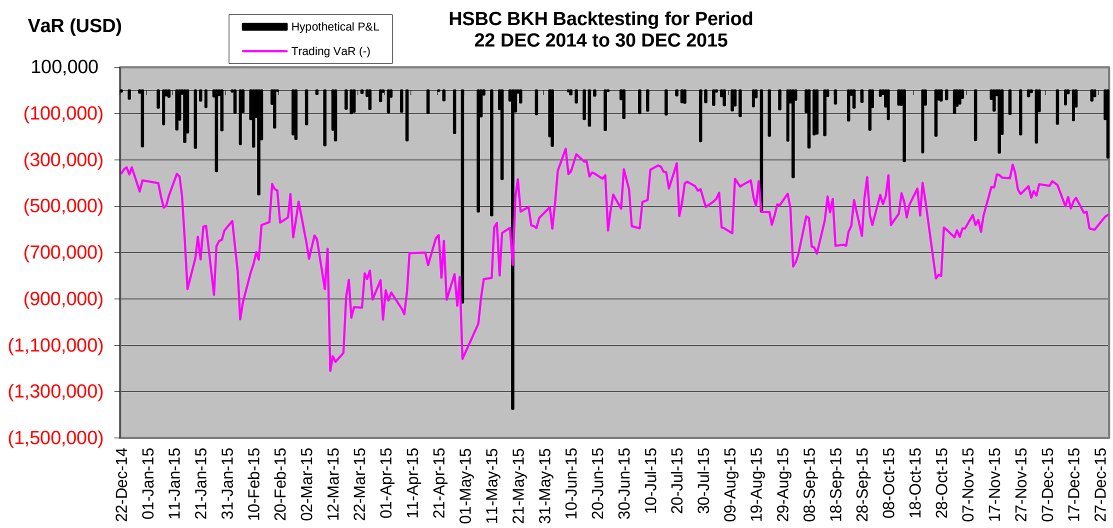
Specific issuer (credit spread) risk arises from a change in the value of debt instruments due to a perceived change in the credit quality of the issuer or underlying assets. As well as through VaR and stress testing, we manage the exposure to credit spread movements within the trading portfolios through the use of limits referenced to the sensitivity of the present value of a basis point movement in credit spreads.

Table 15 : Market risk information by Internal Model Approach at 31 December 2015, 30 June 2015 and 31 December 2014

	31 December 2015 THBm	30 June 2015 THBm	31 December 2014 THBm
Interest Rate Risk			
Maximum VaR during the period	92	132	74
Average VaR during the period	58	69	51
Minimum VaR during the period	37	26	28
VaR at the end of the period	63	37	37
Foreign Exchange Rate Risk			
Maximum VaR during the period	33	35	24
Average VaR during the period	6	7	9
Minimum VaR during the period	1	1	1
VaR at the end of the period	1	3	13
Total Market Risk			
Maximum VaR during the period	93	124	74
Average VaR during the period	58	67	50
Minimum VaR during the period	37	27	32
VaR at the end of the period	61	36	40

Remark: The period for Maximum VaR, Minimum VaR and Average VaR is 60 days interval. All figures are based on 10 days VaR as used for market risk capital charge calculation.

Table 16 : Back-testing result (considering loss side of Hypothetical P&L vs. Value at Risk)



Remark: There is a back-testing exception for the period 22 December 2014 to 30 December 2015.

Interest rate risk in the banking book

Interest rate risk in the banking portfolios or non-trading portfolios arises principally from mismatches between the future yield on assets and their funding cost, as a result of interest rate changes. The prospective change in future net interest income from non-trading portfolios will be reflected in the current realisable value of these positions, should they be sold or closed prior to maturity.

In order to manage this risk optimally, market risk in non-trading portfolios is transferred to Balance Sheet Management ('BSM') or to separate books managed under the supervision of the local ALCO.

The transfer of market risk to books managed by BSM or supervised by ALCO is usually achieved by a series of internal deals between the business units and these books. When the behavioural characteristics of a product differ from its contractual characteristics, the behavioural characteristics are assessed to determine the true underlying interest rate risk. Behavioural assumptions of a product are assessed with respect to each local market in which the product is offered. Local ALCO are required to regularly monitor all such behavioural assumptions and interest rate risk positions to ensure they comply with interest rate risk limits established by Risk Management Meeting ('RMM').

We aim, through our management of interest rate risk in non-trading portfolios, to mitigate the effect of prospective interest rate movements which could reduce our future net interest income, with balancing the cost of such hedging activities, on the current net revenue stream.

