Section 5

Market risk

Recommendation 22: Linkages between line items in the balance sheet and the income statement with positions included in the traded market risk disclosures

Market risk balance sheet linkages

(Unaudited)

The information below aims to facilitate the understanding of linkages between line items in the balance sheet and positions included in our market risk disclosures, in line with recommendations made by the Enhanced Disclosure Task Force.

Market risk linkages to the accounting balance sheet

Trading assets and liabilities

The Group's trading assets and liabilities are in substantially all cases originated by GB&M. The assets and liabilities are classified as held for trading if they have been acquired or incurred principally for the purpose of selling or repurchasing in the near term, or form part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking. These assets and liabilities are treated as traded risk for the purposes of market risk management, other than a limited number of exceptions, primarily in Global Banking where the short-term acquisition and disposal of the assets are linked to other non-trading related activities such as loan origination.

Financial assets designated at fair value

Financial assets designated at fair value within HSBC are predominantly held within the Insurance entities. The majority of these assets are linked to policyholder liabilities for either unit-linked or insurance and investment contracts with DPF. The risks of these assets largely offset the market risk on the liabilities under the policyholder contracts, and are risk managed on a non-trading basis.

Financial liabilities designated at fair value

Financial liabilities designated at fair value within HSBC are primarily fixed-rate securities issued by HSBC entities for funding purposes. An accounting mismatch would arise if the debt securities were accounted for at amortised cost because the derivatives which economically hedge market risks on the securities would be accounted for at fair value with changes recognised in the income statement. The market risks of these liabilities are treated as non-traded risk, the principal risks being interest rate and/or foreign exchange risks. We also incur liabilities to customers under investment contracts, where the liabilities on unit-linked contracts are based on the fair value of assets within the unit-linked funds. The exposures on these funds are treated as non-traded risk and the principal risks are those of the underlying assets in the funds.

Derivative assets and liabilities

We undertake derivative activity for three primary purposes; to create risk management solutions for clients, to manage the portfolio risks arising from client business and to manage and hedge our own risks. Most of our derivative exposures arise from sales and trading activities within GB&M and are treated as traded risk for market risk management purposes.

Within derivative assets and liabilities there are portfolios of derivatives which are not risk managed on a trading intent basis and are treated as non-traded risk for VaR measurement purposes. These arise when the derivative was entered into in order to manage risk arising from non-traded exposures. They include non-qualifying hedging derivatives and derivatives qualifying for fair value and cash flow hedge accounting. The use of non-qualifying hedges whose primary risks relate to interest rate and foreign exchange exposure is described on page 285. Details of derivatives in fair value and cash flow hedge accounting relationships are given in Note 18 on the Financial Statements. Our primary risks in respect of these instruments relate to interest rate and foreign exchange risks.

Loans and advances to customers

The primary risk on assets within loans and advances to customers is the credit risk of the borrower. The risk of these assets is treated as non-trading risk for market risk management purposes.

Financial investments

Financial investments include assets held on an available-for-sale and held-to-maturity basis. An analysis of the Group's holdings of these securities by accounting classification and issuer type is provided in Note 19 on the Financial Statements and by business activity on page 69. The majority of these securities are mainly held within Balance Sheet Management in GB&M. The positions which are originated in order to manage structural interest rate and liquidity risk are treated as non-trading risk for the purposes of market risk management. Available-for-sale security holdings within insurance entities are treated as non-trading risk and are largely held to back non-linked insurance policyholder liabilities.

The other main holdings of available-for-sale assets are the ABSs within GB&M's legacy credit business, which are treated as non-trading risk for market risk management purposes, the principal risk being the credit risk of the obligor.

The Group's held-to-maturity securities are principally held within the Insurance business. Risks of held-to-maturity assets are treated as non-trading for risk management purposes.

For information on the accounting policies applied to financial instruments at fair value, see Note 2l on the Financial Statements.

Market risk for insurance operations is discussed on page 254.

Balances included and not included in trading VaR

(Unaudited)

	At 31 December 2013			
	Balance sheet US$m	Balances included in trading VaR US$m	Balances not included in trading VaR US$m	Primary market risk sensitivities
Assets				
Cash and balances at central banks	166,599		166,599	B
Trading assets	303,192	283,390	19,802	A
Financial assets designated at fair value	38,430		38,430	A
Derivatives	282,265	274,881	7,384	A
Loans and advances to banks	211,521		211,521	B
Loans and advances to customers	1,080,304		1,080,304	B
Financial investments	425,925		425,925	A
Assets held for sale	4,050		4,050	C
Liabilities				
Deposits by banks	129,212		129,212	B
Customer accounts	1,482,812		1,482,812	B
Trading liabilities	207,025	189,929	17,096	A
Financial liabilities designated at fair value	89,084		89,084	A
Derivatives	274,284	269,657	4,627	A
Debt securities in issue	104,080		104,080	C
Liabilities of disposal groups held for sale	2,804		2,804	C

The table represents account lines where there is some exposure to market risk according to the following asset classes:
A *Foreign exchange, interest rate, equity and credit spread.*
B *Foreign exchange and interest rate.*
C *Foreign exchange, interest rate and credit spread.*

The table above splits the assets and liabilities into two categories:

- those that are included in the trading book and measured by VaR; and
- those that are not in the trading book and/or measured by VaR.

The breakdown of financial instruments included and not included in trading VaR provides a linkage with market risk to the extent that it is reflected in our risk framework. However, it is important to highlight that the table does not reflect how we manage market risk, since we do not discriminate between assets and liabilities in our VaR model.

The assets and liabilities included in trading VaR give rise to a large proportion of the income included in net trading income. As disclosed in the income statement on page 51, HSBC's net trading income in 2013 was US$8,690m (2012: US$7,091m). Adjustments to trading income such as valuation adjustments do not feed the trading VaR model.

Structural foreign exchange exposures

(Unaudited)

For our policies and procedures for managing structural foreign exchange exposures, see page 285 of the Appendix to Risk.

For details of structural foreign exchange exposures see Note 35 on the Financial Statements.

Non-trading interest rate risk

(Unaudited)

For our policies regarding the funds transfer pricing process for non-traded interest rate risk and liquidity and funding risk, see page 280 and page 276, respectively, of the Appendix to Risk.

Asset, Liability and Capital Management ('ALCM') is responsible for measuring and controlling non-trading interest rate risk under the supervision of the Risk Management Meeting. Its primary responsibilities are:

- to define the rules governing the transfer of non-traded interest rate risk from the global businesses to BSM;
- to define the rules governing the interest rate risk behaviouralisation applied to non-trading assets/liabilities (see below);
- to ensure that all market interest rate risk that can be neutralised is transferred from the global businesses to BSM; and
- to define the rules and metrics for monitoring the residual interest rate risk in the global businesses, including any market risk that can be neutralised.

The different types of non-trading interest rate risk and the controls which we use to quantify and limit exposure to these risks can be categorised as follows:

Source: HSBC Annual Report 2013, p236-237

Recommendation 22: Linkages between line items in the balance sheet and the income statement with positions included in the traded market risk disclosures

MARKET RISK LINKAGE TO THE BALANCE SHEET

The table below provides a breakdown of the Bank's balance sheet into assets and liabilities exposed to trading and non-trading market risks. Market risk of assets and liabilities included in the calculation of VaR and other metrics used for regulatory market risk capital purposes is classified as Trading Market Risk.

TABLE 60 **MARKET RISK LINKAGE TO THE BALANCE SHEET**

(millions of Canadian dollars)				As at October 31, 2013
	Balance Sheet	Trading Market Risk	Non-Trading Market Risk	Non-Trading Market Risk – primary risk sensitivity
Assets subject to market risk				
Interest-bearing deposits with banks	$ 28,855	$ 285	$ 28,570	Interest rate
Trading loans, securities, and other	101,928	98,682	3,246	Interest rate
Derivatives	49,461	44,077	5,384	Equity, foreign exchange, interest rate
Financial assets designated at fair value	6,532	–	6,532	Interest rate
Available-for-sale securities	79,541	–	79,541	Foreign exchange, interest rate
Held-to-maturity securities	29,961	–	29,961	Foreign exchange, interest rate
Securities purchased under reverse repurchase agreements	64,283	5,331	58,952	Interest rate
Loans	447,777	–	447,777	Interest rate
Customers' liability under acceptances	6,399	–	6,399	Interest rate
Investment in TD Ameritrade	5,300	–	5,300	Equity
Other assets[1]	1,915	–	1,915	Interest rate
Assets not exposed to market risk	40,580	–	–	
Total Assets	862,532	148,375	673,577	
Liabilities subject to market risk				
Trading deposits	47,593	1,531	46,062	Interest rate
Derivatives	49,471	45,655	3,816	Foreign exchange, interest rate
Securitization liabilities at fair value	21,960	10,216	11,744	Interest rate
Other financial liabilities designated at fair value through profit or loss	12	–	12	Interest rate
Deposits	543,476	–	543,476	Equity, interest rate
Acceptances	6,399	–	6,399	Interest rate
Obligations related to securities sold short	41,829	39,479	2,350	Interest rate
Obligations related to securities sold under repurchase agreements	34,414	5,825	28,589	Interest rate
Securitization liabilities at amortized cost	25,592	–	25,592	Interest rate
Subordinated notes and debentures	7,982	–	7,982	Interest rate
Liability for preferred shares	27	–	27	Interest rate
Liability for capital trust securities	1,740	–	1,740	Interest rate
Other liabilities[1]	12,698	–	12,698	Interest rate
Liabilities and Equity not exposed to market risk	69,339	–	–	
Total Liabilities and equity	$ 862,532	$ 102,706	$ 690,487	

The interest rate risk exposures from products with closed (non-optioned) fixed-rate cash flows are measured and managed separately from products that offer customers prepayment options. We project future cash flows by looking at the impact of:

- A target interest sensitivity profile for our core deposit portfolio.
- Our targeted investment profile on our net equity position.
- Liquidation assumptions on mortgages other than from embedded pre-payment options.

The objective of portfolio management within the closed book is to eliminate cash flow mismatches to the extent practically possible, so that net interest income becomes more predictable. Product options, whether they are freestanding options such as mortgage rate commitments or embedded in loans and deposits, expose us to a significant financial risk.

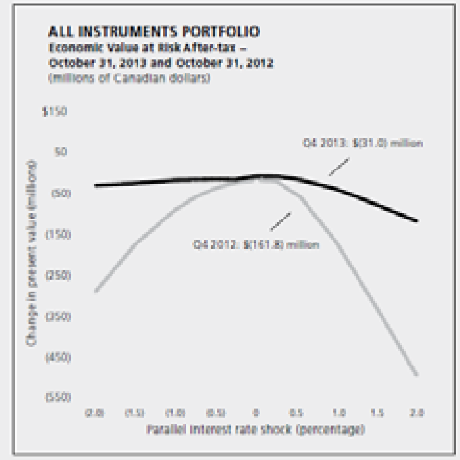
- **Rate Commitments:** We model our exposure from freestanding mortgage rate commitment options using an expected funding profile based on historical experience. Customers' propensity to fund and their preference for fixed or floating rate mortgage products is influenced by factors such as market mortgage rates, house prices and seasonality.
- **Asset Prepayment:** We model our exposure to written options embedded in other products, such as the rights to prepay residential mortgage loans, based on analysis of customer behaviour. Econometric models are used to model prepayments and the effects of prepayment behaviour to the Bank. In general mortgage prepayments are also affected by non-market incentives such as mortgage age, house prices and GDP growth. The combined impacts from these parameters are also assessed to determine a core liquidation speed which is independent of market incentives.
- **Non Maturity Liabilities:** We model our exposure to non-maturity liabilities such as core deposits by assessing interest rate elasticity and balance permanence using historical data and business judgement. Fluctuations of non-maturity deposits can occur because of factors such as interest rate movements, equity market movements and changes to customer liquidity preferences.

To manage product option exposures we purchase options or use a dynamic hedging process designed to replicate the payoff of a purchased option. We also model the margin compression that would be caused by declining interest rates on certain rate sensitive demand deposit accounts.

Other market risks monitored on a regular basis include:

- **Basis Risk:** The Bank is exposed to risks related to various market indices.
- **Equity Risk:** The Bank is exposed to equity risk through its equity-linked GIC product offering. The exposure is managed by purchasing options to replicate the equity payoff.

The following graph shows our interest rate risk exposure (as measured by EVaR) on all non-trading assets, liabilities, and derivative instruments used for interest rate risk management.



The Bank uses derivative financial instruments, wholesale investments and funding instruments and other capital market alternatives and, less frequently, product pricing strategies to manage interest rate risk. As at October 31, 2013, an immediate and sustained 100 basis point increase in interest rates would have decreased the economic value of shareholders' equity by $31 million (October 31, 2012 – $161.8 million) after tax. An immediate and sustained 100 bps decrease in Canadian interest rates and a 25 bps decrease in U.S. interest rates would have reduced the economic value of shareholders' equity by $9.4 million (October 31, 2012 – $ 80.5 million) after tax.

The following table shows the sensitivity of the economic value of shareholders' equity (after tax) by currency for those currencies where TD has material exposure.

TABLE 62 **SENSITIVITY OF AFTER-TAX ECONOMIC VALUE AT RISK BY CURRENCY**

(millions of Canadian dollars)	October 31, 2013		October 31, 2012	
Currency	100 bps increase	100 bps decrease	100 bps increase	100 bps decrease
Canadian dollar	$ 9.5	$ (1.3)	$ (14.5)	$ (70.1)
U.S. dollar[1]	(40.5)	(8.1)	(147.3)	(10.4)
	$ (31.0)	$ (9.4)	$ (161.8)	$ (80.5)

[1] EVaR sensitivity has been measured using a 25 bps rate decline for U.S. interest rates, corresponding to an interest rate environment that is floored at zero percent.

TD defines market risk in trading and non-trading risk separately across multiple pages (p. 84-88); interest rate risk section shown above

Partial disclosure shown

Source: TD Annual Report 2013, p83-88

Recommendation 23: Provide qualitative and quantitative breakdowns of significant trading and non-trading market risk factors that may be relevant to the bank's portfolio beyond interest rates, foreign exchange, commodity and equity measures

Table 1.27: **Key market risks for the Group (PBT impact measured against Group single stress scenarios)**

	Risk type					
	Interest rate	Basis risk	FX	Credit spread	Equity	Inflation
Defined benefit pension schemes	● (<£250m)		● (<£50m)	● (£250-£500m)	● (<£250m)	● (<£250m)
Trading portfolios	● (<£50m)	● (<£50m)	● (<£50m)	● (<£50m)		● (<£50m)
Banking activities	● (£250-£500m)	● (<£50m)	● (<£50m)	● (>£500m)	● (£250-£500m)	● (<£50m)
Insurance portfolios	● (<£250m)		● (<£50m)	● (>£500m)	● (£250-£500m)	● (<£250m)

Key:	
Profit before tax:	
>£500m	●
£250-£500m	●
<£250m	●
<£50m	●

Banking activities

The Group's banking activities expose it to the risk of adverse movements in interest rates, credit spreads, exchange rates and equity prices, with little or no exposure to commodity risk. The volatility of market values can be affected by both the transparency of prices and the amount of liquidity in the market for the relevant asset or liability.

Interest rate risk in the Group's divisional portfolios and in the Group's capital and funding activities arises from the different repricing characteristics of the Group's non-trading assets, liabilities (see loans and advances to customers and customer deposits in Table 1.26 above) and off balance sheet positions of the Group. Interest rate risk arises predominantly from the mismatch between interest rate sensitive assets and liabilities, but also to the investment term of capital and reserves, and the need to minimise income volatility.

Margin compression risk also arises from the current low rate environment, which may restrict the ability to change interest rates applying to customers in response to changes in interbank and central bank rates.

Prepayment risk arises, predominantly in the Retail division, as customer balances amortise more quickly or slowly than anticipated due to economic conditions or customer's response to changes in economic conditions.

Pipeline and pre hedge risk arises where new business volumes are higher or lower than forecasted, requiring the business to unwind or execute additional hedging at rates which may differ to what was expected.

Basis risk arises from the possible changes in spreads, for example where the bank lends with reference to a central bank rate but funds with reference to LIBOR and the spread between these widens or tightens.

Foreign currency risk arises from:

(a) translational exposure: the Group's investment in its overseas operations. Net investment exposures are disclosed (see note 54 on page 327) and it is Group policy to hedge non-functional currency exposures; and

(b) transactional exposure: where assets and liabilities are denominated in currencies other than the business' functional currency. The Group has a policy of forward hedging its forecasted currency income less impairments to year end.

Insurance portfolios

The Group's insurance activities expose it to market risk (encompassing equity, credit spread, interest rate, exchange rate and property risk):

- With-profits funds are managed with the aim of generating smoothed returns consistent with policyholders' expectations. Exposure arises where the value of the underlying funds are insufficient to meet the obligations, termed burnthrough.
- Unit-linked funds where policyholders select their investments. Exposure arises as future fee income is dependent upon the performance of those assets. This fee income forms part of the Value of in-force business, see note 28 on page 257.
- Annuities where policyholders' future cashflows are guaranteed at retirement. Exposure arises if the assets, predominantly fixed income, backing the liabilities do not perform in line with expectations.
- Insurance's surplus assets also result in market risk exposure. These assets are held primarily in three portfolios: (i) in the long-term funds within the life insurance companies; (ii) in the corresponding shareholder funds; and (iii) in investment portfolios within the general insurance business.
- The majority of Insurance's equity risk exposure relates to unit-linked funds, through the value of future fee income, and with-profits funds, through burnthrough. Credit spread risk exposure largely results from holding fixed income assets in the annuity portfolio with the aim of providing additional returns.

Source: Lloyds 2013 Annual Report, p. 166-167

Recommendation 23: Provide qualitative and quantitative breakdowns of significant trading and non-trading market risk factors that may be relevant to the bank's portfolio beyond interest rates, foreign exchange, commodity and equity measures (1 of 2)

Market risk exposures arising from our business activities

CHF billion

Business activity	Balance sheet line item	Trading book / Banking book	Market risk type: Equities	Interest rates	Credit spreads	Foreign exchange	Commodities	Trading book market risk RWA category: Regulatory VaR	Stressed VaR	Risks-not-in-VaR	Incremental Risk Charge	Comprehensive Risk Measure	Trading book securitization	Total market risk RWA
Wealth Management[1]								0.0	0.0					**0.0**
Wealth Management Americas								0.4	0.9	0.0	0.3			**1.6**
Client deposits	Due to customers	Banking book		○										
Securities backed lending and mortgages	Loans	Banking book		○										
Municipal securities and closed-end funds trading	Trading portfolio assets and liabilities	Trading book[2]		○	○			○	○		○			
Retail & Corporate[1]								0.0	0.0					**0.0**
Global Asset Management								0.0	0.0					**0.0**
Investment Bank								1.6	2.5	1.2	2.1	0.0	0.1	**7.6**
Investor Client Services														
Fixed income, equities, foreign exchange and precious metals, securities and derivatives	Trading portfolio assets and liabilities and positive and negative replacement values	Trading book	●	●	●	○	○	●	●	●	●			
Structured notes	Financial liabilities designated at fair value	Trading book	○	○	○	○		○	○	○				
Corporate Client Solutions														
Originate to distribute loans and CMBS origination[3]	Trading portfolio assets	Trading book		○	●								○	
Take and hold loans	Loans	Banking book		○										
Loans, structured loans, reverse repurchase agreements and securities borrowing	Financial assets designated at fair value	Banking book		○										
Corporate Center – Core Functions[1,4]								(1.4)	(2.3)	0.1	(1.4)			**(4.9)**
Centralized liquidity and funding	Debt issued and due to banks	Banking book		●										
	Repurchase and reverse repurchase agreements	Trading book		○				○	○					
	Balances with central banks and Due from banks	Banking book		○										
Global and local liquidity reserves	Financial investments available-for-sale	Banking book		●										
	Trading portfolio assets	Trading book		○	○			○	○		●			
Mortgage and other loans	Loans	Banking book		●										
Client deposits	Due to customers	Banking book		●										
Hedging instruments and other derivatives	Positive and negative replacement values	Banking book		●										
Corporate Center – Non-core and Legacy Portfolio								1.1	1.5	0.6	0.3	4.2	1.7	**9.4**
Assets and derivatives considered to be non-core and which we will continue to wind down	Trading portfolio assets and liabilities and positive and negative replacement values	Trading book	○	●	●	○		○	●	○	○	●	●	
Counterparty CVA management[5]	Positive and negative replacement values	Trading book		○	●	○								
Reclassified held for trading assets, and corporate and asset based lending	Loans	Banking book		○										
Structured notes	Financial liabilities designated at fair value	Trading book	○	○	○			○	○	○	○			

● Key contributor ○ Less significant contributor

1 Interest rate risk from Wealth Management and Retail & Corporate loans and deposits is transferred to Group Treasury and reported under Corporate Center – Core Functions in this analysis. 2 Although risk is controlled under the market risk framework, Puerto Rico closed-end fund positions are treated as banking book for capital underpinning purposes due to market illiquidity. 3 Credit spread risk arising from loan underwriting is captured through, and reported as part of, credit risk RWA. 4 Negative market risk RWA are due to diversification effects allocated to Corporate Center – Core Functions. 5 Counterparty credit risk in the valuation of OTC derivative instruments, derivatives embedded in funded assets designated at fair value and derivatives embedded in traded debt instruments is captured through credit valuation adjustment RWA calculated under the advanced IRB or standardized approach and reported as part of credit risk RWA.

Other market risk exposures

Own credit

We are exposed to changes in UBS's own credit which are reflected in the valuation of those financial liabilities designated at fair value, for which UBS's own credit risk would be considered by market participants. We also estimate debit valuation adjustments (DVA) to incorporate own credit in the valuation of derivatives. Changes in fair value due to changes in own credit are recognized in the income statement and therefore affect shareholders' equity and CET1 capital.

→ **Refer to "Note 24 Fair value measurement" in the "Financial information" section of this report for more information on own credit**

Structural foreign exchange risk

On consolidation, assets and liabilities held in foreign operations are translated into Swiss francs at the closing foreign exchange rate on the balance sheet date, and items of income and expense are translated into Swiss francs at the average rate for the period. The resulting foreign exchange differences are recognized in *Other comprehensive income* and therefore affect shareholders' equity and Basel III CET1 capital.

Group Treasury employs strategies to manage this foreign currency exposure, including matched funding of assets and liabilities and net investment hedging.

→ **Refer to the "Treasury management" section of this report for more information on our exposure to and management of structural foreign exchange risk**

Equity investments

Under IFRS, equity investments not in the trading book may be classified as *Financial investments available-for-sale, Financial assets designated at fair value* or *Investments in associates*.

We make direct investments in a variety of entities and buy equity holdings in both listed and unlisted companies for a variety of purposes. This includes investments such as exchange and clearing house memberships that are held to support our business activities. We may also make investments in funds that we manage, in order to fund or "seed" them at inception, or to demonstrate that our interests concur with those of investors. We also buy, and are sometimes required by agreement to buy, securities and units from funds that we have sold to clients.

The fair value of equity investments tends to be dominated by factors specific to the individual investments. Equity investments are generally intended to be held for the medium or long term and may be subject to lockup agreements. For these reasons, we generally do not control these exposures using the market risk measures applied to trading activities. Such equity investments are, however, subject to a different range of controls, including pre-approval of new investments by business management and Risk Control, portfolio and concentration limits, and regular monitoring and reporting to senior management. They are also included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework.

UBS own share exposure

We hold our own shares primarily to hedge employee share and option participation plans. A smaller number are held by the Investment Bank which relate to market-making and hedging activities.

→ **Refer to "Holding of UBS shares" in the "Capital management" section of this report for more information**

Debt investments

Debt investments classified as *Financial investments available-for-sale* are measured at fair value with changes in fair value recorded through *Equity*, and can broadly be categorized as money market instruments and debt securities primarily held for statutory, regulatory or liquidity reasons.

The risk control framework applied to debt instruments classified as *Financial investments available-for-sale* depends on the nature of the instruments and the purpose for which we hold them. Our exposures may be included in market risk limits or be subject to specific monitoring such as interest rate sensitivity analysis. They are also included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework.

Debt instruments classified as *Financial investments available-for-sale* had a fair value of CHF 58.9 billion as of 31 December 2013 compared with CHF 65.7 billion as of 31 December 2012.

→ **Refer to "Note 15 Financial investments available-for-sale" in the "Financial information" section of this report for more information**

→ **Refer to "Interest rate risk sensitivity to parallel shifts in yield curves" in this section for more information**

→ **Refer to the "Treasury management" section of this report for more information**

Pension risk

We maintain a number of defined benefit pension plans for past and current employees. The ability of each plan to meet the projected pension payments is maintained principally through investments. Pension risk arises because the fair value of these plan assets might decline, their investment returns might decrease or the estimated value of the defined benefit obligation might increase. If plan assets are insufficient to meet the projected pension payments, UBS may be required, or might choose, to make extra contributions to the pension plans.

Under IFRS, remeasurements of the defined benefit obligation and the fair values of the plan assets are recognized through *Other comprehensive income* and therefore affect shareholders' equity. An increase in the overall net defined benefit liability of a pension plan (where the defined benefit obligation exceeds the fair value of plan assets) will reduce our equity. Where the defined benefit obligation is less than the fair value of the plan assets, the pension plan is in a surplus position. Such surplus can only be recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit. Where the amount of surplus recognized has been capped, any reduction in the estimated future economic benefit will reduce equity. Changes in the surplus, due to changes in the defined benefit obligation or fair value of plan assets, will not affect equity until the surplus falls below any cap.

