# PILLAR 3 REPORT



Disclosures as at December 31, 2010

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Except where indicated otherwise, all figures provided in this report are as of December 31, 2010 and stated in millions of Euros. The drawing-up process of Societe Generale's Pillar 3 report and the data contained in it are not subject to review by the Group's statutory auditors.

Abbreviations: millions of Euros = EURm billions of Euros = EURbn

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# INTRODUCTION

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#### THE BASEL II FRAMEWORK

Following the first Basel Accord, known as Basel I and published in 1988, the Basel Committee on Banking Supervision proposed a new set of recommendations in 2004 in order to more accurately measure credit risk. They include, in particular, taking into account the borrower's credit profile through a financial rating system specific to each credit institution. These recommendations, known as Basel II, are based on the following three pillars:

- Pillar 1 sets minimum solvency requirements and defines the rules that banks must use to measure risks and calculate associated capital requirements, according to standard or more advanced methods.
- Pillar 2 relates to the discretionary supervision implemented by national banking supervisors, which allows them based

- on a constant dialogue with supervised credit institutions to assess the adequacy of capital requirements as calculated under Pillar I, and to calibrate additional capital requirements with regard to risks.
- Pillar 3 encourages market discipline by developing a set of qualitative or quantitative disclosure requirements which will allow market participants to make a better assessment of capital, risk exposure, risk assessment processes and hence capital adequacy of the institution.

The Basel II framework was enshrined into European legislation with the enactment of the Capital Requirement Directive (CRD), which was eventually transposed into French law through the February 20, 2007 Decree.

#### SOCIETE GENERALE'S PILLAR 3 REPORT

Published under the joint responsibility of the Group's Finance and Risk divisions, Societe Generale's Pillar 3 report intends to provide valuable insight into the Group's capital and risk management, as well as detailed quantitative information in relation to the calculation of the Group's consolidated solvency ratios, as they result from the implementation of Pillar 1.

Published yearly, on the basis of the year-end figures, Societe Generale's Pillar 3 report is available on the Group's investor relations website www.investor.socgen.com.

#### SCOPE OF PRUDENTIAL REPORTING

Societe Generale is subject to consolidated regulatory *reporting* to its home supervisor, the "Autorité de Contrôle Prudentiel". Accordingly, the Pillar 3 report is based on the Group's consolidated regulatory solvency reporting. In addition, the

contribution to the Group's total risk-weighted assets of selected key subsidiaries can be found in chapter 1 of this report.

Scope of prudential reporting

#### ■ Table 1: Difference between accounting and prudential scope

Type of entity	Accounting treatment	Prudential treatment under Basel II
Subsidiaries with a finance activity	Full or proportional consolidation	Capital requirement based on the subsidiary's activities
Subsidiaries with an insurance activity	Full or proportional consolidation	Capital deduction
Holdings, joint ventures with a finance activity by nature	Equity method	Capital deduction (50% Tier 1 and 50% Tier 2)
Venture capital investments treated as holdings	Full or proportional consolidation	Underlying investments are weighted individually and added to the risk-weighted assets of the prudential scope

The Group's prudential reporting scope includes all fully and proportionally consolidated subsidiaries, the list of which is available in the Group's Registration Document available on www.investor.socgen.com, with the exception of insurance subsidiaries, which are subject to separate insurance capital

reporting requirements. For regulatory purposes, Societe Generale's investments in insurances companies, as well as in affiliates consolidated according to the equity method, are deducted from the Group's total regulatory capital.

