Enhanced Disclosure Task Force

2014 Progress Report

Appendix 4: Leading Practice Examples of EDTF Recommendations

September 2014

Table of Contents

Index of disclosure examples by recommendation and source

Notes

- **Risk disclosures are complex and presentation differs across institutions.** Examples shown are meant to highlight leading practice and are not necessarily comprehensive
- **Examples shown are not exclusive**. The EDTF has highlighted only a subset of the good disclosures available, selecting examples from a broad set of institutions across geographies. Ernst & Young provided support in identifying potential Leading Practice examples
- **Examples shown may be partial**. The EDTF recommends that readers refer to banks’ annual reports and Pillar 3 documents to review complete disclosures

Section 1
General recommendations

Recommendation 1: Present all risk information together or provide an index to aid in navigation

Risk

1 *Appendix to Risk – risk policies and practices.*

2 *Unaudited.* 3 *Audited.* 4 *Audited where indicated.*

For details of HSBC's policies and practices regarding risk management and governance see the Appendix to Risk on page 266.

Risk profile

(Unaudited)

Managing our risk profile

- A strong balance sheet remains core to our philosophy.
- Our portfolios continue to be aligned to our risk appetite and strategy.
- Our risk management framework is supported by strong forward-looking risk identification.

Maintaining capital strength and strong liquidity position

- Our core tier 1 and common equity tier 1 capital ratios remain strong at 13.6% and 10.9%.
- We have sustained our strong liquidity position throughout 2013.
- The ratio of customer advances to deposits remains significantly below 90%.

Strong governance

- Robust risk governance and accountability is embedded across the Group.
- The Board, advised by the Group Risk Committee, approves our risk appetite.
- The Compliance function has been restructured into the Financial Crime Compliance and Regulatory Compliance functions to provide more in-depth focus on these areas.
- Our global risk operating model supports adherence to globally consistent standards and risk management policies across the Group.

Our top and emerging risks

- Macroeconomic and geopolitical risk.
- Macro-prudential, regulatory and legal risks to our business model.
- Risks related to our business operations, governance and internal control systems.

Operational risk

(Unaudited)

1 *Appendix to Risk – risk policies and practic*

Market risk

1 *Appendix to Risk – risk policies and practices.*

Credit risk

HSBC provides more detailed references within each section (e.g., Credit risk)

Sources: HSBC Annual Report 2013, p. 134, 150, 230, 244

Recommendation 1: Present all risk information together or provide an index to aid in navigation

Table of contents

See our Glossary for definitions of terms used throughout this document

Royal Bank of Canada (RBC) provides a basic Table Of Contents at the beginning of its MD&A section that links to major sections within Risk Management. Separately, RBC provides an index to individual risk disclosures within Risk Management.

Members of the EDTF Users Group noted that while it is helpful when banks provide specific references to EDTF disclosures, they did not require such a disclosure for Recommendation 1 to be considered Fully Implemented. From a users' perspective, it is simply important for the bank to provide an in-depth cross-reference to significant risk management disclosures within the Annual Report and in other locations

Index for Enhanced Disclosure Task Force recommendations

On October 29, 2012, the Enhanced Disclosure Task Force (EDTF), established by the Financial Stability Board, issued its report *Enhancing the Risk Disclosures of Banks*, which included 32 recommendations aimed at achieving transparent, high-quality risk disclosures. Certain of these disclosures were previously provided in our 2012 Annual Report. As a result of these recommendations, we have enhanced our disclosure in our 2013 Annual Report and Q4 2013 Supplementary Financial Information package (SFI).

The following index summarizes our disclosure by EDTF recommendation:

			Location of disclosure	
Type of Risk	**Recommendation**	**Disclosure**	**Annual Report page**	**SFI page**
General	1	Table of contents for EDTF risk disclosure	98	
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	11	Flow statement of the movements in regulatory capital		27
	12	Capital strategic planning and targeted level of capital	76	
	13	Risk-weighted assets (RWA) by business segments		30
	14	Analysis of capital requirement, and related measurement model information	50-52	28-29
	15	RWA credit risk and related risk measurements		41-42
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	20	Maturity analysis of consolidated total assets, liabilities and off-balance sheet commitments analyzed by remaining contractual maturity at the balance sheet date	70-71	
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	29	Quantification of gross notional exposure for OTC derivatives or exchange-traded derivatives		44
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	32	Publicly known risk events	76 170	

Sources: Royal Bank of Canada, Annual Report 2013, p98

Recommendation 2: Define the bank's risk terminology and risk measures and present key parameter values used

Glossary of terms

'A-IRB' / 'Advanced-Internal Ratings Based' See 'Internal Ratings Based (IRB) approach'.

'ABS CDO Super Senior' Super senior tranches of debt linked to collateralised debt obligations of asset backed securities (defined below). Payment of super senior tranches takes priority over other obligations.

'Acceptances and endorsements' An acceptance is an undertaking by a bank to pay a bill of exchange drawn on a customer. The Group expects most acceptances to be presented, but reimbursement by the customer is normally immediate. Endorsements are residual liabilities of the Group in respect of bills of exchange which have been paid and subsequently rediscounted.

'Additional Tier 1 (AT1) capital' In the context of CRD IV, a measure of a bank's financial strength as defined the Capital Requirements Regulation.

'Additional Tier 1 (AT1) securities' Securities that are traded as additional tier 1 (AT1) capital in the context of CRD IV.

'Adjusted attributable profit' Adjusted profit, after tax and non-controlling interests' share, attributable to the shareholders of Barclays' PLC.

'Adjusted basic earnings per share' Basic earnings per share, based on adjusted attributable earnings.

'Adjusted compensation: net operating income' Compensation costs as a proportion of adjusted net operating income (adjusted income less credit impairment charges and other provisions).

'Adjusted cost: income ratio' Adjusted operating expenses (defined below) compared to adjusted income (defined below).

'Adjusted gross leverage' The multiple of adjusted total tangible assets over total qualifying Tier 1 capital. Adjusted total tangible assets are total assets less derivative counterparty netting where the Group has a legally enforceable master netting agreement, assets under management on the balance sheet, settlement balances and cash collateral on derivative liabilities, goodwill and intangible assets. See 'Tier 1 capital'.

'Adjusted income' Total income net of insurance claims adjusted to exclude the impact of own credit, and gain on disposal of the investment in BlackRock, Inc.

'Adjusted operating expenses' Operating expenses adjusted to exclude the provision for Payment Protection Insurance redress payments and claims management costs (PPI redress), the provision for interest rate hedging products redress and claims management costs (interest rate hedging products redress), and goodwill impairment.

'Adjusted profit before tax' Profit before tax adjusted to exclude the impact of own credit, impairment of and gain on disposal of the investment in BlackRock, Inc., the provision for Payment Protection Insurance redress payments and claims management costs (PPI redress), the provision for interest rate hedging products redress and claims management costs (interest rate hedging products redress) and goodwill impairments.

'Adjusted return on average risk weighted assets' Adjusted profit as a proportion of average risk weighted assets.

'Adjusted return on average shareholders' equity' Adjusted profit after tax attributable to ordinary shareholders as a proportion of average shareholders' equity.

'Adjusted return on average tangible shareholders' equity' Adjusted profit after tax attributable to ordinary shareholders as a proportion of average shareholders' equity excluding non-controlling interests adjusted for the deduction of intangible assets and goodwill.

'Advanced Measurement Approach' Under Basel II, operational risk charges can be calculated by using one of three methods (or approaches) that increase in sophistication and risk sensitivity: (i) the Basic Indicator Approach; (ii) the Standardised Approach; and (iii) Advanced Measurement Approaches (AMA). Under AMA the banks are allowed to develop their own empirical model to quantify required capital for operational risk. Banks can only use this approach subject to approval from their local regulators.

'Africa Retail and Business Banking (Africa RBB)' A busine

and insurance products through a variety of retail distributi

commercial and large corporate customers across Africa.

'Agencies' Bonds issued by state and / or government age

'Agency Residential Mortgage-Backed Securities (RMBS)' RMBS Securities issued by government-sponsored institutions.

'American Depository Receipts (ADR)' A negotiable certificate that represents the ownership of shares in a non-US company (for example Barclays) trading in US financial markets.

'Americas' Geographic segment comprising the USA, Canada and countries where Barclays operates within Latin America.

'Annual Earnings at Risk (AEaR)' Impact on earnings of a parallel (upward or downward) movement in interest rates.

'Application scorecards' Algorithm based decision tools used to aid business decisions and manage credit risk based on available customer data at the point of application for a product.

'Arrears' Customers are said to be in arrears when they are behind in fulfilling their obligations with the result that an outstanding loan is unpaid or overdue. Such customers are also said to be in a state of delinquency. When a customer is in arrears, their entire outstanding balance is said to be delinquent, meaning that delinquent balances are the total outstanding loans on which payments are overdue.

'Arrears Managed accounts' Arrears Managed accounts are principally Business Lending customers in arrears with an exposure limit less than £50,000 in the UK and €100,000 in Europe, supervised using processes designed to manage a homogeneous set of assets.

'Asia' Geographic segment comprising countries where Barclays operates within Asia (including Singapore, Japan, China and India), Australasia and the Middle East.

'Asset Backed Commercial Paper' Typically short-term notes secured on specified assets issued by consolidated special purpose entities for funding purposes.

'Asset Backed Securities (ABS)' Securities that represent an interest in an underlying pool of referenced assets. The referenced pool can comprise any assets which attract a set of associated cash flows but are commonly pools of residential or commercial mortgages and, in the case of Collateralised Debt Obligations (CDOs), the referenced pool may be ABS or other classes of assets.

'Attributable profit' Profit after tax, excluding non-controlling interests' share that is attributable to the shareholders of Barclays' PLC.

'Back testing' Includes a number of techniques that assess the continued statistical validity of a model by simulating how the model would have predicted recent experience.

'Balance weighted Loan to Value (LTV) ratio' In the context of the credit risk disclosures on secured home loans, a means of calculating marked to market LTVs derived by calculating individual LTVs at account level and weighting it by the balances to arrive at the average position. Balance weighted loan to value is calculated using the following formula: LTV = ((loan balance 1 x MTM LTV% for loan 1) + (loan balance 2 x MTM LTV% for loan 2) + ...)) / total outstandings in portfolio.

'The Bank' Barclays Bank PLC.

'Barclaycard' An international payments business service provider to retail and business customers including credit cards, consumer lending, merchant acquiring, commercial cards and point of sale finance. Barclaycard has scaled operations in UK, US, Germany, Scandinavia and South Africa.

'Barclays Direct' A Barclays brand, comprising the savings and mortgage businesses acquired from ING Direct UK in March 2013.

'Basel 2' The second of the Basel accords. It sets a framework of minimum capital requirements for banks – covering credit, operational and market risk; supervisory review of banks' assessment of capital adequacy and disclosure requirements.

Barclays maintains a 'Glossary' on its website which includes 18 pages of definitions. Key parameters and assumptions are included within the relevant sections of the Annual Report, including a detailed overview of parameters utilized in A-IRB credit risk modeling (See Leading Practice for Recommendation 8: Stress Testing)

Sources: Barclays Glossary, available on website: http://www.barclays.com/barclays-investor-relations/results-and-reports/annual-reports.html

Recommendation 2: Define the bank's risk terminology and risk measures and present key parameter values used

The following sections outline the key risks that are inherent in the Firm's business activities.

	Risk	Definition	Key risk management metrics	Page references
Risks managed centrally	Capital risk	The risk the Firm has insufficient capital resources to support the Firm's business activities and related risks.	Risk-based capital ratios, Supplementary Leverage ratio	160-167
	Liquidity risk	The risk the Firm will not have the appropriate amount, composition or tenor of funding and liquidity to support its assets and obligations.	LCR; Stress; Parent Holding Company Pre-Funding	168-173
	Non-USD FX risk	Risk arising from capital investments, forecasted expense and revenue, investment securities portfolio or issuing debt in denominations other than the U.S. dollar.	FX Net Open Position ("NOP")	220, 229-231
	Structural interest rate risk	Risk resulting from the Firm's traditional banking activities (both on- and off-balance sheet positions) arising from the extension of loans and credit facilities, taking deposits and issuing debt, and the impact of the CIO investment securities portfolio.	Earnings-at-risk	147-148
Risks managed on an LOB aligned basis	Country risk	Risk that a sovereign's unwillingness or inability to pay will result in market, credit, or other losses.	Default exposure at 0% recovery, Stress	149-152
	Credit risk	Risk of loss from obligor or counterparty default.	Total exposure; industry and geographic concentrations; risk ratings; delinquencies; loss experience; stress	117-141
	Fiduciary risk	Risk of failing to exercise the applicable standard of care or to act in the best interests of clients or treat all clients fairly as required under applicable law or regulation.	Not Applicable	159
	Legal risk	Risk of loss or imposition of damages, fines, penalties or other liability arising from failure to comply with a contractual obligation or to comply with laws or regulations to which the Firm is subject.	Not Applicable	158
	Market risk	Risk of loss arising from adverse changes in the value of the Firm's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity and commodity prices and their implied volatilities, and credit spreads.	VaR, Stress, Sensitivities	142-148
	Model risk	Risk of a material inaccuracy in the quantification of the value of, or an inaccuracy of the identification and measurement of a position held by or activity engaged in by the Firm.	Model Status, Model Tier	153
	Operational risk	Risk of loss resulting from inadequate or failed processes or systems, human factors or external events	Various metrics- see page 156	155-157
	Principal risk	Risk of an adverse change in the value of privately-held financial assets and instruments, typically representing an ownership or junior capital position. These positions have unique risks due to their illiquidity or for which there is less observable market or valuation data.	Carrying Value, Stress	154
	Regulatory and Compliance risk	Risk of regulatory actions, including fines or penalties, arising from the failure to comply with the various U.S. federal and state laws and regulations and the laws and regulations of the various jurisdictions outside the United States in which the Firm conducts business.	Not Applicable	158
	Reputation risk	Risk that an action, transaction, investment or event will reduce the trust that clients, shareholders, employees or the broader public has in the Firm's integrity or competence.	Not Applicable	159

Sources: JP Morgan Chase & Co. Annual Report 2013, p114

Recommendation 3: Discuss top and emerging risks, including quantitative disclosure and recent changes

RISK DEVELOPMENTS IN 2013

Risk developments listed below are defined as the risks which may have a significant impact on our business and it is difficult to quantify this potential impact on the organisation. They are triggered in general by unexpected events and may introduce volatility in earnings or impact ING's long-term strategy. The sequence in which the top risks are presented below is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

Monitoring exposures and Eurozone developments

The problems in the Eurozone have been a top priority for risk management throughout 2013, and will continue to be a top priority in 2014. ING closely monitors the exposures in debt securities, lending and credit derivatives, and regularly assesses whether the positions continue to be in line with its risk appetite. This assessment is supported by internal stress tests.