Interest rate risk arising within the trading portfolios and non-trading portfolios is measured, where practical, on a daily basis. HSBC uses a range of tools to monitor and limit interest rate risk exposures. These include the present value of a basis point movement in interest rates, VaR, stress testing and sensitivity analysis.

The table below sets out the effect on future net income of an incremental 100 basis points parallel rise in yield curves during the 12 months.

Table 17 : The effect of changes in interest rates to net interest income in the banking book at 31 December 2015 and 2014

	Effect to net income	
Currency	**2015** **THBm**	**2014** **THBm**
Baht	54	170
US Dollar	(175)	(231)
Others	3	(11)
Total effect of changes in interest rates to net interest income	**(118)**	**(72)**
Percentage of net effect to net future interest income	**(1.6%)**	**(1.2%)**

Equity exposures in the banking book

At 31 December 2014, we had equity investments in the banking book of Baht 232 million. These were classified as available-for-sale for accounting purposes. In early of 2015, these investments were sold down with realised gains which recognised in profit and loss during the year 2015 of Baht 36 million. Therefore, there is no outstanding balance at 31 December 2015.

Details of the Bank's accounting policy for available-for-sale equity investments are detailed on pages 13, of the *Annual financial statements and Audit report of Certified Public Accountant 2015*.

Table 18 : Equity exposures in the banking book at 31 December 2014

	2014 **THBm**
Equity exposures	
Book value	200
Fair value	232
Unrealised gains on revaluation of available-for-sale equities	32
Minimum capital requirements for equity exposures on Standardised Approach	-

Remark: At 31 December 2014, the Bank held 200,000 units of The ABF Thailand Bond Index Fund with Net Asset Value of Baht 1,168.3491 per unit. It should be noted that the major component of The ABF Thailand Bond Index Fund is Government securities with a risk weight of zero.

Operational risk

Overview and objective

Operational risk is defined as the risk to achieving our strategy or objectives as a result of inadequate or failed internal processes, people and systems or from external events.

Operational risk is relevant to every aspect of our business. It covers a wide spectrum of issues, in particular legal, compliance, security and fraud. Losses arising from breaches of regulation and law, unauthorised activities, error, omission, inefficiency, fraud, systems failure or external events all fall within the definition of operational risk.

The objective of our operational risk management is to manage and control operational risk in a cost-effective manner and within our risk appetite, as defined by GMB.

Organisation and responsibilities

Responsibility for minimising operational risk losses lies primarily with HSBC's management and staff. Each regional, global business, country, business unit and functional head is required to maintain oversight over operational risk and internal control, covering all businesses and operational activities for which they are responsible.

The Group Operational Risk function and the Operational Risk Management Framework ('ORMF') assist business management in discharging their responsibilities.

The ORMF defines minimum standards and processes, and the governance structure for operational risk and internal control across the Group. To implement the ORMF, HSBC has implemented a 'Three lines of defence' model to underpin our approach to managing operational risk.

The First Line of Defence owns the risk and is responsible for identifying, recording, reporting, managing the risks and ensuring that the right controls and assessments are in place to mitigate these risks. The Second Line of Defence sets the policy and guidelines for managing the risks and provides advice, guidance and challenge to the First Line of Defence on effective risk management.

The Third Line of Defence is Internal Audit which independently ensures we are managing risk effectively.

Measurement and monitoring

We have codified our ORMF in a high level standard, supplemented by detailed policies. These policies explain our approach to identifying, assessing, monitoring and controlling operational risk and give guidance on mitigating actions to be taken when weaknesses are identified.

Business managers are responsible for maintaining an acceptable level of internal control, commensurate with the scale and nature of operations. They are responsible for identifying and assessing risks, designing controls and monitoring the effectiveness of these controls. The ORMF helps managers to fulfil these responsibilities by defining a standard risk assessment methodology and providing a tool for the systematic reporting of operational loss data.

Operational risk and control assessment approach

Operational risk and control assessments are performed by individual business units and functions. The risk and control assessment process is designed to provide business areas and functions with a forward-looking view of operational risks, an assessment of the effectiveness of controls, and a tracking mechanism for action plans so that they can proactively manage operational risks within acceptable levels. Risk and control assessments are reviewed and updated at least annually.

Appropriate means of mitigation and controls are considered. These include:

- making specific changes to strengthen the internal control environment; and
- investigating whether cost-effective insurance cover is available to mitigate the risk.

Recording

We use a centralised database to record the results of our operational risk management process. Operational risk and control assessments are input and maintained by business units. Business management and Business Risk and Control Managers monitor and follow up the progress of documented action plans.