The main Group companies outside the prudential reporting scope are as follows:

#### ■ Table 2: Subsidiaries excluded from the prudential scope

Company	Activity	Country
Antarius	Insurance	France
Catalyst Re International	Insurance	Bermuda
Génécar	Insurance	France
Généras	Insurance	Luxembourg
Inora Life	Insurance	Ireland
Komerčni Pojstovna	Insurance	Czech Republic
La Marocaine Vie	Insurance	Morocco
Oradéa Vie	Insurance	France
Société Générale Ré	Insurance	Luxembourg
Sogécap	Insurance	France
Sogecap Life Insurance	Insurance	Russia
Sogelife	Insurance	Luxembourg
Sogéssur	Insurance	France
SG Banque au Liban	Banking	Lebanon
La Banque Postale	Banking	France
Amundi	Asset Management	France

# ■ STATUS OF CONSOLIDATED SUBSIDIARIES

Regulated financial subsidiaries and affiliates outside Societe Generale's prudential consolidation scope are all in compliance with their respective solvency requirements.

More generally, all regulated Group undertakings are subject to solvency requirements set by their respective regulators.

# CAPITAL ADEQUACY

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#### COMPOSITION OF REGULATORY CAPITAL

Reported according to International Financial Reporting Standards (IFRS), Societe Generale's regulatory capital consists of the following components:

#### Tier 1 capital

Tier 1 capital comprises own funds elements less prudential deductions:

- Common stock (net of share buybacks and treasury stock).
- Retained earnings, including translation reserves and changes in the fair value of assets available for sale and hedging derivatives, net of tax.
- Non-controlling interests.
- Certain deeply subordinated instruments and preferred shares, further described below

Less prudential deductions:

- Estimated dividend payment.
- Goodwill on acquisitions.
- Intangible assets.
- Unrealised capital gains and losses on cash flow hedges and Available For Sale (AFS) assets, except for shares and other equity instruments. However, 45% of unrealised capital gains on AFS securities and tangible assets are included in Tier 2 capital.

Moreover, under the Basel II capital framework, other deductions are made, equally from Tier 1 and from Tier 2:

- Investments and subordinated claims towards non-consolidated banks or financial institutions if the shares held represent an interest of more than 10% of the outstanding capital of the entity.
- 2. Securitisation exposures weighted at 1,250% where such exposures are not included in the calculation of total risk-weighted exposures.
- 3. Expected loss on equity investment portfolio exposures.
- 4. Positive difference, if any, between expected losses on loans and receivables risk-weighted using the Internal Ratings Based (IRB) approach and the sum of related value adjustments and collective impairment losses.

#### Tier 2 capital

Tier 2 capital (or supplementary capital) comprises:

- Undated subordinated debt (upper Tier 2).
- The positive difference, if any, between i) the sum of value adjustments and collective impairment losses related to loans and receivables exposures risk-weighted using the IRB approach, and ii) expected losses, is included in upper Tier 2 up to 0.6% of the total Risk-Weighted Assets.
- Dated subordinated debt (lower Tier 2).

Moreover, using the option offered by the Financial Conglomerates Directive, equity interests of more than 20% held in insurance affiliates and any investment qualifying as regulatory capital for insurance solvency requirements are deducted from total own funds until December 31, 2012 if acquired prior to January 1, 2007.

## DEBT INSTRUMENTS QUALIFYING AS TIER 1 CAPITAL FOR REGULATORY PURPOSES

Societe Generale's obligations relating to the principal and interest of US preferred shares issued by indirect subsidiaries benefiting from its guarantee and deeply subordinated notes directly issued by the bank share the following features:

- These instruments are perpetual and constitute unsecured, deeply subordinated obligations, ranking junior to all other obligations of Societe Generale including undated and dated subordinated debt, and senior only to common stock shareholders.
- In addition, Societe Generale may elect, and in certain circumstances may be required, not to pay the interest and coupons linked to these instruments. The interest not paid as a result is not cumulative and will be irrevocably lost by all of these instruments' holders.

- Under certain circumstances, notably with regard to the bank's compliance with solvency requirements, the issuer has the right to use principal and interest to absorb losses.
- Subject to the prior approval of the *Autorité de Contrôle Prudentiel*, Societe Generale has the option to redeem these instruments at certain time intervals, but not earlier than five years after their issuance date.
- The combined outstanding amount of these instruments cannot exceed 35% of the bank's total Tier 1 capital. In addition, the combined outstanding amount of instruments with a step-up clause (so-called "innovative instruments"), cannot exceed 15% of the bank's total Tier 1 capital base.