Throughout 2013, ING has continued to selectively optimise its balance sheet, including reducing its positions in especially covered bonds, asset backed securities (ABS) securities and committed facilities for some of the weaker countries as a result of these risk analyses. Several European countries have been downgraded in 2013 due to a weak and uncertain economic environment. As the Eurozone countries are going through a recession period. The Southern European countries seem to slowly emerge from the recession, while the strong countries were showing some signs of recovery although growth is fragile. Furthermore, the chairman of the European Central Bank (ECB) announced twice the reduction of the main refinancing rate by 25 basis points respectively in May and November 2013 to a final rate of 0.25% down from 0.75% at the end of 2012. In September, the ECB by his chairman announced that it was ready to use any instrument, including long-term refinancing operations (LTROs), to push down the money market interest rates.

Despite the ECB efforts and weak signs of recovery, the Eurozone is not yet out of the doldrums, as many of the fundamental problems still remain. There is no guarantee that the weaker countries will succeed in making their economies more competitive, which is a prerequisite for long-term debt sustainability. Risks and concerns remain with respect to Europe and, given a potential prolonged slowdown scenario, could have a detrimental impact on the global economic recovery, sovereign and non-sovereign debt in Europe and the financial condition of European financial institutions, including ING.

Greece, Italy, Ireland, Portugal, Spain and Cyprus (GIIPSC)

Since 2010 concerns arose regarding the creditworthiness of certain European countries. As a result of these concerns the fair value of sovereign debt decreased and those exposures are being monitored more closely. With regard to the sovereign debt crisis, ING's main focus has been on Greece, Italy, Ireland, Portugal, Spain and Cyprus as these countries have either applied for support from the European Financial Stability Facility ('EFSF') or receive support from the ECB via government bond purchases in the secondary market. Further details on exposure to Government bonds and Unsecured Financial institutions' bonds are included in Note 5 'Investments'.

The table below provides information on ING's risk exposure with regard to Greece, Italy, Ireland, Portugal, Spain and Cyprus. Unless otherwise indicated, the amounts represent risk exposure values and exposures are included based on the country of residence of the direct Obligor to which ING has primary recourse of repayment of the obligations, except most residential mortgage backed securities (RMBS), which exposures are based on country of risk.

Greece, Italy, Ireland, Portugal, Spain and Cyprus - Total risk exposures [1]

							31 December 2013
	Greece	Italy	Ireland	Portugal	Spain	Cyprus [2]	Total
Residential mortgages and other consumer lending	11	7,831	6	4	9,922	2	17,776
Corporate Lending	397	7,711	587	1,083	5,085	395	15,258
Financial Institutions Lending	12	323	395	39	569	6	1,344
Government Lending		160			35		195
Total Lending	420	16,025	988	1,126	15,611	403	34,573
RMBS	82	774	63	582	2,418		3,919
CMBS			8				8
Other ABS		28	8	4	24		64
Corporate Bonds		318	254	72	167		811
Covered Bonds		183	368	154	9,213		9,918
Financial Institutions' bonds (unsecured)		261	15	34	76		386
Government Bonds	46	2,645	53	491	1,352	10	4,597
CDS exposures in banking book [3]					–47		–47
Total Debt Securities	128	4,209	769	1,337	13,203	10	19,656
Real Estate [4]	22	448		206	481		1,157
Trading excluding CDS exposures	2	595	34		374	1	1,006
Sold CDS protection	1	4	2	4			11
Bought CDS protection	–3	–15	–1	–1	–29		–49
Trading including CDS protection	0	584	35	3	345	1	968
Undrawn committed facilities	47	1,201	625	187	2,236	39	4,335
Pre-settlement exposures [5]	28	478	370	42	661	31	1,610
Total risk exposure	645	22,945	2,787	2,901	32,537	484	62,299

[1] The exposures reported are credit, market and real estate exposures based on source systems and measurement criteria that can differ from those of similar exposures reported in Note 5 'Investments' of the annual accounts.
[2] The majority of the corporate lending risk exposures were either deals with country of risk outside of Cyprus, Letter of credits or Trade Commodity Finance with maturity less than 3 months. Therefore, net credit risk linked to Cyprus is not significant for ING Bank. NN Group has no credit risk linked to Cyprus.

Source: ING Annual Report pp 239-243, 259-260

RISK DEVELOPMENTS IN 2013

Risk developments listed below are defined as the risks which may have potentially a significant impact on our business and difficult to quantify the impact on the organisation. They are triggered in general by unexpected events, and they may introduce volatility in earnings or impact ING's long-term strategy. The sequence in which the top risks are presented below is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

Liquidity risk

Funding and liquidity risk management remained in 2013 an important topic for senior management and the Asset and Liability Committee Bank. During the year further implementation steps were undertaken in implementing and finalising the funding and liquidity risk management framework, whilst working in parallel on new regulatory requirements which were published in 2013 by the BCBS, EC and EBA. External market developments improved in comparison with the previous year, but both in the Eurozone and globally economic developments are sluggish and at times still volatile. Therefore, market developments, regulatory developments and internal financial developments are closely monitored. Stress testing and measurement of early warning indicators are, among others, used to provide additional management information. In 2013 the funding and liquidity risk appetite statements were reviewed and updated. The appetite statement is set and allocated throughout ING Bank. In addition, funding and liquidity usage is steered by means of funds transfer pricing thus embedding funding and liquidity risk management in the total organisation.

The Bank improved its funding profile and ensured its liquidity position stayed within regulatory and internal targets. The full-year 2013 long term debt issuance totalled EUR 25.7 billion compared with EUR 33.1 billion issued in 2012. The issuance volume was lower due to a combination of an asset growth slowdown and increasing funds entrusted. As a result, ING Bank's loan-to-deposit ratio, excluding securities that are recognised at amortised costs in loans and advances and excluding the IABF government receivable, improved in 2013 from 1.13 at 2012 year-end to 1.04, thereby already complying with ING's 2015 Ambition of below 1.10.

Dutch mortgages

In 2013 the Dutch housing market remained fragile due to the economic downturn, however a cautious recovery was observed towards the end of the year. The stricter tax and acceptation rules seem to be accepted. The biggest change to the tax rules is that interest on new mortgages is only tax deductible if there is at least an annuity repayment schedule. The Dutch housing market is historically characterised by a housing shortage, high income tax with deductibility of interest on mortgages, and tax driven mortgage products.

Although the house prices decreased, the Dutch payment behaviour is good, reflected in a slightly elevated but still low percentage of non-performing loans (NPL) by the end of 2013. Given the significant amount of mortgages in our credit portfolio, ING Bank closely follows all developments related to the Dutch housing market and its mortgage portfolio.

Business lending Benelux

ING Bank's Business Lending, defined as lending to corporates in the business line Retail Banking, is concentrated within the Benelux. The weak economic environment was reflected by increased risk costs and elevated percentage of non-performing loans. The Netherlands

showed increased non-performing loan amounts, which was mainly driven by the sectors transportation logistics and media. The non-performing loan amounts in Belgium and Luxembourg decreased slightly over 2013.

Real estate finance

Real Estate Finance (REF) is the ING Bank's commercial real estate financer with a global portfolio. It is active in all the core real estate sectors: offices, retail, residential, industrial and logistics. REF financing policy is based on cash flow generating prime real estate portfolio, senior secured facilities, relatively low starting Loan-to-Value (LTV) and conservative covenant setting.

In 2013, the continued weak and challenging European commercial real estate markets were reflected in the risk costs and non-performing loans. Further, in 2013 DNB performed an Asset Quality Review for Commercial Real Estate (CRE) primarily focusing on relevant Income Producing Real Estate portfolios (IPRE) at ING Bank globally, including Private Banking. This project consisted of two phases with the first phase dedicated to processes and methodologies and the second phase concentrating on the appropriate level of both capital and provisioning. The second phase assessment was executed by DNB with assistance of BlackRock included data delivery of IPRE exposure of in total EUR 40 billion, of which The Netherlands, Spain and Italy were selected for detailed analysis. This selection totals EUR 24 billion of which the majority is managed by ING REF (approximately 77%).

Provisions and Pillar I capital levels for ING for the portfolios in scope are in line with the results of the Asset Quality Review CRE. In 2014, the ECB will also conduct an AQR for the total bank and the CRE portfolio will be included again.

Cybercrime

Cybercrime is an increasing threat to companies in general and to financial institutions specifically. Both the frequency and the intensity of attacks are increasing at a global scale. In April 2013 Dutch banks, including ING Bank were targeted by Distributed Denial of Service (DDoS) attacks which resulted in some noticeable unavailability of services.

Following the establishment of a Cybercrime Task Force in 2012, ING Bank has set up a Cybercrime Resilience Program in 2013 to structurally address the cybercrime threats. Within the programme, ING Bank has defined a wide range of measures, on top of existing IT security measures, to strengthen ING's resilience against e-banking fraud, DDoS and targeted attacks (also called Advanced Persistent Threats). To monitor and to respond to cybercrime effectively across ING Bank, a permanent central CyberCrime Emergency Response Team has been established.

ING Bank is continuously working on strengthening its global cybercrime resilience including strengthened collaboration against cybercrime with the financial industry, law enforcement authorities, government (e.g. National Cyber Security Center) and Internet Service Providers (ISPs).

Recommendation 3: Discuss top and emerging risks, including quantitative disclosure and recent changes

Top and emerging risk scenarios

As part of its risk management process, the Group identifies and monitors its top and emerging risk scenarios. These are events that, should they materialise, would lead to a significant unexpected negative outcome, thereby causing the Group as a whole, or a particular division, to fail to meet one or more strategic objectives. In assessing the potential impact of risk materialisation, the Group takes into account both financial and reputational considerations.

Management is concerned with a range of risk scenarios. However, a small number attracted particular attention from senior management during the past year. These were grouped into four broad categories:

- Macroeconomic risks;
- Conduct, regulatory and legal risks;
- Risks related to the Group's operations; and
- Political risk.

Further information on these and other risks facing the Group is detailed in Risk factors on pages 523 to 536.

The Group's top and emerging risks are as follows:

Macroeconomic risks

(i) Increased impairments arising from defaults in sectors to which the Group has concentrated exposures, particularly commercial real estate and shipping

The Group has material exposure to borrowers in a number of sectors, particularly shipping. This sector has experienced falling revenues and declining asset values. If global economic growth remains subdued, losses in these sectors may increase unexpectedly. Any such losses may be exacerbated by issues related to controls.

Impact on the Group

If borrowers default, the value of the Group's collateral may prove inadequate to repay the associated debt, leading to increased impairments. UK Corporate is likely to be most affected.

Mitigants

Optimisation of the Group's shipping and a significant proportion of commercial real estate portfolios is part of Capital Resolution Group strategy.

(ii) Increased impairments arising from a more severe than expected economic downturn

The Group's return to profitability depends on the economic recovery of its major markets. If their recovery is slower than expected, the Group's return to profitability and private ownership may also be deferred. All divisions could be affected.

Impact on the Group

A slower than expected recovery would likely result in lower revenues and income, and higher impairments. It could also result in higher operational losses. If such a downturn were prolonged, capital might also be negatively affected.

Mitigants

The Group develops business plans to take into account the possibility of slow economic growth and implemented strategies, such as cost reductions, to reduce its vulnerability.

(iii) An increase in the Group's obligations to support pension schemes

The Group has established various pension schemes for its employees as a result of which it has incurred certain obligations as sponsor of these schemes. If economic growth stagnates and interest rates remain low as a result, the value of pension scheme assets may not be adequate to fund the pension schemes' liabilities. All of the Group's businesses are exposed to this risk.

Impact on the Group

As asset values were lower and liabilities higher when valued most recently, the Group may be required to set aside additional capital in support of the schemes. The amount of additional capital required depends on the size of the shortfall when the assets are valued as well as the efficacy, and acceptability to the regulator, of management actions undertaken to address it.

Risk governance* continued

Top and emerging risk scenarios continued

In addition, the Group may be required to increase its cash contributions to the schemes. Similarly, the amount of additional cash contributions that may be required depends on the size of the shortfall when the assets are valued. If interest rates fall further, the value of the schemes' assets may decline while the value of their liabilities increases, leading to a need to increase cash contributions.

Mitigants

The trustee is responsible for the investment of the main scheme's assets, which are held separately from the assets of the Group.

Conduct, regulatory and legal risks

(i) Increased conduct costs and reputational damage arising from a failure to achieve fair customer outcomes

In order to achieve its strategic objectives, the Group must put the customer at the heart of its business.

Impact on the Group

Failure to do so would cause the Group to fail to achieve its strategic objectives, which would affect earnings, liquidity, capital and shareholder confidence adversely. The risk of failure affects all divisions.

Mitigants

In order to address this risk, during the year the Group continued to embed good conduct at the heart of the business to ensure fair outcomes for customers.

(ii) Losses or reputational damage arising from litigation

Given its diverse operations, the Group is exposed to the risk of litigation. For example, during the course of 2013, it was subject to shareholder litigation, securities related litigation, various class actions claims, including those related to LIBOR and foreign exchange trading, and mass consumer claims such as those related to Payment Protection Insurance and interest rate hedging products. This risk affects all of the Group's divisions.

Impact on the Group

As a result of litigation, the Group may incur fines, be ordered to pay damages or other compensation, suffer reputational damage, or face limitations on its ability to operate. For example, in the case of LIBOR, the Group agreed to pay settlement penalties to resolve investigations by the European Commission into Yen LIBOR competition infringements and EURIBOR competition infringements.

Mitigants

The Group defends claims against it to the best of its ability and it co-operates fully with various governmental and regulatory authorities.

(iii) Increased costs arising from a failure to demonstrate compliance with existing regulatory requirements related to conduct, particularly with respect to mis-selling

The Group is subject to regulation governing the conduct of its business activities. For example, it must ensure that it sells its products and services only to informed customers. This affects all divisions.

*unaudited

Impact on the Group

If the Group sells products to uninformed customers, or fails to handle complaints well, it may be subject to fines, incur remediation costs or even be subject to criminal charges. It may also suffer significant damage to its reputation.

Mitigants

Although more work needs to be done to mitigate this risk, the Group has simplified some products and stopped offering others. Where appropriate, it has compensated purchasers of some products and services, such as payment protection insurance and certain interest rate hedging products. Future payments of such compensation would give rise to additional costs.