Remeasurements of the defined benefit obligations and plan assets similarly affect our Basel III CET1 capital on a fully applied basis, albeit pension surpluses are not recognized.

Investment policies and strategies are in place for our defined benefit pension plans which take account of the maturity profile of plan liabilities and ensure diversified portfolios of assets are maintained. These strategies are managed by responsible governance bodies in each jurisdiction according to local laws and regulations.

Pension risk is included in our Group-wide statistical and stress testing metrics which flow into our risk appetite framework.

→ **Refer to "Note 28 Pension and other post-employment benefit plans" in the "Financial information" section of this report for more information**

Source: UBS Annual Report 2013, p190-204

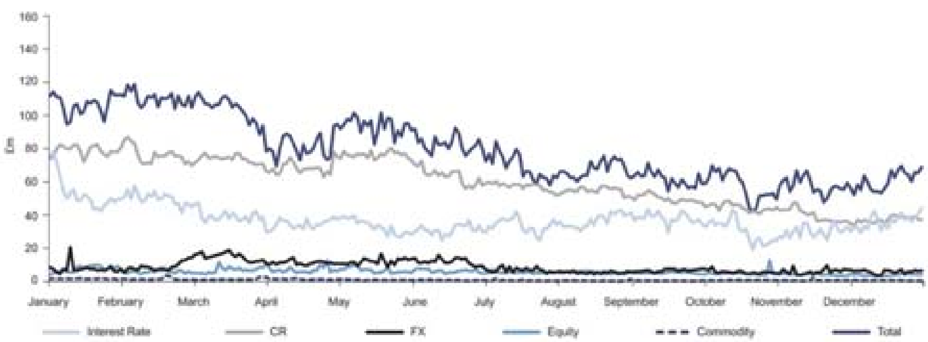
Recommendation 24: Provide qualitative and quantitative disclosures that describe significant market risk measurement model limitations, assumptions, validation procedures, use of proxies, changes in risk measures and models through time and descriptions of the reasons for back-testing exceptions

Market risk continued
Traded market risk continued
*VaR limitations**

Historical VaR and the Group's implementation of this risk measurement methodology have a number of known limitations, as summarised below, and the Group's VaR should be interpreted in light of these. The Group's approach is to supplement VaR with other risk metrics that address these limitations to ensure appropriate coverage of all material market risks.

- Historical simulation VaR may not provide the best estimate of future market movements. It can only provide a forecast of portfolio losses based on events that occurred in the past. The Group model uses the previous two years of data; this period represents a balance between model responsiveness to recent shocks and risk factor data coverage.
- The use of a 99% confidence level VaR statistic does not provide information about losses beyond this level, usually referred to as 'tail' risks. These risks are more appropriately assessed using measures such as Stressed VaR and stress testing.
- The use of a one-day time horizon will not fully capture the profit and loss implications of positions that cannot be liquidated or hedged within one day. This may not fully reflect market risk at times of severe illiquidity in the market when a one-day period may be insufficient to liquidate or hedge positions fully. Thus, the regulatory VaR that is used for modelled market risk capital uses a ten-day time horizon.
- When the Group uses ten-day risk factor changes in the calculation of the regulatory VaR, the ten-day periods overlap, which can introduce an autocorrelation bias in the 99% confidence level VaR statistic. The analysis performed has shown the bias to be small and acceptable for a ten-day period.
- The Group computes the VaR of trading positions at the close of business. Positions may change substantially during the course of the trading day and so intra-day price volatility and trading may not be captured by the model.
- The data used in the model are collected from global sources. For some sources, local end-of-day, rather than London end-of-day, data may be used. This timing mismatch is more material for 1-day return periods than for 10-day periods (which are used for capitalisation purposes) as the overlaps are inherently smaller across shorter periods. When deciding whether or not to use local end-of-day timing, the internal model review committee balances the principle of aligning the treatment of positions and their associated hedges against the goal of using London end-of-day timing consistently.
- Risk factors relevant to a specific portfolio may be omitted, due to a lack of reliable data, or the use of proxy risk factors, for example. The Group has developed the RNIV framework to address these issues.

1-Day 99% traded internal VaR graph, 2013.*



Note:
(1) The internal 99% 1-day VaR does not distinguish between regulator approved products and therefore includes a broader range of products. Refer to page 330 for discussion of regulatory VaR.

Market risk continued
Traded market risk continued
*VaR validation**

In addition to the independent VaR model reviews carried out by GRA (discussed on page 323), a dedicated model-testing team within Market Risk works with the risk managers to:

- Test the accuracy of the valuation methods used in the VaR model on appropriately chosen test portfolios and trades.
- Apply in-house models to perform advanced internal back-testing to complement the regulatory back-testing.
- Ensure that tests capture the effect of using external data proxies where these are used.
- Identify risks not adequately captured in VaR, and ensure that such risks are addressed via the RNIV framework (see page 328).
- Identify any model weaknesses or scope limitations and their impact.
- Identify and give early warning of any market or portfolio weakness that may become significant.

As well as being an important market risk measurement and control tool, the VaR model is also used to determine a significant component of the market risk capital requirement (see page 332 for more information on calculation of capital requirements). Therefore, it is subject to not only ongoing internal review and validation but also regulator-prescribed back-testing.

*VaR back-testing**

The main approach employed to assess the ongoing model performance is back-testing, which counts the number of days when a loss exceeds the corresponding daily VaR estimate, measured at a 99% confidence level.

There are two types of profit and loss (P&L) used in back-testing comparisons: Clean P&L and Hypothetical (Hypo) P&L.

The Clean P&L figure for a particular business day is the firm's actual P&L for that day in respect of the trading activities within the scope of the firm's regulatory VaR model, adjusted by stripping out:

- Fees and commissions;
- Brokerage;
- Additions to, and releases from, reserves that are not directly related to market risk; and
- Any Day 1 P&L exceeding an amount of £500,000 (per transaction).

The Hypo P&L reflects the firm's Clean P&L excluding any intra-day activities.

A portfolio is said to produce a back-testing exception when the Clean or Hypo P&L exceeds the VaR level on a given day. Such an event may be caused by a large market movement or may highlight issues such as missing risk factors or inappropriate time series. Any such issues identified are analysed and addressed through taking appropriate remediation or development action. The Group monitors both Clean and Hypo back-testing exceptions.

Regulatory back-testing is performed and reported on a daily basis for legal entities and major business portfolios. Divisional market risk teams also perform back-testing at the lower levels as part of the internal ongoing VaR model validation.

The back-testing described above primarily applies to Markets and Non-Core models, which are approved by the regulators. However, where appropriate, back-testing is also performed for other portfolios that are not subject to regulatory approval.

The graph below presents 1-day 99% regulatory VaR vs. Hypo P&L for RBS plc, the Group's largest legal entity by market risk RWAs and positions.

Partial disclosure shown

Source: RBS 2013 Annual Report, pp. 324-328 (324,326 shown)

Recommendation 24: Provide qualitative and quantitative disclosures that describe significant market risk measurement model limitations, assumptions, validation procedures, use of proxies, changes in risk measures and models through time and descriptions of the reasons for back-testing exceptions

VaR limitations

Actual realized market risk losses may differ from those implied by our VaR for a variety of reasons.

- The VaR measure is calibrated to a specified level of confidence and may not indicate potential losses beyond this confidence level.
- The 10-day time horizon used in the regulatory VaR measure, or one-day in the case of VaR used for internal management purposes, may not fully capture the market risk of positions that cannot be closed out or hedged within the specified period.
- In certain cases, VaR calculations approximate the impact of changes in risk factors on the values of positions and portfolios. This may happen because the number of risk factors included in the VaR model is necessarily limited. For example, yield curve risk factors do not exist for all future dates.
- The effect of extreme market movements is subject to estimation errors, which may result from non-linear risk sensitivities, as well as the potential for actual volatility and correlation levels to differ from assumptions implicit in the VaR calculations.
- The use of a five-year window means that sudden increases in market volatility will tend not to increase VaR as quickly as the use of shorter historical observation periods, but the increase will impact our VaR for a longer period of time. Similarly, following a period of increased volatility, as markets stabilize, VaR predictions will remain more conservative for a period of time influenced by the length of the historical observation period.

We recognize that no single measure may encompass the entirety of risks associated with a position or portfolio. Consequently, we employ a suite of various metrics with both overlapping and complementary characteristics in order to create a holistic framework which ensures material completeness of risk identification and measurement. As a statistical aggregate risk measure, VaR supplements our comprehensive stress testing framework.

Furthermore, we have an established framework to identify and quantify potential risks that are not fully captured by our VaR model. This framework is explained further on.

VaR model developments in 2013

We made no significant changes to the VaR model during 2013. During the year, we improved the VaR model by integrating selected risk-not-in-VaR items into the VaR model. The impact of incorporating these items into VaR was negligible.

Risks-not-in-VaR

Risks-not-in-VaR definition

We have an established framework to identify and quantify potential risk factors that are not fully captured by our VaR model. We refer to these risk factors as risks-not-in-VaR (RniV). This framework is used to underpin these potential risk factors with regulatory capital, calculated as a multiple of regulatory VaR and stressed VaR.

These RniV arise from approximations made by the VaR model to quantify the impact of risk factor changes on the profit and loss of positions and portfolios, as well as the use of proxies for certain market risk factors. We categorize RniV by means of items and keep track of which instrument classes are affected by each item.

When new types of instruments are included in the VaR population, we assess whether new items must be added to the inventory of RniV items.

Risks-not-in-VaR quantification

Risk officers perform a quantitative assessment for each position in the inventory of RniV items annually, as of a specific date. The assessment is made in terms of a 10-day 99%-VaR measure applied to the difference between the profit and loss scenarios which would have been produced based on our best estimate given available data, and the profit and loss scenarios generated by the current model used for the regulatory VaR calculation. Whenever the available market data allows, a historical simulation approach with five years of historical data is used to estimate the 10-day 99%-VaR for an item. Other eligible methods are based on analytical considerations or stress test and worst-case assessments. Statistical methods are used to aggregate the standalone risks, yielding a Group-level 10-day 99%-VaR estimate of the entire inventory of RniV items at the specific date. The ratio of this amount to regulatory VaR is used to produce estimates for arbitrary points in time by scaling the corresponding regulatory VaR figures with that fixed ratio. An analogous approach is applied for stressed VaR.

Risks-not-in-VaR mitigation

Material RniV items are monitored and controlled by means and measures other than VaR, such as position limits and stress limits. Additionally, there are ongoing initiatives to extend the VaR model to better capture these risks.

Derivation of RWA add-on for risks-not-in-VaR

This RniV framework is used to derive the RniV-based component of the market risk Basel III RWA, using the aforementioned approach, which is approved by FINMA and subject to an annual recalibration. As the RWA from RniV are add-ons, they do not reflect any diversification benefits across risks capitalized through VaR and stressed VaR.

In September 2013, following a new calibration approved by FINMA, RniV VaR capital was set at 58% of VaR capital, and RniV stressed VaR capital was set at 32% of stressed VaR capital, compared with prior ratios of 47% and 26% respectively. In addition, FINMA requires that RniV stressed VaR capital is floored at RniV VaR capital.

Based on the regulatory VaR and stressed VaR RWA noted above, the RniV RWA add-ons as of 31 December 2013 were CHF 1.0 billion and CHF 1.0 billion, respectively, compared with CHF 1.8 billion and CHF 1.5 billion as of 31 December 2012. The decreases in these RWA add-ons are due to the decreases in VaR and stressed VaR over the period, partially offset by the increases in the RniV VaR and stressed VaR add-on multipliers noted above.

Source: UBS Annual Report 2013, p192, 198

Recommendation 25: Describe market risk management techniques beyond VaR, such as stress tests, etc.

Summary of measures for non-traded market risk

Measure	Definition
Annual Earnings at Risk	Impact on earnings of a parallel (upward or downward) movement in interest rates.
Economic Value of Equity (EVE)	Change in the present value of the banking book of a parallel (upward or downward) interest rate shock.
Economic Capital	Economic Capital (EC) is held to protect against unexpected loss (in excess of expected loss) and calculated over a one year time horizon.
Value at Risk (VaR)	An estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for a set period of time.
Stress Testing	Scenario based stress testing using a variety of economic parameters to quantify the impact to P&L and the Balance Sheet under various levels of stress.

The risk in each business is measured and controlled using both an income metric (Annual Earnings at Risk) and value metrics (Economic Value of Equity, Economic Capital and VaR).

Annual Earnings at Risk (AEaR)
AEaR measures the sensitivity of net interest income over the next one year period. It is calculated as the difference between the estimated income using the current yield curve and the lowest estimated income following a parallel increase or decrease in interest rates (200bps), subject to a minimum interest rate of 0%. 200bp shocks are consistent with industry best practise and supported by banking regulators.

The main model assumptions are:

- The balance sheet is kept at the current level i.e. no growth is assumed; and
- Balances are adjusted for an assumed behavioural profile. This includes the treatment of fixed rate loans including mortgages.

AEaR is applied to the entire banking book, including the liquidity buffer and trades to hedge against non-traded market risk. The metric provides a measure of how interest rate risk may impact the Groups Profit & Loss, providing a simple comparison between risk and returns. The main disadvantage of the metric is its short term focus, as it only measures the impact on a position in the first 12 months. In order to counter this, the Group has implemented additional Economic Value risk metrics.

See page 195 for a review of AEaR in 2013.

Economic Value of Equity (EVE)
Economic Value of Equity (EVE) calculates the change in the present value of the banking book for a parallel upward and downward interest rate (200bps) shock. This shock is useful for drawing comparisons across portfolios, and is also a regulatory reporting requirement. Note that the EVE calculation measures sensitivity in terms of present value, while AEaR measures income sensitivity.

The EVE measure is applied to the entire banking book, including the liquidity buffer and trades to hedge against non-traded market risk and covers the full life of transactions and hedges, ensuring the risk over the whole life of positions are considered. The main weaknesses of this model stem from its simplicity. In particular, it does not capture the impact of business growth or of management actions and is based on the balance sheet as at the reporting date.

Economic Capital (for recruitment, prepayment and residual risk)
Economic Capital (EC) consistent models are used to measure unexpected losses to a 99.98% confidence interval over a 1 year period which reflects the level of confidence (consistent with the Bank's target AA rating). Within non-traded risk, this measure aims to capture recruitment risk, prepayment risk and residual risk for banking book products (see page 196). EC metrics typically measure variations in economic value from specific sources of risk, for example, prepayment risk EC for fixed rate mortgages predicts the cost of hedging to reduce any mismatch exposure resulting from the impact of an interest rate shock on customer prepayment levels.

EC is used in the active management of the banking book. Limits are set against EC metrics and breaches trigger mitigating actions to reduce exposure to appropriate levels. EC modelling is typically applied only to fixed rate products and the majority of variable rate and administered rate portfolios are not subject to an EC measure.

As part of the Group's risk appetite and limit framework, limits are set by product and portfolio for the three EC categories across each business unit. Each business unit, in line with Treasury, is tasked with managing the risk to within the levels that in practise involves ensuring any required pre or post hedging takes place in a timely fashion to minimise recruitment and residual risk.

An advantage of EC is that it can calculate unexpected losses to an appropriate degree of confidence given the nature of the risks and covers sources of loss beyond the scope of other models (for instance, AEaR only covers income changes over a one year period; EVE only considers existing business and does not include any dynamic customer behaviour assumptions). The main weaknesses come from necessary simplifying assumptions. In the case of models based on statistical confidence intervals, the choice of the statistical distribution may drive under-prediction of very extreme events (i.e. the real distribution may be "fat-tailed"). To mitigate this, the Group continues to improve its models using long time series of historical data to capture the extreme effects.

See page 196 for a review of EC in 2013.

Economic capital

As at 31 December	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Corporate Banking £m	Wealth and Investment Management £m	Total £m
2013							
Prepayment risk	29	–	–	10	2	–	41
Recruitment risk	111	–	–	2	1	–	114
Residual risk	6	13	38	4	1	3	65
2012							
Prepayment risk	38	–	–	13	2	–	53
Recruitment risk	27	–	–	1	1	–	29
Residual risk	5	15	35	2	1	1	59

Total Economic Capital (EC) increased by 56% to £220m, predominately due to the increase in recruitment risk, the risk that arises when the Group commits to providing a product at a predetermined price for a future period, but where the customer has no contractual obligation to take up the product. Recruitment risk EC in UK RBB increased from £27m to £111m driven by an increase in mortgage pre-hedging due to continuing high volumes (particularly in the five year term).

Non-traded market risk review

Net interest income sensitivity
The table below shows sensitivity analysis on the pre-tax net interest income for the non-trading financial assets and financial liabilities held at 31 December 2013 and 31 December 2012. The sensitivity has been measured using the Annual Earnings at Risk (AEaR) methodology as described on page 413. The benchmark interest rate for each currency is set as at 31 December 2013. The effect of structural hedging is taken into account.

Net interest income sensitivity (AEaR) by business unit

As at 31 December	UK RBB £m	Europe RBB £m	Africa RBB £m	Barclaycard £m	Corporate Banking £m	Wealth and Investment Management £m	Other[a] £m	Total £m
2013								
+200bps	219	9	19	(84)	101	53	(92)	225
+100bps	118	5	9	(42)	50	27	(57)	110
-100bps	(140)	(1)	(8)	25	(160)	(15)	56	(243)
-200bps	(160)	(1)	(15)	26	(170)	(22)	49	(293)
2012								
+200bps	254	(3)	62	(99)	83	51	22	370
+100bps	135	(2)	29	(49)	41	25	3	182
-100bps	(175)	2	(25)	27	(143)	(15)	(45)	(374)
-200bps	(214)	2	(50)	18	(147)	(16)	(26)	(433)

Total AEaR to a +200bp shock decreased by 39% to £225m (2012: £370m), and to a -200bp shock, total AEaR decreased by 32% to £(293)m (2012: £(433)m). The drivers of these differences were predominantly due to large changes in UK RBB, Africa RBB and Other.

The change in UK RBB was due to a reduction in savings margin compression sensitivity due to additional hedges being transacted and a change in modelling pricing assumptions for Managed Rate Deposits in that they will follow market movements more closely.

The change in Africa RBB was primarily due to exchange rates and a reduction in asset and liability mismatch positions.

The change in Other was a combination of changes in the equity structural hedge durations (across GBP, EUR and USD) and a change in the hedge ineffectiveness sensitivity driven by increases in hedge positions (partly due to the rights issue in 2013).

Banking book exposures held or issued by the Investment Bank are excluded as these are measured and managed using VaR. AEaR to 100bp shocks decreased for the same reasons as outlined above and is split by currency in the table below.

Net interest income sensitivity (AEaR) by currency (audited)

As at 31 December	2013 +100 bps £m	2013 -100 bps £m	2012 +100 bps £m	2012 -100 bps £m
GBP	92	(199)	96	(273)
USD	9	(21)	30	(23)
EUR	(18)	(7)	20	(49)
ZAR	10	(9)	27	(25)
Other currencies	17	(7)	9	(4)
Total	110	(243)	182	(374)
As percentage of net interest income	0.95%	(2.09%)	1.56%	(3.21%)

Barclays measure some non-traded market risks using an Economic Capital (EC) methodology. EC is predominantly calculated using a daily VaR model and then scaled up to a 1 year EC confidence interval (99.98%). For more information on definitions of prepayment, recruitment and residual risk, and on how EC is used to manage market risk, see the market risk management section on page 413.

Analysis of equity sensitivity
The table below measures the overall impact of a +/- 100bps movement in interest rates on available for sale and cash flow hedge reserves. This data is captured using PV01 (Present Value of 1bp) which is an indicator of the shift in asset value for a 1bp shift in the yield.

Analysis of equity sensitivity (audited)

As at 31 December	2013 +100 bps £m	2013 -100 bps £m	2012 +100 bps £m	2012 -100 bps £m
Net interest income	110	(243)	182	(374)
Taxation effects on the above	(27)	61	(51)	105
Effect on profit for the year	83	(182)	131	(269)
As percentage of net profit after tax	6.40%	(14.03%)	72.38%	(148.62%)
Effect on profit for the year (per above)	83	(182)	131	(269)
Available for sale reserve	(861)	861	(673)	673
Cash flow hedge reserve	(2,831)	2,808	(2,179)	2,260
Taxation effects on the above	923	(917)	799	(821)
Effect on equity	(2,686)	2,570	(1,922)	1,843
As percentage of equity	(4.20%)	4.02%	(3.20%)	3.07%

The higher sensitivity on AFS reserves is driven by an increase in debt securities held for liquidity purposes. The higher sensitivity on cash flow hedge reserves is driven by an increased volume of positions during the period.

Source: Barclays 2013 Annual Report, pp. 196-197, 413-414

Recommendation 25: Describe market risk management techniques beyond VaR, such as stress tests, etc.

7.2.1.6. Analysis of scenarios
Various stress scenarios were calculated and analysed regularly in 2013 (at least every month) at the local and global levels for all the trading portfolios and using the same suppositions by risk factor.

Maximum volatility scenario (worst case)
This scenario is given particular attention as it combines historic movements of risk factors with an ad-hoc analysis in order to reject very unlikely combinations of variations (for example, sharp falls in stock markets together with a decline in volatility). As regards the variations, an historic volatility equivalent to six typical deviations is applied. The scenario is defined by taking for each risk factor the movement which represents the greatest potential loss in the portfolio, rejecting the most unlikely combinations in economic-financial terms. For year-end, that scenario implied, for the global portfolio, interest rate rises, falls in stock markets, depreciation of all currencies against the euro, rise in credit spreads and mixed volatility movements. The following table shows the results of this scenario at the end of 2013.

MAXIMUM VOLATILITY STRESS SCENARIO (WORST CASE)
Million euros, 31 Dec 2013

	Interest rates	Equities	Exchange rates	Credit Spread	Commodities	Total
Total trading	**(51.3)**	**(21.5)**	**(27.3)**	**(30.3)**	**(0.2)**	**(130.6)**
Europe	(17.2)	(7.7)	(14.5)	(24.5)	(0.2)	(64.1)
Latin America	(30.4)	(13.8)	(12.7)	0.0	0.0	(56.9)
US	(2.5)	0.0	(0.1)	0.0	0.0	(2.6)
Global activities	(1.2)	0.0	0.0	(5.8)	0.0	(7.0)

The stress test shows that the economic loss suffered by the Group in its trading portfolios, in terms of the Mark to Market (MtM) result would be, if the stress movements defined in the scenario materialized, EUR 130.6 million, a loss that would be concentrated in Europe (in this order, credit spreads, interest rates and exchange rates) and Latin America (interest rates, equities and exchange rates).

Other global stress test scenarios
Various global scenarios (similar for all the Group's units) are established:

Abrupt crisis: ad hoc scenario with very sudden movements in markets. Rise in interest rate curves, sharp falls in stock markets, large appreciation of the dollar against the rest of currencies, rise in volatility and in credit spreads.

Crisis 11S: historic scenario of the 11 September 2001 attacks with a significant impact on the US and global markets. It is sub-divided into two scenarios: 1) maximum accumulated loss until the worst moment of the crisis and 2) maximum loss in a day. In both cases, there are drops in stock markets and in interest rates in core markets and rises in emerging markets, and the dollar appreciates against the rest of currencies.

Subprime crisis: Historic scenario of the US mortgage crisis. The objective of the analysis is to capture the impact on results of the reduction in liquidity in the markets. The scenarios have two time frames (one day and 10 days): in both cases there are drops in stock markets and in interest rates in core markets and rises in emerging markets, and the dollar appreciates against the rest of currencies.

Sovereign crisis: the severest historic scenario by the Committee of European Banking Supervisors (CEBS) to measure the market's shock capacity between 15 April and 1 September 2010. Given the Group's international sphere, four geographic zones are distinguished (US, Europe, Latin America and Asia), interest rate rises, falls in stock markets and volatilities are established, rises in credit spreads and depreciation of the euro and Latin American currencies and appreciation of Asian currencies against the dollar.

Every month a consolidated stress test report is drawn up with explanations of the main changes in results for the various scenarios and units supervised by the global committee of market risks. An early warning mechanism has also been established so than when the loss of a scenario is high in historic terms and/or the capital consumed by the portfolio in question, the relevant business executive is informed.

STRESS TEST RESULTS: COMPARISON OF THE 2011-2013 SCENARIOS (ANNUAL AVERAGES)
Million euros

For the first time another risk metric is shown, the expected shortfall. Its proximity to VaR shows that the risk of high losses of tail risk is not high, at least bearing in mind the historic window of the last two years.

The average VaR increased a little in 2013 by EUR 2.5 million, although if compared with the year-end figures VaR declined by EUR 5.4 million. By risk factor, the average VaR increased in interest rates, credit spreads and exchange rates, and declined in equities and commodities. By geographic zone, it rose in Europe and Latin America and dropped in the United States and Asia and global activities.