#### ■ Table 3: Total amount of debt instruments qualifying as capital

Issue date	Currency	Amount issued Nominal (in EURm)	Value in EURm at end- 2010	Value in EURm at end- 2009
US Trust preferred shares			968	1 445
Mar-00*(1)	EUR	500	0	500
Oct-01*	USD	425	318	295
Oct-03*	EUR	650	650	650
Deeply subordinated notes			6,571	6,397
Jan-05*	EUR	1,000	1,000	1,000
Apr-07*	USD	1,100	823	764
Apr-07*	USD	200	150	139
Dec-07*	EUR	600	600	600
May-08	EUR	1,000	1,000	1,000
June-08	GBP	700	813	788
July-08*	EUR	100	100	100
Dec-08	EUR	1,700	0	0
Feb-09	USD	450	337	312
Sept-09*	EUR	1,000	1,000	1,000
0ct-09	USD	1,000	748	694
Total			7,539	7,842

Note \*: innovative instruments

Note 1: instrument redeemed in Q1 2010

#### US Trust preferred shares

- In the first half of 2000, Societe Generale issued EURm 500 in preferred shares through a wholly-owned US subsidiary. These securities entitle the holder to a fixed non-cumulative dividend equal to 7.875% of nominal value payable annually, with a step-up clause that comes into effect after 10 years. These preferred shares were redeemed early during the first quarter of 2010.
- In the fourth quarter of 2001, Societe Generale issued USDm 425 in preferred shares through a wholly-owned US subsidiary, with a step-up clause that comes into effect after 10 years. These shares entitle holders to a non-cumulative dividend, payable quarterly, at a fixed rate of 6.302% of nominal value on USDm 335 of the issue, and at a variable rate of Libor +0.92% on the other USDm 90.
- In the fourth quarter of 2003, Societe Generale issued EURm 650 of preferred shares through a wholly-owned US subsidiary (paying a non-cumulative dividend of 5.419% annually) with a step-up clause that comes into effect after 10 years.

From an accounting perspective, due to the discretionary nature of the decision to pay dividends to shareholders, preferred shares issued by the Group are classified as equity and recognised under Non-controlling interests. Remuneration paid to preferred shareholders is recorded under non-controlling interests in the income statement.

# Deeply subordinated notes – *Titres Super Subordonnés* (TSS)

- In January 2005, the Group issued EURbn 1 of deeply subordinated notes (Titres Super Subordonnés – TSS), paying 4.196% annually for 10 years and, as from January 26, 2015, 3-month Euribor +1.53% per annum payable quarterly.
- In April 2007, the Group issued USDm 200 of deeply subordinated notes, paying 3-month USD Libor +0.75% annually and then, from April 5, 2017, 3-month USD Libor +1.75% annually.

- In April 2007, the Group issued USDm 1,100 of deeply subordinated notes, paying 5.922% twice yearly and then, from April 5, 2017, 3-month USD Libor +1.75% annually.
- In December 2007, the Group issued EURm 600 of deeply subordinated notes paying 6.999% annually and then, from December 19, 2017, 3-month Euribor +3.35% per annum payable quarterly.
- In May 2008, the Group issued EURm 1,000 of deeply subordinated notes, paying 7.756% annually and then, from May 22, 2013, 3-month Euribor +3.35% per annum payable quarterly.
- In June 2008, the Group issued GBPm 700 of deeply subordinated notes, paying 8.875% annually and then, from June 18, 2018, 3-month Libor +3.40% per annum payable quarterly.
- In July 2008, the Group issued EURm 100 of deeply subordinated notes, paying 7.715% annually and then, from July 9, 2018, 3-month Euribor +3.70% per annum payable quarterly.
- In December 2008, the Group issued EURm 1,700 of deeply subordinated notes, fully subscribed by the Société de Prises de Participation de l'Etat, an agency of the French government. Interest was 8.18% annually and then, from 2013, Euribor +4.98%. These notes were fully redeemed in November 2009.
- In February 2009, the Group issued USDm 450 of deeply subordinated notes, paying 9.5045% annually payable every six months and then, from February 29, 2016, 3-month Libor +6.77% per annum payable quarterly.
- In September 2009, the Group issued EURm 1,000 of deeply subordinated notes, paying 9.375% annually and then, from September 4, 2019, 3-month Euribor +8.9% per annum payable guarterly.
- In October 2009, the Group issued USDm 1,000 of deeply subordinated notes, paying 8.75% annually with no step-up clause.