Risks related to the Group's operations

(i) Increased losses arising from cyber attacks

The Group has experienced cyber attacks, which are increasing in frequency and severity across the industry. This risk affects all divisions.

Impact on the Group

A successful cyber attack could lead to fraudulent activity or the loss of customer data. The Group could experience significant losses as a result of the need to reimburse customers, pay fines or both. Furthermore, a successful cyber attack could cause significant damage to the Group's reputation.

Mitigants

The Group has participated in an industry-wide cyber attack simulation. It has also initiated a large scale programme to improve controls over user access. In addition, it has reviewed its websites and taken steps to rationalise them, put additional anti-virus protections in place and taken steps to educate staff on information protection.

(ii) Increased losses arising from the failure of information technology systems

The Group's information technology systems are vulnerable to failure. Because they are complex, recovering from failure is very challenging.

Impact on the Group

A failure of information technology systems could lead to the Group's inability to process transactions or provide services to its customers. Should a failure not be rectified promptly, the Group might lose customers, be subject to fines, incur remediation costs or face legal action. Its reputation might also suffer.

Mitigants

The Group has launched a major investment programme to improve resilience, which has already had an impact. The Group has also enhanced its back up systems and created a 'shadow bank' capable of providing basic services in the event of need. Finally, the Group is improving the documentation of critical business functions.

(iii) Increased costs arising from a failure to execute successfully major projects

The Group has a number of major projects underway, the successful conclusion of which is essential if it is to meet new regulatory and strategic requirements. These new requirements affect its organisational structure, its business strategies, its information technology systems, its operational processes and its product offerings. Given the number, scale and complexity of these projects, the Group may not complete them successfully, or at all. This affects all divisions.

Impact on the Group

If the Group does not complete these projects successfully, the interests of customers may be affected, necessitating customer redress. The Group may also incur regulatory fines, lose market share and suffer damage to its reputation.

Mitigants

The Group is working to implement change in line with its project plans while assessing the risks to implementation and taking steps to mitigate those risks where possible.

(iv) Increased costs due to an inability to recruit or retain suitable staff

The Group is undergoing significant organisational change, the result of a need to implement new business strategies and respond to a changing external environment. The pace of change, coupled with the associated uncertainty may cause experienced staff members to leave the Group and prospective staff members not to join. Although these risks concern all divisions, they particularly affect Markets and US Retail & Commercial.

Impact on the Group

If it cannot retain or attract the necessary staff members, the Group may be unable to implement its business strategies or meet regulatory requirements on time, or at all. It may also experience control failures. The Group's reputation may suffer as a result.

Mitigants

The Group has communicated expected changes in its organisational structure to members of staff, implementing plans aimed at minimising unexpected staff losses. The Group is also working to develop and implement an enhanced recruitment strategy.

Political risks

The Group and the Royal Bank, its principal operating subsidiary, are both headquartered and incorporated in Scotland. The Scottish Government is holding a referendum in September 2014 on the question of Scottish independence from the UK. Although the outcome of the referendum is uncertain, subject to any mitigating factors, the uncertainties resulting from an affirmative vote in favour of independence would be likely to significantly impact the Group's credit ratings and could also impact the fiscal, monetary, legal and regulatory landscape to which the Group is subject. Were Scotland to become independent, it may also affect Scotland's status in the European Union.

The occurrence of any of the impacts above could significantly impact the Group's costs and would have a material adverse effect on the Group's business, financial condition, results of operations, and prospects.

*unaudited

Source: RBS Annual Report 2013, p179-181

Recommendation 4: Outline plans to meet new regulatory ratios

Basel Committee leverage ratio

On 12 January 2014, the Basel Committee announced the finalisation of its revised rules for calculating the Basel 3 leverage ratio. These included a number of elements that would require amendments to CRD IV if adopted in the EU, although implementation timeframes within the EU are not yet clear. Compared to the current CRD IV implementation, the revised rules contain elements that will increase leverage exposure; including capturing a calculation for net written credit derivatives based upon their notional value and the inclusion of netted cash legs of SFTs. The revised rules also include elements that will reduce leverage exposure including, the removal of volatility haircuts in relation to the SFTs' add-on, the ability to net down derivative MTM exposures with eligible cash collateral (this element includes the impact of the PRA rule changes, and expands upon them), and more favourable credit conversion factors for undrawn commitments. Based on an initial high level impact analysis we have estimated the changes would decrease the CRD IV leverage ratio by approximately 20 basis points prior to management actions.

Fully loaded Leverage exposure	£bn	£bn	£bn
Derivatives			
IFRS derivative financial instruments	324	324	403
Additional netting adjustments for derivatives		(260)	(324)
Potential future exposure on derivatives		256	308
Total derivatives		320	387
Securities Financing Transaction (SFTs)			
Reverse repurchase agreements and other similar secured lending	187	187	223
Remove IFRS reverse repurchase agreements and other similar secured lending		(187)	(223)
Add leverage exposure measure for SFTs		92	93
Total securities financing transactions		92	93
Other assets and adjustments			
Loans and advances and other assets	801	801	907
Undrawn commitments		179	190
Regulatory deductions and other adjustments		(15)	(18)
Total other assets and adjustments		965	1,079
Total exposure	1,312	1,377	1,559
PRA adjustment to CRD IV leverage exposure		(14)	–
PRA adjusted leverage exposure		1,363	1,559

Leverage ratio	Leverage ratio As at 31.12.13	Leverage ratio As at 30.06.13
CET1 capital	40.4	38.1
Additional Tier 1 capital	2.3	0.2
Tier 1 capital	42.7	38.3
PRA deductions to CET1 capital[a]	(2.2)	(4.1)
PRA adjusted Tier 1 capital	40.5	34.2
CRD IV fully loaded leverage ratio	3.1%	2.5%
PRA fully loaded leverage ratio	3.0%	2.2%

The estimated PRA leverage exposure decreased to £1,363bn (June 2013: £1,559bn). Excluding the impact of movements in foreign currency, leverage exposure reduced approximately £140bn driven by reductions in loans and advances, trading portfolio assets and potential future exposure on derivatives.

Applying the Basel 3 2010 text for the calculation of leverage would result in an estimated leverage exposure of £1,521bn (June 2013: £1,665bn), reflecting an increase of £144bn in the SFT exposure calculation from the CRD IV exposure. The estimated fully loaded leverage ratio would be 2.8% (June 2013: 2.3%) on this basis.

Liquidity regulation

Since June 2010, the Group has reported its liquidity position against Individual Liquidity Guidance (ILG) provided by the PRA. The PRA defines both eligible liquidity pool assets and stress outflows against reported balances.

The Group also monitors its position against anticipated Basel 3 liquidity metrics – the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The LCR is designed to promote short-term resilience of a bank's liquidity risk profile by ensuring that it has sufficient high quality liquid resources to survive an acute stress scenario lasting for 30 days. The NSFR has a time horizon of at least 12 months and has been developed to promote a sustainable maturity structure of assets and liabilities.

In January 2013, the Basel Committee on Banking Supervision published a final standard for the LCR. The European CRR requires phased compliance with LCR standard from January 2015 at minimum of 60% increasing to 100% by January 2018.

In January 2014, the BCBS published a consultation proposing revision to the NSFR standards. The minimum NSFR requirement is to be introduced in January 2018 at 100%.

The methodology for estimating the LCR and NSFR is based on an interpretation of the Basel standards and includes a number of assumptions which are subject to change prior to the implementation of CRD IV.

Based on the revised Basel standards, as at 31 December 2013, Barclays had a surplus to both of these metrics with an estimated Basel 3 LCR of 102% (2012: 126%) and an estimated Basel 3 NSFR of 110% (2012: 112%).

Comparing internal and regulatory liquidity stress tests

The LRA stress scenarios, the PRA ILG and Basel 3 LCR are all broadly comparable short term stress scenarios in which the adequacy of defined liquidity resources is assessed against contractual and contingent stress outflows. The PRA ILG and the Basel 3 LCR stress tests provide an independent assessment of the Group's liquidity risk profile.

Stress Test	Barclays LRA	PRA ILG	Basel 3 LCR	Basel 3 NSFR
Time Horizon	30-90 days	3 months	30 days	12 months
Calculation	Liquid assets to net cash outflows	Liquid assets to net cash outflows	Liquid assets to net cash outflows	Stable funding resources to stable funding requirements

As at 31 December 2013, the Group held eligible liquid assets in excess of 100% of stress requirements for all three LRA stress tests:

Compliance with internal and regulatory stress tests As at 31 December 2013	Barclays' LRA (30 day Barclay specific requirement)[a] £bn	Estimated Basel 3 LCR (revised text January 2013) £bn
Total eligible liquidity pool	127	130
Asset inflows	–	12
Stress outflows		
Retail and commercial deposit outflows	(47)	(60)
Wholesale funding	(33)	(23)
Net secured funding	(14)	(12)
Derivatives	(7)	(7)
Contractual credit rating downgrade exposure	(13)	(13)
Drawdowns of loan commitments	(7)	(25)
Other	(1)	–
Total stress net cash flows	(122)	(128)
Surplus	5	2
Liquidity pool as a percentage of anticipated net cash flows	104%	102%
As at 31 December 2012	129%	126%

In 2013, Barclays Group right sized its liquidity pool to reduce the large LRA and LCR surpluses to support the leverage plan and reduce the costs of surplus liquidity, while maintaining compliance with its internal liquidity risk appetite and external regulatory requirements.

Barclays plans to maintain its surplus to the internal and regulatory stress requirements at an efficient level, continuing to monitor the money markets closely, in particular for early indications of the tightening of available funding. In these conditions, the nature and severity of the stress scenarios are reassessed and appropriate action taken with respect to the liquidity pool. This may include further increasing the size of pool or monetising the pool to meet stress outflows.

Source: Barclays Annual Report 2013, p205, 210

Recommendation 4: Outline plans to meet new regulatory ratios

JP Morgan: Disclosure of pro-forma / proposed regulatory ratios

$B, except where noted	4Q13	3Q13	4Q12
Basel I			
Tier 1 common capital[1,2]	$149	$145	$140
Risk-weighted assets[2]	1,391	1,374	1,270
Tier 1 common ratio[1,2]	10.7%	10.5%	11.0%
Basel III			
Tier 1 common capital[2]	$151	$146	—
Risk-weighted assets[2]	1,591	1,564	—
Tier 1 common ratio[2]	9.5%	9.3%	—
Firm supplementary leverage ratio ("SLR")[3]	4.7	4.7	—
Bank SLR[3]	4.7	4.3	—
Total assets (EOP)	$2,416	$2,463	$2,359
Return on equity	10%	(1)%	11%
Return on tangible common equity[4]	14	(2)	15
Return on assets	0.87	(0.06)	0.98
Return on Basel I Risk-weighted assets[5]	1.51	(0.11)	1.76
Tangible book value per share[6]	$40.81	$39.51	$38.75

4Q13 Standardized B3T1C of 9.4%

- HQLA[7] of $522B
- Available resources[8] represent ~19% of Basel III RWA
- Compliant with Firm LCR, including the impact of the proposed new rules
- Repurchased $0.3B of common equity in 4Q13
- Firmwide total credit reserves of $17.0B; loan loss coverage ratio of 1.80%[9]

Evolution of the SLR Ratio Exposure Calculation[3]

Potential add-ons	U.S. NPR	Jan. 2014 Basel Framework vs. U.S. NPR	Estimated impact on JPM SLR (bps)
Derivatives PFE	✓	↔	
Derivatives Cash Collateral	✓	↑	
Unfunded Commitments	✓	↓	
Sold Credit Protection		↑	
Disallow FIN 41 Netting		↔	
Total Leverage Exposure	**~$3.4T**	**~$3.5T**	
HoldCo 4Q13 Basel III SLR	**4.7%**	**4.6%**	**(~10)**
Memo: Bank 4Q13 Basel III SLR	***4.7%***	***4.6%***	***(~10)***

JP Morgan disclosed its initial estimate of the final Basel III Leverage Ratio in its earnings release just two days after the ratio was formally defined by the Basel Committee

Source: JP Morgan Chase 4Q 2013 Earnings Presentation

JP Morgan: Estimates of proposed regulatory ratios

LCR and NSFR

In December 2010, the Basel Committee introduced two new measures of liquidity risk: the liquidity coverage ratio ("LCR"), which is intended to measure the amount of "high-quality liquid assets" ("HQLA") held by the Firm in relation to estimated net cash outflows within a 30-day period during an acute stress event; and the net stable funding ratio ("NSFR") which is intended to measure the "available" amount of stable funding relative to the "required" amount of stable funding over a one-year horizon. The standards require that the LCR be no lower than 100% and the NSFR be greater than 100%.

In January 2013, the Basel Committee introduced certain amendments to the formulation of the LCR, and a revised timetable to phase in the standard. The LCR will continue to become effective on January 1, 2015, but the minimum requirement will begin at 60%, increasing in equal annual increments to reach 100% on January 1, 2019. At December 31, 2013, the Firm was compliant with the Basel III LCR. The LCR may fluctuate from period-to-period due to normal flows from client activity.

On October 24, 2013, the U.S. banking regulators released a proposal to implement a U.S. quantitative liquidity requirement consistent with, but more conservative than, Basel III LCR for large banks and bank holding companies ("U.S. LCR"). The proposal also provides for an accelerated transition period compared to that which is currently required under the Basel III LCR rules. At December 31, 2013, the Firm was also compliant with the U.S. LCR based on its current understanding of the proposed rules.

On January 12, 2014, the Basel Committee released proposed revisions to the NSFR. Based on its current understanding of the proposed revisions, the Firm was compliant with the NSFR as of December 31, 2013.

Basel III (fully phased-in) & Leverage ratio

Additionally, the Firm estimates that its Tier 1 capital ratio under the Basel III Advanced Approach on a fully phased-in basis would be 10.2% as of December 31, 2013. The Tier 1 capital ratio as calculated under the Basel III Standardized Approach on a fully phased-in basis is estimated at 10.1% as of December 31, 2013.

Management's current objective is for the Firm to reach an estimated Basel III Tier I common ratio of 10%+ and a Basel III Tier 1 capital ratio of 11.0%, both by the end of 2014. Tier 1 common capital and the Tier 1 common and Tier 1 capital ratios under Basel III are all non-GAAP financial measures. However, such measures are used by bank regulators, investors and analysts to assess the Firm's capital position and to compare the Firm's capital to that of other financial services companies.