Operational risk loss reporting

To ensure that operational risk losses are consistently reported and monitored at Group level, all Group companies are required to report individual losses when the net loss is expected to exceed US$10,000 and to aggregate all other operational risk losses under US$10,000. Losses are entered into the Operational Risk IT system and are reported to the Group Operational Risk function on a monthly basis.

Abbreviation	Brief description
A	
AFS	Available-for-sale
ALCO	Asset and Liability Management Committee
B	
Bank	The Hongkong and Shanghai Banking Corporation Limited, Bangkok Branch
Basel Committee	The Basel Committee on Banking Supervision
BoT	The Bank of Thailand
BSM	Balance Sheet Management
C	
CCB	Capital Conservation Buffer
CCF	Credit Conversion Factor
CDS	Credit Default Swap
CEO	Chief Executive Officer
CSA	Credit Support Annex
E	
EAD	Exposure at Default
ECAI	External Credit Assessment Institutions
G	
GB&M	Global Banking and Markets, a global business
GCRO	Group Chief Risk Officer
GMB	Group Management Board
Group	HSBC Holdings together with its subsidiary undertakings
GRC	Group Risk Committee
H	
HSBC	HSBC Holdings together with its subsidiary undertakings
I	
ICAAP	Internal Capital Adequacy Assessment Process
IMM	Internal Model Method
IRB	Internal Ratings-Based Approach
L	
LGD	Loss Given Default
M	
MDB	Multilateral Development Bank
O	
ORMF	Operational Risk Management Framework
OTC	Over-the-Counter
P	
PD	Probability of Default
PSE	Public Sector Entities
R	
RMC	Risk Management Committee
RMM	Risk Management Meeting
RWA	Risk-Weighted Asset

Abbreviation	Brief description
S	
SA	Standardised Approach
SFT	Securities Financing Transactions
V	
VaR	Value at Risk

Term	Definition
A	
Available-for-sale ('AFS') financial assets	Those non-derivative financial assets that are designated as available-for-sale or are not classified as a) loans and receivables b) held-to-maturity investments or c) financial assets at fair value through profit or loss.
B	
Back-testing	A statistical technique used to monitor and assess the accuracy of a model, and how that model would have performed had it been applied in the past.
Basel II	The capital adequacy framework issued by the Basel Committee in June 2006 in the form of the 'International Convergence of Capital Measurement and Capital Standards', amended by subsequent changes to the capital requirements for market risk and re-securitisations, commonly known as Basel 2.5, which took effect from 31 December 2011.
Basel III	In December 2010, the Basel Committee issued 'Basel III rules: a global regulatory framework for more resilient banks and banking systems' and 'International framework for liquidity risk measurement, standards and monitoring'. Together these documents present the Basel Committee's reforms to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector. In June 2011, the Basel Committee issued a revision to the former document setting out the finalised capital treatment for counterparty credit risk in bilateral trades.
C	
Capital conservation buffer ('CCB')	A capital buffer prescribed by regulators under Basel III and designed to ensure banks build up capital buffers outside periods of stress which can be drawn down as losses are incurred. Should a bank's capital levels fall within the capital conservation buffer range, capital distributions will be constrained by the regulators.
Commercial real estate	Any real estate, comprising buildings or land, intended to generate a profit, either from capital gain or rental income.
Counterparty credit risk	Counterparty credit risk is the risk that the counterparty to a transaction may default before completing the satisfactory settlement of the transaction.
Credit conversion factor ('CCF')	CCFs are used in determining the EAD in relation to credit risk exposures. The CCF is an estimate of the proportion of undrawn commitments expected to have been drawn down at the point of default.
Credit default swap ('CDS')	A derivative contract whereby a buyer pays a fee to a seller in return for receiving a payment in the event of a defined credit event (e.g. bankruptcy, payment default on a reference asset or assets, or downgrades by a rating agency) on an underlying obligation (which may or may not be held by the buyer).
Credit quality step	A step in the Bank of Thailand credit quality assessment scale which is based on the credit ratings of ECAIs. It is used to assign risk weights under the standardised approach.
Credit risk	Risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. It arises mainly from direct lending and trade finance business but also from products such as guarantees, derivatives and debt securities.