From an accounting perspective, given the discretionary nature of the decision to pay dividends to shareholders, deeply subordinated notes are classified as equity under IFRS and recognised under Equity instruments and associated reserves.

## CALCULATION OF REGULATORY RATIOS

The implementation of the Basel II standard provides for a transitional period (extended until end-2011) during which Basel II capital requirements (calculated as 8% of risk-weighted assets and in accordance with current regulations and French decree of February 20, 2007 amended on August 25, 2010) cannot be less than 80% of the capital requirements in the previous standard (Basel I or Cooke standard).

#### ■ Table 4: Prudential capital and Basel II solvency ratios

(in EURm)	Dec. 2010	Dec. 2009
Consolidated shareholders' equity, Group share (IFRS)	46,421	42,204
Deeply subordinated notes (TSS)	(6,411)	(6,252)
Undated subordinated notes (TSDI)	(892)	(824)
Consolidated shareholders' equity, Group share, net of TSS and TSDI	39,118	35,128
Non-controlling interests	3,359	2,930
Deeply subordinated notes	6,571	6,397
US preferred shares	968	1,445
Intangible assets	(1,386)	(1,403)
Goodwill on acquisitions	(8,451)	(7,620)
Dividends proposed at GM and coupons paid on TSS and TSDI	(1,484)	(392)
Other regulatory adjustments	171	473
Total Tier 1 capital	38,866	36,957
Basel II deductions <sup>(*)</sup>	(3,503)	(2,264)
Total Tier 1 capital, net of deductions	35,363	34,693
Upper Tier 2 capital	1,236	1,159
Lower Tier 2 capital	11,255	11,814
Total Tier 2 capital	12,491	12,974
Basel II deductions <sup>(*)</sup>	(3,503)	(2,264)
Insurance affiliates (**)	(3,845)	(3,406)
Total regulatory capital (Tier 1 + Tier 2)	40,506	41,996
Total risk-weighted assets	334, 795	324,080
Risk-weighted assets for credit risk	274,646	263,101
Risk-weighted assets for market risk	13,078	13,900
Risk-weighted assets for operational risk	47,071	47,080
Effect of transitional measures on the risk-weighted assets used to calculate the Tier 1 ratio(****)	9,067	
Effect of transitional measures on the risk-weighted assets used to calculate the total ratio(****)	6,651	
Solvency ratios		
Tier 1 ratio	10.6%	10.7%
Total capital ratio	12.1%	13.0%
Tier 1 ratio after effect of the transitional measures(***)	10.3%	
Total capital ratio after effect of the transitional measures(****)	11.9%	

<sup>(\*)</sup> Basel II deductions are deducted 50% from Tier 1 capital and 50% from Tier 2 capital.

<sup>(\*\*)</sup> Including the value of equity investments representing EURbn -2.6; Societe Generale has used the option offered by the Financial Conglomerates Directive of deducting the amount of equity-accounted insurance investments from its total regulatory capital.

<sup>(\*\*\*)</sup> Additional capital requirements with respect to floor levels having an impact of -28bp on the Tier 1 ratio and -24bp on the total ratio as at December 31, 2010.