The Basel III interim final rule also includes a requirement for advanced approach banking organizations, including the Firm, to calculate a supplementary leverage ratio ("SLR"). The SLR, a non-GAAP financial measure, is defined as Tier 1 capital under Basel III divided by the Firm's total leverage exposure. Total leverage exposure is calculated by taking the Firm's total average on-balance sheet assets, less amounts permitted to be deducted for Tier 1 capital, and adding certain off-balance sheet exposures, such as undrawn commitments and derivatives future exposure.

Following approval of the Basel III interim final rule, the U.S. banking agencies issued proposed rulemaking relating to the SLR that would require U.S. bank holding companies, including JPMorgan Chase, to have a minimum SLR of at least 5% and insured depository institutions ("IDI"), including JPMorgan Chase Bank, N.A. and Chase Bank USA, N.A., to have a minimum SLR of at least 6%. The Firm and its IDI subsidiaries are not required to meet the minimum SLR until January 1, 2018. The Firm estimates, based on its current understanding of the U.S. rules, that if the rules were in effect at December 31, 2013, the Firm's SLR would have been approximately 4.7% and JPMorgan Chase Bank, N.A.'s SLR would have been approximately 4.7%. Management's current objective is to achieve an SLR of 5.5% for the Firm and an SLR of 6% for JPMorgan Chase Bank, N.A. each in advance of the SLR effective date.

Source: JP Morgan Chase 2013 Annual Report, pp. 168-169

Section 2

Risk governance and risk management strategies / business model

Recommendation 5: Bank's risk management organisation, processes and key functions (1 of 2)

Three lines of defence

The three lines of defence operating model enables Barclays to separate risk management activities between those parties that:

1. Own and take risk, and implement controls (first line);
2. Oversee and challenge the first line, provide second line risk manactivity and support controls (second line); and
3. Provide assurance that the E-R-M process is fit for purpose, and that it is being carried out as intended (third line).

The Enterprise Risk Management process is the 'defence' and organising businesses and functions into three 'lines' enhances the E-R-M process by formalising independence and challenge, whilst still promoting collaboration and the flow of information between all areas.

First Line: Own and take risk, and implement controls
First line activities are characterised by:

- Ownership of and direct responsibility for Barclays' returns or elements of Barclays' P&L; or
- Ownership of major operations, systems and processes fundamental to the operation of the bank; or
- Direct linkage of objective setting, performance assessment and reward to P&L performance.

With respect to risk management the first line responsibilities include:

- Taking primary accountability for risk identification, ownership, management and control (including performance of portfolios, trading positions, operational risks, etc.) within approved mandate, as documented under the Key Risk Control Frameworks, including embedding a supportive risk culture;
- Collaborating with second line on implementing and improving risk management processes and controls;
- Monitoring the effectiveness of risk controls and the risk profile compared to the approved risk appetite; and
- Maintaining an effective control environment across all risks, processes and operations arising from the business, including implementing standards to meet Group policies.

Second Line: Oversee and challenge the first line, provide second line risk management activity and support controls
Second line activities are characterised by:

- Oversight, monitoring and challenge of the first line of defence activities;
- Design, ownership or operation of Key Risk Control Frameworks impacting the activities of the first line of defence;
- Operation of certain second line risk management activities; and
- No direct linkage of objective setting, performance assessment and reward to revenue (measures related to mitigation of losses and balancing risk and reward are permissible).

With respect to risk management the second line of defence responsibilities include:

- Defining the Enterprise Risk Management Framework;
- Establishing the control environments for the Key Risks, including Key Risk Control Frameworks, policies, and standards;
- Defining delegated discretions and set limits within the control frameworks to empower risk taking by the first line;
- Assisting in the direction of the portfolio to achieve performance against risk appetite;
- May define and operate approval processes for certain decisions within the second line to protect the Bank from material risks;
- Communicating, educating and advising the first line on their understanding of the risk framework and its requirements;
- Collaborating with the first line to support business growth and drive an appropriate balance between risk and reward without diminishing the independence from the first line; and
- Reporting on the effectiveness of the risk and control environment to executive management and Board committees.

Third line: Provide assurance that the E-R-M process is fit for purpose, and that it is being carried out as intended
Third line activities are characterised by:

- Providing independent and timely assurance to the Board and Executive Management over the effectiveness of governance, risk management and control.

With respect to risk management the third line of defence responsibilities include:

- Assessing the effectiveness of risk management and risk mitigation in the context of the current and expected business environment; and
- Acting independently and objectively, without taking responsibility for the operations of the bank or the definition of the Enterprise Risk Management Framework and Group policies.

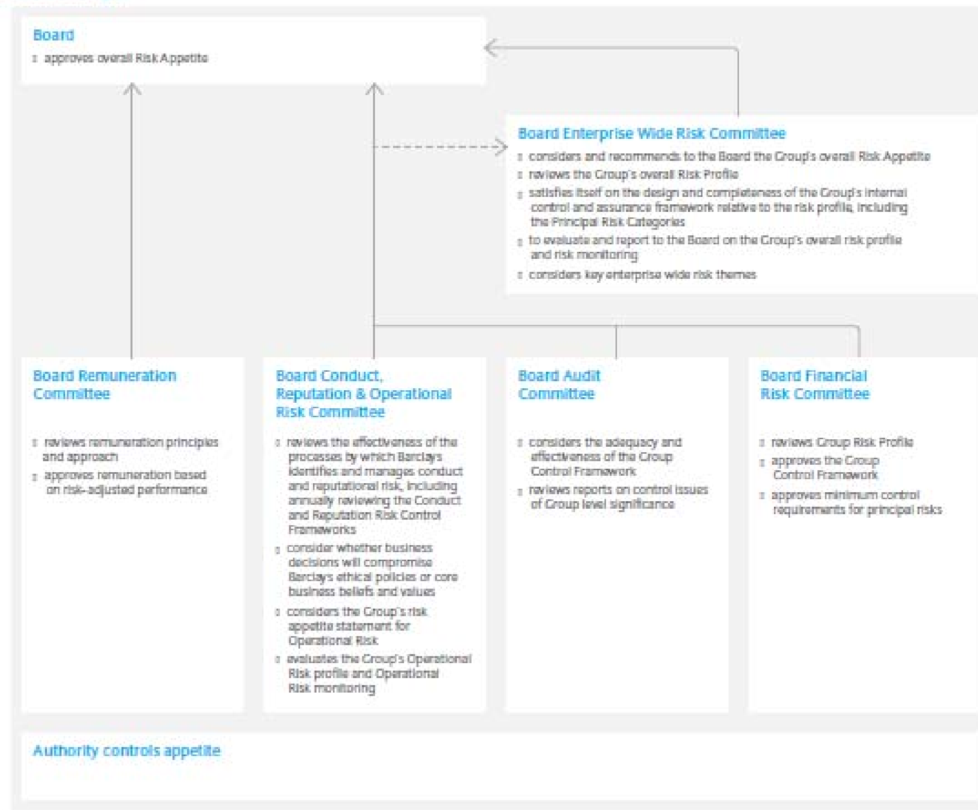
Governance (audited)

Governance Structure
Risk exists when the outcome of taking a particular decision or course of action is uncertain and could potentially impact whether, or how well, we deliver on our objectives.

Barclays faces risks throughout its business, every day, in everything it does. Some risks we choose to take after appropriate consideration – like lending money to a customer. Other risks may arise from unintended consequences of internal actions, for example an IT system failure or poor sales practices. Finally, some risks are the result of events outside the Bank but which impact our business – such as major exposure through trading or lending to a market counterparty which later fails.

All employees must play their part in the Bank's risk management, regardless of position, function or location, and are required to be familiar with risk management policies that are relevant to their activities, know how to escalate actual or potential risk issues, and have a role appropriate level of awareness of the Enterprise Risk Management Framework, risk management process and governance arrangements.

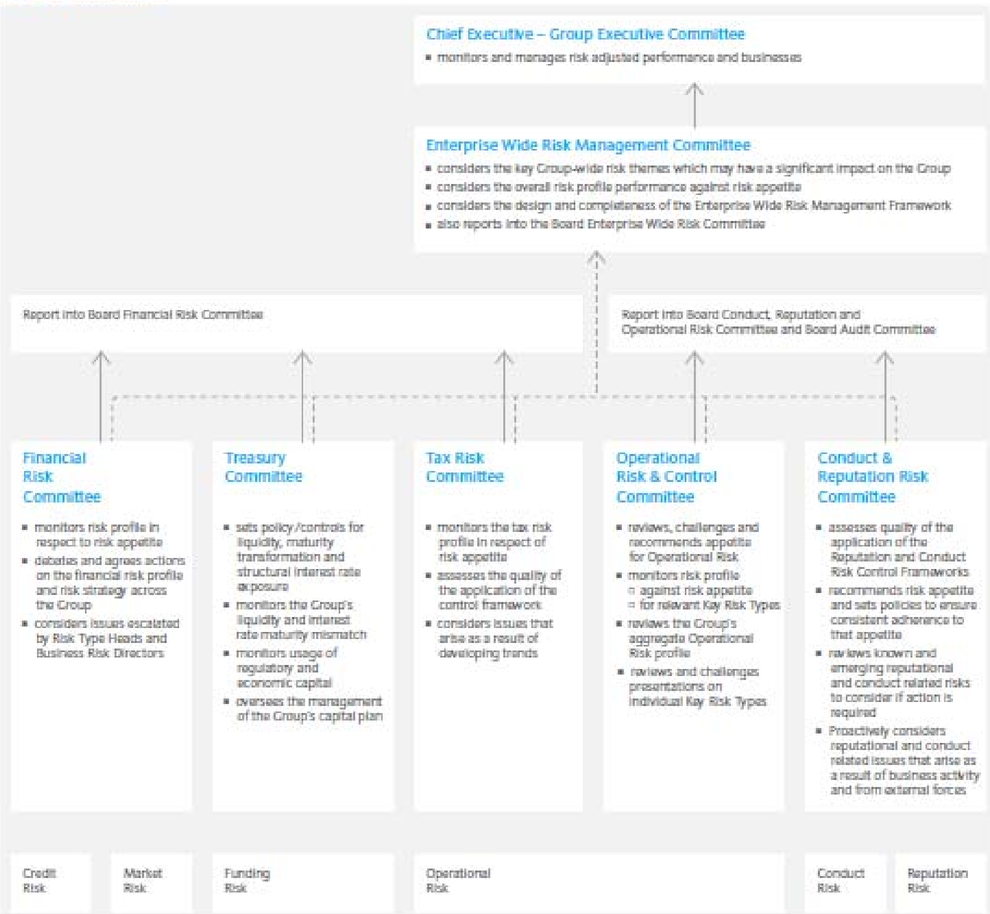
Board Oversight



Source: Barclays Annual Report 2013, p380-381

Recommendation 5: Bank's risk management organisation, processes and key functions (2 of 2)

Reporting and Control



The launch of the Transform programme and subsequent introduction of the ERMF has introduced a more integrated 'One Risk' approach to how the Group manages risk, including governance, risk appetite, processes, and the effectiveness of its controls, together with leveraging colleague development opportunities.

During its day-to-day operations the Group faces a number of risks, which may be i) assessed and considered appropriate (e.g. granting a loan to a customer); ii) as a result of unintended consequences of internal actions (e.g. IT system failure); or (iii) as a result of events outside the Group's control but which impacts our business (e.g. financial disruption in a region in which the Group operates).

The Group's approach to risk taking is structured, systematic and comprehensive, built into the decision making as objectives and aligned to the Evaluate, Respond and Monitor (E-R-M) process as defined in the section 'Barclays Risk Management Strategy'.

The Enterprise Wide Risk Management Committee (EWRMC) was created in 2013 and was established by, and derives its authority from, the Group Chief Risk Officer (CRO). It supports the CRO in the provision of oversight and challenge of the systems and controls in respect of risk management, particularly:

- Review, challenge and recommend risk appetite;
- Monitor risk profile against risk appetite; and
- Review the design and completeness of the ERMF and Principal Risk categories.

EWRMC membership includes the Group CRO, Group Chief Executive Officer (CEO), Group Finance Director, Group General Counsel, and Head of Compliance.

There are four key Board level committees which review and monitor risk across the Group. These are: the Board, the Board Enterprise Wide Risk Committee, the Board Financial Risk Committee and the Board Conduct, Reputation and Operational Risk Committee.

The Board
The Board (Board of Directors of Barclays PLC) is responsible for approving risk appetite (see the Barclays risk management strategy section on page 378), which is the level of risk the Group chooses to take in pursuit of its business objectives. The Chief Risk Officer regularly presents a report to the Board summarising developments in the risk environment and performance trends in the key portfolios. The Board oversees the management of the most significant risks through the regular review of risk exposures and related key controls. Executive management responsibilities relating to this are set via the Group's ERMF.

The Board Enterprise Wide Risk Committee (BEWRC)
The BEWRC was introduced in 2013 and is a committee of the Board, from which it derives its authority and to which it regularly reports. The principal purpose of the Committee is to review, on behalf of the Board, management's recommendations on risk, in particular:

- Consider and recommend to the Board the Group's overall risk appetite;
- Review, on behalf of the Board, the Group's overall Risk Profile; and
- Satisfy itself on the design and completeness of the Group's internal control and assurance framework relative to the risk profile, including the Principal Risk categories.

BEWRC membership comprises the Group Chairman and Chairmen of the Board Audit Committee, Board Conduct, Reputation and Operational Risk Committee, Board Financial Risk Committee and Board Remuneration Committee. The Group CEO, Group CRO, Group Finance Director, Head of Compliance, General Counsel and Chief Internal Auditor are mandatory attendees.

The Board Financial Risk Committee (BFRC)
BFRC monitors the Group's risk profile against the agreed appetite. Where actual performance differs from expectations, the actions being taken by management are reviewed to ensure that the BFRC is comfortable with them. After each meeting, the Chair of the BFRC prepares a report for the next meeting of the Board. Barclays first established a separate BFRC in 1999 and all members are non-executive directors. The Finance Director and the Chief Risk Officer attend each meeting as a matter of course.

The BFRC receives regular and comprehensive reports on risk methodologies and the Group's risk profile including the key issues affecting each business portfolio and forward risk trends. The Committee also commissions in-depth analyses of significant risk topics, which are presented by the Chief Risk Officer or senior risk managers in the businesses. The Chair of the Committee prepares a statement each year on its activities (see the BFRC Chairman's report on page 70).

The Board Conduct, Reputation and Operational Risk Committee (BCROR)
The BCROR was created in 2013 in order to strengthen the Board level governance over conduct risk and reputation matters. It reviews the effectiveness of the processes by which Barclays identifies and manages conduct and reputational risk and considers whether business decisions will compromise Barclays ethical policies or core business beliefs and values. It also considers the Group's risk appetite statement for operational risk and evaluates the Group's operational risk profile and operational risk monitoring.