Risk by factor
The average and year-end values in VaR terms at 99% for the last three years as well as their minimum and maximum values and the expected shortfall (ES) at 97.5%[19] in 2013 were as follows:

VAR STATISTICS BY RISK FACTOR[20, 21]
Million euros. VaR at 99% with a time frame of one day

		2013					2012		2011	
		VaR (99%)				ES (97.5%)	VaR		VaR	
		Minimum	Average	Maximum	Year-end	Year-end	Average	Year-end	Average	Year-end
Total trading	**Total VaR**	**9.4**	**17.4**	**25.6**	**13.1**	**13.4**	**14.9**	**18.5**	**22.4**	**15.9**
	Diversification effect	(9.6)	(16.2)	(34.7)	(12.3)	(12.3)	(15.2)	(13.5)	(21.8)	(16.7)
	Interest rate VaR	8.1	12.7	21.3	8.5	8.4	11.8	12.0	14.8	14.6
	Equity VaR	2.1	5.6	11.7	4.7	4.5	7.0	7.1	4.8	3.7
	FX VaR	1.6	5.4	14.5	4.7	4.8	5.0	3.5	9.0	4.2
	Credit spread VaR	6.1	9.6	16.4	7.2	7.5	6.1	9.1	15.0	9.6
	Commodities VaR	0.1	0.3	0.7	0.3	0.4	0.4	0.3	0.6	0.4
Europe	**Total VaR**	**8.2**	**13.9**	**21.6**	**9.9**	**9.7**	**11.0**	**16.4**	**15.5**	**10.1**
	Diversification effect	(7.6)	(14.1)	(26.8)	(9.0)	(9.6)	(12.9)	(9.9)	(15.1)	(13.0)
	Interest rate VaR	6.1	9.3	18.5	6.6	6.4	7.9	6.8	11.5	11.9
	Equity VaR	1.6	4.3	9.2	2.6	2.5	6.2	6.3	3.9	3.6
	FX VaR	1.4	5.2	14.2	3.7	4.0	4.1	4.0	8.5	3.9
	Credit spread VaR	4.2	9.0	15.1	5.8	6.0	5.4	8.9	6.0	3.3
	Commodities VaR	0.1	0.3	0.7	0.3	0.4	0.4	0.3	0.6	0.4
Latin America	**Total VaR**	**3.9**	**11.1**	**24.1**	**6.9**	**7.4**	**10.1**	**8.9**	**11.7**	**10.7**
	Diversification effect	(1.2)	(5.3)	(16.1)	(6.7)	(7.4)	(6.4)	(3.8)	(6.4)	(8.7)
	Interest rate VaR	3.6	9.6	22.1	5.9	7.4	8.8	8.8	11.2	10.5
	Equity VaR	0.8	3.2	8.1	2.9	2.8	3.1	1.6	3.5	2.2
	FX VaR	0.7	3.5	11.7	4.7	4.6	3.1	1.3	3.7	1.2
US & Asia	**Total VaR**	**0.4**	**0.8**	**1.7**	**0.5**	**0.5**	**0.9**	**0.8**	**1.2**	**0.9**
	Diversification effect	0.0	(0.4)	(1.1)	(0.2)	(0.2)	(0.5)	(0.3)	(0.5)	(0.4)
	Interest rateVaR	0.3	0.7	1.5	0.5	0.5	0.7	0.6	0.9	0.9
	Equity VaR	0.0	0.1	1.8	0.0	0.0	0.2	0.1	0.1	0.1
	FX VaR	0.1	0.4	1.2	0.2	0.2	0.6	0.4	0.6	0.4

STRESSED VAR STATISTICS VERSUS VAR IN 2013: TREASURIES IN SPAIN AND BRAZIL
Million euros. Stressed VaR and VaR at 99% with time frame of one day

		2013			
		Minimum	Average	Maximum	Year-end
Spain	VaR (99%)	5.4	10.7	19.3	6.0
	Stressed VaR (99%)	7.4	12.2	22.2	14.8
Brazil	VaR (99%)	5.0	9.1	22.6	5.3
	Stressed VaR (99%)	5.1	17.2	48.3	12.1

Source: Santander Annual Report 2013, pp 215-216, 221-222

Section 6

Credit risk

Recommendation 26: Summarize credit risk profile, including significant credit risk concentrations. This should include a quantitative summary of aggregate credit risk exposures that reconciles to the balance sheet

Loans Outstanding

In millions of dollars	**2013**	2012	2011	2010	2009
Consumer loans					
In U.S. offices					
Mortgage and real estate [1]	**$108,453**	$125,946	$139,177	$151,469	$183,842
Installment, revolving credit, and other	**13,398**	14,070	15,616	28,291	58,099
Cards	**115,651**	111,403	117,908	122,384	28,951
Commercial and industrial	**6,592**	5,344	4,766	5,021	5,640
Lease financing	**—**	—	1	2	11
	$244,094	$256,763	$277,468	$307,167	$276,543
In offices outside the U.S.					
Mortgage and real estate [1]	**$ 55,511**	$ 54,709	$ 52,052	$ 52,175	$ 47,297
Installment, revolving credit, and other	**33,182**	33,958	32,673	36,132	39,859
Cards	**36,740**	40,653	38,926	40,948	41,493
Commercial and industrial	**24,107**	22,225	21,915	18,028	17,129
Lease financing	**769**	781	711	665	331
	$150,309	$152,326	$146,277	$147,948	$146,109
Total Consumer loans	**$394,403**	$409,089	$423,745	$455,115	$422,652
Unearned income	**(572)**	(418)	(405)	69	808
Consumer loans, net of unearned income	**$393,831**	$408,671	$423,340	$455,184	$423,460
Corporate loans					
In U.S. offices					
Commercial and industrial	**$ 32,704**	$ 26,985	$ 20,830	$ 13,669	$ 15,614
Loans to financial institutions	**25,102**	18,159	15,113	8,995	6,947
Mortgage and real estate [1]	**29,425**	24,705	21,516	19,770	22,560
Installment, revolving credit, and other	**34,434**	32,446	33,182	34,046	17,737
Lease financing	**1,647**	1,410	1,270	1,413	1,297
	$123,312	$103,705	$ 91,911	$ 77,893	$ 64,155
In offices outside the U.S.					
Commercial and industrial	**$ 82,663**	$ 82,939	$ 79,764	$ 72,166	$ 67,344
Loans to financial institutions	**38,372**	37,739	29,794	22,620	15,113
Mortgage and real estate [1]	**6,274**	6,485	6,885	5,899	9,779
Installment, revolving credit, and other	**18,714**	14,958	14,114	11,829	9,683
Lease financing	**527**	605	568	531	1,295
Governments and official institutions	**2,341**	1,159	1,576	3,644	2,949
	$148,891	$143,885	$132,701	$116,689	$106,163
Total Corporate loans	**$272,203**	$247,590	$224,612	$194,582	$170,318
Unearned income	**(562)**	(797)	(710)	(972)	(2,274)
Corporate loans, net of unearned income	**$271,641**	$246,793	$223,902	$193,610	$168,044
Total loans—net of unearned income	**$665,472**	$655,464	$647,242	$648,794	$591,504
Allowance for loan losses—on drawn exposures	**(19,648)**	(25,455)	(30,115)	(40,655)	(36,033)
Total loans—net of unearned income and allowance for credit losses	**$645,824**	$630,009	$617,127	$608,139	$555,471
Allowance for loan losses as a percentage of total loans—net of unearned income [2]	**2.97%**	3.92%	4.69%	6.31%	6.09%
Allowance for Consumer loan losses as a percentage of total Consumer loans—net of unearned income [2]	**4.34%**	5.57%	6.45%	7.81%	6.69%
Allowance for Corporate loan losses as a percentage of total Corporate loans—net of unearned income [2]	**0.97%**	1.14%	1.31%	2.75%	4.57%

(1) Loans secured primarily by real estate.
(2) All periods exclude loans that are carried at fair value.

North America Residential First Mortgages—State Delinquency Trends

The following tables set forth, for total Citigroup, the six states and/or regions with the highest concentration of Citi's residential first mortgages as of December 31, 2013 and December 31, 2012.

In billions of dollars	**December 31, 2013**					December 31, 2012				
State [1]	**ENR [2]**	**ENR Distribution**	**90+DPD %**	**% LTV > 100%**	**Refreshed FICO**	ENR [2]	ENR Distribution	90+DPD %	% LTV > 100%	Refreshed FICO
CA	**$19.2**	**30%**	**1.0%**	**4%**	**738**	$21.1	28%	2.1%	23%	730
NY/NJ/CT [3]	**11.7**	**18**	**2.6**	**3**	**733**	11.6	16	4.0	8	723
IN/OH/MI [3]	**3.1**	**5**	**3.9**	**21**	**659**	4.0	5	5.5	31	655
FL [3]	**3.1**	**5**	**4.4**	**25**	**688**	3.8	5	8.1	43	676
IL [3]	**2.7**	**4**	**3.8**	**16**	**703**	3.1	4	5.8	34	694
AZ/NV	**1.5**	**2**	**2.7**	**25**	**710**	1.9	3	4.8	50	702
Other	**23.1**	**36**	**4.1**	**8**	**671**	29.7	39	5.4	15	667
Total	**$64.4**	**100%**	**2.9%**	**8%**	**705**	$75.4	100%	4.4%	20%	692

Note: Totals may not sum due to rounding.
(1) Certain of the states are included as part of a region based on Citi's view of similar HPI within the region.
(2) Ending net receivables. Excludes loans in Canada and Puerto Rico, loans guaranteed by U.S. government agencies, loans recorded at fair value and loans subject to LTSCs. Excludes balances for which FICO or LTV data are unavailable.
(3) New York, New Jersey, Connecticut, Indiana, Ohio, Florida and Illinois are judicial states.

Emerging Markets Exposures

Citi generally defines emerging markets as countries in *Latin America*, *Asia* (other than Japan, Australia and New Zealand), central and eastern Europe, the Middle East and Africa.

The following table presents Citicorp's principal emerging markets assets as of December 31, 2013. For purposes of the table below, loan amounts are based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. Trading account assets and investment securities are categorized below based on the domicile of the issuer of the security or the underlying reference entity.

	As of December 31, 2013					**GCB NCL Rate**	
In billions of dollars	**Aggregate [1]**	**Trading Account Assets [2]**	**Investment Securities [3]**	***ICG* Loans [4][5]**	***GCB* Loans [4]**	**2013**	**2012**
Mexico	**$74.2**	**$ 5.7**	**$27.6**	**$ 9.6**	**$31.3**	**4.0%**	3.5%
Korea	**39.9**	**(0.9)**	**12.1**	**4.8**	**23.9**	**1.1**	1.1
India	**27.7**	**3.0**	**6.7**	**10.3**	**7.7**	**0.7**	0.6
Singapore	**27.0**	**0.2**	**6.6**	**8.2**	**12.0**	**0.3**	0.3
Hong Kong	**25.7**	**1.8**	**3.7**	**9.8**	**10.4**	**0.4**	0.4
Brazil [6]	**25.6**	**3.3**	**3.8**	**14.4**	**4.1**	**6.0**	7.0
China	**20.8**	**0.9**	**3.1**	**12.1**	**4.7**	**0.2**	0.6
Taiwan	**14.4**	**1.2**	**1.1**	**5.2**	**6.9**	**0.0**	0.0
Poland	**11.2**	**0.4**	**6.0**	**2.0**	**2.8**	**0.1**	0.7
Russia	**10.3**	**0.7**	**1.4**	**6.5**	**1.7**	**1.6**	1.1
Malaysia	**8.9**	**1.2**	**0.5**	**1.7**	**5.5**	**0.7**	0.8
Indonesia	**6.4**	**0.2**	**0.6**	**4.3**	**1.3**	**2.5**	3.8
Colombia	**5.4**	**0.5**	**0.6**	**1.8**	**2.5**	**5.2**	3.4
Turkey [7]	**4.9**	**0.0**	**1.7**	**2.4**	**0.8**	**0.0**	0.7
Thailand	**4.8**	**0.3**	**1.5**	**0.9**	**2.1**	**1.7**	1.5
UAE	**4.1**	**(0.1)**	**0.1**	**2.8**	**1.3**	**2.5**	3.1
Philippines	**3.1**	**0.3**	**0.3**	**1.5**	**1.0**	**4.2**	4.7
Argentina	**2.8**	**0.1**	**0.0**	**1.6**	**1.1**	**1.0**	0.9
Czech Republic	**2.4**	**0.2**	**0.6**	**1.0**	**0.6**	**1.3**	1.5
Hungary	**2.2**	**0.3**	**1.1**	**0.4**	**0.4**	**1.5**	2.2

(1) Aggregate of *Trading account assets*, investment securities, *ICG* loans and *GCB* loans.
(2) Trading account assets are shown on a net basis. Citi's trading account assets will vary as it maintains inventory consistent with customer needs.
(3) Investment securities include securities available for sale, recorded at fair market value, and securities held to maturity, recorded at historical cost.
(4) Reflects funded loans, net of unearned income. In addition to the funded loans disclosed in the table above, through its *ICG* businesses, Citi had unfunded commitments to corporate customers in the emerging markets of approximately $37 billion as of December 31, 2013; no country accounted for more than $4 billion of this amount.
(5) As of December 31, 2013, non-accrual loans represented 0.5% of total *ICG* loans in the emerging markets. For the countries included in the table above, non-accrual loans ratios as of December 31, 2013 ranged from 0.0% to 0.8%, other than in Hong Kong. In Hong Kong, the non-accrual loan ratio was 2.5% as of December 31, 2013, primarily reflecting the impact of one counterparty.
(6) *GCB* loans and net credit loss (NCL) rates in Brazil exclude Credicard loans; Credicard was sold in December 2013.
(7) Investment securities in Turkey include Citi's $1.2 billion investment in Akbank. Citi sold its Consumer operations in Turkey in 2013. For additional information on Citi's remaining investment in Akbank, see Note 14 to the Consolidated Financial Statements.

Citigroup presents a summary of credit risk related to loans outstanding, including details regarding specific credit risk for concentrations such as residential first mortgages and emerging markets

Source: Citigroup Inc. 2013 Annual Report, p75-88, 121

Recommendation 26: Summarize credit risk profile, including significant credit risk concentrations. This should include a quantitative summary of aggregate credit risk exposures that reconciles to the balance sheet

Corporate credit risk disclosure

This table presents READ, segmented by relevant factors, and the analysis for the exposure class 'Corporates'. The Industry breakdown for this table is based on the NAICS system (North American Industry Classification System).

Corporate - credit risk disclosure in READ

		2013	2012	Delta %
Corporate	**Total per rating**	**216,408**	241,043	–10.2%
	Performing	**206,452**	231,535	–10.80%
	Impaired/Non-performing	**9,956**	9,508	4.70%
Corporate	**Geography/business units**	**216,408**	241,043	–10.20%
	Africa	**727**	731	–0.60%
	America	**23,626**	28,573	–17.30%
	Asia	**20,464**	22,074	–7.30%
	Australia	**2,722**	3,333	–18.30%
	Europe	**168,870**	186,332	–9.40%
	Europe	**168,870**	186,332	–9.40%
	Netherlands	**56,425**	64,952	–13.10%
	Belgium	**29,840**	31,772	–6.10%
	Germany	**5,154**	6,005	–14.20%
	Rest of Europe	**77,450**	83,604	–7.40%
Corporate	**Industry**	**216,408**	241,043	–10.20%
	Real Estate	**42,279**	51,371	–17.70%
	Natural Resources	**37,046**	41,665	–11.10%
	Transportation & Logistics	**21,434**	9,252	131.70%
	Food, Beverages & Personal Care	**15,717**	22,060	–28.80%
	Services	**15,109**	18,084	–16.50%
	Other	**84,823**	98,611	–14.00%
Corporate	**PD Bands**	**216,408**	241,043	–18.40%
	<0.05%	**9,106**	13,989	–34.90%
	0.05% to 0.5%	**92,315**	89,922	–19.20%
	0.5% to 5%	**84,089**	104,606	–19.60%
	5% to 10%	**7,235**	9,059	–20.10%
	10% to 20%	**5,531**	7,026	–21.30%
	20% to 50%	**8,170**	6,820	19.80%
	more than >50%	**9,961**	9,620	3.50%

Includes both AIRB and SA portfolios; excludes equities and ONCOA.

Retail credit risk disclosure

This table presents the READ, segmented by relevant factors, and the analysis for the exposure class 'Retail'.

Retail credit risk disclosure in READ

		2013	2012	Delta %
Retail	**Total per rating**	**330,598**	353,007	–6.30%
	Performing	**324,411**	347,508	–6.60%
	Impaired/Non-performing	**6,187**	5,499	12.50%
Retail	**Customer Segment**	**330,598**	353,007	–6.30%
	Private Persons	**302,437**	321,384	–5.90%
	Small Mid-sized Enterprises	**20,372**	22,281	–8.60%
	Private Banking	**3,536**	3,553	19.70%
	Other	**4,253**	5,790	–38.90%
Retail	**Geography/business units**	**330,598**	353,007	–6.30%
	Africa	**58**	57	1.00%
	America	**177**	146	20.60%
	Asia	**1,728**	1,684	2.60%
	Australia	**28,451**	34,438	–17.40%
	Other		30	–100.00%
	Europe	**300,184**	316,652	–5.20%
	Europe	**300,184**	316,652	–5.20%
	Netherlands	**152,254**	164,777	–7.60%
	Belgium	**40,278**	39,703	1.40%
	Germany	**71,358**	68,457	4.20%
	Rest of Europe	**36,294**	43,715	–17.00%
Retail	**PD Bands**	**330,598**	353,007	–6.30%
	<0.05%	**23,185**	22,009	5.30%
	0.05% to 0.5%	**184,925**	192,850	–4.10%
	0.5% to 5%	**100495**	113,563	–11.50%
	5% to 10%	**5,804**	8,525	–31.90%
	10% to 20%	**5,529**	6,792	–18.60%
	20% to 50%	**3,571**	3,769	–5.30%
	more than >50%	**7,088**	5,499	28.90%

Includes both AIRB and SA portfolios; excludes equities and ONCOA.

The off balance commitment calculations, which is a factor of the READ, has now been brought more in line with the actual experience for the best rated Corporates and Institutions portfolios, resulting in a significant READ decrease. ING now has a long track record of showing that it is too conservative as a minimal amount of guarantees and LC's has been called resulting in a significant READ decrease. The targeted reduction of the REF portfolio, the sale of ING's Real Estate Finance (US) assets to Wells Fargo and the further decline of the ING Lease run-off portfolio have contributed to the decline and have led to an improvement of the risk profile of the Corporates portfolio.

ING provides additional granularity on credit risk concentrations for retail and consumer lending by geography and industry in a subsequent section; however, balances shown do not reconcile to the balance sheet

Source: ING Annual Report 2013, p390 - 391

Recommendation 27: Policies for identifying impaired or non-performing loans, including how the bank defines impaired or non-performing, restructured and returned-to-performing (cured) loans as well as explanations of loan forbearance policies (1 of 2)

F. Treatment of customers experiencing financial stress

The Group operates a number of schemes to assist borrowers who are experiencing financial stress. The material elements of these schemes are described in the Risk Management report on pages 137 and 138 and further details relating to those cases where the Group has granted a concession, whether temporarily or permanently, are set out below.

Retail customers

Forbearance activities

The Group classifies the treatments offered to retail customers who have experienced financial difficulty into the following categories:

- *Reduced contractual monthly payment:* a temporary account change to assist customers through periods of financial difficulty where arrears do not accrue at the original contractual payments, for example temporary interest only arrangements and short-term payment holidays granted in collections. Any arrears existing at the commencement of the arrangement are retained;
- *Reduced payment arrangements:* a temporary arrangement for customers in financial distress where arrears accrue at the contractual payment, for example short-term arrangements to pay;
- *Term extensions:* a permanent account change for customers in financial distress where the overall term of the mortgage is extended resulting in a lower contractual monthly payment; and
- *Repair:* a permanent account change used to repair a customer's position where they have emerged from financial difficulty, for example capitalisation of arrears.

Customers receiving support from UK Government sponsored programmes

The Group participates in a number of UK Government sponsored programmes designed to support households, which are described on page 137. Where these schemes provide borrowers with a state benefit that is used to service the loan, there is no change in the reported status of the loan which is managed and reported in accordance with its original terms.

The Group assesses whether a loan benefitting from a UK Government sponsored programme is impaired using the same accounting policies and practices as it does for loans not benefitting from such a programme. There is no direct impact on the impairment status of a loan benefitting from the Mortgage Rescue schemes, as these schemes involve the purchase, and eventual sale, of the property. The loans included within the Income Support for Mortgage Interest scheme may be impaired, in accordance with the normal definition of impairment.

The Income Support for Mortgage Interest scheme remains the most successful of the Government backed schemes. It is the longest-running, is the most widely known and provides both the customer and the Group with an assurance as to the maintenance of at least two years' worth of interest payments. The Group estimates that customers representing approximately £2.6 billion of its mortgage exposures are receiving this benefit. This includes those who are also receiving other treatments for financial difficulty.

Customers in financial difficulty receiving support under other schemes

The Group measures the success of a forbearance scheme based upon the proportion of customers maintaining or improving their arrears position over the 12 months following the exit from a forbearance treatment. For temporary treatments, 87 per cent of customers who have accepted temporary interest-only concessions and 75 per cent of customers accepting reduced payment arrangements have maintained or improved their arrears position. For permanent treatments, 77 per cent of customers who have accepted capitalisations of arrears and 40 per cent of customers who have accepted term extensions have maintained or improved their arrears position.

Forbearance identification and classification

The Group has applied revised forbearance definitions based upon principles developed through the British Bankers' Association. As a result of this, forbearance data for 2012 has been restated to reflect the new definitions. The restated data for 2012 shows overall forbearance balances to be higher than previous financial statements as the balances now include accounts which are no longer on a forbearance treatment, but where the exposure is known to be, or may still be, in financial difficulty.

The Group classifies a retail account as forborne at the time a customer in financial difficulty is granted a concession. Accounts are classified as forborne only for the period of time which the exposure is known to be, or may still be, in financial difficulty. Where temporary forbearance is granted, exit criteria are applied to include accounts until they are known to no longer be in financial difficulty. Details of the exit criteria are shown in the analysis below. Where the treatment involves a permanent change to the contractual basis of the customer's account such as a capitalisation of arrears or term extension, the Group classifies the balance as forborne for a period of 24 months, after which no distinction is made between these accounts and others where no change has been made.

Secured retail lending – UK

At 31 December 2013, retail secured loans and advances currently or recently subject to forbearance were 2.0 per cent (31 December 2012: 2.9 per cent) of total retail secured loans and advances. The Group no longer offers temporary interest only as a forbearance treatment to secured lending customers in financial difficulty, which is the primary driver of the reduction in forbearance balances in 2013. Further analysis of the forborne loan balances is set out below.

	Total loans and advances which are currently or recently forborne		Total current and recent forborne loans and advances which are impaired[1]		Impairment provisions as % of loans and advances which are currently or recently forborne	
	2013 £m	2012[2] £m	2013 £m	2012[2] £m	2013 %	2012[2] %
At 31 December						
Temporary forbearance arrangements						
Reduced contractual monthly payment[3]	995	4,514	226	538	4.0	2.5
Reduced payment arrangements[4]	1,376	1,412	160	320	3.2	4.0
	2,371	5,926	386	858	3.5	2.8
Permanent treatments						
Repair and term extensions[5]	4,008	3,565	305	289	3.4	3.9
Total	6,379	9,491	691	1,147	3.4	3.2
Included in the total above:						
Temporary arrangements currently on treatment	1,100	3,103	179	516	3.4	3.7
Permanent treatments within last 12 months	2,187	1,913	78	90	3.1	4.3

[1] £5,688 million of current and recent forborne loans and advances were not impaired at 31 December 2013 (31 December 2012: £8,344 million).

[2] Restated to reflect the change in forbearance probation periods. Previously only temporary arrangements in place at the year end and permanent changes commenced during the year were shown.

[3] Includes temporary interest only arrangements and short-term payment holidays granted in collections where the customer is currently benefitting from the treatment and where the concession has ended within the previous six months (temporary interest only) and previous 12 months (short-term payment holidays).

[4] Includes customers who had an arrangement to pay less than the contractual amount at 31 December or where an arrangement ended within the previous three months.

[5] Includes capitalisation of arrears and term extensions which commenced during the previous 24 months and remaining as customers at the year end.

Collective impairment assessment of retail secured loans subject to forbearance

Loans which are forborne are grouped with other assets with similar risk characteristics and assessed collectively for impairment as described below. The loans are not considered as impaired loans unless they meet the Group's definition of an impaired asset.

The Group's approach is to ensure that provisioning models, supported by management judgement, appropriately reflect the underlying loss risk of exposures. The Group uses sophisticated behavioural scoring to assess customers' credit risk. The underlying behavioural scorecards consider many different characteristics of customer behaviour, both static and dynamic, from internal sources and also from credit bureaux data, including characteristics that may identify when a customer has been in arrears on products held with other firms. Hence, these models take a range of potential indicators of customer financial distress into account.

The performance of such models is monitored and challenged on an ongoing basis, in line with the Group's model governance policies. The models are also regularly recalibrated to reflect up to date customer behaviour and market conditions. Specifically, regular detailed analysis of modelled provision outputs is undertaken to demonstrate that the risk of forbearance or other similar activities is recognised, that the outcome period adequately captures the risk and that the underlying risk is appropriately reflected. Where this is not the case, additional provisions are applied to capture the risk.

Source: Lloyds Banking Group Annual Report 2013, p340-346

Recommendation 27: Policies for identifying impaired or non-performing loans, including how the bank defines impaired or non-performing, restructured and returned-to-performing (cured) loans as well as explanations of loan forbearance policies (2 of 2)

Commercial customers

Forbearance

A key factor in determining whether the Group treats a commercial customer as forborne is the granting of a concession to a borrower who is in financial difficulty.

Loans that have been renegotiated and/or restructured for solely commercial reasons, where there is no financial difficulty would not be treated as forborne. The Group does not believe the concept of forbearance attaches to the trading book where assets are marked to market daily.

The Group recognises that forbearance alone is not necessarily an indicator of impaired status but is a trigger for the review of the customer's credit profile. The Group grants forbearance when it believes that there is a realistic prospect of the customer continuing to be able to repay all facilities in full. If there is any concern over future cash flows and the Group incurring a loss, then forborne loans will be classified as impaired in accordance with the Group's impairment policy.