Term	Definition
Credit risk mitigation	A technique to reduce the credit risk associated with an exposure by application of credit risk mitigants such as collateral, guarantees and credit protection.
Credit support annex ('CSA')	A legal document that regulates credit support (collateral) for OTC derivative transactions between two parties.
D	
Debt securities	Financial assets on the Bank's balance sheet representing certificates of indebtedness of credit institutions, public bodies or other undertakings.
E	
Exposure	A claim, contingent claim or position which carries a risk of financial loss.
Exposure at default ('EAD')	The amount expected to be outstanding after any credit risk mitigation, if and when the counterparty defaults. EAD reflects drawn balances as well as allowance for undrawn amounts of commitments and contingent exposures.
F	
Fair value	Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.
H	
Haircut	A discount applied when determining the amount at which an asset can be realised. The discount takes into account the method of realisation including the extent to which an active market for the asset exists. With respect to credit risk mitigation, a downward adjustment to collateral value to reflect any currency or maturity mismatches between the credit risk mitigant and the underlying exposure to which it is being applied. Also a valuation adjustment to reflect any fall in value between the date the collateral was called and the date of liquidation or enforcement.
Held-to-maturity	An accounting classification for investments acquired with the intention and ability of being held until they mature.
I	
Impairment allowances	Management's best estimate of losses incurred in the loan portfolios at the balance sheet date.
Internal Capital Adequacy Assessment Process ('ICAAP')	The Bank's own assessment of the levels of capital that it needs to hold through an examination of its risk profile from regulatory and economic capital viewpoints.
Internal Model Method ('IMM')	One of three approaches defined by Basel framework to determine exposure values for counterparty credit risk.
Internal ratings-based ('IRB')	A method of calculating credit risk capital requirements using internal estimates of risk parameters.
L	
Leverage ratio	A measure, prescribed by regulators under Basel III, which is the ratio of capital to total exposures. Total exposures include on-balance sheet items, off-balance sheet items and derivatives, and should generally follow the accounting measure of exposure. This supplementary measure to the risk-based capital requirements is intended to constrain the build-up of excess leverage in the banking sector.

Term	Definition
Liquidity risk	The risk that the Bank does not have sufficient financial resources to meet its obligations as they fall due, or will have to do so at an excessive cost. This risk arises from mismatches in the timing of cash flows.
M	
Market risk	The risk that movements in market risk factors, including foreign exchange rates and commodity prices, interest rates, credit spreads and equity prices will reduce income or portfolio values.
Minimum capital requirement	The minimum amount of regulatory capital that a financial institution must hold to meet the Pillar 1 requirements for credit, market and operational risk. The Pillar 1 capital charge calculated at 8.5% of RWAs.
N	
Net interest income	The amount of interest received or receivable on assets net of interest paid or payable on liabilities.
O	
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risk.
Over-the-counter (‘OTC’)	A bilateral transaction (e.g. derivatives) that is not exchange traded and that is valued using valuation models.
P	
Pillar 1	Minimum capital requirements - the calculation of regulatory capital for credit, market, and operational risk.
Pillar 2	The supervisory review process - sets out the process by which a bank should review its overall capital adequacy and the processes under which the supervisors evaluate how well financial institutions are assessing their risks and take appropriate actions in response to the assessments.
Pillar 3	Market discipline - sets out the disclosure requirements for banks to publish certain details of their risks, capital and risk management, with the aim of strengthening market discipline.
R	
Regulatory capital	The capital which the Bank holds, determined in accordance with rules established by the BoT.
Repo/reverse repo (or sale and repurchase agreement)	A short-term funding agreement that allows a borrower to create a collateralised loan by selling a financial asset to a lender. As part of the agreement the borrower commits to repurchase the security at a date in the future repaying the proceeds of the loan. For the party on the other end of the transaction (buying the security and agreeing to sell in the future) it is a reverse repurchase agreement or a reverse repo.
Residual maturity	The period outstanding from the reporting date to the maturity or end date of an exposure.
Risk appetite	The aggregate level and types of risk a firm is willing to assume within its risk capacity to achieve its strategic objectives and business plan.
Risk-weighted assets (‘RWA’s)	Calculated by assigning a degree of risk expressed as a percentage (risk weight) to an exposure value.

Term	Definition
S	
Securities financing transactions ('SFT')	A repurchase or reverse repurchase transaction, a securities or commodities lending or borrowing transaction, or a margin lending transaction.
Standardised approach ('SA')	In relation to credit risk, a method for calculating credit risk capital requirements using ECAI ratings and supervisory risk weights. In relation to operational risk, a method of calculating the operational capital requirement by the application of a supervisory defined percentage charge to the gross income of eight specified business lines.
Stressed VaR	A market risk measure based on potential market movements for a continuous one-year period of stress for a trading portfolio.
T	
Trading book	Positions in financial instruments and commodities held either with intent to trade or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely.
V	
Value at risk ('VaR')	A measure of the loss that could occur on risk positions as a result of adverse movements in market risk factors (e.g. rates, prices, volatilities) over a specified time horizon and to a given level of confidence.
W	
Write-down/write-off	When a financial asset is written down or written off, a customer balance is partially or fully removed, respectively, from the balance sheet. Loans (and related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of security. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.