In addition, the Board Audit and Board Remuneration Committees receive regular reports on risk to assist them in the undertaking of their duties. See the BCROR Chairman's Report on page 73 for additional details of its membership and activities of the BCROR.

The Board Audit Committee (BAC)
The BAC receives quarterly reports on control issues of significance and a half-yearly review of the adequacy of impairment allowances, which it reviews relative to the risk inherent in the portfolios, the business environment, the Group's policies and methodologies and the performance trends of peer banks. The Chair of the BAC also sits on the BFRC. See the BAC Chairman's Report on page 62 for additional details on the membership and activities of the BAC.

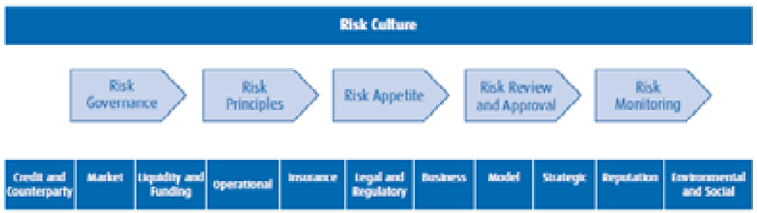
The Board Remuneration Committee (BRC)
The BRC receives a detailed report on risk management performance from the BFRC which is considered in the setting of performance objectives in the context of incentive packages. See the Remuneration Report on page 89 for additional details on membership and activities of the Board Remuneration Committee.

Summaries of the relevant business, professional and risk management experience of the Directors of the Board are given in the Board of Directors section on pages 83 to 85. The terms of reference for each of the principal Board Committees are available from the Corporate Governance section at: http://group.barclays.com/About-us/Management-structure/Corporate-governance.

Source: Barclays Annual Report 2013, p382-383

Recommendation 5: Bank's risk management organisation, processes and key functions (1 of 2)

Framework and Risks



Our enterprise-wide risk management framework consists of our operating model and our risk governance structure, both of which are underpinned by our strong risk culture. Our robust framework provides for the management of each individual risk type: credit and counterparty, market, liquidity and funding, and operational. Other risk categories are also recognized within the framework, including insurance, legal and regulatory, business, model, strategic, reputation, and environmental and social.

Our framework is anchored in the three-lines-of-defence approach to managing risk, which is fundamental to our operating model, as follows:

- The **first line of defence** is the operating groups who own the risk in their operations. They are responsible for pursuing suitable business opportunities within our risk appetite. Each operating group must ensure that it is acting within its delegated risk-taking authority, as set out in our corporate risk policies and limits. Each of the groups has established effective processes and controls to ensure that they comply with and operate within these limits.
- The **second line of defence** is provided by ERPM along with other Corporate Support areas. These groups provide independent oversight and establish corporate risk management policies, infrastructure, processes and practices that address all significant risks across the enterprise; and
- The **third line of defence** is our Corporate Audit Division, which monitors the efficiency and effectiveness of controls across various functions within our operations, including control, risk management and governance processes that support the enterprise.

Risk Governance

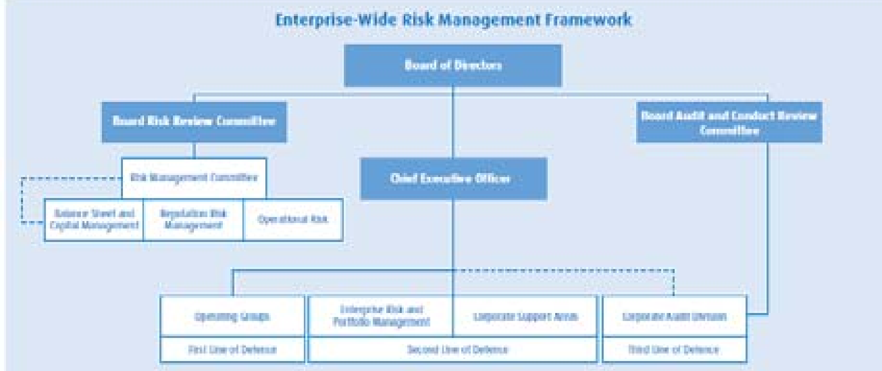
The foundation of our enterprise-wide risk management framework is a governance structure that includes a robust committee structure and a comprehensive set of corporate policies, which are approved by the Board of Directors or its committees, as well as supporting corporate standards and operating guidelines. This enterprise-wide risk management framework is governed through a hierarchy of committees and individual responsibilities as outlined in the diagram below.

Our risk management framework is reviewed on a regular basis by the RRC to provide guidance for the governance of our risk-taking activities. In each of our operating groups, management monitors governance activities, controls, and management processes and procedures. Management also oversees their effective operation within our overall risk management framework. Individual governance committees establish and monitor further risk management limits, consistent with and subordinate to the board-approved limits.

Limits and Authorities

Our risk limits are shaped by our risk principles and risk appetite, which also help to shape our business strategies and decisions. These limits are reviewed and approved by the Board of Directors and/or management committees and include:

- Credit and Counterparty Risk – limits on country, industry, portfolio/product segments, and group and single-name exposures;
- Market Risk – limits on economic value and earnings exposures to stress scenarios;
- Liquidity and Funding Risk – limits on minimum levels of liquid assets and maximum levels of asset pledging and wholesale funding, as well as guidelines approved by senior management related to liability diversification, financial condition, and credit and liquidity exposure appetite; and
- Insurance Risk – limits on policy exposure and reinsurance arrangements.



Board of Directors is responsible for the stewardship of BMO and protecting the interest of BMO's shareholders. The board, either directly or through its committees, is responsible for oversight in the following areas: strategic planning, defining risk appetite, identification and management of risk, capital management, promoting a culture of integrity, governance, internal controls, succession planning and evaluation of senior management, communication, public disclosure and corporate governance.

Risk Review Committee of the Board of Directors (RRC) assists the board in fulfilling its oversight responsibilities in relation to BMO's identification and management of risk, adherence to risk management corporate policies and procedures, compliance with risk-related regulatory requirements and evaluation of the Chief Risk Officer.

Audit and Conduct Review Committee of the Board of Directors assists the board in fulfilling its oversight responsibilities for the integrity of BMO's financial reporting, effectiveness of BMO's internal controls and performance of its internal and external audit functions.

Chief Executive Officer (CEO) is directly accountable to the board for all of BMO's risk-taking activities. The CEO is supported by the Risk Management Committee and its sub-committees, as well as ERPM.

Chief Risk Officer (CRO) reports directly to the CEO and is head of ERPM. The CRO is responsible for providing independent review and oversight of enterprise-wide risks and leadership on risk issues, developing and maintaining a risk management framework and fostering a strong risk culture across the enterprise.

Risk Management Committee (RMC) is BMO's senior risk committee. RMC reviews and discusses significant risk issues and action plans that arise in executing the enterprise-wide strategy. RMC provides risk oversight and governance at the highest levels of management. This committee is chaired by the CRO.

RMC Sub-committees have oversight responsibility for the risk and balance sheet impacts of management strategies, governance, risk measurement and contingency planning. RMC and its sub-committees provide oversight over the processes whereby the risks assumed across the enterprise are identified, measured, monitored and reported in accordance with policy guidelines and are held within delegated limits.

Enterprise Risk and Portfolio Management (ERPM) provides independent oversight of the credit and counterparty, operational and market risk functions. It promotes consistency of risk management practices and standards across the enterprise. ERPM facilitates a disciplined approach to risk-taking through the execution of independent transactional approval and portfolio management, policy formulation, risk reporting, stress testing, modelling, vetting and risk education responsibilities. This approach seeks to meet enterprise objectives and to ensure that risks assumed are consistent with BMO's risk appetite.

Operating Groups are responsible for managing risk within their respective areas. They exercise business judgment and seek to ensure that policies, processes and internal controls are in place and that significant risk issues are appropriately escalated to ERPM.

The Board of Directors, based on recommendations from the RRC and the RMC, delegates risk limits to the CEO. The CEO then delegates more specific authorities to the CRO, who in turn delegates them to the Operating Group CROs or the Treasurer in the case of structural market risk limits. These delegated authorities allow the officers to set risk tolerances, approve geographic and industry sector exposure limits within defined parameters, and establish underwriting and inventory limits for trading and investment banking activities. The authorities are reviewed and approved annually by the Board of Directors based on the recommendation of the RRC. The criteria whereby these authorities may be further delegated throughout the organization, as well as the requirements relating to documentation, communication and monitoring of delegated authorities, are set out in corporate policies and standards.

Risk Culture

At BMO, we believe that risk management is the responsibility of every employee within the organization. This key tenet shapes and influences our risk culture and is evident in the actions and behaviours of our employees and leaders as they identify, interpret, discuss and make choices and decisions between risk and opportunities. Our risk culture is deeply rooted and is evident in every aspect of how we run our enterprise, including within our policies, risk management frameworks, risk appetite and tolerances, capital management and compensation.

Source: BMO Annual Report 2013, p79-82

Recommendation 5: Bank's risk management organisation, processes and key functions (2 of 2)

Our risk culture is built around a risk management system that encourages openness and builds confidence in how we engage stakeholders in key decisions and strategy discussions, thereby bringing rigour and discipline to decision-making. This not only leads to the timely identification, escalation and resolution of issues, but also encourages communication and understanding of the key risks faced by our organization, so that our employees are equipped to take action and make decisions in a coordinated and consistent manner. Also, our governance and leadership forums, committee structures and learning curriculums reinforce and inspire our risk culture.

Certain elements of our risk culture that are embedded across our organization include:

- **Risk appetite** – promotes an understanding of the most prevalent risks that our businesses face and facilitates alignment of business strategies within the limits of our risk appetite, leading to sound business decision-making.
- **Communication and escalation channels** – encourages information sharing and engagement between ERPM and the operating groups, leading to enhanced risk transparency and open and effective communication. We also foster and encourage a culture where concerns regarding potential or emerging risks are escalated to senior management so that they can be evaluated and appropriately addressed.
- **Compensation philosophy** – pay is aligned with prudent risk-taking to ensure that compensation does not encourage excessive risk-taking and rewards the appropriate use of capital.
- **Training and education** – programs are designed to foster a deep understanding of BMO's capital and risk management frameworks across the enterprise, providing employees and management with the tools and awareness required to fulfill their responsibilities for independent oversight regardless of their position in the organization. Our education strategy has been developed in partnership with BMO's Institute for Learning, our risk management professionals, external risk experts and teaching professionals.
- **Rotation programs** – two-way rotation system allows employees to transfer between ERPM and the operating groups, thereby effectively embedding our strong risk culture across the enterprise.

Risk Principles

Risk-taking and risk management activities across the enterprise are guided by the following principles:

- ERPM provides independent oversight of risk-taking activities across the organization;
- management of risk is a responsibility at all levels of the organization, employing the three-lines-of-defence approach;
- ERPM monitors our risk management framework to ensure that our risk profile is maintained within our established risk appetite and supported with adequate capital;
- all material risks to which the enterprise is exposed are identified, measured, managed, monitored and reported;
- decision-making is based on a clear understanding of risk, accompanied by robust metrics and analysis; and
- Economic Capital is used to measure and aggregate risk across all risk types and business activities to facilitate the incorporation of risk into the measurement of business returns.

Risk Appetite

Our Risk Appetite Framework consists of our Risk Appetite Statement, as well as supporting key risk metrics and corporate policies and standards, including limits. Our risk appetite defines the amount of risk that BMO is willing to assume in all risk types, given our guiding principles and capital capacity, thereby supporting sound business initiatives and growth. Our risk appetite is integrated into our strategic and capital planning processes and our lines of business. On an annual basis, senior management recommends our Risk Appetite Statement and key risk metrics for approval by the RMC and the RRC. Our Risk Appetite Statement is articulated and applied consistently across the enterprise. Among other things, our risk appetite requires:

- that everything we do is guided by principles of honesty, integrity and respect, as well as high ethical standards;
- only taking risks that are transparent, understood, measured, monitored and managed;
- maintaining strong capital and liquidity and funding positions that meet or exceed regulatory requirements and the expectations of the market;
- subjecting new products and initiatives to a rigorous review and approval process to ensure all key risks and returns are understood and can be managed with appropriate controls;
- maintaining a robust recovery and resolution framework that enables an effective and efficient response in an extreme crisis;
- targeting an investment grade credit rating at a level that allows competitive access to funding;
- limiting exposure to low-frequency, high-severity events that could jeopardize BMO's credit ratings, capital position or reputation;
- incorporating risk measures into our performance management system;
- maintaining effective policies, procedures, guidelines, compliance standards and controls, training and management that guide the business practices and risk-taking activities of all employees to protect BMO's reputation and adhere to all regulatory and legal obligations; and
- protecting the assets of BMO and BMO's clients by maintaining a system of strong operational risk controls.

Risk Review and Approval

Risk review and approval processes are established based on the nature, size and complexity of the risks involved. Generally, this involves a formal review and approval of various categories by either an individual or a committee, independent of the originator. Delegated authorities and approvals by category are outlined below.

Portfolio transactions – Transactions are approved through risk assessment processes for all types of transactions, which include operating group recommendations and ERPM approval of credit risk and transactional and position limits for market risk.

Structured transactions – New structured products and transactions with significant reputation, legal, accounting, regulatory or tax risk are reviewed by the Reputation Risk Management Committee or the Trading Products Risk Committee, as appropriate.

Investment initiatives – Documentation of risk assessments is formalized through our investment spending approval process, which is reviewed and approved by Corporate Support areas.

New products and services – Policies and procedures for the approval of new or modified products and services offered to our customers are reviewed and approved by Corporate Support areas, as well as other senior management committees, including the Operational Risk Committee and Reputation Risk Management Committee, as appropriate.

Risk Monitoring

Enterprise-level risk transparency and monitoring and the associated reporting are critical components of our framework and operating culture that help senior management, committees and the Board of Directors to effectively exercise their business management, risk management and oversight responsibilities. Internal reporting includes a synthesis of key risks and associated metrics that the organization currently faces. This reporting highlights our most significant risks, including assessments of our top and emerging risks, to provide senior management and the Board of Directors with timely, actionable and forward-looking risk reporting. This reporting includes material to facilitate assessments of these risks relative to our risk appetite and the relevant limits established within our Risk Appetite Framework.

On a regular basis, reporting on risk is also provided to stakeholders, including regulators, external rating agencies and our shareholders, as well as to others in the investment community.