Recovery can sometimes be through improvement in market or economic conditions, or the customer may benefit from access to alternative sources of liquidity such as an equity injection. These can be especially relevant in real estate or other asset backed transactions where a fire sale of assets in a weak market may be unattractive.

Depending on circumstances and when operated within robust parameters and controls, the Group believes forbearance can help support the customer in the short to medium-term.

Therefore the Group expects to have unimpaired forborne assets within its portfolios, although as noted below, these are specifically controlled and managed. Unimpaired forborne assets are included in calculating the overall collective unimpaired provision, and which uses the historical observed default rate of the portfolio as a whole as part of its calculation.

Types of forbearance

Forbearance treatments may include changes to:

- Contractual payment terms (for example loan extensions, or changes to debt servicing terms), and
- Non-payment contractual terms (for example covenant amendments or waivers) where the modifications enable default to be avoided.

The four main types of forbearance concessions to commercial customers in financial difficulty are set out below:

- Covenants: This includes temporary and permanent waivers, amendment or resetting of non-payment contractual covenants (including LTV and interest cover). The granting of this type of concession in itself would not result in the loan being classified as impaired;
- Extensions/Alterations: This includes extension and/or alteration of repayment terms to a level outside of market or the Group's risk appetite due to the customer's inability to make existing contractual repayment terms; amendments to an interest rate to a level considered outside of market or the Group's risk appetite, or other amendments such as changes to debt servicing arrangements;
- Forgiveness: This includes debt for equity swaps or partial debt forgiveness. This type of forbearance will always give rise to impairment; and
- Multiple type of forbearance (a mixture of the above three). Where a concession is granted to a customer that is not in financial difficulty or the risk profile is considered within current risk appetite, the concession would not be considered to be an act of forbearance.

A number of options are available to the Group where a customer is facing financial difficulty, and each case is treated depending on its own specific circumstances.

The Group's strategy and offer of forbearance is largely dependent on the individual situation and early identification, control and monitoring are key in order to support the customer and protect the Group. Concessions are often provided to help the customer with their day to day liquidity and working capital.

Forbearance identification and classification

The Group's policy is to treat all impaired assets in Commercial Banking as having been granted some form of forbearance. Impaired loans and advances exist only in Business Support; Global Non Core; and, for smaller SME customers, Customer Support. Unimpaired forborne loans and advances exist in the good book, in Business Support and in Global Non Core.

All non-retail loans and advances in Commercial Banking are reviewed at least annually by the independent Risk Division. As part of our long established Credit Risk Classification system, every loan and advance in the good book is categorised as either 'good' or 'watchlist'.

The watchlist is further categorised depending on the current and expected credit risk attaching to the customer and the transaction. All watchlist names are reviewed by the Business and Risk at least once a month, and the classification is updated if required.

Any concession granted to a customer is reviewed and must be approved by the independent Risk Division. If Risk Division determines that the customer is in financial difficulty, then any off-market concession granted is treated as forbearance and the loan reviewed monthly. Forbearance does not arise if the customer is not in financial difficulty or if the risk profile of the customer following the concession is within the Group's current risk appetite.

Any event that causes concern over future payments from the customer is likely to result in the asset being assessed for impairment and, if required, an impairment allowance recognised. If impairment is identified, the customer is immediately transferred to Business Support and the lending will be treated as an impaired asset. If no impairment is identified, the Risk Division will determine if the customer should remain in the good book (categorised as watchlist), or transfer to Business Support for more intensive monitoring.

All reviews performed in the good book, Business Support or Global Non Core include analysis of latest financial information, a consideration of the market and sector the customer operates in, performance against plan and revised terms and conditions granted as part of the forbearance concession.

Exit from forbearance classification

A customer where forbearance has been granted will remain treated and recorded as forborne until it evidences acceptable performance over a period of time. This period will depend on a number of factors such as whether the customer is trading in line with its revised plan, it is operating within the new terms and conditions (including observation to revised covenants and contractual payments), its financial performance is stable or improving, and there are no undue concerns over its future performance. As a minimum, this period is currently expected to be at least 12 months following a forbearance event (during 2014, the minimum cure period will be reviewed again in conjunction with regulatory requirements). However, notwithstanding this, the overriding requirement is that the financial difficulty previously seen has been removed, and the performance has stabilised.

Once a customer evidences acceptable performance over a period of time, the Group would expect that it could be returned to the mainstream good classification and they would no longer be considered forborne. It is important to note that such a decision can be made only by the independent Risk Division.

Currently, the exception to this 12 month minimum period is where a permanent structural cure is made (for example, this could be an injection of new collateral security or partial repayment of debt to restore an LTV back to within the covenant). In this case, the customer may be removed from the forbearance category once the permanent cure has been made.

Further analysis of the forborne loan balance is set out below:

	Total loans and advances which are forborne		Impairment provisions as % of loans and advances which are forborne	
	2013 £m	2012 £m	2013 %	2012 %
Impaired	14,714	23,965	43.6	41.7
Unimpaired	6,221	9,027	–	–
Total	20,935	32,992	30.6	30.3

All impaired assets are considered forborne. At 31 December 2013, £6,221 million (31 December 2012: £9,027 million) of its unimpaired assets are also considered forborne as a result of proactive management of cases to help customers in financial difficulties. Of this figure, £3,789 million was classified as non-core, with the remaining £2,432 million classified as core.

The table below sets out the Group's largest unimpaired forborne loans and advances to commercial customers (exposures over £5 million) as at 31 December 2013 by type of forbearance, together with a breakdown on which exposures are classified as Direct Real Estate:

	Direct Real Estate £m	Other industry sector £m	Total £m
At 31 December 2013			
Type of unimpaired forbearance			
UK exposures[1] > £5 million			
Covenants	1,555	842	2,397
Extensions	200	343	543
Multiple	23	380	403
	1,778	1,565	3,343
Exposures < £5 million and other non-UK			2,878
Total			6,221

[1] Based on the location of the office recording the transaction.

Ireland wholesale (part of Wealth, Asset Finance and International division)

All loans and advances in Ireland wholesale (whether impaired or unimpaired) are treated as forborne and all assets are classified as non-core.

	Total loans and advances which are forborne		Impairment provisions as % of loans and advances which are forborne	
	2013 £m	2012 £m	2013 %	2012 %
Impaired	8,322	10,967	73.1	68.0
Unimpaired	1,108	1,908	–	–
Total	9,430	12,875	64.5	58.0

Source: Lloyds Banking Group Annual Report 2013, p340-346

Recommendation 27: Policies for identifying impaired or non-performing loans (1 of 2)

Definition of impaired and past-due exposures

According to Bank of Italy regulations, impaired loans and receivables are classified into the following categories:

- **Non-performing loans** – formally impaired loans, being exposure to insolvent borrowers, even if the insolvency has not been recognized in a court of law, or borrowers in a similar situation. Measurement is generally on a loan-by-loan basis or, for loans singularly not significant, on a portfolio basis for homogeneous categories of loans;
- **Doubtful loans** – exposure to borrowers experiencing temporary difficulties, which the Group believes may be overcome within a reasonable period of time. Doubtful loans also include loans not classified as non-performing granted to borrowers other than government entities where the following conditions are met:
    - They have fallen due and remained unpaid for more than 270 days (or for more than 150 or 180 days for consumer credit exposure with an original term of less than 36 months, or 36 months or over, respectively);
    - The amount of the above exposure to the same borrower and other defaulted payments that are less than 270 days overdue, is at least 10% of the total exposure to that borrower. Doubtful loans are valued analytically when special elements make this advisable or by applying analytically flat percentages on a historical or stochastic basis in the remaining cases.
- **Restructured loans** – exposure to borrowers with whom a rescheduling agreement has been entered into including renegotiated pricing at interest rates below market, the conversion of part of a loan into shares ("debt to equity swap") and/or any reduction of principal; measurement is on a loan-by-loan basis, including discounted cost due to renegotiation of the interest rate at a rate lower than the original contractual rate. Restructured exposures can be reclassified under unimpaired loans only after two years have passed from the date of signing of the restructuring agreement and a resolution has been adopted by the competent corporate bodies declaring that the debtor's full solvency has been restored and that there are no outstanding balances on all existing lines of credit. Loans under renegotiation involving a debt/equity swap are valued, pending swap finalization, on the basis of the conversion agreements entered into on the balance-sheet date. Please see Section A.3 of the Consolidated Annual Report for the method used to calculate the fair value of shares arising from these transactions. Any negative differences between the value of the loans and the fair value of the shares are taken to profit and loss as write-downs. For details on renegotiated exposures (so-called forborn exposures) see also Part E – Section 1 – Credit Risk – Information on renegotiated exposures of the Consolidated Annual Report.
- **Past-due loans** – total exposure to any borrower not included in the other categories, which at the balance-sheet date has expired facilities or unauthorized overdrafts that are more than 90 days past due and meet the requirements set out by supervisory regulations (ref. Bank of Italy's Circular No. 263 of December 27, 2006 "New regulations for the prudential supervision of banks") for their classification under the "past due exposures" category (TSA banks) or under the "defaulted exposures" category (IRB banks).

Total exposure is recognized in this category if, at the balance-sheet date, either:

- the expired or unauthorized borrowing;

or:

- the average daily amount of expired or unauthorized borrowings during the last preceding quarter is equal to or exceeds 5% of total exposure.

Overdue exposures are valued using a statistical approach based on historical data, applying where available the degree of risk as measured by the risk factor used for Basel 2 reporting (loss given default).

Collective assessment is used for groups of loans for which individually there are no indicators of impairment: to these portfolios a latent impairment can be attributed, according to the method described below, inter alia on the basis of the risk factors used under Basel 2.

Description of methodology applied to determine write-downs

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables are recognized on the date of contract signing, which normally coincides with the date of disbursement to the borrower.
These items include debt instruments with the above characteristics or that are subject to portfolio reclassification in accordance with the rules of IAS 39 (see Part A.3.1 below - Transfers between portfolios) and the net value of finance leases of assets under construction or awaiting lease, provided the leases have the characteristics of contracts entailing the transfer of risk.
After initial recognition at fair value, which usually is the price paid including transaction costs and income which are directly attributable to the acquisition or issuance of the financial asset (even if not paid), a loan or receivable is measured at amortized cost using the effective interest method, allowances or reversals of allowances being made where necessary on remeasuring.

A gain or loss on loans and receivables is recognized in profit or loss:

- when a loan or receivable is derecognized: in item 100 (a) "Gains (losses) on disposal";

or:

- when a loan or receivable is impaired: in item 130 (a) "Impairment losses (a) loans and receivables".

Interest on loans and receivables is recognized in profit or loss on an accrual basis under item 10 "Interest income and similar revenue".
Delay interest is taken to the income statement on collection or receipt.

Loans and receivables are reviewed in order to identify those that, following events occurring after initial recognition, show objective evidence of possible impairment. These impaired loans are reviewed and analysed periodically at least once a year. A loan or receivable is deemed impaired when it is considered that it will probably not be possible to recover all the amounts due according to the contractual terms, or equivalent value.

Allowances for impairment of loans and receivables are based on the present value of expected cash flows of principal and interest; in determining the present value of future cash flows, the basic requirement is the identification of estimated collections, the timing of payments and the rate used.

The amount of the loss on impaired exposures classified as non-performing, doubtful or restructured according to the categories specified below, is the difference between the carrying value and the present value of estimated cash flows discounted at the original interest rate of the financial asset.

If the original interest rate of a financial asset being discounted cannot be found, or if finding it would be excessively onerous, the average rate was applied that was recorded for positions with similar characteristics, which had not deteriorated in the year in which the original deterioration of the asset concerned occurred. For all fixed-rate positions, the rate determined in this manner was also held constant in future years.

Recovery times are estimated on the basis of any repayment schedules agreed with the borrower or included in a business plan or in forecasts based on historical recovery experience observed for similar classes of loans, taking into account the type of loan, the geographical location, the type of security and any other factors considered relevant.

Any subsequent change vis-à-vis initial expectations of the amount or timing of expected cash flows of principal and interest causes a change in allowances for impairment and is recognized in profit or loss in item 130(a) "Impairment losses (a) loans and receivables".

Write-downs of impaired loans are classified as specific in the relevant income statement item even when the calculation is flat-rate or statistical, as indicated in the previous chapter.

When the reasons for the impairment no longer exist, and this assessment is objectively attributable to an event occurred after the impairment, a reversal is made in the same profit or loss item, within the amount of the amortized cost that there would have been if there had been no impairments.

Derecognition of a loan or receivable in its entirety is made when the loan or receivable is deemed to be irrecoverable or is written off. Write-offs are recognized directly in profit or loss under item 130(a) "Impairment losses (a) loans and receivables" and reduce the amount of the principal of the loan or receivable. Reversals of all or part of amounts previously written off are recognized in the same item.

Loans under renegotiation involving a debt/equity swap are valued, pending swap finalization, on the basis of the conversion agreements entered into on the balance-sheet date.
Any negative differences between the value of the loans and the fair value of the shares are taken to profit and loss as write-downs.

Source: UniCredit 2013 Pillar 3, pp. 105-109

Recommendation 27: Policies for identifying impaired or non-performing loans, including how the bank defines impaired or non-performing, restructured and returned-to-performing (cured) loans as well as explanations of loan forbearance policies (2 of 2)

Disclosure related to Forborne exposures and new EBA definition of Non-Performing exposures

In relation to ESMA document n. 2012/853 of 20 December 2012 for disclosure on IFRS financial statements of financial institutions on renegotiated exposures, it should be noted that the identification of the portfolio is relevant to allow the following:

- prompt action: with a solid and effective process for monitoring and reporting, the timely identification of possible credit quality deterioration enables the Group to promptly put in place either the necessary activities aimed at an eventual renegotiation or the restrictive measures at a stage prior to the potential "default" aimed at reappraising the level of risk; any activity aimed at a possible renegotiation has as objective the timely identification and consequently the proper management of exposures with an increased credit risk, when the bank has not yet launched legal enforcement actions still in presence of a full repayment capacity of the customer;
- proper evaluation of impaired loans, in order to define the actions and classification within the "default" classes;
- start of recovery actions depending on the type, the amount of exposure and the customer characteristics;
- appropriate provisioning in the income statement, consistent with the outlook and recovery time of credit and type of exposure. This activity is in line with IAS 39 and " Basel II" rules;
- accurate and regular reporting to monitor over time the risk of the portfolio at the aggregate level.

As for the evaluation and the provisioning of the 'Forborne' exposures, the accounting policies follow the general principle in line with the provisions of IAS 39, i.e. whether there are objective evidences that it has incurred a loss for impairment of loans or financial assets held to maturity (booked at amortized cost), the amount of the loss is measured as the difference between the asset carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet incurred) discounted at the original effective interest rate of the financial asset. The amount of the loss is recognized in item 130. of the income statement under "Impairment losses" and the carrying amount of the asset is reduced accordingly.

ESMA disposals and provisions of IAS 39 are complemented by the instructions for financial reporting FINREP, recently issued by the European Banking Authority (EBA)[6], which introduced two new classifications for loans and debt securities in the financial statements: *Forborne exposures and Non-performing exposures.*

- Forborne exposures are defined as exposures containing measures of renegotiation (Forbearance), i.e. concessions in respect of a debtor who has faced - or is about to face - difficulty in meeting its financial commitments ("financial difficulties")
- Non-performing exposures under the new EBA definitions are those that meet one or both of the following criteria:
  - material exposures overdue by more than 90 days;
  - the bank assesses unlikely that the debtor can fulfill entirely to its credit obligations, without proceeding with the enforcement and realization of collateral, regardless of whether exposures are past due and/or overdue and regardless of days past due.

These two new classifications introduced by EBA are effective as of the financial reporting FINREP to supervisory authority of September 2014.
The Group has already started, during the second half of 2013, the project activities aimed at implementing in the management and accounting systems the classification rules introduced by EBA. The new processes will allow to improve the compliance of the rules to the above legislation, monitor the dynamics of these exposures and report to the supervisory authority.

In line with the implementation plan, with reference to the balance sheet at 31 December 2013, the classification of loans into risk categories remained unchanged compared to the previous year and reflects the regulations issued by the Bank of Italy. Therefore, the classification by each entity in the different classes of "default" is done in accordance with the legal provisions and the regulations issued by the local Supervisory Authorities.
Regarding Forborne exposures, the full implementation of the new processes will lead to a precise identification of the Forborne performing exposures and to a subsequent verification, on the new identified portion of the portfolio, of any adjustments as may be appropriate in the internal rating systems and credit rating.

Given that the Group is bound to follow the instructions of the Italian Regulatory Authority, with reference to the foreign legal entities specific arrangements have been adopted with the aim of linking and aligning the classification of the "default" classes, otherwise not fully coherent.

The disclosure on forbearance practices is an approximation of the outcome of the new EBA definition, based on the information currently available. Since the implementation of the processes that will lead to the application of the new definition is still underway, the following proxies and limitations were used in preparing this disclosure:

- With reference to the proxy adopted for the Forborne non performing category, please note that according to the Bank of Italy classification, with specific reference to forbearance practices, a position is classified as "restructured loan" when a restructuring agreement includes a the concession of a moratorium on payments of the loan or the renegotiation at interest rates below market, the conversion of part of a loan into shares and/or reduction of principal. Measurement of restructured loans is on a loan-by-loan basis, including in the provisions the discounted cost due to renegotiation of the interest rate at a lower level than the original contractual rate. Restructured exposures may be reclassified to "performing loans" when at least two years have elapsed from the closing of the restructuring agreement and a resolution has been taken by the competent corporate bodies stating that the borrower is again able to service the debt and no overdue amount is outstanding. In the below table the "restructured loans" classified according to the Bank of Italy classification have been reported as Forborne non performing exposures.
- As for the Forborne performing exposures, no consolidated disclosure could be provided, pending the establishment of harmonized measurement procedures at Group level currently underway, refer to the disclosed information, wherever available, in the separated financial statements.

These criteria were used for both the identification of Forborne non performing exposures at December 31, 2012 and at December 31, 2013. Here below the resulting actual figures (in Euro million).

FORBORNE EXPOSURES - Loans and receivable with customers (euro mln)

	Amounts as at 12.31.2013			Amounts as at 12.31.2012 (1)		
	Gross exposure	Writedowns	Net exposure	Gross exposure	Writedowns	Net exposure
General governments	0	0	0	0	0	0
Financial corporations	122	49	74	146	72	74
Non-financial corporations	5,850	2,113	3,737	7,381	2,382	4,999
Households	181	56	125	272	60	212
Total	6,153	2,217	3,936	7,799	2,514	5,285
of which:						
Italy	3,202	920	2,282	3,889	735	3,154
Germany	995	443	552	1,997	1,079	918
Austria	1,009	546	463	835	454	381
CEE	359	95	264	593	120	473
Poland	588	213	375	485	126	359
Coverage ratio			36.0%			32.2%
% Forborne on total customer loans			0.78%			0.97%

(1) At December 31, 2013, in accordance with the accounting standard IFRS5, all assets of the companies

- PUBLIC JOINT STOCK COMPANY UNICREDIT BANK,
- BDK CONSULTING,
- PUBLIC JOINT STOCK COMPANY UKRSOTSBANK,
- PRIVATE JOINT STOCK COMPANY FERROTRADE INTERNATIONAL,
- LLC UKROTSBUD,
- LTD SI&C AMC UKRSOTS REAL ESTATE,
- SVIF UKRSOTSBUD,

were recognized under item "Non-current assets and disposal groups classified as held for sale".
The previous period was restated accordingly to increase comparability.

Source: UniCredit 2013 Pillar 3, pp. 105-109

Recommendation 28a: Reconciliation of the opening and closing balances of non-performing or impaired loans in the period and the allowance for loan losses

Table 31: Analysis of Changes in Nonaccrual Loans

	Quarter ended				Year ended Dec. 31,	
(in millions)	Dec. 31, 2013	Sept. 30, 2013	June 30, 2013	Mar. 31, 2013	2013	2012
Commercial nonaccrual loans						
Balance, beginning of period	$ 3,886	4,455	5,242	5,824	5,824	8,217
Inflows	520	490	557	611	2,178	3,812
Outflows:						
Returned to accruing	(67)	(192)	(128)	(109)	(496)	(655)
Foreclosures	(34)	(77)	(120)	(91)	(322)	(469)
Charge-offs	(191)	(150)	(193)	(189)	(723)	(1,435)
Payments, sales and other (1)	(639)	(640)	(903)	(804)	(2,986)	(3,646)
Total outflows	(931)	(1,059)	(1,344)	(1,193)	(4,527)	(6,205)
Balance, end of period	3,475	3,886	4,455	5,242	3,475	5,824
Consumer nonaccrual loans						
Balance, beginning of period	13,007	13,460	14,284	14,662	14,662	13,087
Inflows	1,691	2,015	2,071	2,340	8,117	14,569
Outflows:						
Returned to accruing	(953)	(997)	(1,156)	(1,031)	(4,137)	(4,219)
Foreclosures	(162)	(167)	(95)	(173)	(597)	(745)
Charge-offs	(437)	(480)	(651)	(775)	(2,343)	(4,541)
Payments, sales and other (1)	(953)	(824)	(993)	(739)	(3,509)	(3,489)
Total outflows	(2,505)	(2,468)	(2,895)	(2,718)	(10,586)	(12,994)
Balance, end of period	12,193	13,007	13,460	14,284	12,193	14,662
Total nonaccrual loans	$ 15,668	16,893	17,915	19,526	15,668	20,486

(1) Other outflows include the effects of VIE deconsolidations and adjustments for loans carried at fair value.

Table 35: Analysis of Changes in TDRs

	Quarter ended				Year ended Dec. 31,	
(in millions)	Dec. 31, 2013	Sept. 30, 2013	June 30, 2013	Mar. 31, 2013	2013	2012
Commercial TDRs						
Balance, beginning of period	$ 4,219	4,551	4,818	5,146	5,146	5,349
Inflows	292	534	468	500	1,794	2,559
Outflows						
Charge-offs	(44)	(24)	(24)	(40)	(132)	(381)
Foreclosure	(16)	(16)	(26)	(30)	(88)	(60)
Payments, sales and other (1)	(686)	(826)	(685)	(758)	(2,955)	(2,321)
Balance, end of period	3,765	4,219	4,551	4,818	3,765	5,146
Consumer TDRs						
Balance, beginning of period	22,789	22,969	22,889	21,768	21,768	17,308
Inflows	1,248	1,282	1,352	2,076	5,958	8,050
Outflows						
Charge-offs (2)	(155)	(183)	(241)	(280)	(859)	(1,400)
Foreclosure	(417)	(519)	(240)	(114)	(1,290)	(426)
Payments, sales and other (1)	(701)	(761)	(785)	(579)	(2,826)	(1,818)
Net change in trial modifications (3)	(68)	1	(6)	18	(55)	54
Balance, end of period	22,696	22,789	22,969	22,889	22,696	21,768
Total TDRs	$ 26,461	27,008	27,520	27,707	26,461	26,914

(1) Other outflows include normal amortization/accretion of loan basis adjustments and loans transferred to held-for-sale. It also includes $29 million, $40 million and $15 million of loans refinanced or restructured as new loans and removed from TDR classification for the quarters ended September 30, June 30, and March 31, 2013, respectively. No loans were removed from TDR classification in 2012 as a result of being refinanced or restructured as new loans.
(2) Year ended December 31, 2012 charge-offs reflect the impact of loans discharged in bankruptcy being reported as TDRs in accordance with the OCC guidance issued in 2012.
(3) Net change in trial modifications includes: inflows of new TDRs entering the trial payment period, net of outflows for modifications that either (i) successfully perform and enter into a permanent modification, or (ii) did not successfully perform according to the terms of the trial period plan and are subsequently charged-off, foreclosed upon or otherwise resolved. Our experience is that most of the mortgages that enter a trial payment period program are successful in completing the program requirements.