Risk-Based Capital Assessment

Two measures of risk-based capital are used by BMO: Economic Capital and Regulatory Capital. Both are aggregate measures of the risk that we undertake in pursuit of our financial targets. Our operating model provides for the direct management of each type of risk, as well as the management of risks on an integrated basis. Economic Capital is our integrated internal measure of the risk underlying BMO's business activities. It represents management's estimate of the magnitude of economic losses that could occur should adverse situations arise, and allows returns to be measured on a basis that considers the risks taken. Economic Capital is calculated for various types of risk – credit, market (trading and non-trading), operational and other – where measures are based on a time horizon of one year. Measuring the economic profitability of transactions or portfolios incorporates a combination of both expected and unexpected losses to assess the extent and correlation of risk before authorizing new exposures. Economic Capital methods and model inputs are reviewed and/or re-calibrated on an annual basis, as applicable. Our Economic Capital models provide a forward-looking estimate of the difference between our maximum potential loss in economic (or market) value and our expected loss, measured over a specified time interval and using a defined confidence level. Both expected and unexpected loss measures for either a transaction or portfolio reflect current market conditions and credit quality. As the recovery continues these measures decrease, reflecting portfolio quality improvements, offset somewhat by increases due to growth.

Stress Testing

Stress testing is a key element of our risk and capital management frameworks. It is inherently linked to our risk appetite and informs our strategy, business planning and decision-making processes. We conduct stress testing to evaluate the potential effects of low-frequency, high-severity events on our balance sheet, earnings, and liquidity and capital positions.

Governance

Governance over the stress testing framework resides with senior management, including the Stress Testing Steering Committee. This committee is comprised of business, risk and finance executives and is accountable to RMC for the oversight of BMO's stress testing framework and for reviewing and challenging stress test results. As a part of the Internal Capital Adequacy Assessment Process, enterprise-wide scenarios and stress testing results are presented to senior management and the board, together with recommended actions that BMO could take to manage the impact of the stress event.

Enterprise Stress Testing

Enterprise stress testing supports our internal capital adequacy assessment and target-setting through the analysis of macroeconomic scenarios that are consistently executed by business, risk and finance groups. Scenario selection is a multi-step process that considers the macroeconomic environment, prevailing risk concerns, the potential impact of new or emerging risks on our risk profile, historical credit losses and areas of potential enterprise-specific vulnerability. Scenarios may be defined by senior management, the board or regulators. The Economics group then translates the scenario into macroeconomic and market variables, including but not limited to GDP growth, yield curve estimates, unemployment rates, housing starts, real estate prices, stock index growth and changes in corporate profits.

Our stress testing process employs a bottom-up approach. We model the impact of a forward-looking scenario on our material risks, income statement and balance sheet over a forecast horizon to test the resilience of our capital. Stress test results, including mitigating actions, are benchmarked and challenged by relevant business units and senior management, including the Stress Testing Steering Committee.

Ad Hoc Stress Testing

Through our stress testing framework, we embed stress testing in strategy, business planning and decision-making. Ad hoc stress testing is conducted regularly by our operating and risk groups to support risk identification, business analysis and strategic decision-making.

Source: BMO Annual Report 2013, p79-82

Recommendation 6: Bank's risk culture, and how procedures and strategies are applied to support the culture

Risk Culture

We seek to promote a strong risk culture throughout our organization. A strong risk culture is designed to help reinforce our resilience by encouraging a holistic approach to the management of risk and return throughout our organization as well as the effective management of our risk, capital and reputational profile. We actively take risks in connection with our business and as such the following principles underpin risk culture within our group:

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

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

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

To reinforce these expected behaviors and strengthen our risk culture, we conduct a number of group-wide activities. Our Board members and senior management frequently communicate the importance of a strong risk culture to support a consistent tone from the top. To further strengthen this message, we have reinforced our targeted training. In 2013, our employees attended more than 114,000 mandatory training modules globally including, for example, the Code of Business Conduct & Ethics, Fraud Awareness and An Introduction to MaRisk. As part of our ongoing efforts to strengthen our risk culture, we review our training suite regularly to develop further modules or enhance existing components.

In addition, along with other measures to strengthen our performance management processes, we have designed and implemented a process to tie formal measurement of risk culture behaviors to our employee performance assessment, promotion and compensation processes. This process has been in place in our CB&S and GTB divisions since 2010 and has subsequently been rolled out to our DeAWM, NCOU and Risk divisions. We plan to achieve a full bank wide roll out in 2014. This process is designed to further strengthen employee accountability. Further measures are already being reviewed and will be added to the program in 2014.

Risk Appetite and Capacity

Risk appetite expresses the level of risk that we are willing to assume in order to achieve our business objectives. Risk capacity is defined as the maximum level of risk we can assume in both normal and distressed situations before breaching regulatory constraints and our obligations to stakeholders.

Risk appetite is an integral element in our business planning processes via our Risk and Capital Demand Plan, with the aim to create a more holistic perspective on capital, funding and risk-return considerations. Risk appetite is set within our risk capacity in which we consider our capital, assets and borrowing capacities. We hereby leverage the stress testing process to also consider stressed market conditions. Top-down risk appetite serves as the limit for risk-taking for the bottom-up planning from the business functions.

The Management Board reviews and approves the risk appetite and capacity on an annual basis with the aim of ensuring that it is consistent with our Group strategy, business and regulatory environment and stakeholders' requirements.

In order to determine our risk appetite and capacity, we set different group level triggers and thresholds on a forward looking basis and define the escalation requirements for further action. We assign risk metrics that are sensitive to the material risks to which we are exposed and which are able to function as key indicators of financial health. In addition to that, we link our risk and recovery management governance framework with the risk appetite framework. In detail, we assess a suite of metrics under stress (Common Equity Tier 1 ("CET 1") capital ratio, Internal Capital Adequacy ("ICA") ratio, Stressed Net Liquidity Position ("SNLP")) within the regularly performed benchmark and more severe group-wide stress tests and compare them to the Red-Amber-Green ("RAG") levels as defined in the table below.

RAG levels	CET 1 capital ratio	Internal capital adequacy	Net liquidity position
Normal	> 8.0 %	> 135 %	> € 5 billion
Critical	8.0 % – 5.5 %	135 % – 120 %	€ 5 billion – € 0 billion
Crisis	< 5.5 %	< 120 %	< € 0 billion

In the event that our desired risk appetite is breached under either normal or stressed scenarios, a predefined escalation governance matrix is applied so these breaches are highlighted to the respective committees, and ultimately to the Chief Risk Officer and the Management Board. Amendments to the risk appetite and capacity must be approved by the Chief Risk Officer or the full Management Board, depending on their significance.

Source: Deutsche Bank Annual Report 2013, p66-67

Recommendation 6: Bank's risk culture, and how procedures and strategies are applied to support the culture

Risk principles and risk culture

A strong and dynamic culture is a prerequisite for success in today's highly complex operating environment. We are focused on fostering and further developing our cultural strength and ensuring it is a competitive advantage both from a risk and a performance point of view. Our efforts are underpinned by our shared belief that how we deliver results is as important as the results themselves.

In 2013, the Group Executive Board (GEB) led a global initiative to foster the strong aspects of the Group's culture and evolve them further, building on our strategic pillars – capital strength, efficiency and effectiveness, and risk management – and our principles: excellence, client focus and sustainable performance. We began a program to raise awareness and further embed the standards of behavior we ask of our employees at every level of the Group. Each employee is accountable for ensuring these behaviors are integrated into every aspect of their daily work. To reflect the importance we attach to this, we incorporated assessment of adherence to these standards in our performance measurement and compensation framework for 2013.

Our performance measurement and management process requires that all employees have risk objectives aligned to their roles and responsibilities. Our employees know that rigorous risk management plays an essential role in our efforts to deliver the best possible client experience and achieve our business objectives. In short, everyone at UBS is responsible for anticipating, addressing and managing risks. We encourage our employees to provide candid, constructive and actionable feedback. To that end, in 2013, we enhanced our process by making such feedback anonymous. The performance measurement and management process links into the Group's compensation framework.

Our compensation philosophy is to provide our employees with compensation that recognizes their individual contributions and clearly links their pay to performance – not simply the delivery of business targets, but also how those results were achieved. As explained in more detail in the "Compensation" section of this report, the performance of GEB members includes both quantitative and qualitative factors, with the latter contributing 35% to their overall compensation decision. Qualitative factors include reinforcing a culture of accountability and responsibility, demonstrating commitment to being a responsible corporate citizen and acting with integrity in all interactions with our stakeholders.

The "Compensation" section of this report explains how the compensation of each employee is based on the individual's contribution (absolute and relative) and shows how the individual's contribution to promoting our principles and standards of behaviors is factored into the compensation process. The process includes an examination of the individual's efforts to actively manage risk, striking an appropriate balance between risk and reward, and to what extent the individual exhibited professional and ethical behavior. Forfeiture provisions enable the firm to forfeit some, or all, of any unvested deferred portion of compensation if an employee commits certain harmful acts.

In addition, we have a range of policies and initiatives in place to embed the desired risk culture within the Group, covering employees at all levels. These policies and initiatives include the following.

Code of Business Conduct and Ethics

This Code enshrines the principles and practices that all of our employees and Board members are required to follow unreservedly, both in letter and in spirit, supported by an annual adherence certification process. Included in the Code are requirements covering laws, rules and regulations, ethical and responsible behavior, information management, the work environment, social responsibility and disciplinary measures.

Whistleblowing

Our Whistleblowing policy provides a formal framework and independent channel for employees to raise concerns about suspected breaches of the Group's laws, regulations, policies, procedures or other matters including those covered by our Code of Business Conduct and Ethics. In recognition of the importance for a strong and successful business of enabling employees to speak up and constructively challenge others, in 2013 our Chairman and Group CEO promoted an awareness campaign of our Whistleblowing policy.

Compliance and risk training

We have a mandatory training program for all employees covering a range of compliance and risk-related topics including anti-money laundering and operational risk. In addition, more specialized training is provided for employees according to their roles and responsibilities, such as training on credit risk and market risk for those working in trading areas. During 2013, employees were required to complete over 500,000 mandatory training sessions in aggregate, an increase of approximately one-third from 2012. The training sessions need to be completed, usually together with an assessment, within a specified period of time. Since mid-2012, failure to satisfactorily complete the mandatory training sessions within 30 days of the deadline results in disciplinary action, usually in the form of a written warning, with employees still required to complete the training. In 2013, 12 employees received such a warning and ultimately our completion rate for these mandatory training sessions was 100%. If an employee fails to complete two or more training sessions within 10 days of the deadline, this is factored into the performance measurement and management process and the related promotion and compensation processes.

Principles of good supervision

The Group has developed principles of good supervision, which are applicable to every region and business division of UBS. These principles establish clear expectations of managers and employees with respect to supervisory responsibilities, specifically: to take responsibility, to organize their business, to know their employees and what they do, to know their business, to create a good compliance culture and to respond to and resolve issues. Supervisors are expected to understand and set a good example of professional behavior and to act as role models, to be open about issues, to be attentive to unusual behavior and to act on any red flags, ensuring that issues are resolved. To ensure adherence, frameworks have been established which are subject to periodic review and assessment.

Maintaining a strong culture complements our goal of being a responsible corporate citizen. As a truly global firm with a diverse workforce, we have a deep understanding and appreciation of the communities in which we operate. Our longstanding and active community affairs programs are focused on promoting education and entrepreneurship supported by the volunteering efforts of our employees across the globe. These programs continued to thrive in 2013. For instance, we launched new initiatives in the Americas and received various awards for our work in the UK. In the second quarter, the UBS Optimus Foundation announced a new and major global initiative to put nutrition at the center of the global development agenda and, later in the year, the Foundation was involved in fundraising for Typhoon Haiyan relief efforts in the Philippines. The Group matched client and employee donations on a 1:1 basis. In the third quarter, UBS was named in the Dow Jones Sustainability Indices which track the leading sustainability-driven companies worldwide. Additionally, we co-launched the Thun Group of Banks' discussion paper on banking and human rights. In the fourth quarter, our Global Philanthropy Forum looked at how we can work with clients to help improve women's rights and opportunities around the world. During 2013, we also continued our support for the arts through culturally enriching programs for our clients, employees and the public, including the launch of a multi-year agreement with Art Basel and support for exhibitions in the Americas and in Switzerland.

→ Refer to the "Our employees" and "Compensation" sections of this report for more information

Quantitative risk appetite objectives

Through a set of quantitative risk appetite objectives, we aim to ensure that our aggregate risk exposure is within our desired risk capacity, based on our capital and business plans. The specific definition of risk capacity for each objective seeks to ensure that we have sufficient capital, earnings and funding liquidity to protect our business franchises and exceed minimum regulatory requirements under a severe stress event. The risk appetite objectives are evaluated as part of the annual business planning

Source: UBS Annual Report 2013, p157-158

Recommendation 7a: Describe key risks that arise from the bank's business model and activities

The Bank

Business lines	Canadian Banking	International Banking	Global Wealth & Insurance	Global Banking & Markets	Other
Business activities	• Deposits • Accounts services • Credit and lending • Commercial banking • Payments and cash management • Advisory services • Creditor insurance	• Deposits • Accounts services • Credit and lending • Commercial banking • Payments and cash management • Advisory services • Creditor insurance	• Asset management • Financial advisory • Insurance - creditor, life, health, home, auto, and travel • Online brokerage • Account services • Credit and lending	• Corporate lending • Equity and debt underwriting • M&A advisory services • Capital markets products & services • Foreign exchange • Precious metals	• Group Treasury • Other control functions
Balance sheet	• Average assets $272 bn	• Average assets $121 bn	• Average assets $14 bn	• Average assets $250 bn	• Average assets[1] $92 bn
Economic equity[2]	• Economic equity $6.3 bn • Proportion of Bank 19 % Comprised of: • Credit risk 48 % • Market risk 11 % • Operational risk 7 % • Other[3] 34 %	• Economic equity $11.6 bn • Proportion of Bank 36 % Comprised of: • Credit risk 45 % • Market risk 7 % • Operational risk 8 % • Other[3] 40 %	• Economic equity $7.0 bn • Proportion of Bank 21 % Comprised of: • Credit risk 7 % • Market risk 2 % • Operational risk 4 % • Other[3] 87 %	• Economic equity $5.2 bn • Proportion of Bank 16 % Comprised of: • Credit risk 68 % • Market risk 11 % • Operational risk 11 % • Other[3] 10 %	• Economic equity $2.6 bn • Proportion of Bank 8 % Comprised of: • Credit risk 6 % • Market risk 87 % • Operational risk 3 % • Other 4 %
Risk-weighted assets[4]	• RWA $82.0 bn • Proportion of Bank 28 % Comprised of: • Credit risk 87 % • Market risk - % • Operational risk 13 %	• RWA $101.2 bn • Proportion of Bank 35 % Comprised of: • Credit risk 89 % • Market risk 1 % • Operational risk 10 %	• RWA $10.9 bn • Proportion of Bank 4 % Comprised of: • Credit risk 56 % • Market risk - % • Operational risk 44 %	• RWA $82.5 bn • Proportion of Bank 29 % Comprised of: • Credit risk 75 % • Market risk 17 % • Operational risk 8 %	• RWA $11.6 bn • Proportion of Bank 4 % Comprised of: • Credit risk 100 % • Market risk - % • Operational risk - %
Risk profile	Credit, market, liquidity, operational, reputational, environmental, strategic and insurance risk.				