Allowance for Credit Losses

The allowance for credit losses consists of the allowance for loan losses and the allowance for unfunded credit commitments. Changes in the allowance for credit losses were:

	Year ended December 31,				
(in millions)	2013	2012	2011	2010	2009
Balance, beginning of year	$ 17,477	19,668	23,463	25,031	21,711
Provision for credit losses	2,309	7,217	7,899	15,753	21,668
Interest income on certain impaired loans (1)	(264)	(315)	(332)	(266)	-
Loan charge-offs:					
Commercial:					
Commercial and industrial	(715)	(1,306)	(1,598)	(2,775)	(3,365)
Real estate mortgage	(190)	(382)	(636)	(1,151)	(670)
Real estate construction	(28)	(191)	(351)	(1,189)	(1,063)
Lease financing	(33)	(24)	(38)	(120)	(229)
Foreign	(27)	(111)	(173)	(198)	(237)
Total commercial	(993)	(2,014)	(2,796)	(5,433)	(5,564)
Consumer:					
Real estate 1-4 family first mortgage	(1,439)	(3,013)	(3,883)	(4,900)	(3,318)
Real estate 1-4 family junior lien mortgage	(1,578)	(3,437)	(3,763)	(4,934)	(4,812)
Credit card	(1,022)	(1,101)	(1,449)	(2,396)	(2,708)
Automobile	(625)	(651)	(799)	(1,308)	(2,063)
Other revolving credit and installment	(753)	(757)	(925)	(1,129)	(1,360)
Total consumer	(5,417)	(8,959)	(10,819)	(14,667)	(14,261)
Total loan charge-offs	(6,410)	(10,973)	(13,615)	(20,100)	(19,825)
Loan recoveries:					
Commercial:					
Commercial and industrial	380	461	419	427	254
Real estate mortgage	227	163	143	68	33
Real estate construction	137	124	146	110	16
Lease financing	16	19	24	20	20
Foreign	27	32	45	53	40
Total commercial	787	799	777	678	363
Consumer:					
Real estate 1-4 family first mortgage	245	157	405	522	185
Real estate 1-4 family junior lien mortgage	269	259	218	211	174
Credit card	126	185	251	218	180
Automobile	321	362	439	499	564
Other revolving credit and installment	153	177	226	219	191
Total consumer	1,114	1,140	1,539	1,669	1,294
Total loan recoveries	1,901	1,939	2,316	2,347	1,657
Net loan charge-offs (2)	(4,509)	(9,034)	(11,299)	(17,753)	(18,168)
Allowances related to business combinations/other (3)	(42)	(59)	(63)	698	(180)
Balance, end of year	$ 14,971	17,477	19,668	23,463	25,031
Components:					
Allowance for loan losses	$ 14,502	17,060	19,372	23,022	24,516
Allowance for unfunded credit commitments	469	417	296	441	515
Allowance for credit losses (4)	$ 14,971	17,477	19,668	23,463	25,031
Net loan charge-offs as a percentage of average total loans (2)	0.56 %	1.17	1.49	2.30	2.21
Allowance for loan losses as a percentage of total loans (4)	1.76	2.13	2.52	3.04	3.13
Allowance for credit losses as a percentage of total loans (4)	1.81	2.19	2.56	3.10	3.20

(1) Certain impaired loans with an allowance calculated by discounting expected cash flows using the loan's effective interest rate over the remaining life of the loan recognize reductions in the allowance as interest income.
(2) For PCI loans, charge-offs are only recorded to the extent that losses exceed the purchase accounting estimates.
(3) Includes $693 million for the year ended December 31, 2010, related to the adoption of consolidation accounting guidance on January 1, 2010.
(4) The allowance for credit losses includes $30 million, $117 million, $231 million, $298 million and $333 million at December 31, 2013, 2012, 2011, 2010, and 2009, respectively, related to PCI loans acquired from Wachovia. Loans acquired from Wachovia are included in total loans net of related purchase accounting net write-downs.

Source: Wells Fargo Annual Report 2013, p. 70, 166

Recommendation 28b: Explanation of the effects of loan acquisitions on ratio trends as well as qualitative and quantitative information about restructured loans (1 of 2)

Table 34 presents the unpaid principal balance, carrying value, related valuation allowance and the net carrying value as a percentage of the unpaid principal balance for the PCI loan portfolio.

Table 34 Purchased Credit-impaired Loan Portfolio

(Dollars in millions)	Unpaid Principal Balance	Carrying Value	Related Valuation Allowance	Carrying Value Net of Valuation Allowance	Percent of Unpaid Principal Balance
	December 31, 2013				
Residential mortgage	$ 19,558	$ 18,672	$ 1,446	$ 17,226	88.08%
Home equity	6,523	6,593	1,047	5,546	85.02
Total purchased credit-impaired loan portfolio	$ 26,081	$ 25,265	$ 2,493	$ 22,772	87.31
	December 31, 2012				
Residential mortgage	$ 18,069	$ 17,451	$ 3,108	$ 14,343	79.38%
Home equity	8,434	8,667	2,428	6,239	73.97
Total purchased credit-impaired loan portfolio	$ 26,503	$ 26,118	$ 5,536	$ 20,582	77.66

The total PCI unpaid principal balance decreased $422 million, or two percent, in 2013 primarily driven by liquidations, including sales, payoffs, paydowns and write-offs, partially offset by the $5.3 billion of loans repurchased in connection with the FNMA Settlement.

Of the unpaid principal balance of $26.1 billion at December 31, 2013, $4.7 billion was 180 days or more past due, including $4.6 billion of first-lien mortgages and $91 million of home equity loans. Of the $21.4 billion that was less than 180 days past due, $18.4 billion, or 86 percent of the total unpaid principal balance was current based on the contractual terms while $2.0 billion, or nine percent, was in early stage delinquency.

During 2013, we recorded a provision benefit of $707 million for the PCI loan portfolio including a provision benefit of $552 million for residential mortgage and a provision benefit of $155 million for home equity. This compared to a provision benefit of $103 million in 2012. The provision benefit in 2013 was primarily driven by an improvement in our home price outlook.

The PCI valuation allowance declined $3.0 billion during 2013 due to write-offs in the PCI loan portfolio of $1.2 billion in home equity and $1.1 billion in residential mortgage, and a provision benefit of $707 million for the PCI loan portfolio. Write-offs during 2013 included certain home equity PCI loans that were ineligible for the National Mortgage Settlement, but had similar characteristics as the eligible loans and the expectation of future cash proceeds was considered remote.

Purchased Credit-impaired Residential Mortgage Loan Portfolio

The PCI residential mortgage loan portfolio represented 74 percent of the total PCI loan portfolio at December 31, 2013. Those loans to borrowers with a refreshed FICO score below 620 represented 52 percent of the PCI residential mortgage loan portfolio at December 31, 2013. Loans with a refreshed LTV greater than 90 percent, after consideration of purchase accounting adjustments and the related valuation allowance, represented 39 percent of the PCI residential mortgage loan portfolio and 51 percent based on the unpaid principal balance at December 31, 2013. Table 35 presents outstandings net of purchase accounting adjustments and before the related valuation allowance, by certain state concentrations.

Table 35 Outstanding Purchased Credit-impaired Loan Portfolio – Residential Mortgage State Concentrations

(Dollars in millions)	December 31 2013	2012
California	$ 8,180	$ 9,238
Florida [1]	1,750	1,797
Virginia	760	715
Maryland	728	417
Texas	433	192
Other U.S./Non-U.S.	6,821	5,092
Total	$ 18,672	$ 17,451

[1] In this state, foreclosure requires a court order following a legal proceeding (judicial state).

Pay option adjustable-rate mortgages (ARMs), which are included in the PCI residential mortgage portfolio, have interest rates that adjust monthly and minimum required payments that adjust annually, subject to resetting if minimum payments are made and deferred interest limits are reached. Annual payment adjustments are subject to a 7.5 percent maximum change. To ensure that contractual loan payments are adequate to repay a loan, the fully-amortizing loan payment amount is re-established after the initial five- or ten-year period and again every five years thereafter. These payment adjustments are not subject to the 7.5 percent limit and may be substantial due to changes in interest rates and the addition of unpaid interest to the loan balance. Payment advantage ARMs have interest rates that are fixed for an initial period of five years. Payments are subject to reset if the minimum payments are made and deferred interest limits are reached. If interest deferrals cause a loan's principal balance to reach a certain level within the first 10 years of the life of the loan, the payment is reset to the interest-only payment; then at the 10-year point, the fully-amortizing payment is required.

The difference between the frequency of changes in a loan's interest rates and payments along with a limitation on changes in the minimum monthly payments of 7.5 percent per year can result in payments that are not sufficient to pay all of the monthly interest charges (i.e., negative amortization). Unpaid interest is added to the loan balance until the loan balance increases to a specified limit, which can be no more than 115 percent of the original loan amount, at which time a new monthly payment amount adequate to repay the loan over its remaining contractual life is established.

At December 31, 2013, the unpaid principal balance of pay option loans was $4.5 billion, with a carrying value of $4.4 billion, including $4.0 billion of loans that were credit-impaired upon acquisition and, accordingly, the reserve is based on a life-of-loan loss estimate. The total unpaid principal balance of pay option loans with accumulated negative amortization was $2.2 billion including $137 million of negative amortization. For those borrowers who are making payments in accordance with their contractual terms, five percent and 10 percent at December 31, 2013 and 2012 elected to make only the minimum payment on pay option ARMs. We believe the majority of borrowers are now making scheduled payments primarily because the low rate environment has caused the fully indexed rates to be affordable to more borrowers. We continue to evaluate our exposure to payment resets on the acquired negative-amortizing loans including the PCI pay option loan portfolio and have taken into consideration in the evaluation several assumptions including prepayment and default rates. Of the loans in the pay option portfolio at December 31, 2013 that have not already experienced a payment reset, less than one percent are expected to reset before 2016, 26 percent are expected to reset in 2016 and approximately 10 percent are expected to reset thereafter. In addition, 10 percent are expected to prepay and approximately 53 percent are expected to default prior to being reset, most of which were severely delinquent as of December 31, 2013.

Purchased Credit-impaired Home Equity Loan Portfolio

The PCI home equity portfolio represented 26 percent of the total PCI loan portfolio at December 31, 2013. Those loans with a refreshed FICO score below 620 represented 16 percent of the PCI home equity portfolio at December 31, 2013. Loans with a refreshed CLTV greater than 90 percent, after consideration of purchase accounting adjustments and the related valuation allowance, represented 69 percent of the PCI home equity portfolio and 71 percent based on the unpaid principal balance at December 31, 2013. Table 36 presents outstandings net of purchase accounting adjustments and before the related valuation allowance, by certain state concentrations.

Table 36 Outstanding Purchased Credit-impaired Loan Portfolio – Home Equity State Concentrations

(Dollars in millions)	December 31 2013	2012
California	$ 1,921	$ 2,629
Florida [1]	356	524
Virginia	310	383
Arizona	214	297
Colorado	199	264
Other U.S./Non-U.S.	3,593	4,570
Total	$ 6,593	$ 8,667

[1] In this state, foreclosure requires a court order following a legal proceeding (judicial state).

Source: Bank of America Annual Report 2013, p. 82-83

Recommendation 28b: Explanation of the effects of loan acquisitions on ratio trends as well as qualitative and quantitative information about restructured loans (2 of 2)

Restructured Loans

Nonperforming loans also include certain loans that have been modified in TDRs where economic concessions have been granted to borrowers experiencing financial difficulties. These concessions typically result from the Corporation's loss mitigation activities and could include reductions in the interest rate, payment extensions, forgiveness of principal, forbearance or other actions. Certain TDRs are classified as nonperforming at the time of restructuring and may only be returned to performing status after considering the borrower's sustained repayment performance for a reasonable period, generally six months. Nonperforming TDRs, excluding those modified loans in the PCI loan portfolio, are included in Table 41.

Table 41 Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity (1)

(Dollars in millions)	2013	2012
Nonperforming loans, January 1	$ 19,431	$ 18,768
Additions to nonperforming loans and leases:		
New nonperforming loans and leases	9,652	13,084
Impact of change in treatment of loans discharged in bankruptcies (2)	n/a	1,162
Implementation of regulatory interagency guidance (2)	n/a	1,853
Reductions to nonperforming loans and leases:		
Paydowns and payoffs	(2,782)	(3,801)
Sales	(1,528)	(47)
Returns to performing status (3)	(4,273)	(4,203)
Charge-offs	(3,514)	(6,544)
Transfers to foreclosed properties (4)	(483)	(841)
Transfers to loans held-for-sale (5)	(663)	—
Total net additions (reductions) to nonperforming loans and leases	(3,591)	663
Total nonperforming loans and leases, December 31 (6)	15,840	19,431
Foreclosed properties, January 1	650	1,991
Additions to foreclosed properties:		
New foreclosed properties (4)	936	1,129
Reductions to foreclosed properties:		
Sales	(930)	(2,283)
Write-downs	(123)	(187)
Total net reductions to foreclosed properties	(117)	(1,341)
Total foreclosed properties, December 31 (7)	533	650
Nonperforming consumer loans, leases and foreclosed properties, December 31	$ 16,373	$ 20,081
Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases (8)	2.99%	3.52%
Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties (8)	3.09	3.63

(1) Balances do not include nonperforming LHFS of $376 million and $622 million and nonaccruing TDRs removed from the PCI loan portfolio prior to January 1, 2010 of $260 million and $521 million at December 31, 2013 and 2012 as well as loans accruing past due 90 days or more as presented in Table 27 and *Note 4 – Outstanding Loans and Leases* to the Consolidated Financial Statements.
(2) As a result of the implementation of regulatory guidance in 2012 on loans discharged in Chapter 7 bankruptcy, we added $1.2 billion to nonperforming loans. As a result of the implementation of regulatory interagency guidance in 2012, we reclassified $1.9 billion of performing home equity loans (of which $1.6 billion were current) to nonperforming.
(3) Consumer loans may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection.
(4) New foreclosed properties represents transfers of nonperforming loans to foreclosed properties net of charge-offs taken during the first 90 days after transfer of a loan to foreclosed properties. New foreclosed properties also includes properties obtained upon foreclosure of delinquent PCI loans, properties repurchased due to representations and warranties exposure and properties acquired with newly consolidated subsidiaries.
(5) Transfers to loans held-for-sale includes $273 million of loans that were sold prior to December 31, 2013.
(6) At December 31, 2013, 46 percent of nonperforming loans were 180 days or more past due and were written down through charge-offs to 65 percent of their unpaid principal balance.
(7) Foreclosed property balances do not include loans that are insured by the FHA and have entered foreclosure of $1.4 billion and $2.5 billion at December 31, 2013 and 2012.
(8) Outstanding consumer loans and leases exclude loans accounted for under the fair value option.
n/a = not applicable

Our policy is to record any losses in the value of foreclosed properties as a reduction in the allowance for loan and lease losses during the first 90 days after transfer of a loan to foreclosed properties. Thereafter, further losses in value as well as gains and losses on sale are recorded in noninterest expense. New foreclosed properties included in Table 41 are net of $190 million and $261 million of charge-offs in 2013 and 2012, recorded during the first 90 days after transfer.

We classify consumer real estate loans that have been discharged in Chapter 7 bankruptcy and not reaffirmed by the borrower as TDRs, irrespective of payment history or delinquency status, even if the repayment terms for the loan have not been otherwise modified. We continue to have a lien on the underlying collateral. At December 31, 2013, $3.6 billion of loans discharged in Chapter 7 bankruptcy with no change in repayment terms at the time of discharge were included in TDRs, of which $1.8 billion were classified as nonperforming and $1.8 billion were loans fully-insured by the FHA. Of the $3.6 billion of TDRs, approximately 27 percent, 30 percent and 43 percent were discharged in Chapter 7 bankruptcy in 2013, 2012 and years prior to 2012, respectively. In addition, at December 31, 2013, of the $1.8 billion of nonperforming loans discharged in Chapter 7 bankruptcy, $1.1 billion were current on their contractual payments while $642 million were 90 days or more past due. Of the contractually current nonperforming loans, nearly 80 percent were discharged in Chapter 7 bankruptcy more than 12 months ago, and nearly 50 percent were discharged 24 months or more ago. As subsequent cash payments are received on the loans that are contractually current, the interest component of the payments is generally recorded as interest income on a cash basis and the principal component is recorded as a reduction in the carrying value of the loan. For more information on the impacts to consumer home loan TDRs, see *Note 4 – Outstanding Loans and Leases* to the Consolidated Financial Statements.

We classify junior-lien home equity loans as nonperforming when the first-lien loan becomes 90 days past due even if the junior-lien loan is performing. At December 31, 2013 and 2012, $1.2 billion and $1.5 billion of such junior-lien home equity loans were included in nonperforming loans and leases.

Table 42 presents TDRs for the home loans portfolio. Performing TDR balances are excluded from nonperforming loans in Table 41.

Table 42 Home Loans Troubled Debt Restructurings

	December 31					
	2013			2012		
(Dollars in millions)	Total	Nonperforming	Performing	Total	Nonperforming	Performing
Residential mortgage (1, 2)	$ 29,312	$ 7,555	$ 21,757	$ 28,125	$ 9,040	$ 19,085
Home equity (3)	2,146	1,389	757	2,125	1,242	883
Total home loans troubled debt restructurings	$ 31,458	$ 8,944	$ 22,514	$ 30,250	$ 10,282	$ 19,968

(1) Residential mortgage TDRs deemed collateral dependent totaled $8.2 billion and $9.4 billion, and included $5.7 billion and $6.4 billion of loans classified as nonperforming and $2.5 billion and $3.0 billion of loans classified as performing at December 31, 2013 and 2012.
(2) Residential mortgage performing TDRs included $14.3 billion and $11.9 billion of loans that were fully-insured at December 31, 2013 and 2012.
(3) Home equity TDRs deemed collateral dependent totaled $1.4 billion and $1.4 billion, and included $1.2 billion and $1.0 billion of loans classified as nonperforming and $227 million and $348 million of loans classified as performing at December 31, 2013 and 2012.

Table 51 presents our commercial TDRs by product type and performing status. U.S. small business commercial TDRs are comprised of renegotiated small business card loans and are not classified as nonperforming as they are charged off no later than the end of the month in which the loan becomes 180 days past due. For more information on TDRs, see *Note 4 – Outstanding Loans and Leases* to the Consolidated Financial Statements.

Table 51 Commercial Troubled Debt Restructurings

	December 31					
	2013			2012		
(Dollars in millions)	Total	Nonperforming	Performing	Total	Nonperforming	Performing
U.S. commercial	$ 1,318	$ 298	$ 1,020	$ 1,328	$ 565	$ 763
Commercial real estate	835	198	637	1,391	740	651
Non-U.S. commercial	48	38	10	100	15	85
U.S. small business commercial	88	—	88	202	—	202
Total commercial troubled debt restructurings	$ 2,289	$ 534	$ 1,755	$ 3,021	$ 1,320	$ 1,701

Bank of America provides additional disclosures about restructured commercial exposures on subsequent pages

Source: Bank of America Annual Report 2013, p. 86-87; 93

Recommendation 29: Counterparty risk that arises from derivatives transactions

OTC DERIVATIVES: DISTRIBUTION BY NOMINAL RISK AND MARKET VALUE*
Million euros

	2013			2012			2011		
		Market value			Market value			Market value	
	Nominal	Positive	Negative	Nominal	Positive	Negative	Nominal	Positive	Negative
CDS protection acquired**	45,968	86	887	52,332	476	680	61,981	2,082	385
CDS protection sold	38,675	763	89	42,697	453	333	51,129	232	2,035
Total credit derivatives	**84,642**	**849**	**976**	**95,030**	**930**	**1,013**	**113,109**	**2,315**	**2,420**
Equity forwards	2,125	76	20	4,630	338	132	4,601	149	158
Equity options	58,964	1,686	2,420	60,689	1,376	1,438	62,525	1,476	1,796
Equity spot	10,041	1,103	-	6,616	999	0	6,583	564	0
Equity swaps	685	-	265	88	-	266	512	0	229
Total equity derivatives	**71,814**	**2,865**	**2,705**	**72,022**	**2,713**	**1,835**	**74,221**	**2,188**	**2,183**
Fixed-income forwards	3,089	1	0	4,855	5	4	1,979	0	0
Fixed-income options	-	0	-	-	-	0	0	0	0
Fixed-income spot	1,906	-	-	1,693	-	0	2,165	0	0
Total fixed income derivatives	**4,995**	**1**	**0**	**6,548**	**5**	**4**	**4,144**	**0**	**0**
Forward and spot rates	101,216	2,594	1,504	105,089	1,380	1,342	125,032	2,129	1,788
Exchange-rate options	46,290	604	345	70,298	232	496	82,698	511	724
Other exchange rate derivatives	125	2	1	41	1	0	37	0	2
Exchange-rate swaps	411,603	9,738	8,530	418,930	9,617	9,550	371,305	10,882	9,982
Total exchange rate derivatives	**559,233**	**12,940**	**10,380**	**594,358**	**11,231**	**11,388**	**579,072**	**13,523**	**12,496**
Asset swaps	22,594	901	1,634	22,322	870	1,623	20,586	867	1,440
Call money swaps	235,981	698	608	215,404	673	1,011	237,096	584	763
Interest-rate structures	37,398	1,997	2,553	6,640	2,180	2,339	8,087	1,981	2,260
Forward interest rates- FRAs	117,011	16	18	304,041	41	49	184,242	77	114
IRS	2,711,552	58,164	54,774	2,038,235	81,091	77,005	2,153,153	72,024	68,345
Other interest-rate derivatives	230,735	3,870	3,456	251,526	4,255	3,726	259,809	3,507	12,269
Total interest-rate derivatives	**3,355,272**	**65,648**	**63,043**	**2,838,168**	**89,109**	**85,752**	**2,862,973**	**79,040**	**85,190**
Commodities	1,363	265	78	1,871	308	104	3,479	410	192
Total commodity derivatives	**1,363**	**265**	**78**	**1,871**	**308**	**104**	**3,479**	**410**	**192**
Total gross derivatives	**4,077,320**	**82,568**	**77,183**	**3,607,996**	**104,295**	**100,097**	**3,636,999**	**97,476**	**102,480**

* Figures on the basis of management criteria. Excluding organised markets.
** Credit derivatives acquired including hedging of loans.

OTC DERIVATIVES: EXPOSURE IN TERMS OF MARKET VALUE AND EQUIVALENT CREDIT RISK INCLUDING MITIGATION EFFECT[1]
Million euros

	2013	2012	2011
Market value netting effect[2]	18,919	22,643	21,549
Collateral received[3]	7,922	10,555	11,508
Netting and collateral market value effect[4]	10,997	12,088	10,041
Net ECR[5]	48,451	52,184	53,358

1. Figures with management criteria. Excluding organised markets.

RISK DISTRIBUTION WITH OTC DERIVATIVES ON THE BASIS OF THE CHANNEL OF CLEARING AND TYPE OF DERIVATIVE*
Nominal in million euros

	Bilateral		CCP**		
	Nominal	%	Nominal	%	Total
Credit derivatives	83,664	99%	949	1.1%	**84,612**
Equity derivatives	71,703	100%	111	0.2%	**71,814**
Fixed-income derivatives	4,994	100.0%	1	0.0%	**4,995**
Exchange-rate derivatives	558,617	99.9%	616	0.1%	**559,233**
Interest-rate derivatives	2,064,776	61.5%	1,290,496	38.5%	**3,355,272**
Commodities derivatives	1,363	100.0%	-	0.0%	**1,363**
Total	**2,785,117**	**68.3%**	**1,292,173**	**31.7%**	**4,077,290**

* Figures based on management criteria. Excluding organised markets.
** Central counterparty institutions (CCPs).

RISK DISTRIBUTION ON THE BASIS OF SETTLEMENT IN CCPS AND BY TYPE OF DERIVATIVE AND EVOLUTION*
Gross exposure. Million euros

	2013	2012	2011
Credit derivatives	949	-	-
Equity derivatives	111	138	211
Fixed-income derivatives	1	33	5
Exchange-rate derivatives	616	988	425
Interest-rate derivatives	1,290,496	669,750	420,501
Commodities derivatives	-	-	-
Total	**1,292,173**	**670,908**	**421,143**

* Data on the basis of management criteria. Excluding organised markets.

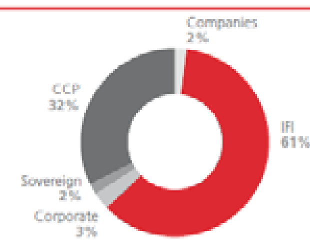
NOTIONAL OTC DERIVATIVE PRODUCTS BY MATURITY*
Million euros

	1 year**	1-5 years	5-10 years	Over 10 years	TOTAL
CDS protection acquired***	45,655	109	6	198	45,968
CDS protection sold	38,645	0	0	0	38,645
Total credit derivatives	**84,299**	**109**	**6**	**198**	**84,612**
Equity forwards	2,125	0	0	0	2,125
Equity options	52,175	22	6,646	120	58,964
Equity spot	9,878	10	152	0	10,041
Equity swaps	685	0	0	0	685
Total equity derivatives	**64,863**	**33**	**6,798**	**120**	**71,814**
Fixed-income forwards	2,438	0	622	29	3,089
Fixed-income options	0	0	0	0	0
Fixed-income spot	1,906	0	0	0	1,906
Total fixed income derivatives	**4,344**	**0**	**622**	**29**	**4,995**
Forward and spot rates	98,633	83	2,499	1	101,216
Exchange-rate options	44,879	0	1,411	0	46,290
Other exchange rate derivatives	108	0	17	0	125
Exchange-rate swaps	377,666	8,412	21,378	4,147	411,603
Total exchange rate derivatives	**521,285**	**8,495**	**25,305**	**4,149**	**559,233**
Asset swaps	21,202	633	193	566	22,594
Call money swaps	233,495	108	2,250	129	235,981
Interest-rate structures	34,077	874	566	1,882	37,398
Forward interest rates - FRAs	117,011	0	0	0	117,011
IRS	2,542,301	33,360	88,225	47,666	2,711,552
Other interest-rate derivatives	210,872	6,340	11,371	2,152	230,735
Total interest-rate derivatives	**3,158,958**	**41,314**	**102,605**	**52,395**	**3,355,272**
Commodities	1,259	0	105	0	1,363
Total commodity derivatives	**1,259**	**0**	**105**	**0**	**1,363**
Total gross derivatives	**3,835,008**	**49,950**	**135,441**	**56,891**	**4,077,290**

* Figures on the basis of management criteria. Excluding organised markets.
** In operations under collateral agreement the period of the collateral replacement is considered as maturity.
*** Credit derivatives acquired including hedging of loans.

The distribution of risk in notional derivatives by type of counterparty was 61% with banks and 32% with clearing houses.

DISTRIBUTION OF RISK IN OTC DERIVATIVES BY TYPE OF COUNTERPARTY



DISTRIBUTION OF RISK IN OTC DERIVATIVES BY TYPE OF COUNTERPARTY
In nominal terms*

RATING	%
AAA	1.36
AA	0.81
A	72.88
BBB	20.90
BB	4.01
B	0.02
REST	0.01

*Ratings based on equivalences between internal ratings and ratings of agencies.

Source: Santander Annual Report 2013, p. 199-200

Recommendation 29: Counterparty risk that arises from derivatives transactions

9 Derivative financial instruments

(a) Notional amounts

The following table provides the aggregate notional amounts of derivative financial instruments outstanding by type and segregated between those used by the Bank in its dealer capacity (Trading) and those derivatives designated in hedging relationships. The notional amounts of these contracts represent the derivatives volume outstanding and do not represent the potential gain or loss associated with the market risk or credit risk of such instruments. The notional amounts represent the amount to which a rate or price is applied to determine the amount of cash flows to be exchanged. Credit derivatives within Other derivative contracts are comprised primarily of purchased and sold credit default swap transactions. To a lesser extent, this category also includes total return swaps referenced to loans and debt securities. Other derivative contracts – other includes precious metals other than gold, and other commodities including energy and base metal derivatives.

	2013			2012		
As at October 31 ($ millions)	Trading	Hedging	Total	Trading	Hedging	Total
Interest rate contracts						
Exchange-traded:						
Futures	$ 146,741	$ –	$ 146,741	$ 134,252	$ –	$ 134,252
Options purchased	2,935	–	2,935	25,134	–	25,134
Options written	2,494	–	2,494	27,938	–	27,938
	152,170	–	152,170	187,324	–	187,324
Over-the-counter:						
Forward rate agreements	72,392	–	72,392	196,647	–	196,647
Swaps	680,053	59,145	739,198	899,010	68,257	967,267
Options purchased	57,192	–	57,192	7,626	–	7,626
Options written	52,916	–	52,916	7,565	–	7,565
	862,553	59,145	921,698	1,110,848	68,257	1,179,105
Over-the-counter (settled through central counterparties):						
Forward rate agreements	160,749	–	160,749	21,430	–	21,430
Swaps	1,326,419	20,065	1,346,484	693,351	–	693,351
Options purchased	–	–	–	–	–	–
Options written	–	–	–	–	–	–
	1,487,168	20,065	1,507,233	714,781	–	714,781
Total	$ 2,501,891	$ 79,210	$ 2,581,101	$ 2,012,953	$ 68,257	$ 2,081,210
Foreign exchange and gold contracts						
Exchange-traded:						
Futures	$ 6,688	$ –	$ 6,688	$ 15,260	$ –	$ 15,260
Options purchased	23	–	23	589	–	589
Options written	–	–	–	789	–	789
	6,711	–	6,711	16,638	–	16,638
Over-the-counter:						
Spot and forwards	272,633	14,337	286,970	281,915	18,256	300,171
Swaps	185,757	20,541	206,298	172,111	12,885	184,996
Options purchased	2,461	–	2,461	2,676	–	2,676
Options written	2,050	–	2,050	2,212	–	2,212
	462,901	34,878	497,779	458,914	31,141	490,055
Over-the-counter (settled through central counterparties):						
Spot and forwards	–	–	–	22	–	22
Swaps	–	–	–	–	–	–
Options purchased	–	–	–	–	–	–
Options written	–	–	–	–	–	–
	–	–	–	22	–	22
Total	$ 469,612	$ 34,878	$ 504,490	$ 475,574	$ 31,141	$ 506,715
Other derivative contracts						
Exchange-traded:						
Equity: over-the-counter	$ 2,012	$ –	$ 2,012	$ –	$ –	$ –
Credit: over-the-counter	–	–	–	–	–	–
Other[1]	51,529	–	51,529	37,185	–	37,185
	53,541	–	53,541	37,185	–	37,185
Over-the-counter:						
Equity: over-the-counter	40,776	–	40,776	44,036	–	44,036
Credit: over-the-counter	70,383	–	70,383	68,383	–	68,383
Other[1]	37,397	–	37,397	28,400	–	28,400
	148,556	–	148,556	140,819	–	140,819
Over-the-counter (settled through central counterparties):						
Equity: over-the-counter	3	–	3	1	–	1
Credit: over-the-counter	7,114	–	7,114	1	–	1
Other[1]	3	–	3	134	–	134
	7,120	–	7,120	136	–	136
Total	$ 209,217	$ –	$ 209,217	$ 178,140	$ –	$ 178,140
Total notional amounts outstanding	$ 3,180,720	$ 114,088	$ 3,294,808	$ 2,666,667	$ 99,398	$ 2,766,065

(1) Comprised of precious metals and other commodities.

(c) Credit risk

As with other financial assets, derivative instruments are subject to credit risk. Credit risk arises from the possibility that counterparties may default on their obligations to the Bank. However, whereas the credit risk of other financial assets is represented by the principal amount net of any applicable allowance for credit losses, the credit risk associated with derivatives is normally a small fraction of the notional amount of the derivative instrument.

Derivative contracts generally expose the Bank to credit loss if changes in market rates affect a counterparty's position unfavourably and the counterparty defaults on payment. Accordingly, credit risk of derivatives is represented by the positive fair value of the instrument.

Negotiated over-the-counter derivatives often present greater credit exposure than exchange-traded contracts. The net change in the exchange-traded contracts is normally settled daily in cash with the exchange. Holders of these contracts look to the exchange for performance under the contract.

The Bank strives to limit credit risk by dealing with counterparties that it believes are creditworthy, and investment grade counterparties account for a significant portion of the credit risk exposure arising from the Bank's derivative transactions as at October 31, 2013. To control credit risk associated with derivatives, the Bank uses the same credit risk management activities and procedures that are used in the lending business in assessing and adjudicating potential credit exposure. The Bank applies limits to each counterparty, measures exposure as the current positive fair value plus potential future exposure, and uses credit mitigation techniques, such as netting and collateralization.

The Bank obtains the benefit of netting by entering into master netting arrangements with counterparties (typically industry standard ISDA agreements), which allow for a single net settlement of all transactions covered by that agreement in the event of a default or early termination of the transactions. In this manner, the credit risk associated with favourable contracts is eliminated by the master netting arrangement to the extent that unfavourable contracts with the same counterparty are not settled before favourable contracts.

Collateralization is typically documented by way of an ISDA Credit Support Annex (CSA), the terms of which may vary according to each party's view of the other party's creditworthiness. CSAs can require one party to post initial margin at the onset of each transaction. CSAs also allow for variation margin to be called if total uncollateralized mark-to-market exposure exceeds an agreed upon threshold. Such variation margin provisions can be one way (only one party will ever post collateral) or bi-lateral (either party may post collateral depending upon which party is in-the-money). The CSA will also detail the types of collateral that are acceptable to each party, and the haircuts that will be applied against each collateral type. The terms of the ISDA master netting agreements and CSAs are taken into consideration in the calculation of counterparty credit risk exposure (see also page 70 of the 2013 Annual Report).

Derivative instruments used by the Bank include credit derivatives in its investment and loan portfolios: credit protection is sold as an alternative to acquire exposure to bond or loan assets, while credit protection is bought to manage or mitigate credit exposures.

The following table summarizes the credit exposure of the Bank's derivative financial instruments. The credit risk amount (CRA) represents the estimated replacement cost, or positive fair value, for all contracts taking into account master netting or collateral arrangements that have been made. The CRA does not reflect actual or expected losses.

The credit equivalent amount (CEA) is the CRA plus an add-on for potential future exposure. The add-on amount is based on a formula prescribed in the Capital Adequacy Requirements (CAR) Guideline of the Superintendent. The risk-weighted balance is calculated by multiplying the CEA by the capital requirement (K) times 12.5, where K is a function of the probability of default (PD), loss given default (LGD), maturity and prescribed correlation factors. Other derivative contracts – other includes precious metals other than gold, and other commodities, including energy and base metal derivatives.

	2013				2012[1]			
As at October 31 ($ millions)	Notional amount	Credit risk amount (CRA)[2]	Credit equivalent amount (CEA)[1]	Risk Weighted Assets[1]	Notional amount	Credit risk amount (CRA)[2]	Credit equivalent amount (CEA)[1]	Risk Weighted Assets[1]
Interest rate contracts								
Futures	$ 146,741	$ –	$ –	$ –	$ 134,252	$ –	$ –	$ –
Forward rate agreements	233,141	7	883	29	218,077	–	144	25
Swaps	2,085,682	1,764	8,639	1,744	1,660,618	2,732	4,993	1,633
Options purchased	60,127	13	54	16	32,760	3	23	9
Options written	55,410	–	–	–	35,503	–	–	–
	2,581,101	1,784	9,576	1,789	2,081,210	2,735	5,160	1,667
Foreign exchange and gold contracts								
Futures	6,688	–	–	–	15,260	–	–	–
Spot and forwards	286,970	1,338	3,946	1,067	300,193	956	3,812	819
Swaps	206,298	916	4,171	1,181	184,996	1,421	4,268	1,077
Options purchased	2,484	16	47	13	3,265	26	60	15
Options written	2,050	–	–	–	3,001	–	–	–
	504,490	2,270	8,164	2,261	506,715	2,403	8,140	1,911
Other derivative contracts								
Equity	42,791	460	4,017	1,775	44,037	445	1,750	515
Credit	77,497	539	3,273	587	68,384	360	2,171	432
Other	88,929	830	7,409	1,434	65,719	1,072	2,422	1,109
	209,217	1,829	14,699	3,796	178,140	1,877	6,343	2,056
Total derivatives	$ 3,294,808	$ 5,883	$ 32,439	$ 7,846	$ 2,766,065	$ 7,015	$ 19,643	$ 5,634
Amount settled through central counterparties[3]								
Exchange-traded	212,422	–	5,668	113				
Over-the-counter	1,514,353	–	4,637	93				
	$ 1,726,775	$ –	$ 10,305	$ 206				

(1) Effective 2013, CEA and RWA are determined in accordance with Basel III rules. Comparative amounts for the prior period were determined in accordance with Basel II rules and have not been restated.
(2) The amounts presented are net of collateral and master netting agreements at the product level. The total amounts relating to netting and collateral were $18,620 (2012 – $23,323) for CRA, and $31,907 (2012 – $32,650) for CEA.
(3) Amounts are included under total derivatives above. Amounts include exposures settled directly through central counterparties and exposures settled through clearing members of central counterparties.

Source: Scotiabank Annual Report 2013, p. 140 - 142

Recommendation 30: Provide qualitative information on credit risk mitigation, including collateral held for all sources of credit risk and quantitative information where meaningful (1 of 2)

Credit risk mitigation

ING Bank's lending and investment businesses are subject to credit risk. As such, the creditworthiness of our customers and investments is continually monitored for their ability to meet their financial obligations to ING Bank. In addition to determining the credit quality and creditworthiness of the customer, ING Bank uses various credit risk mitigation techniques and instruments to mitigate the credit risk associated with an exposure and to reduce the losses incurred subsequent to an event of default on an obligation a customer may have towards ING Bank. The most common terminology used in ING Bank for credit risk protection is 'cover'.

While cover can be an important mitigant of credit risk and an alternative source of repayment, generally it is ING Bank's practice to lend on the basis of the customer's creditability rather than exclusively relying on the value of the cover.

Within ING Bank, covers can derive from two distinct forms, assets and third party obligations.

Assets

The asset which has been pledged to ING Bank as collateral or security and which gives ING Bank the right to liquidate, in cases where the customer is unable to fulfil its financial obligation. As such, the proceeds can be applied towards full or partial compensation of the customer's outstanding exposure. An asset can be tangible (such as cash, securities, receivables, inventory, plant & machinery and mortgages on real estate properties) or intangible (such as patents, trademarks, contract rights and licenses).

Third party obligation

Third party obligation, indemnification or undertaking (either by contract and/or by law) is a legally binding declaration by a third party that gives ING Bank the right to expect and claim from that third party to pay an amount, if the customer fails on its obligations to ING Bank. The most common examples are guarantees (such as parent guarantees and export credit insurances) and letters of comfort.

General guidelines on cover valuation

General guidelines for cover valuation are established to ensure consistency of the application within ING Bank. These general guidelines also require that the value of the cover need to be monitored on regular basis and in principle at least annually. Covers shall be revalued accordingly and whenever it has reason to believe that the market is subject to significant changes in conditions. The frequency of monitoring and revaluation depends on the type of covers.

The valuation method also depends on the type of covers. For asset collateral, the valuation sources can be the customer's balance sheet (e.g. inventory, machinery, and equipment), nominal value (e.g. cash, receivables), market value (e.g. securities and commodities), independent valuer (commercial real estate) and market indices (residential real estate). For third party obligation, the valuation is based on the value which is attributed to the contract between ING Bank and that third party.

Cover values by risk category

This section provides insight on the type of cover and to which extent the loan is collateralised. The cover disclosures are presented by risk category: Lending, Investment, Money-Market and Pre-settlement. For each risk category, the cover amounts are presented by the most relevant collateral forms, being mortgages and financial collateral (including cash), and the most relevant third party obligation being guarantees. ING Bank obtains covers which are compliant to CRR/CRD IV, as well as those that are not compliant.

The cover values are presented for the total portfolio of ING Bank. In the last year's disclosure, only the AIRB portfolio was presented with covers in detail while in this year's disclosure, the covers of both AIRB and SA portfolios are presented in detail reflecting the complete ING Bank's portfolio. Next to that, detailed information is provided on the cover coverage for the performing and non-performing portfolio. The non-performing loan definition is explained in detail in the section 'Credit Restructuring'. To increase the understanding of the reader on the nature of the collateralised loans, insight is given in the industry and geography breakdown of the ING Bank portfolio as well. Another improvement is that in addition to the lending risk category, the cover valuation tables now also give insight in the risk categories of Investment, Money Market and Pre-settlement. For comparability reasons, outstandings is used to show the ING Bank's portfolio instead of READ.
Exposures are categorised into different Value to Loan (VTL) buckets which gives insight in the level of collateralisation of ING Bank's portfolio. VTL is calculated as the cover value divided by the outstandings at the balance sheet date. The cover values are pre-haircut but indexed values and exclude any cost of liquidation. Covers can either be valid for all limits, sublimits or a particular outstanding of a borrower, the latter being the most common. To prevent erroneously inflating the level of collateralisation, the coverage of all outstandings is capped at 100% if there is over-collateralisation on a certain outstanding. As a result, the coverage levels disclosed are conservative. Each limit is subsequently assigned to one of the six defined VTL buckets: no cover/data not available, >0% - 25%, >25% to 50%, >50% to 75%, >75% to <100%, and ≥ 100%. As the nature of the pre-settlement portfolio determines that collateral is netted, these VTL buckets are not shown for the pre-settlement portfolio.

The first two tables give a comprehensive overview of the collateralisation of the total portfolio of ING Bank.

Total Bank

Cover values including guarantees received - Total ING Bank – 2013 [1,2]

					Cover type					Value to Loan		
	Gross MtM before netting and collateral	MtM after netting	MtM after netting and collateral	Out-standings	Mort-gages	Eligible Financial Collateral	Other Basel II eligible	Guaran-tees	Non Basel II eligible	No Cover/ Data not available	Partially covered	Fully covered
Consumer Lending				293,714	443,475	2,697	519	30,403	29,566	4.7%	32.1%	63.2%
Commercial Banking				10	6				1	58.4%	20.4%	21.2%
Retail Banking Benelux				147,197	200,879	2,191	519	22,333	17,148	3.2%	33.7%	63.1%
Retail Banking International				118,186	207,017	65			9,859	7.7%	27.5%	64.8%
WestlandUtrecht Bank				28,321	35,573	441		8,070	2,558	0.1%	42.9%	57.1%
Business Lending				257,180	107,734	15,466	76,889	52,550	114,076	35.2%	30.7%	34.1%
Commercial Banking				172,060	56,401	11,780	53,935	40,508	97,514	34.1%	30.6%	35.3%
Corporate Line Bank				802						100.0%	0.0%	0.0%
Retail Banking Benelux				58,630	45,479	3,124	20,981	10,410	12,703	22.2%	38.0%	39.8%
Retail Banking International				24,081	3,247	560	1,973	1,581	3,849	74.9%	12.2%	12.9%
WestlandUtrecht Bank				1,607	2,607	2		51	10	1.5%	66.3%	32.1%
Investment and Money Market				112,647		6		5,117	135	95.3%	0.2%	4.5%
Commercial Banking				38,936				193	116	99.2%	0.4%	0.4%
Corporate Line Bank				8,513					19	99.7%	0.3%	0.0%
Retail Banking Benelux				3,117		6		5		99.6%	0.0%	0.4%
Retail Banking International				62,081				4,919		92.1%	0.0%	7.9%
Total Lending, Investment and Money Market				663,541	551,209	18,169	77,408	88,070	143,777	31.9%	26.1%	42.0%
Pre-settlement [3]	130,220	49,803	40,419	48,024								
Commercial Banking	126,378	47,874	38,700	44,258								
Corporate Line Bank	1,975	486	444	1,371								
Retail Banking Benelux	12	12	12	54								
Retail Banking International	1,855	1,431	1,263	2,341								
Total Bank	130,220	49,803	40,419	711,565	551,209	18,169	77,408	88,070	143,777	31.9%	26.1%	42.0%

(1) Including loans to ING Group and NN Group.
(2) Excluding intercompany positions.
(3) More information on the credit risk mitigants of the Pre-settlement exposure can be found in the Pre-settlement section.

ING provides additional details on credit risk mitigation for consumer, business and capital markets lending by geography and by industry in a subsequent section. Consumer and Business lending are shown on the following page

Source: ING 2013 Annual Report, pp. 283-293, 403-404 (283-284 shown)

Recommendation 30: Provide qualitative information on credit risk mitigation, including collateral held for all sources of credit risk and quantitative information where meaningful (2 of 2)

Excluding the pre-settlement portfolio, for which the covers are netted to derive the net outstandings at risk, 42% of the total ING Bank's outstandings is fully collateralised in 2013. Among the five cover groups, mortgages is the largest portion with a value of EUR 551 billion in 2013. Due to the devaluation of the covers, the collateralisation of total ING Bank's portfolio in general slightly deteriorated in 2013 with lower fully-covered outstandings. The deterioration can be seen in Consumer Lending and Business Lending. Detailed developments will be explained in the following sections per each risk category.

Consumer lending portfolio

The Consumer Lending portfolio comprises Residential Mortgages loans (94.4% in 2013) and Other Consumer Lending loans, which mainly comprise credit cards, term loans and revolvers to consumers. As a result, most of the collateral consists of mortgages. The mortgage values are maintained in the ING Bank's central database (Vortex) and in most cases external data is used to index the market value. On a quarterly or annual basis, the mortgages value is updated in Vortex using the relevant house price index (the NVM Index in the Netherlands, Level Housing Index in Australia, Crif Real Estate Appraisal Company in Italy, Ministerio de Fomento in Spain and Stadim in Belgium).

A significant part (49.1%) of the ING Bank's residential mortgage portfolio relates to mortgage loans provided in the Netherlands, followed by other main markets such as Germany (22.5%), and Belgium (10.6%). Given the size of the Dutch mortgages portfolio, below the valuation methodology employed to determine the cover values for the Dutch Residential Mortgages is provided.

Dutch mortgages valuation

When a mortgage loan is granted, the policy maximum loan to market value (LTMV) for an existing property and for construction property financing is 105%. The cover values are captured in the local systems which then are fed into a central data system (Vortex). All valuations are performed by certified valuators that are registered at one of the ING Bank-accepted organisations. In addition, the valuator must be a member of the NVM (Nederlandse Vereniging van Makelaars – Dutch Association of Real Estate Agents), VBO (Vereniging Bemiddeling Onroerend Goed – Association of Real Estate Brokers), VastgoedPRO (Association of Real Estate Professionals) or NVR (Nederlandse Vereniging van Rentmeesters).

The below tables show the values of different covers and the VTL split between performing and non-performing loans.

Consumer Lending

Cover values including guarantees received - Consumer portfolio - 2013[1,2]

		Cover type						Value to Loan					
	Outstandings	Mortgages	Eligible Financial Collateral	Other Basel II eligible	Guarantees	Non Basel II eligible	No Cover/ Data not available	>0%-25%	>25%-50%	>50%-75%	>75%-100%	>100%
Performing												
Residential Mortgages [3]	273,150	435,217	2,411	233	29,624	23,490	0.4%	0.1%	2.2%	7.7%	23.6%	66.1%
Other Consumer Lending	15,737	3,347	255	257	382	5,718	78.0%	0.2%	0.2%	0.4%	1.3%	20.0%
Total Performing	288,887	438,564	2,666	490	30,006	29,208	4.6%	0.1%	2.1%	7.3%	22.4%	63.6%
Non-performing												
Residential Mortgages [3]	4,151	4,757	30	8	371	260	1.7%	0.3%	1.7%	11.9%	37.9%	46.5%
Other Consumer Lending	676	154	1	21	26	98	81.7%	0.2%	0.3%	0.7%	1.8%	15.3%
Total Non-performing	4,827	4,911	31	29	397	358	12.9%	0.3%	1.5%	10.3%	32.9%	42.1%
Total Consumer Lending	293,714	443,475	2,697	519	30,403	29,566	4.7%	0.1%	2.1%	7.3%	22.5%	63.2%

Business Lending portfolio

Business Lending is an important business of ING Bank, accounting for 36.1% of the total ING Bank's outstandings. In line with our objective to give stakeholders insight into the portfolio, we present the Business Lending portfolio per industry breakdown in accordance with the NAICS definition and per Region and main market. Business Lending presented in this section does not include Pre-settlement and Investment & Money Market exposures, which are separately exhibited in the next sections.

The table below provides the ING Bank's portfolio broken down per NAICS industry code. The Business Lending portfolio comprises for 16.5% of the industry type Real Estate. This cannot be completely compared with ING Bank's Real Estate Finance portfolio as the scope and definition are differently determined.

The REF portfolio has not stabilised since the deterioration of the economic environment which started in 2008. As a result of this, in the recent years, ING Bank aims to be more selective in the financing of Real Estate. As this sector has proven to be significantly impacted during the crisis, the value of collaterals for this portfolio is of specific importance. The REF portfolio, which mostly focuses on the business whereby ING Bank finances or refinances income producing real estate in office, retail, residential and industrial (logistics) segments or a mix of commercial properties, presents approximately 56.4% of the Real Estate sector's outstanding.

Cover valuation for REF portfolio

The cover valuation policy and governance within ING Bank ensures that the cover values reflect the current fair value on the date of the valuation. All commercial properties financed by ING Bank need to be (re)-valued within three years' period or more frequently if market conditions or the risk profile deteriorates. Non-performing loans and high risk Watch-list REF files are re-valued at least annually.

The valuation of financed properties at origination of a REF deal or the revaluation is always performed by a real estate appraiser. For commercial properties located in the Netherlands, an internal real estate appraiser (80% of the assets) or an external real estate appraiser (20% of the assets) performs the (re)valuation while for properties outside the Netherlands, the (re)-valuation is always performed through an external real estate appraiser.

Business Lending per industry

Cover values including guarantees received - Business portfolio - 2013[1,2]

		Cover type						Value to Loan					
Industry	Outstandings	Mortgages	Eligible Financial Collateral	Other Basel II eligible	Guarantees	Non Basel II eligible	No Cover/ Data not available	>0%-25%	>25%-50%	>50%-75%	>75%-100%	>100%
Real Estate	42,541	59,190	1,640	1,222	4,940	6,079	6.7%	1.1%	1.8%	10.2%	23.6%	56.6%
of which Non-performing	4,302	4,076	5	107	703	366	2.2%	2.0%	9.1%	23.0%	29.8%	33.9%
Natural Resources	37,361	2,568	2,973	18,268	12,399	20,090	20.7%	11.4%	11.6%	13.7%	15.8%	26.9%
of which Non-performing	526	59	56	244	100	1,140	34.3%	0.3%	5.9%	5.0%	16.3%	38.2%
Commercial Banks	19,476	70	131	57	873	874	88.1%	3.6%	2.9%	0.9%	0.6%	3.8%
of which Non-performing	315	0	0	0	46	257	52.5%	0.0%	40.7%	0.0%	5.5%	1.3%
Transportation & Logistics	18,938	3,821	707	15,220	4,368	5,667	20.2%	3.3%	4.2%	8.6%	15.4%	48.3%
of which Non-performing	912	374	11	669	246	362	27.6%	0.4%	5.8%	18.0%	20.3%	27.9%
Services	16,047	7,174	901	4,323	4,576	9,394	29.9%	4.7%	7.1%	8.0%	9.1%	41.2%
of which Non-performing	580	299	4	160	185	316	31.8%	4.1%	6.7%	8.0%	7.6%	41.8%
Food, Beverages & Personal Care	14,467	5,427	846	7,688	2,901	16,046	30.2%	3.6%	8.2%	10.2%	14.4%	33.4%
of which Non-performing	800	342	1	298	138	113	25.9%	10.1%	17.6%	12.7%	13.7%	20.0%
General Industries	14,431	4,150	550	6,235	3,765	11,990	35.0%	5.4%	4.1%	10.0%	10.7%	34.8%
of which Non-performing	730	280	41	329	244	280	28.1%	7.7%	5.1%	12.4%	4.5%	42.2%
Non-Bank Financial Institutions	13,325	2,538	3,634	2,895	3,953	6,517	40.1%	5.4%	5.0%	6.0%	7.1%	36.3%
of which Non-performing	132	67	4	23	25	11	26.0%	21.9%	2.7%	11.9%	13.9%	23.6%
Central Banks	13,178	0	3	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
of which Non-performing												
Builders & Contractors	12,916	6,232	352	4,050	3,136	8,953	35.6%	5.2%	5.4%	8.3%	9.2%	36.3%
of which Non-performing	1,124	633	62	356	358	761	37.7%	2.8%	3.5%	7.4%	9.1%	39.6%
Chemicals, Health & Pharmaceuticals	11,308	5,842	242	4,071	2,159	4,821	34.0%	4.6%	8.8%	11.4%	10.2%	31.0%
of which Non-performing	277	106	2	111	67	75	37.3%	0.4%	3.5%	6.4%	15.3%	37.1%
Others [3]	43,191	10,722	3,487	12,860	9,480	23,645	41.2%	3.8%	4.5%	7.5%	10.1%	33.0%
of which Non-performing	1,385	579	100	585	320	600	28.8%	7.2%	1.9%	16.6%	16.6%	28.9%
Total Business Lending	257,179	107,734	15,466	76,889	52,550	114,076	35.2%	4.5%	5.3%	8.5%	12.3%	34.1%
of which Total Non-performing	11,083	6,815	286	2,882	2,432	4,281	20.3%	3.7%	8.1%	15.9%	19.4%	32.5%

[1] Including loans to ING Group and NN Group.
[2] Excluding intercompany positions.
[3] 'Others' comprises industries with outstandings below EUR 10 billion.