(1) Average assets for the Other segment include certain non-earning assets related to business lines.
(2) Economic equity is reported on a twelve month average basis, consistent with Return on Economic Equity.
(3) Includes economic equity for goodwill and intangibles.
(4) Risk-weighted assets (RWA) are as at October 31, 2013 as measured for regulatory purposes in accordance with the Basel III All-in approach.

Principal risk types

The principal risk types, their governing documentation, and their applicability to risk appetite are outlined in the table below.

Risk Type	Governing Documentation	Application to Risk Appetite
Credit Risk	Credit Risk Policy Credit Risk Appetite Collective Allowance Policy for Performing Loans Residential Mortgage Underwriting Policy	Quantitative limits/tolerances: • Exposure to a single customer or group of related parties (limits differentiated by customer risk rating and security cover); • Country risk (exposure limits to control transfer/cross-border and sovereign default risks); and • Industry concentrations (exposure and risk adjusted concentration limits).
Market Risk	Market and Structural Risk Management Policy	Quantitative limits/tolerances, such as various VaR limits, stress test results, equity and debt investment exposures, and structural interest rate and foreign exchange exposures.
Liquidity and Funding Risk	Liquidity Risk and Collateral Management Policy	Quantitative limits/tolerances, such as: • Appropriate hold levels of unencumbered high quality liquid assets that can be readily sold or pledged; • Limits to control the maximum net cash outflow over specified short-term horizon; and • Diversification of funding by source, type of depositor, instrument, term and geographic market.
Other Risks		
Operational Risk	Operational Risk Management Policy and Framework Internal Control Policy Fiduciary Risk Management Policy Model Risk Management Policy New Products and Services Risk Management	• Systematic identification, measurement, mitigation and monitoring of operational risk, regardless of whatever the risk is internal to the Bank or outsourced to a third party; • Minimization of residual operational risk; and • Expressed quantitatively by an aggregate loss event limit, a single event loss limit and by comparison of Bank operational losses with an industry benchmark.
Reputational Risk	Reputational Risk Policy Guidelines for Business Conduct Compliance Policy	• Low tolerance for reputational, legal, or taxation risk arising in business activities, initiatives, products, services, transactions or processes, or from a lack of suitability of products for clients.
Environmental Risk	Environmental Policy	Consistency with the Equator Principles by requiring provisioning of project financing only to those projects whose borrowers can demonstrate their ability and willingness to comply with comprehensive processes aimed at ensuring that projects are developed in a socially responsible manner and according to sound environmental management practices.
Strategic Risk	Annual Strategy Report to the Board of Directors	Strategy report considers linkages between the Bank's Risk Appetite Framework with the enterprise strategy, business line strategies and corporate function strategies; also incorporates linkages to measuring progress against strategic priorities and implementation.
Insurance Risk	Insurance Risk Policy and Framework	Maintain minimal exposure to insurance risk; where insurance risks are taken, it is on a selective basis to achieve stable and sustainable earnings, the risk assumed is diversified geographically and by product, and the majority is short-term.

See also accompanying narrative

Source: Scotiabank Annual Report 2013, p. 65

Recommendation 7b: Describe the bank's risk appetite in the context of its business models and how the bank manages such risks

Medium-Term Planning (MTP) process

The MTP process, performed annually, requires each business to present its plans for business performance over the coming five years (with a key focus on the first three years of the plan). The MTP details the businesses strategy, the portfolio composition and the expected risk trends. Achieving the planned performance in each business is dependent upon the ability of the business to manage its risks. It is an iterative process featuring weekly reviews at the most senior levels as the plan is updated until final agreement. The output includes a detailed statement of the Group's strategy over the medium-term, as well as detailed financial projections.

Risk managers support the MTP by providing robust review and challenge of the business plans to ensure that the financial projections are internally consistent; value creating; achievable given risk management capabilities (e.g. supported by appropriate risk infrastructure) and that they present a suitable balance between risk and reward. This culminates in the risk review meetings in which the CRO and senior management in each of our businesses discuss the findings from the risk reviews, and changes to the business plans are mandated as necessary.

The business plans are prepared with reference to a consistent set of economic assumptions which are agreed by senior management and reviewed within Group Risk to ensure that they appropriately reflect emerging risk trends. They are used as baseline scenarios in the stress testing and risk appetite processes.

The output from the business plan forms the basis of all strategic processes. In particular, the plans comprise projections of capital resources and requirements given profit generation, dividend policy and capital issuance. Risk variables are also considered, most importantly in the forecasting of the Group's impairment charge, on the assessment of the business capital requirements going forward and in sensitivity analyses of the plans (which include risk appetite and stress testing).

Risk appetite

Risk appetite is defined as the level of risk that Barclays is prepared to accept whilst pursuing its business strategy, recognising a range of possible outcomes as business plans are implemented.

Risk appetite sets the 'tone from the top' and provides a basis for ongoing dialogue between management and Board with respect to Barclays' current and evolving risk profile, allowing strategic and financial decisions to be made on an informed basis.

At Barclays, the risk appetite framework is intended to achieve the following objectives:

- Articulate the risks the Group is willing to take and why, to enable specific risk taking activities; and articulate those risks to avoid and why, to constrain specific risk taking activities;
- Consider all Principal and Key Risks both individually and, where appropriate, in aggregate;
- Consistently communicate the acceptable level of risk for different risk types; this may be expressed in financial or non-financial terms, but must enable measurement and effective monitoring;
- Describe agreed parameters for Barclays' performance under varying levels of financial stress with respect to:
  - Profitability, loss and return metrics
  - The ability to continue to pay a dividend; and
- Be embedded in key decision-making processes including mergers and acquisitions, new product approvals and business change initiatives.

Unapproved breaches of risk appetite and/or limits will result in performance management and disciplinary consequences.

Setting risk appetite

In this regard, the Group CEO is responsible for:

- Leading the development of the Barclays strategy and business plans that align to our Goal, Purpose and Values and includes a risk appetite and risk profile proposal for Board approval;
- Leading, managing and organising executive management to achieve execution of the Barclays strategy and business plans in line with the Board approved Purpose, Values, Code of Conduct ('the Barclays Way') and risk appetite. This includes assessing risk holistically, ensuring the soundness of the financial position of Barclays, and that due consideration is given to the impact of Barclays on society, customers and clients, colleagues and the wider financial system;
- Barclays' performance including financial and operational activities, risk profile (current and outlook) compared to approved risk appetite, and compliance with all laws, regulations and the Barclays Operating Framework; and
- Providing accurate, transparent and timely reporting to the Board on Barclays' performance against plan, and include the risk profile (current and outlook) compared to risk appetite under normal and stressed scenarios.

The Group CRO is responsible for:

- Providing oversight, advice and challenge to the CEO with respect to the strategic plan;
- Management of the risk appetite setting processes;
- Recommending risk appetite to the Board;
- Ensuring the Board receive regular management information that compares the risk appetite set for Barclays and the businesses by risk type and in aggregate where appropriate; and
- Developing, operating and maintaining a comprehensive risk management framework for Barclays that ensures the business performs in line with the approved risk appetite.

The Board review and approve risk appetite in aggregate and for all individual Principal Risks.

The Risk function is responsible for implementation, operation and monitoring of the bank's approach to risk appetite.

Risk appetite is formally reviewed on an annual basis in conjunction with the Medium-Term Planning (MTP) process.

Group-wide stress tests are an integral part of the annual MTP process and ensure that the Group's financial position and risk profile provide sufficient resilience to withstand the impact of severe economic stress. A key objective of the Group-wide stress test process is to identify and document management actions that would be taken to mitigate the impact of stress.The bottom-up process ensures all levels of management are informed of the impact of the stress scenarios and are aware of appropriate management actions to be taken when a stress event occurs.The approach also includes reverse stress testing techniques which aim to identify the circumstances under which our business model would become no longer viable, leading to a significant change in business strategy. See Stress testing below for more information.

Risk appetite is approved and disseminated across Key Risks and businesses, including the use of 'M&S' limits to enable and control specific activities that have material concentration risk implications for the Group.These limits also help avoid large one-off losses that are specific to Barclays and outside stakeholder expectations.

Barclays has run a risk appetite process since 2004 and this process comprises 'Financial Volatility', which is the level of potential deviation from expected financial performance Barclays is prepared to sustain, and 'Mandate and Scale', which ensures the Group stays within appetite. The strategy and business activities are reflected in key performance metrics, which are dependent in large part on risk performance.

Simulate risk

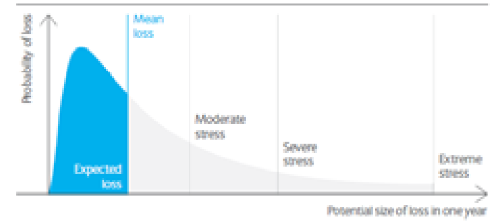
Financial volatility

Financial volatility is defined as the level of potential deviation from expected financial performance that Barclays is prepared to sustain at relevant points on the risk profile. When setting appetite, management and the Board articulate the Group's strategy and summarise objectives in terms of key financial metrics. The Group's risk profile is assessed via a 'bottom-up' analysis of the Group's business plans to establish the volatility of the key metrics. If the projections entail too high a level of risk (i.e. breach the top-down financial objectives at the through-the-cycle, moderate or severe level), management will challenge each area to re-balance the risk profile to bring the bottom-up risk appetite back within top-down appetite. Performance against risk appetite usage is measured and reported to the Executive Committee and the Board regularly throughout the year. Our top-down appetite is quantified through an array of financial performance and capital metrics which are reviewed by the Board on an annual basis. For 2013, the strategic metrics in the table below were set at three levels: 'through-the-cycle', and stressed 'one in seven' and 'one in twenty-five', which are defined as:

- Through-the-cycle: the average losses based on measurements over many years;
- 1 in 7 (moderate) loss: the worst level of losses out of a random sample of 7 years; and
- 1 in 25 (severe) loss: the worst level of losses out of a random sample of 25 years.

These scenarios are defined through a level of probability of occurrence rather than through a specific set of economic variables like in stress tests.

Risk appetite concepts (diagram not to scale)



The potentially larger but increasingly less likely levels of loss are illustrated in the risk appetite concepts chart above. Since the level of loss at any given probability is dependent on the portfolio of exposures in each business, the statistical measurement for each key risk category gives the Group clearer sight and better control of risk taking throughout the enterprise. Specifically, this framework enables it to:

- Improve management confidence and debate regarding the Group's risk profile;
- Re-balance the risk profile of the MTP where breaches are indicated, thereby achieving a superior risk-return profile;
- Identify unused risk capacity, and thus highlight the need to identify further profitable opportunities; and
- Improve executive management control and co-ordination of risk taking across businesses.

Source: Barclays Annual Report 2013, p. 386-387

Recommendation 8: Describe use of stress testing within the bank's risk governance and capital frameworks. Stress testing disclosures should provide a narrative overview of the bank's internal stress testing process and governance (1 of 3)

Measure relevant to strategy and risk	Link between strategy and risk profile
Profit before tax, Return on equity, Return on RWAs	Fundamental economic and business indicators, which best describes shareholder focus in terms of profitability and ability to use capital resources efficiently.
Loan loss rate (LLR)	Describes the credit risk profile and whether impairment is within appetite.
Core Tier 1 and leverage ratios	Monitors our capital adequacy in relation to capital plan.
Dividends	Measures the risks of being able to continue paying appropriate dividends.

In summary, the stress levels represent the risk tolerance of Barclays in terms of its key objectives. These objectives act as constraints on risk performance and imply maximum levels of acceptable losses that are tracked quarterly and reported to the Board. Any breaches must be approved and remedial actions mandated.

Mandate and Scale

The second element to the setting of risk appetite in Barclays is an extensive system of Mandate and Scale limits, which is a risk management approach that seeks to formally review and control business activities to ensure that they are within Barclays mandate (i.e. aligned with expectations), and are of an appropriate scale (relative to the risk and reward of the underlying activities). Barclays achieves this by using limits and triggers to avoid concentrations which would be out of line with expectations, and which may lead to unexpected losses of a scale that would be detrimental to the stability of the relevant business line or the Group. These limits are set by the independent risk function, formally monitored each month and subject to Board-level oversight.

For example, in our commercial property finance and construction portfolios, a comprehensive series of limits are in place to control exposure within each business and geographic sector. To ensure that limits are aligned to the underlying risk characteristics, the Mandate and Scale limits differentiate between types of exposure. There are, for example, individual limits for property investment and property development.

Barclays uses the Mandate and Scale framework to:

- Limit concentration risk;
- Keep business activities within Group and individual business mandate;
- Ensure activities remain of an appropriate scale relative to the underlying risk and reward; and
- Ensure risk taking is supported by appropriate expertise and capabilities.

As well as Group-level Mandate & Scale limits, further limits are set by risk managers within each business unit, covering particular portfolios.

Interaction of risk appetite with business strategy

The strategy and business activities are reflected in key performance metrics, which are dependent in large part on risk performance. Risk appetite, as described above, helps to ensure that the strategy is adaptable to various degrees of financial stress.

Each year, the MTP process ensures that appetite takes account of the strategy (detailed in the Barclays risk management strategy section on page 386).

The Group risk profile developing in the plan is assessed in the financial volatility scenarios via a bottom-up process; this is then compared with the top-down view articulated via the key financial metrics described above. Any gap between the two views is challenged by management in order to re-balance the risk profile and bring the bottom-up risk appetite back within top-down appetite.

For further information on Risk factors and the Operating and business environment, refer to the Risk factors section (see pages 133 to 141).

Stress testing

Group-wide stress tests are an integral part of the annual MTP process and annual review of risk appetite to ensure that the Group's financial position and risk profile provide sufficient resilience to withstand the impact of severe economic stress. The following diagram outlines the key steps in the Group-wide stress testing process, which are described below. Barclays also maintains Recovery Plans which consider actions to facilitate recovery from severe stress or an orderly resolution. These actions are additional to those included in the Group-wide stress testing process described in this section.