Business Lending per region

Cover values including guarantees received - Business Lending portfolio - 2013[1,2]

		Cover type						Value to Loan					
Industry	Outstandings	Mortgages	Eligible Financial Collateral	Other Basel II eligible	Guarantees	Non Basel II eligible	No Cover/ Data not available	>0%-25%	>25%-50%	>50%-75%	>75%-100%	>100%
Africa	1,203	26	120	234	627	99	16.0%	11.8%	10.4%	4.3%	23.7%	33.9%
of which Non-performing	1						100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
America	22,887	3,749	4,246	16,659	4,592	19,181	20.8%	3.5%	6.5%	9.5%	15.5%	44.2%
of which Non-performing	489	273	3	169	63	55	9.1%	9.7%	4.2%	13.7%	40.0%	23.3%
Asia	33,949	993	1,574	8,063	8,853	6,381	52.6%	8.1%	4.7%	10.2%	6.3%	18.1%
of which Non-performing	437		110	122	61	23	67.8%	4.8%	1.9%	5.9%	3.8%	15.9%
Australia	2,482	220	9	756	171	160	66.6%	7.3%	0.3%	1.4%	12.4%	12.0%
of which Non-performing	104		7	30			74.0%	0.0%	6.8%	0.0%	17.9%	1.3%
Europe												
Belgium	37,364	25,678	1,153	6,285	10,700	20,039	30.0%	2.7%	3.0%	4.3%	6.7%	53.2%
of which Non-performing	1,309	1,193	19	708	485	708	10.1%	3.7%	2.1%	5.3%	9.4%	69.3%
Germany	8,137	1,030	20	361	1,146	2,391	63.3%	2.3%	3.8%	4.9%	5.8%	19.8%
of which Non-performing	206	118	4	4	4	3	25.9%	0.7%	0.3%	30.7%	30.6%	11.8%
Netherlands	63,314	49,846	2,996	25,328	5,989	15,219	20.3%	2.8%	6.3%	15.3%	23.2%	32.1%
of which Non-performing	4,294	2,157	94	1,464	283	817	20.9%	3.6%	15.4%	25.4%	21.3%	13.4%
Rest of Europe	87,843	26,192	5,348	19,203	20,472	50,606	42.0%	5.4%	5.7%	5.1%	8.8%	33.0%
of which Non-performing	4,243	3,074	49	385	1,536	2,675	17.6%	3.3%	4.1%	10.6%	19.3%	45.1%
Total Business Lending	257,179	107,734	15,466	76,889	52,550	114,076	35.2%	4.5%	5.3%	8.5%	12.3%	34.1%
of which Non-performing	11,083	6,815	286	2,882	2,432	4,281	20.3%	3.7%	8.1%	15.9%	19.4%	32.5%

Source: ING 2013 Annual Report, pp. 283-293, 403-404

Recommendation 30: Provide qualitative information on credit risk mitigation, including collateral held for all sources of credit risk and quantitative information where meaningful (1 of 2)

Collateral and other credit enhancements held

(Audited)

Loans and advances held at amortised cost

It is the Group's practice to lend on the basis of customers' ability to meet their obligations out of cash flow resources rather than rely on the value of security offered. Depending on a customer's standing and the type of product, facilities may be provided without security. For other lending, a charge over collateral is obtained and considered in determining the credit decision and pricing. In the event of default, the bank may utilise the collateral as a source of repayment. Depending on its form, collateral can have a significant financial effect in mitigating our exposure to credit risk.

The tables below provide a quantification of the value of fixed charges we hold over borrowers' specific assets where we have a history of enforcing, and are able to enforce, collateral in satisfying a debt in the event of the borrower failing to meet its contractual obligations, and where the collateral is cash or can be realised by sale in an established market. The collateral valuation in the tables below excludes any adjustments for obtaining and selling the collateral.

We may also manage our risk by employing other types of collateral and credit risk enhancements such as second charges, other liens and unsupported guarantees, but the valuation of such mitigants is less certain and their financial effect has not been quantified. In particular, loans shown in the tables below as not collateralised or partially collateralised may benefit from such credit mitigants.

Certain credit mitigants are used strategically in portfolio management activities. While single name concentrations arise in portfolios managed by GB&M and CMB, it is only in the former that their size requires the use of portfolio level credit mitigants. Across GB&M risk limits and utilisations, maturity profiles and risk quality are monitored and managed pro-actively. This process is key to determining our risk appetite for these larger, more complex, geographically distributed customer groups. While the principal form of risk management continues to be at the point of exposure origination through the lending decision-making process, GB&M also utilises loan sales and credit default swap ('CDS') hedges to manage concentrations and reduce risk. These transactions are the responsibility of a dedicated GB&M portfolio management team. Hedging activity is carried out within agreed credit parameters, and is subject to market risk limits and a robust governance structure. CDS mitigants are held at portfolio level and are not reported in the presentation below.

Personal lending

Residential mortgage loans including loan commitments by level of collateral

(Audited)

	Europe US\$m	Hong Kong US\$m	Rest of Asia-Pacific US\$m	MENA US\$m	North America US\$m	Latin America US\$m	Total US\$m
At 31 December 2013							
Non-impaired loans and advances							
Fully collateralised	146,326	54,432	43,900	2,235	44,125	3,749	294,767
Loan to value ('LTV') ratio:							
– less than 25%	11,438	8,496	4,270	149	3,339	219	27,911
– 25% to 50%	43,590	29,508	13,205	600	9,833	1,118	97,854
– 51% to 75%	66,452	13,726	20,644	1,095	20,751	1,715	124,383
– 76% to 90%	21,603	1,887	4,949	348	6,933	606	36,326
– 91% to 100%	3,243	815	832	43	3,269	91	8,293
Partially collateralised:							
– greater than 100% LTV (A)	1,410	14	348	42	4,150	59	6,023
– collateral value on A	852	14	293	37	3,681	49	4,926
	147,736	54,446	44,248	2,277	48,275	3,808	300,790
Impaired loans and advances							
Fully collateralised	1,369	33	221	90	10,128	160	12,001
LTV ratio:							
– less than 25%	47	15	17	2	128	4	213
– 25% to 50%	197	11	57	13	1,265	93	1,636
– 51% to 75%	452	7	89	31	4,250	47	4,876
– 76% to 90%	320	–	49	34	2,809	13	3,225
– 91% to 100%	353	–	9	10	1,676	3	2,051
Partially collateralised:							
– greater than 100% LTV (B)	104	–	17	6	2,548	8	2,683
– collateral value on B	91	–	4	6	2,272	4	2,377
	1,473	33	238	96	12,676	168	14,684
	149,209	54,479	44,486	2,373	60,951	3,976	315,474

The above table shows residential mortgage lending including off-balance sheet loan commitments by level of collateral. Off-balance sheet commitments include loans that have been approved but which the customer has not yet drawn, and the undrawn portion of loans that have a flexible drawdown facility such as the offset mortgage product. The collateral included in the table above consists of first charges on real estate.

The LTV ratio is calculated as the gross on-balance sheet carrying amount of the loan and any off-balance sheet loan commitment at the balance sheet date divided by the value of collateral. The methodologies for obtaining residential property collateral values vary throughout the Group, but are typically determined by using a combination of professional appraisals, house price indices and statistical analysis. Valuations must be updated on a regular basis and, as a minimum, at intervals of every three years. They are conducted more frequently when market conditions or portfolio performance are subject to significant change or when a loan is identified and assessed as impaired.

The LTV ratio bandings are consistent with our internal risk management reporting. While we do have mortgages in the higher LTV bands, our appetite for such lending is restricted and the larger portion of our portfolio is concentrated in the lower risk LTV bandings of 75% and below.

Other personal lending

Other personal lending consists primarily of overdrafts, credit cards and second lien mortgage portfolios. Second lien lending is supported by collateral but the claim on the collateral is subordinate to the first lien charge. The majority of our second lien portfolios were originated in North America where loss experience on defaulted second lien loans has typically approached 100%; consequently, we do not generally attach any significant financial value to this type of collateral. Credit cards and overdrafts are usually unsecured.

Corporate, commercial and financial (non-bank) lending

Collateral held is analysed separately below for commercial real estate and for other corporate, commercial and financial (non-bank) lending. This reflects the difference in collateral held on the portfolios. In each case, the analysis includes off-balance sheet loan commitments, primarily undrawn credit lines.

Derivatives

The International Swaps and Derivatives Association ('ISDA') Master Agreement is our preferred agreement for documenting derivatives activity. It provides the contractual framework within which dealing activity across a full range of over-the-counter ('OTC') products is conducted, and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or another pre-agreed termination event occurs. It is common, and our preferred practice, for the parties to execute a Credit Support Annex ('CSA') in conjunction with the ISDA Master Agreement. Under a CSA, collateral is passed between the parties to mitigate the counterparty risk inherent in outstanding positions. The majority of our CSAs are with financial institutional clients.

We manage the counterparty exposure arising from market risk on our OTC derivative contracts by using collateral agreements with counterparties and netting agreements. Currently, we do not actively manage our general OTC derivative counterparty exposure in the credit markets, although we may manage individual exposures in certain circumstances.

For a description of how the derivative offset amount in the 'Maximum exposure to credit risk' table is derived, see page 178.

Other credit risk exposures

In addition to collateralised lending, other credit enhancements are employed and methods used to mitigate credit risk arising from financial assets. These are described in more detail below:

- some securities issued by governments, banks and other financial institutions benefit from additional credit enhancement provided by government guarantees that cover the assets.

Details of government guarantees are included in Notes 8, 10 and 12 on the Financial Statements.

- debt securities issued by corporates are primarily unsecured;
- debt securities issued by banks and financial institutions include ABSs and similar instruments which are supported by underlying pools of financial assets. Credit risk associated with ABSs is reduced through the purchase of CDS protection.

Disclosure of the Group's holdings of ABSs and associated CDS protection is provided on page 204.

- trading assets include loans and advances held with trading intent. These mainly consist of cash collateral posted to satisfy margin requirements on derivatives, settlement accounts, reverse repos and stock borrowing. There is limited credit risk on cash collateral posted since in the event of default of the counterparty these would be set off against the related liability. Reverse repos and stock borrowing are by their nature collateralised.

Collateral accepted as security that the Group is permitted to sell or repledge under these arrangements is described in Note 36 on the Financial Statements.

The Group's maximum exposure to credit risk includes financial guarantees and similar arrangements that we issue or enter into, and loan commitments that we are irrevocably committed to. Depending on the terms of the arrangement, we may have recourse to additional credit mitigation in the event that a guarantee is called upon or a loan commitment is drawn and subsequently defaults. For further information on these arrangements, see Note 40 on the Financial Statements.

Carrying amount of assets obtained

	At 31 December 2013 US\$m	2012 US\$m
Nature of assets		
Residential property	408	353
Commercial and industrial property	43	88
Other	2	3
	453	444

Source: HSBC Annual Report 2013, pp. 179-185

Recommendation 30: Provide qualitative information on credit risk mitigation, including collateral held for all sources of credit risk and quantitative information where meaningful (2 of 2)

Commercial real estate loans and advances including loan commitments by level of collateral
(Audited)

	Europe US$m	Hong Kong US$m	Rest of Asia-Pacific US$m	MENA US$m	North America US$m	Latin America US$m	Total US$m
At 31 December 2013							
Rated CRR/EL 1 to 7							
Not collateralised	4,865	10,186	3,978	192	137	935	20,293
Fully collateralised	24,154	18,895	6,422	21	8,627	1,728	59,847
Partially collateralised (A)	2,664	1,552	825	139	704	484	6,368
– collateral value on A	1,827	1,278	410	24	303	292	4,134
	31,683	30,633	11,225	352	9,468	3,147	86,508
Rated CRR/EL 8							
Not collateralised	109	–	10	–	1	3	123
Fully collateralised	793	–	–	72	68	1	934
LTV ratio:							
– less than 25%	13	–	–	–	4	–	17
– 25% to 50%	126	–	–	–	11	–	137
– 51% to 75%	367	–	–	72	49	1	489
– 76% to 90%	173	–	–	–	4	–	177
– 91% to 100%	114	–	–	–	–	–	114
Partially collateralised (B)	360	–	2	–	13	–	375
– collateral value on B	281	–	1	–	11	–	293
	1,262	–	12	72	82	4	1,432
Rated CRR/EL 9 to 10							
Not collateralised	564	–	–	7	4	521	1,096
Fully collateralised	1,079	6	6	31	233	286	1,641
LTV ratio:							
– less than 25%	46	–	–	–	1	5	52
– 25% to 50%	229	2	–	7	38	27	303
– 51% to 75%	436	3	3	7	110	57	616
– 76% to 90%	209	1	2	17	62	62	353
– 91% to 100%	159	–	1	–	22	135	317
Partially collateralised (C)	1,815	–	5	181	240	56	2,297
– collateral value on C	1,284	–	5	89	115	34	1,527
	3,458	6	11	219	477	863	5,034
	36,403	30,639	11,248	643	10,027	4,014	92,974

Loans and advances to banks including loan commitments by level of collateral
(Audited)

	Europe US$m	Hong Kong US$m	Rest of Asia-Pacific US$m	MENA US$m	North America US$m	Latin America US$m	Total US$m
At 31 December 2013							
Rated CRR/EL 1 to 8							
Not collateralised	22,356	31,462	41,524	6,374	7,211	10,481	119,408
Fully collateralised	52,114	2,260	8,168	24	23,744	4,724	91,034
Partially collateralised (A)	68	1,866	2,616	–	–	–	4,550
– collateral value on A	3	1,696	2,516	–	–	–	4,215
	74,538	35,588	52,308	6,398	30,955	15,205	214,992
Rated CRR/EL 9 to 10							
Not collateralised	153	–	–	312	14	–	479
	74,691	35,588	52,308	6,710	30,969	15,205	215,471

The collateral used in the assessment of the above lending consists of fixed first charges on real estate and charges over cash for commercial real estate. These facilities are disclosed as not collateralised if they are unsecured or benefit from credit risk mitigation from guarantees, which are not quantified for the purposes of this disclosure. In Hong Kong, market practice is typically for lending to major property companies to be secured by guarantees or unsecured. In Europe, facilities of a working capital nature are generally not secured by a first fixed charge and are therefore disclosed as not collateralised.

The value of commercial real estate collateral is determined by using a combination of professional and internal valuations and physical inspections. Due to the complexity of valuing collateral for commercial real estate, local valuation policies determine the frequency of review on the basis of local market conditions. Revaluations are sought with greater frequency when, as part of the regular credit assessment of the obligor, material concerns arise in relation to the transaction which may affect the underlying performance of the collateral, or the obligor's credit quality declines sufficiently to raise questions over whether the principal source of payment can fully meet the obligation (i.e. the obligor's credit quality classification indicates it is at the lower end, that is sub-standard, or approaching impaired). Where such concerns exist the revaluation method selected will depend upon the LTV relationship, the direction in which the local commercial real estate market has moved since the last valuation and, most importantly, the specific characteristics of the underlying commercial real estate which is of concern. Collateral values held for customers rated CRR 9 to 10 (i.e. classified as impaired) are separately disclosed above, starting with 2013.

For further details on cross-collateralisation and LTV calculations for commercial real estate and other corporate and commercial, see page 183.

Other corporate, commercial and financial (non-bank) loans and advances including loan commitments by level of collateral rated CRR/EL 8 to 10 only
(Audited)

	Europe US$m	Hong Kong US$m	Rest of Asia-Pacific US$m	MENA US$m	North America US$m	Latin America US$m	Total US$m
At 31 December 2013							
Rated CRR/EL 8							
Not collateralised	2,411	5	180	37	328	456	3,417
Fully collateralised	259	16	35	1	227	70	608
LTV ratio:							
– less than 25%	15	1	15	–	7	7	45
– 25% to 50%	50	15	7	1	77	4	154
– 51% to 75%	103	–	4	–	47	10	164
– 76% to 90%	25	–	8	–	31	5	69
– 91% to 100%	66	–	1	–	65	44	176
Partially collateralised (A)	435	14	9	528	345	73	1,404
– collateral value on A	17	3	2	398	89	18	527
	3,105	35	224	566	900	599	5,429
Rated CRR/EL 9 to 10							
Not collateralised	1,467	229	456	1,089	26	1,615	4,882
Fully collateralised	1,121	47	114	49	309	266	1,906
LTV ratio:							
– less than 25%	36	1	6	2	7	42	94
– 25% to 50%	88	7	43	–	17	117	272
– 51% to 75%	161	10	11	47	29	49	307
– 76% to 90%	156	24	29	–	46	43	298
– 91% to 100%	680	5	25	–	210	15	935
Partially collateralised (B)	1,192	53	251	770	359	290	2,915
– collateral value on B	606	33	117	102	149	131	1,138
	3,780	329	821	1,908	694	2,171	9,703
	6,885	364	1,045	2,474	1,594	2,770	15,132

Source: HSBC Annual Report 2013, pp. 179-185

Section 7

Other risks

Recommendation 31: Describe 'other risk' types based on management's classifications and discuss how each one is identified, governed, measured and managed

Operational risk

Operational risk is the potential for loss arising from the failure of people, process or technology or the impact of external events. Operational risk exposures are managed through a consistent set of management processes that drive risk identification, assessment, control and monitoring. We seek to control operational risks to ensure that operational losses do not cause material damage to the Group's franchise.

Operational risks can arise from all business lines and from all activities carried out by the Group. We seek to systematically identify and manage operational risk by segmenting all the Group's activities into manageable units. Each of these has an owner who is responsible for identifying and managing all the risks that arise from those activities as an integral part of their first line of defence responsibilities. Products and services offered to clients and customers in all our markets are also assessed and authorised in accordance with product governance procedures.

Although operational risk exposures can take many varied forms, we seek to manage them in accordance with standards that drive systematic risk identification, assessment, control and monitoring. These standards are challenged and reviewed regularly to ensure their ongoing effectiveness. To support the systematic identification of material operational risk exposures associated with a given process, we classify them into the following types:

Operational risk subtypes	
Processing failure	Potential for loss due to failure of an established process or to a process design weakness
External rules and regulations	Potential for actual or opportunity loss due to failure to comply with laws or regulations, or as a result of changes in laws or regulations or in their interpretation or application
Liability	Potential for loss or sanction due to a legal claim against any part of the Group or individuals within the Group
Legal enforceability	Potential for loss due to failure to protect legally the Group's interests or from difficulty in enforcing the Group's rights
Damage to assets	Potential for loss or damage to physical assets and other property from natural disaster and other events
Safety and security	Potential for loss or damage to health or safety of staff, customers or third parties arising from internal failures or the effects of external events
Internal crime or dishonesty	Potential for loss due to action by staff that is intended to defraud, misappropriate property or to circumvent the law or Company policy
External crime	Potential for loss due to criminal acts by external parties such as fraud, theft and other criminal activity including internet crime
Model	Potential for loss due to a significant discrepancy between the output of risk measurement models and actual experience

Operational risk control area	
People management	Recruiting, developing, compensating and managing employees
Technology management	Developing, maintaining and using information technology, and information security
Vendor management	Procurement, licensing, outsourcing and supplier management
Property management	Managing property assets, projects and facilities
Security management	Protecting the security of staff and customers
Regulatory compliance	Maintaining relationships with regulators, evidencing compliance with banking and securities regulations and managing regulatory change
Legal processes	Effective documentation of material transactions and other material contractual agreements, controlling the rights pertaining to material assets of the Group, and managing material claims and legal disputes
Accounting and financial control	Financial and management accounting, associated reporting and financial control
Tax management	Maintaining relationships with tax authorities and managing the Group's tax affairs to ensure compliance with our obligations
Corporate authorities and structure	Maintaining effective corporate legal entity structure and corporate decision-making authorities

Risk management processes are defined further in the annual report

Country cross-border risk

Country cross-border risk is the risk that we will be unable to obtain payment from our customers or third parties on their contractual obligations as a result of certain actions taken by foreign governments, chiefly relating to convertibility and transferability of foreign currency.

The GRC is responsible for our country cross-border risk limits and delegates the setting and management of country limits to the Group Country Risk function.

The business and country chief executive officers manage exposures within these limits and policies. Countries designated as higher risk are subject to increased central monitoring.

Cross-border assets comprise loans and advances, interest-bearing deposits with other banks, trade and other bills, acceptances, amounts receivable under finance leases, derivatives, certificates of deposit and other negotiable paper, investment securities and formal commitments where the counterparty is resident in a country other than where the assets are recorded. Cross-border assets also include exposures to local residents denominated in currencies other than the local currency. Cross-border exposure also includes the value of commodity, aircraft and shipping assets owned by the Group that are held in a given country.

The profile of our country cross-border exposures greater than one per cent of total assets as at 31 December 2013 remained consistent with our strategic focus on core franchise countries, and with the scale of the larger markets that we operate in. Changes in the pace of economic activity had an impact on growth of cross-border exposure for certain territories.

Steady progress in the internationalisation of the renminbi continues to present opportunities, and contributed to the growth in cross-border exposure to China. Increased country cross-border exposure to China and Hong Kong also reflected an expansion of our corporate client base, increased trade finance activity and transactions with local and foreign banks in these markets. India remains a core territory for the Group where our competitive advantage positions us to offer US dollar facilities in the domestic market, and to facilitate overseas investment and trade flows supported by parent companies in India.

Reported cross-border exposure to Korea and Singapore reflects an emphasis on trade finance and short-term lending.

Cross-border exposure to the UAE decreased slightly during 2013, due to a decrease in trade financing transactions and longer-term exposures arising from financial markets activity.

Malaysia benefited from an increase in trade finance activities amidst rising intra-region trade flows with ASEAN member countries, China, India and Africa. Higher exposures in this market are also representative of an expanded corporate customer base and interbank money market positions booked in the United Kingdom and Singapore. Growth in underlying cross-border business activity in Indonesia was attributable to an expansion of the corporate client base in Indonesia and continued growth in corporate finance assets. Since 30 June 2013, in line with a change in accounting treatment, the country cross-border exposure to Indonesia arising from Permata, a joint venture in which the Group holds 44.56 per cent, is now counted at the value of the Group's equity in the joint venture.

The increase in exposure to Brazil is attributable to trade and investment flows with our core markets. Cross-border exposure to countries in which we do not have a major presence predominantly relates to short-dated money market treasury activities, which can change significantly from period to period. Exposure also represents global corporate business for customers with interests in our footprint. This explains our significant exposure in the US, Switzerland and Australia.

The table below, which is based on our internal cross-border country risk reporting requirements, shows cross-border exposures that exceed 1 per cent of total assets.

	2013			2012		
	Less than One year $million	**More than one year $million**	**Total $million**	Less than One year $million	More than one year $million	Total $million
China	**32,220**	**14,449**	**46,669**	23,809	11,783	35,592
India	**12,566**	**18,295**	**30,861**	12,230	18,200	30,430
US	**19,001**	**7,287**	**26,288**	22,485	6,730	29,215
Hong Kong	**21,164**	**8,210**	**29,374**	18,096	8,458	26,554
Singapore	**19,328**	**5,749**	**25,077**	16,561	5,508	22,069
United Arab Emirates	**6,281**	**10,997**	**17,278**	6,580	11,293	17,873
Korea	**9,093**	**7,415**	**16,508**	9,696	6,693	16,389
Switzerland	**5,770**	**3,006**	**8,776**	5,050	4,983	10,033
Indonesia[1]	**3,959**	**4,958**	**8,917**	4,094	4,410	8,504
Australia	**1,943**	**5,919**	**7,862**	1,456	4,189	5,645
Brazil	**6,175**	**2,002**	**8,177**	4,157	1,613	5,770
Malaysia	**3,878**	**3,396**	**7,274**	2,255	2,111	4,366

1 Prior year has been restated to reflect the change in accounting treatment of cross-border exposure to Indonesia arising from Permata

Source: Standard Chartered 2013 Annual Report, pp. 109-110, 123-125

Recommendation 31: Describe 'other risk' types based on management's classifications and discuss how each one is identified, governed, measured and managed

Other risks

To meet the requirements of pillar 2 of the Basel framework, MaRisk insists on an integrated approach to risk that also includes unquantifiable risk categories. In Commerzbank these are subjected to a qualitative management and control process. The following risks are outside the responsibility of the CRO.

Human resources risk

Human resources risk falls within the definition of operational risk in section 269 (1) SolvV. The internal management interpretation of this definition at Commerzbank includes the following elements in human resources risk:

Adjustment risk: We offer selected internal and external training, continuing education and change programmes to ensure that the level of employee qualifications keeps pace with the current state of developments, structural changes are supported accordingly and our employees can fulfil their duties and responsibilities.