- **Scenario design and setting:** BFRC agrees the range of scenarios to be tested and the independent Group Risk function leads the process. Macroeconomic stress test scenarios are designed to be both severe and plausible, and relevant to our business. The following diagram summarises the process for designing and agreeing the scenarios to be run. The process includes Group Risk consultation with economists in the businesses. This ensures relevance of scenarios to our businesses and a consistent interpretation of the scenarios across the Group.

Scenario design and setting

At the Group level, stress test scenarios capture a wide range of macroeconomic variables that are required to assess the impact of the stress scenario for each portfolio, and reflect the wide range of models used across the Group to assess the impact of the stress. This includes for example, GDP, unemployment, asset prices, foreign exchange rates and interest rates. Economic parameters are set using expert judgement and are calibrated using historical and quantitative analysis to ensure internal coherence and appropriate severity. In addition, our scenarios are tested against the PRA's stress test scenarios.

Examples of types of scenarios/themes run as Group-wide stress tests include:

- A global recession scenario capturing the wide range of businesses across Barclays;
- US-centred macroeconomic scenario; and
- A peripheral Eurozone stress as part of the reverse stress testing framework (see page 391).

- **Businesses prepare MTP/business plans:** each business prepares detailed business plans which are used as the baseline for running their stress test analysis. The MTP business plans are prepared at performance cell level across a detailed set of performance metrics covering income, impairment, balance sheet and RWA information (which is also reflected in the stress testing results) – see page 386 for further details on the MTP process. The stress testing results are used to inform MTP business plans, so there may be a number of iterations before the MTP business plans are finalised.
- **Businesses run stress testing models:** the stress testing process is detailed and comprehensive using bottom-up analysis performed by each of Barclays' businesses, covering detailed performance metrics as outlined above and results are produced for each performance cell. It includes all aspects of the Group's balance sheet across all risk types and is forward looking over a five year period. Our stress testing approach combines running statistical models with expert judgement to ensure the results accurately reflect the impact of the stress test economic scenario.

An overview of our stress testing approach by Principal Risk is provided in the table below:

Source: Barclays Annual Report2013, p388-390

Recommendation 8: Describe use of stress testing within the bank's risk governance and capital frameworks. Stress testing disclosures should provide a narrative overview of the bank's internal stress testing process and governance (2 of 3)

Principal Risk	Stress testing approach
Credit risk	▪ Credit risk impairments: For retail portfolios businesses use regression models to establish a relationship between arrears movements and key macroeconomic parameters, such as interest rates and unemployment, incorporating roll-rate analysis to estimate stressed levels of arrears by portfolio. In addition, combination of house price reductions and increased customer drawdowns for revolving facilities leads to higher loss given default (LGD) which also contributes to increased impairment levels. For wholesale portfolios the stress shocks on credit risk drivers (PDs, LGDs and EADs) are primarily calibrated using historical and expected relationships with key macroeconomic paremeters such as GDP, inflation and interest rates. ▪ The scenarios include market risk shocks that are applied to determine the market value under stress of contracts that give rise to counterparty credit risk. Counterparty losses, including from changes to the credit valuation adjusment and from defaults, are modelled based on the impact of these shocks as well as using stressed credit risk drivers (PDs and LGDs). The same approach is used to stress the market value of assets held as available for sale or at fair value in the banking book. ▪ Credit risk weighted assets: The impact of the scenarios is calculated via a combination of business volumes and similar factors to impairment drivers above, as well as the regulatory calculation and the level of pro-cyclicality of underlying regulatory credit risk models.
Market risk	▪ Trading book losses: All market risk factors on the balance sheet are stressed using specific market risk shocks (and are used for the counterparty credit risk analysis, above). The severity of the shocks applied are dependent on the liquidity of the market under stress, e.g. illiquid or sticky positions are assumed to have a longer holding period than positions in liquid markets. ▪ Pension fund: The funding position of pension funds are stressed, taking into account key economic drivers impacting future obligations (e.g. long term inflation and interest rates) and the impact of the scenarios on the value of fund assets.
Funding risk	▪ The risk of a mismatch between assets and liabilities, leading to funding difficulties, is assessed. Businesses apply scenario variables to forecasts of customer loans and advances and deposits levels, taking into account management actions to mitigate the impact of the stress which may impact business volumes. The Group funding requirement under stress is then estimated and takes into account lower availability of funds in the market. ▪ The analysis of funding risk also contributes to the estimate of stressed income and costs: ▫ Stress impact on non-interest income is primarily driven by lower projected business volumes and hence lower income from fees and commissions; ▫ Impact on net interest income is driven by stressed margins, which depend on the level of interest rates under stress as well as funding costs,and on stressed balance sheet volumes. This can be partly mitigated by management actions that may include repricing of variable rate products, taking into account interbank lending rates under stress; and ▫ The impact on costs is mainly driven by business volumes and management actions to partly offset profit reductions (due to impairment increases and decreases in income) such as headcount reductions and lower performance costs.
Operational risk, Conduct risk and Reputation risk	▪ These Principal Risks are generally not assessed as part of economic scenario assessments, as they are not directly linked to the economic scenario. Note that Operational risk, however, is included as part of the reverse stress testing framework that incorporates assessment of idiosyncratic operational risk events. ▫ Management of Operational risk is described on pages 225 and 415 to 417 ▫ Management of Conduct risk is described on pages 228 to 229 ▫ Management of Reputation risk is described on pages 226 to 227

- Review and challenge: the business' stress test methodologies and results are subject to a detailed review and challenge both within the businesses (including review and sign-off by business CROs) and by Head Office Functions. In particular, this includes detailed risk review of both the stressed estimates (e.g. impairments), and the methodology used to translate the economic scenario to stressed estimates. Businesses are required to document their stress test methodologies and results, including key assumptions made. The stress testing results are presented and discussed as part of the MTP risk reviews held between each business and Barclays CRO.
- Results (pre- and post-business management actions): a key objective of the Group-wide stress test process is to identify and document management actions that would be taken to mitigate the impact of stress. Businesses are required to report results both pre- and post-business management actions, such as cost reductions and increased collections activity to reduce impairments, and to document these actions. The bottom-up process ensures all levels of management are informed of the impact of the stress scenarios and are aware of appropriate management actions to be taken when a stress event occurs. For instance, during the recession of 2008-2010 a programme of work based on the stress management actions was implemented and directly overseen by the Group Executive Committee.
- Capital plan including capital management actions: the business' stress test results are aggregated to form a Group view of the impact of the stress, which are used by Barclays Treasury Capital Management to determine the stress impact on the Group capital plans. As part of this assessment, capital management actions such as reducing dividend payments or redeeming certain capital instruments may be considered. These are in addition to the business management actions included in business' stress testing results. Further management actions available in Barclays' recovery plan that are not included in the Group-wide stress testing results.
- Committee presentations and approval of stress scenario results: the stress test results are presented for review by the Executive Committee and BFRC, and are also shared with the Board.

The results of our H2 2013 internal Group-wide stress test exercise show that the Group's profit before tax remains positive under the modelled severe global stress scenario, with the Group remaining well capitalised above the required regulatory minimum level. The stress test results are also shared with the PRA, e.g. as part of our internal capital adequacy assessment process (ICAAP) submission.

Reverse stress testing

The Group-wide stress testing framework also includes reverse stress testing techniques which aim to identify the circumstances under which Barclays' business model would become no longer be viable, leading to a significant change in business strategy. Examples include extreme macroeconomic downturn scenarios, such as a break-up of the Euro area, or specific idiosyncratic events, covering both Operational risk and capital/liquidity events.

Reverse stress testing is used to help support ongoing risk management and is fully integrated into our risk appetite framework. Reverse stress testing methodology includes identifying tail risks associated with specific low likelihood circumstances, and identifying appropriate mitigating actions. For example, the approach for managing Eurozone peripheral risks was informed by the results of the reverse stress testing assessment ran in 2010.

Business and risk type specific stress tests

Barclays also uses stress testing techniques at portfolio and product level to support risk management. For example, portfolio management in the US cards business employs stressed assumptions of loss rates to determine profitability hurdles for new accounts. In the UK mortgage business, affordability thresholds incorporate stressed estimates of interest rates. In the Investment Bank, global scenario testing is used to gauge potential losses that could arise in conditions of extreme market stress. Stress testing is also conducted on positions in particular asset classes, including interest rates, commodities, equities, credit and foreign exchange.

Information on the Group's stress testing specifically relating to liquidity risk is set out in the Funding risk – Liquidity section. Further information on market risk stress testing is provided in the Market Risk section.

Source: Barclays Annual Report2013, p388-390

Recommendation 8: Describe use of stress testing within the bank's risk governance and capital frameworks. Stress testing disclosures should provide a narrative overview of the bank's internal stress testing process and governance (3 of 3)

Table 66: AIRB credit risk models selected features

As at 31.12.13

Component modelled	Business Unit	Portfolio	Size of associated portfolio (RWAs)	Model description and methodology	Number of years loss data	Basel asset classes measured	Regulatory thresholds applied by Barclays
PD	Investment Bank, Corporate Banking, Absa	Publicly traded corporates	£21.6bn	Statistical / model uses a Merton-based methodology.	>10 years	Corporates	PD floor of 0.03%
	Investment Bank, Corporate Banking, Absa	Customers rated by external rating agencies	£26.6bn	Rating Agency Equivalent model converts agency ratings into estimated equivalent PIT default rates using credit cycles based on rating agency data.	>10 years	Corporate, Financial Institutions and Sovereigns	PD floor of 0.03% for corporates and institutions
	Corporate Banking, Barclays Business	Corporate and SME customers with turnover < £20m	£7.2bn	Statistical model that uses regression techniques to derive relationship between observed default experience and a set of explanatory variables.	6-10 years	Corporates Corporate SME Retail SME	PD floor of 0.03%
	Corporate Banking, Barclays Business, Investment Bank	Corporate customers with turnover ≥ £20m	£12.7bn	Statistically derived model sourced from an external vendor for use in the rating systems.	6-10 years	Corporate Corporate SME	PD floor of 0.03%
	UKRBB	Home Finance	£16.5bn	Statistical scorecards estimated using regression techniques. They are calibrated against long-run industry default data.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	PD floor of 0.03%
	UKRBB	Business Banking	£4.6bn	Statistical scorecards calibrated against long-run default data.	>10 years	Mainly used for Retail SME	PD floor of 0.03%
	Barclaycard	Barclaycard UK	£9.6bn	Statistical scorecards estimated using regression techniques. They are calibrated against internal default data.	6-10 years	Retail QRRE	PD floor of 0.03%
	Europe RBB	Spain Mortgages	£3.0bn	Statistical scorecards calibrated against long-run industry default data.	6-10 years	Retail Mortgages	PD floor of 0.03%
	Africa RBB	Absa Home Loans	£3.4bn	Statistical scorecards calibrated against long-run default data.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	PD floor of 0.03%
LGD	Investment Bank Corporate Banking	Corporates and Financial Institutions	£54.2bn	Statistical regression model that produces a downturn LGD and a long run average LGD. Inputs include collateral, seniority level and recoveries data.	>10 years	Corporate Financial Institutions	–
	Investment Bank	Sovereign Entities	£10.1bn	Regression calibrated to Moody's Sovereign losses. Model inputs are Economist Intelligence Unit country scores. Final model LGD is calculated using a scorecard that adjusts the overall average historical loss.	>10 years	Sovereign	A 45% floor for sovereign exposures is applicable as at year-end 2012.
	Corporate Banking Business Banking	Corporate and Business Banking customers	£27.5bn	Model calculates LGD taking account of EAD, collateral value (discounted to reflect disposal in stressed circumstances and time to recover) and an allowance for non-collateral recovery.	>10 years	Corporates Corporate SME Retail SME	-
	UKRBB	Home Finance	£16.5bn	Data driven estimates of loss and probability of possession are complemented with expert judgment where appropriate.	>10 years	Retail Mortgages (residential and buy-to-let mortgages)	LGD floor of 10% at portfolio level.
	Barclaycard	Barclaycard UK	£9.6bn	Statistical models combining regression and other forecasting techniques.	6-10 years	Retail QRRE	

Table 66 (Continued)

Component modelled	Business Unit	Portfolio	Size of associated portfolio (RWAs)	Model description and methodology	Number of years loss data	Basel asset classes measured	Regulatory thresholds applied by Barclays
LGD	Europe RBB	Spain Mortgages	£3.0bn	Data driven estimates of loss and probability of possession are complemented with expert judgment where appropriate.	6-10 years	Retail Mortgages	LGD floor of 10% at portfolio level.
	Africa RBB	Absa Home Loans	£3.4bn	A data driven statistical approch estimates loss and probability of possession complemented with expert judgment where appropriate.	6-10 years	Retail Mortgages (residential and buy-to-let mortgages)	LGD floor of 10% at portfolio level.
EAD	Investment Bank	Corporates and Financial Institutions	£41.1bn	Statistical regression based model predicts Credit Conversion Factors (CCFs) along with Product Credit Conversion Factors (PCCFs). These are applied based on the facility product type to the balance and limit information in order to derive a corresponding EAD.	>10 years	Corporate Financial Institutions	EAD must be at least equivalent to current balance utilisation at account level.
	Corporate Banking	Corporate and Business Banking customers	£31.5bn	EAD is calculated by reference to product type, the size of business (sales turnover), and industry for certain specialised sectors to determine the conversion factors on undrawn exposure.	6-10 years	Corporates Corporate SME Retail SME Institutions	EAD must be at least equivalent to current balance utilisation at account level.
	UKRBB	Home Finance	£16.5bn	Rule-based calculation validated using historical data.	>10 years	Retail Mortgages (residential and buy-to-let mortgages)	EAD must be at least equivalent to current balance utilisation at account level.
	Barclaycard	Barclaycard UK	£9.6bn	Statistical scorecards estimated using regression techniques. They are calibrated against internal default data.	6-10 years	Retail QRRE	EAD must be at least equivalent to current balance utilisation at account level.
	Europe RBB	Spain Mortgages	£3.0bn	Rule-based calculation validated using historical data.	6-10 years	Retail Mortgages	EAD must be at least equivalent to current balance utilisation at account level.
	Africa RBB	Absa Home Loans	£3.4bn	Statistical approach using historic data to determine a credit conversion factor, which is applied to the non-defaulted assets in appropriate cohorts to forecast EAD.	3-5 years	Retail Mortgages (residential and buy-to-let mortgages)	EAD must be at least equivalent to current balance utilisation at account level.

Source: Barclays Pillar 3 2013, pp. 122-123