Motivation risk: Employee surveys enable us to respond as quickly as possible to potential changes in our employees' level of corporate loyalty and to initiate adequate measures.

Departure risk: We take great care to ensure that the absence or departure of employees does not result in long-term disruptions to our operations. We also regularly monitor both quantitative and qualitative measures of staff turnover.

Supply risk: Our quantitative and qualitative staffing aims to ensure that the internal operating requirements, business activities, and Commerzbank's strategy can be implemented.

Employees are a key resource for Commerzbank. Our success is based on the specialist knowledge, skills, abilities and motivation of our employees. Human resources risk is systematically managed by Group Human Resources with the aim of identifying risks as early as possible and assessing and managing them by applying selected personnel tools, for instance. In addition, the piloting of a scheme for systematic and strategic personnel planning is helping to put the management of medium- and long-term human resources risks on a more professional footing. A decision is due to be taken in 2014 on the Bank-wide introduction of regular strategic human resources planning. The Board of Managing Directors is regularly informed about human resources risks.

Business strategy risk

Business strategy risk is the medium to long-term risk of negative influences on the achievement of Commerzbank's strategic goals, for example, as a result of changes in market conditions, or the inadequate implementation of the Group strategy.

Group strategy is developed further in a process that takes into account both external and internal factors. On the basis of these factors, the Board of Managing Directors sets out a sustainable business strategy describing the major business activities and steps required to meet the targets. To ensure proper implementation of the Group strategy to achieve the business targets, strategic controls are carried out through regular monitoring of quantitative and qualitative targets in the Group and segments.

Responsibility for strategic corporate management lies with the Board of Managing Directors. Specific business policy decisions (acquisition and sale of equity holdings representing >1% of equity capital) also require the authorisation of the Risk Committee of the Supervisory Board. All major investments are subject to careful review by the Board of Managing Directors.

Reputational risk

Reputational risk is the risk that stakeholder groups may lose confidence in Commerzbank or that its reputation may be damaged as a result of negative events in its business activities. Stakeholder groups include the public and the media, employees and customers, rating agencies, shareholders and business partners. Therefore reputational risk goes hand in hand with communication risk.

The operational divisions, branches and subsidiaries bear direct responsibility, within the scope of their business operations, for reputational risk arising from their particular activity. Reputational risk may also stem from other types of risk and even amplify such risks. A special department in Group Communications is responsible for the management of reputational risk in an overall Bank context. Its tasks include the timely monitoring, recognition and response to internal and external reputational risks (early warning function).

For this reason, relevant measures and activities relating to business policy are subjected to careful scrutiny. In particular, Commerzbank avoids business policy measures and transactions which entail significant tax or legal risks, and also ethical, ecological and social risks. Any products, transactions or customer relationships that might do so are closely examined with regard to any potential reputational risk associated with them and then put to the vote. Depending on the outcome of the vote, they may be assessed unfavourably or have conditions imposed on them, or even be rejected outright.

Compliance risk

The confidence of our customers, shareholders and business partners in Commerzbank's proper and legitimate actions underpins our business activities. Compliance means conforming with the provisions of the law and with regulatory requirements as well as maintaining other, largely ethical, standards and commitments. Losses that might potentially result from failure to comply with these requirements are termed compliance risks.

Compliance risks may be either quantifiable or non-quantifiable risks.

Where non-compliance can result in financial losses arising from litigation or financial penalties, the risks are quantifiable. They are included under the heading of operational risks. Where confidence in the company's integrity might be impaired, we speak of reputational risks, which are non-quantifiable.

In our cross-divisional and Group-wide approach to risk management, we aim to detect at an early stage any risks that could undermine the integrity and therefore the success of Commerzbank, and to manage these risks appropriately.

Legal risk

Commerzbank Aktiengesellschaft and its subsidiaries are involved in a variety of court cases, claims and official investigations (legal proceedings) in connection with a broad range of issues. They include, for example, allegations of wrong or defective advice, supposed ineffective provision and/or realisation of collateral, disputes concerning the payment of variable elements of remuneration and possible entitlements to occupational pensions, allegedly false accounting and incorrect financial statements, tax claims and cases brought by shareholders and other investors. In most of these court cases, claimants are asking for the payment of compensation or the reversal of agreements already entered into. If the courts were to find in favour of certain or several of the claimants in these cases, Commerzbank could be liable to pay substantial compensation or could incur the expense of reversing agreements or of other cost-intensive measures. Some of these cases could also have an impact on the reputation of Commerzbank and/or of its subsidiaries. The Group builds up reserves for such proceedings if and insofar as liabilities are likely to result from them and the amounts to which it is likely to be liable can be sufficiently accurately determined. As such proceedings entail considerable uncertainties, the possibility remains that some of the reserves created for them prove to be inadequate once the courts' final rulings are known. As a result, substantial additional expense may be incurred. This is true also in the case of proceedings for which the Group did not consider it necessary to create reserves. Although the eventual outcome of some legal proceedings might have an impact on Commerzbank's results and cashflow in a specified reporting period, we do not believe that the liabilities that might result from them will have any long-term impact on Commerzbank's earnings performance, assets and financial position. Further information on legal proceedings can be found in Note (68) to the consolidated financial statements.

Source: Commerzbank 2013 Annual Report, p. 130-131

Recommendation 32: Discuss risk events, including impact on businesses and bank response where material or potentially material loss events have occurred with focus on changes to risk processes

Matters Based on the Business Improvement Order Concerning the Transactions with Anti-Social Elements

On September 27, 2013, a business improvement order was issued by The Japanese Financial Services Agency ("FSA") to Mizuho Bank ("MHBK") for reasons such as the fact that no substantial steps were taken for more than two years after it was ascertained that joint loans had been provided to many anti-social elements.

We would like to take this opportunity to express our most sincere apologies to our valued customers and other stakeholders for the inconvenience and concern that we have caused in relation to this business improvement order.

The Mizuho Code of Conduct pledges to confront anti-social elements, and Mizuho Financial Group ("MHFG") has always positioned severing ties with anti-social elements as one of its most important management issues. We have been focusing on preventing and terminating such transactions as those with anti-social elements by making use of accumulated data and continually gathering information, as well as enhancing the framework for improving the awareness of executives and employees regarding changes in social conditions.

Nevertheless, we gravely accept the highly regrettable fact that our framework to prevent and sever relationships with anti-social elements was inadequate for certain captive loans.

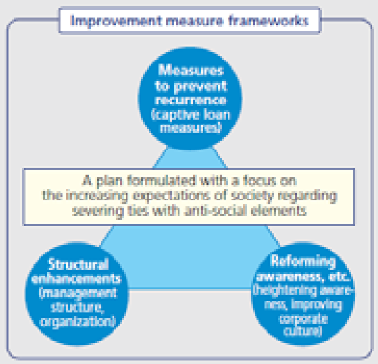
MHFG considers this incident to be extremely serious, and immediately established an internal investigation committee that is responsible for thorough fact-finding, as well as formulating and carrying out major improvement measures. We have also established the Special Investigation Committee on Improvement of Joint Loan Business ("Third-party Committee") with three legal professionals in order to fact-find and identify causes from an objective perspective, and to provide recommendations for improvement measures.

Based on the consideration in the internal investigation committee as well as the results of investigations and suggestions provided by the Third-party Committee, MHBK has formulated a business improvement plan, which was submitted to the FSA on October 28, 2013. The focus of this plan is on the increasing expectations of society regarding severing ties with anti-social elements.

We will further enhance measures to sever ties with anti-social elements, and fulfill our responsibility to society, through ensuring sound products and services on a group basis, and by thoroughly implementing this business improvement plan.

Business Improvement Plan Prepared by MHBK and an Overview of Actions Being Taken by MHFG

The business improvement plan submitted to the FSA on October 28, 2013, and an overview of actions to be taken by MHFG in order to sever ties with anti-social elements, which was announced on the same day, are as follows, and the business improvement plan is progressing as planned.



1. Measures to Prevent Recurrence
—Elimination of anti-social element transactions for the captive loans (loans through captive affiliates)—
- Termination of captive loans with anti-social elements
- Increase stringency of entry checks of anti-social elements
- Increase stringency of post-entry checks of anti-social elements

2. Structural Enhancements
—Increase management level participation and reorganize management of divisions—
- Establishment of the Anti-Social Elements Elimination Committee
- Appointment of an external director to the Board of Directors at MHBK
- Deployment of a Deputy President as the Group Chief Compliance Officer
- Review of the Compliance Group

3. Reforming awareness, etc.
—Improving awareness among executives and employees, and improving corporate culture—
- Improve awareness of elimination of anti-social elements
- Strengthen cooperation (with law enforcement agencies, legal professionals, etc.)
- Enhance checks and balances
- Improve corporate culture

Concerning the Administrative Order to MHFG and MHBK by the FSA

On December 26, 2013, MHFG and MHBK received an administrative order by the FSA pursuant to article 52-33, paragraph 1 and article 26, paragraph 1* of the Banking Act.

We gravely accept and regret such order and would like to take this opportunity to express our most sincere apologies to our valued customers and other stakeholders for the inconvenience that we have caused.

We steadily implement the business improvement plan that has been submitted to the FSA (dated October 28, 2013) and will also be implementing additional measures based on the administrative order received this time.

* Cease new credit transactions under the four-party captive loan scheme from January 20, 2014 to February 19, 2014.
Thoroughly implement measures relating to the four-party tie-up loans, including training all executive officers and employees involved in the scheme during the period set forth above.

Measures for the Enhancement of Group Governance

As set forth in the "One MIZUHO New Frontier Plan—Stepping up to the Next Challenge—," dated February 26, 2013, MHFG aims to strengthen group governance and improve group management efficiency as well as advance Mizuho's business model towards the new frontier of finance through the transition to the single bank and single securities structure, transformation into the new group capital structure and group management structure, and implementation of various measures such as the enhancement of group governance which supports unified group strategies. In order to fulfill our social responsibilities as a member of the global financial community, we have made decisions as set forth in the details below in relation to establishing a strong governance system and strengthening our crisis management capabilities, with an aim to further strengthen our group governance and to further facilitate the progress of our business model.

1. Establishment of a strong governance system

Mizuho has decided to conduct necessary studies and preparations in relation to the following draft measures for the establishment of a strong governance system based on the following three basic policies: 1) fundamentally strengthen supervisory function of the Board of Directors against the execution (particularly the active use of check-and-balance function by external persons); 2) ensure optimal placement of human resources that support the governance system; and 3) the adoption of a global and advanced governance framework.

We plan to conduct necessary studies and preparations with an aim to execute various measures at MHFG in April 2014, provided that they will be approved at the general meeting of shareholders, and at MHBK, Mizuho Trust & Banking ("MHTB") and Mizuho Securities ("MHSC") around first half of fiscal 2014.

(1) Consideration of the transformation into a Company with Committees (MHFG)

MHFG plans to further enhance corporate governance, including strengthening the supervisory function against execution and improving transparency of management processes, and enhance the flexibility of management process by facilitating swifter decision making. It aims to transform into a Company with Committees and will conduct specific studies and preparations accordingly, provided that such plans will be approved at the general meeting of the shareholders.

(2) Separation of the chairman of the Board of Directors from the general execution of business operations (MHFG)

In order to clarify the supervisory function of the Board of Directors, MHFG and MHBK will consider separating the chairman of the Board of Directors from the general execution of business operations and appointing external directors as the chairman of the Board in principle.

(3) Additional appointment of external directors (MHFG, MHBK, MHTB and MHSC)

MHFG, MHBK, MHTB and MHSC will consider appointing additional external directors with expert knowledge of and experience in corporate governance, compliance with laws and regulations and crisis management and risk management of financial institutions, etc.

(4) Clarification of the rules concerning directors of the execution line serving concurrent positions (MHFG, MHBK, MHTB and MHSC)

MHFG, MHBK, MHTB and MHSC will consider appointing Board of Director and Executive Officer (MHFG) or Executive Directors (MHBK, MHTB and MHSC) based on areas of responsibilities (Head of Compliance Group, etc.) rather than titles (Deputy President, Managing Executive Officers, etc.).

(5) Establishment of optional committees, etc. (MHFG and MHBK)

MHFG and MHBK will consider establishing the following

Source: Mizuho 2013 Annual Report, pp. 9-12

Recommendation 32: Discuss risk events, including impact on businesses and bank response where material or potentially material loss events have occurred with focus on changes to risk processes (1 of 2)

Top and emerging risks T / E

(Unaudited)

Our approach to identifying and monitoring top and emerging risks is described on page 38.

During 2013, senior management paid particular attention to a number of top and emerging risks, and our current ones are as follows:

Macro-prudential, regulatory and legal risks to our business model

- T Regulatory developments affecting our business model and Group profitability.
- T Regulatory investigations, fines, sanctions, commitments and consent orders and requirements relating to conduct of business and financial crime negatively affecting our results and brand.
- T Dispute risk.

Financial service providers face increasingly stringent and costly regulatory and supervisory requirements, particularly in the areas of capital and liquidity management, conduct of business, operational structures and the integrity of financial services delivery. Increased government intervention and control over financial institutions, together with measures to reduce systemic risk, may significantly alter the competitive landscape. These measures may be introduced as formal requirements in a supra-equivalent manner and to variable timetables by different regulatory regimes.

T Regulatory developments affecting our business model and Group profitability

Several regulatory changes are likely to affect our activities, both of the Group as a whole and of some or all of our principal subsidiaries. These changes include:

- the publication on 27 June 2013 of CRD IV, which introduced in the EU the Basel III measures that came into effect on 1 January 2014, together with the publication by the PRA on 19 December 2013 of its final rules on implementing CRD IV which apply to firms regulated by the PRA in the UK;
- the introduction of new regulatory bodies and powers in Europe comprising, in the UK, the FPC, the PRA and the FCA; and, in the eurozone, the granting to the European Central Bank ('ECB') of supervisory powers from November 2014;
- the designation of the Group by the Financial Stability Board as a global systemically important bank and resultant application of higher loss absorbency and other requirements;
- finalisation of the Financial Services (Banking Reform) Act 2013 in the UK to give effect to the recommendations of the Independent Commission on Banking ('ICB') in relation to the future 'ring-fencing' of our UK retail banking business from wholesale banking activities, the structural separation of certain activities envisaged in legislation and rules adopted in the US (including the final Volcker Rule adopted in December 2013 under the Dodd-Frank Act) and potential legislative changes across the EU;
- changes in the regime for the operation of capital markets with increasing standardisation, central clearing, reporting and margin requirements through a number of regulatory initiatives including European Market Infrastructure Regulation, Dodd Frank and the revised Markets in Financial Instruments Directive/Regulation ('MiFID2');
- requirements flowing from arrangements for the recovery and resolution of the Group and its main operating entities;
- continued changes in the manner and standards for the conduct of business, including the effects of the recommendations made by the Parliamentary Commission on Banking Standards (which will be given effect through Part 4 of the Financial Services (Banking Reform) Act 2013);
- the forthcoming ECB Asset Quality Review ('AQR'), which may reveal that substantial recapitalisation is needed among eurozone banks;

Potential impact on HSBC

- Proposed changes in regulation relating to capital and liquidity requirements, remuneration and/or taxes could increase our cost of doing business, reducing future profitability.
- Proposed changes in and the implementation of regulations for derivatives including mandatory central clearing, the ICB ring-fencing proposals, recovery and resolution plans, the Volcker Rule and the Foreign Account Tax Compliance Act (known as FATCA) may affect the manner in which we conduct our activities and how the Group is structured. These measures have the potential to increase our cost of doing business and curtail the types of business we can carry out, with the consequent risk of decreased profitability. Because the development and implementation of many of these various regulations are in their early stages, it is not possible to estimate the effect on our operations.
- Mandatory central clearing of derivatives also brings new risks to HSBC in our role as a clearing member, as we will be required to underwrite losses incurred by central clearing counterparties from the default of other clearing members and their clients. Hence central clearing brings with it a new element of interconnectedness between clearing members and clients which we believe may increase rather than reduce our exposure to systemic risk.
- Potential market disruption as a result of the AQR, including a possible re-emergence of the eurozone crisis, may affect us directly through our exposure to eurozone banks and sovereigns, and indirectly should there be any diminution in economic activity in the eurozone.
- While the tightening by regulators of credit controls limits consumer indebtedness and will benefit credit markets and our portfolios in the longer term, it may reduce our growth prospects and affect our business strategy in certain countries.
- We are closely engaged with governments and regulators in the countries in which we operate to help ensure that the new requirements are properly considered and can be implemented in an effective manner. We are also ensuring that our capital and liquidity plans take into account the potential effects of the changes. Capital allocation and liquidity management disciplines have been expanded to incorporate future increased capital and liquidity requirements and drive appropriate risk management and mitigating actions.

T Data management

We have received feedback from external stakeholders that we need a clear data strategy to meet the volume, granularity, frequency and scale of regulatory reporting requirements as well as other internal and external information demands. In addition, we are required to comply with the principles for effective risk data aggregation and risk reporting as set out by the Basel Committee on Banking Supervision ('BCBS') by the end of 2015.

Potential impact on HSBC

- Financial institutions that fail to meet their BCBS data obligations by the required deadline may face supervisory measures. Senior management recognise the importance of data management and therefore established a Data Strategy Board in 2012 to define our data strategy and ensure consistent data aggregation, reporting and mananagement across the Group. Key initiatives and projects to deliver our strategy and work towards meeting our data obligations are now in progress.
- Regulators are evaluating the industry on its ability to provide accurate information and may use the industry-developed data maturity model to assess financial services firms.

HSBC incorporates its discussion of operational risk events into its Top and Emerging Risks section. Users identified this as leading practice because it clearly highlights what issues management is focusing on and risk mitigation actions taken / in-process

Source: HSBC 2013 Annual Report, pp. 141-145

Recommendation 32: Discuss risk events, including impact on businesses and bank response where material or potentially material loss events have occurred with focus on changes to risk processes (2 of 2)

Regulatory investigations, fines, sanctions, commitments and consent orders and requirements relating to conduct of business and financial crime negatively affecting our results and brand

Financial service providers are at risk of regulatory sanctions or fines related to conduct of business and financial crime. The incidence of regulatory proceedings and other adversarial proceedings against financial service firms is increasing.

Regulatory commitments and consent orders

In December 2012, HSBC Holdings, HNAH and HSBC Bank USA, N.A. ('HSBC Bank USA') entered into agreements with US and UK authorities in relation to investigations regarding past inadequate compliance with anti-money laundering and sanctions laws. Among these agreements, HSBC Holdings and HSBC Bank USA entered into a five-year deferred prosecution agreement ('US DPA') with the US Department of Justice ('DoJ') and HSBC Holdings entered into a two-year DPA with the New York County District Attorney (the 'DANY DPA'). HSBC Holdings also entered into an undertaking with the FSA (revised as the 'FCA Direction') to comply with certain forward-looking obligations with respect to anti-money laundering and sanctions requirements.

Under the settlement agreements, HSBC Holdings, HNAH and HSBC Bank USA made payments totalling US$1.9bn to US authorities and undertook to continue cooperating fully with US and UK regulatory and law enforcement authorities and take further action to strengthen our compliance policies and procedures. The agreements with the DoJ and the US Federal Reserve Board and the FCA Direction require us to retain an independent monitor (who is, for FCA purposes, a 'skilled person' under section 166 of the Financial Services and Markets Act) to evaluate our progress in fully implementing our obligations and produce regular assessments of the effectiveness of our Compliance function.

On 1 July 2013, the US District Court for the Eastern District of New York approved the US DPA and retained authority to oversee implementation of the same. Michael Cherkasky began his work as Monitor on 22 July 2013, charged with evaluating and reporting upon, the effectiveness of the Group's internal controls, policies and procedures as they relate to ongoing compliance with applicable anti-money laundering and sanctions laws. His work is proceeding as anticipated consistent with the timelines and requirements set forth in relevant agreements.

As reflected in the agreement entered into with the OCC in December 2012 (the 'the Gramm-Leach-Bliley Act ('GLBA') Agreement'), the OCC has determined that HSBC Bank USA is not in compliance with the requirements which provide that a national bank and each depository institution affiliate of the national bank must be both well-capitalised and well-managed in order to own or control a financial subsidiary. As a result, HSBC Bank USA and its parent holding companies, including HSBC, no longer meet the qualification requirements for financial holding company status, and may not engage in any new types of financial activities without the prior approval of the Federal Reserve Board. In addition, HSBC Bank USA may not directly or indirectly acquire control of or hold an interest in any new financial subsidiary, nor commence a new activity in its existing financial subsidiary, unless it receives prior approval from the OCC.

Potential impact on HSBC

- It is difficult to predict the outcome of the regulatory proceedings involving our businesses. Unfavourable outcomes may have a material adverse effect on our reputation, brand and results, including loss of business and withdrawal of funding.
- Our significant involvement in facilitating international capital flows and trade exposes the Group to the risk of financial crime or inadvertently breaching restrictions and sanctions imposed by OFAC and other regulators. Through our Global Standards programme, we are implementing consistent procedures and controls to detect, deter and protect against financial crime.
- In relation to the DPAs, HSBC Holdings and HSBC Bank USA have committed to take or continue to adhere to a number of remedial measures. Breach of the US DPA at any time during its term may allow the DoJ to prosecute HSBC Holdings or HSBC Bank USA in relation to the matters which are the subject of the US DPA. Breach of the DANY DPA may allow the New York County District Attorney's Office to prosecute HSBC Holdings in relation to the matters which are the subject of that DPA.
- In relation to the GLBA Agreement, if all of our affiliate depositary institutions are not in compliance with these requirements within the time periods specified in the GLBA Agreement, HSBC could be required either to divest HSBC Bank USA or to divest or terminate any financial activities conducted in reliance on the GLBA. Similar consequences under the GLBA Agreement could result for subsidiaries of HSBC Bank USA that engage in financial activities in reliance on expanded powers provided for in the GLBA. Any such divestiture or termination of activities would have a material adverse effect on the consolidated results and operation of HSBC. The GLBA Agreement requires HSBC Bank USA to take all steps necessary to correct the circumstances and conditions resulting from non-compliance with the requirements referred to above. We have initiated steps to satisfy the requirements of the GLBA Agreement.

Steps to address many of the requirements of the DPAs, the FCA Direction and the GLBA Agreement have either already been taken or are under way. These include simplifying the Group's control structure, strengthening the governance structure with new leadership appointments, revising key policies and establishing bodies to implement single Global Standards shaped by the highest or most effective standards available in any location where the Group operates, as well as substantially increasing spending and staffing in the anti-money laundering and regulatory compliance areas in the past few years. There can be no assurance that these steps will be effective or that HSBC will not have to take additional remedial measures in the future to comply with the terms of the DPAs, the FCA Direction or the GLBA Agreement.

Dispute risk

The current economic environment has increased the Group's exposure to actual and potential litigation. Further details are provided in Note 43 on the Financial Statements.

Potential impact on HSBC

- Dispute risk gives rise to potential financial loss and significant reputational damage which could adversely affect customer and investor confidence.

Risks related to our business operations, governance and internal control systems

- Heightened execution risk.
- Internet crime and fraud.
- Information security risk.
- Data management.
- Model risk.

Heightened execution risk

There are a number of factors which may affect the successful delivery of our strategy. These include the increasing regulatory pressures and demands and the challenging macroeconomic environment, which may affect our ability to achieve planned earnings growth. The implementation of our strategy to simplify our business, which involves withdrawing from certain markets, presents disposal risks which must be carefully managed. Implementing organisational changes to support the Group's strategy, including the restructuring of our Compliance function into two distinct sub-functions: Financial Crime Compliance and Regulatory Compliance, also requires close management oversight.

Potential impact on HSBC

- Our annual planning and stress testing processes consider the effect of potential risks from the external environment on our earnings and capital position and actions by management to mitigate them.
- The potential risks of disposals include regulatory breaches, industrial action, loss of key personnel and interruption to systems and processes during business transformation.
- We have invested significantly in addressing this risk through increased training to raise staff awareness of the requirements and enhanced multi-layered controls protecting our information and technical infrastructure.
- The size and scope of the change to our Compliance function could generate heightened execution and people risk (including significant resourcing demands) and are subject to close management oversight.

Internet crime and fraud

With the ever-growing acceptance of and demand for internet and mobile services by customers, HSBC is increasingly exposed to fraudulent and criminal activities via these channels. Internet crime could result in financial loss and/or customer data and sensitive information being compromised. Along with internet fraud, the overall threat of external fraud may increase during adverse economic conditions, particularly in retail and commercial banking.

We also face the risk of breakdowns in processes or procedures and systems failure or unavailability, and our business is subject to disruption from events that are wholly or partially beyond our control, such as internet crime and acts of terrorism.

Potential impact on HSBC

- Internet crime and fraud may give rise to losses in service to customers and/or economic loss to HSBC. These threats also exist when we rely on external suppliers or vendors for services provided to the Group and our customers.
- We have increased our defences through enhanced monitoring and have implemented additional controls such as two-factor authentication to reduce the possibility of losses from fraud. We continually assess the threats from internet crime and fraud as they evolve and adapt our controls to mitigate them.

Information security risk

The security of our information and technology infrastructure is crucial for maintaining our banking applications and processes while protecting our customers and the HSBC brand.

Potential impact on HSBC

- Information security risk gives rise to potential financial loss and reputational damage which could adversely affect customer and investor confidence. Loss of customer data would also trigger regulatory breaches which could result in fines and penalties being incurred.

Source: HSBC 2013 Annual Report, pp. 141-145