At end-2010, the Tier 1 ratio under Basel II was 10.6%. The slight decline of 14bp compared with end-2009 is due to the respective changes in the sources and uses of capital during the financial year, and in particular the increase in Basel II

deductions. The Core Tier 1 ratio reached 8.5%, up 10bp on 2009, due to the increase in consolidated shareholders' equity resulting from retained earnings in respect of 2010.

#### Table 5: Basel II deductions

(in EURm)	Dec. 2010	Dec. 2009
Unconsolidated banking affiliates >10%	(792)	(750)
Book value of equity-accounted investments	(847)	(963)
Subordinated loans to credit institutions > 10%	(725)	(914)
Deductions in respect of securitisation positions	(4,256)	(1,864)
Expected losses on equity investment portfolio exposures	(32)	(34)
Expected losses on outstandings risk-weighted using the internal method, net of related value adjustments and collective impairment losses	(355)	(3)
Total Basel II deductions	(7,006)	(4,528)

## ■ CAPITAL REQUIREMENTS

Societe Generale has been using the advanced methods (IRB approach and AMA) to calculate its minimum capital requirements since January 1, 2008. The Group continues to extend the scope of application of the advanced methods. The following table presents the risk-weighted assets as well as the Group's capital requirements, classified by risk type.

#### ■ Table 6: The Group's capital requirements and risk-weighted assets

(in EURm)	Dec. 2010		Dec. 2009		
Risk type	Minimum capital requirements	RWA	Minimum capital requirements	RWA	
Credit risk under the IRB approach	12,983	162,283	12,312	153,899	
Credit risk under the standard approach	8,989	112,363	8,736	109,195	
Settlement/delivery risk	0	0	1	6	
CREDIT, COUNTERPARTY AND DELIVERY RISK	21,972	274,646	21,048	263,101	
Market risk using the internal model	928	11,603	878	10,979	
Market risk under the standard approach	118	1,476	234	2,921	
MARKET RISK	1,046	13,078	1,112	13,900	
Operational risk under the AMA approach	3,453	43,163	3,441	43,013	
Operational risk under the standard approach	313	3,907	325	4,067	
OPERATIONAL RISK	3,766	47,070	3,766	47,080	
TOTAL EXCLUDING THE BASEL I FLOOR EFFECT <sup>(1)</sup>	26,784	334,795	25,927	324,080	

Note 1: Capital requirements and risk-weighted assets excluding the Basel I floor effect. "The Basel I floor effect" amounted to EUR 0 as at December 31, 2009, and as at December 31, 2010, to EURm 532 in capital requirements and to EURm 6,651 in risk-weighted assets..

Capital requirements

The credit and counterparty risk exposures are presented according to the valuation method, using the IRB approach and standard approach. Details of the calculations by type of credit risk exposure are available in Chapter 3 "Credit and Counterparty Risk".

Capital requirements on securitisation transactions are presented separately, with preference given to the IRB approach. Chapter 5 "Securitisations" provides a more detailed analysis of the Group's securitisation exposure. The Group's banking book equity investments are also calculated using mainly the IRB approach.

Similarly, market risk is calculated using the internal "value-at-risk" method. Additional details on the calculation using the internal model are available in Chapter 6 "Equity Risk". For the calculation of operational risk, the method adopted since 2004 is the advanced measurement approach (AMA). Chapter 8 "Operational Risk" provides details on how operational risk is measured and monitored within the Group.

# Increase in risk-weighted assets and capital requirements

Between December 31, 2009 and December 31, 2010, the Group's capital requirements and risk-weighted assets increased by respectively EURm 857 and EURm 10,715. This increase reflects primarily the increase in the Group's outstanding loans following a rebound in activity during 2010. By contrast, requirements in terms of market risk declined, while operational risk remained stable.

At December 31, 2010, the Group had EURm 40,506 of regulatory capital, a level well above the minimum requirement of EURm 27,316 resulting from the calculation of risk-weighted assets, including the Basel I floor effect.

# ■ INFORMATION ON KEY SUBSIDIARIES' CONTRIBUTION TO THE GROUP'S TOTAL RISK-WEIGHTED ASSETS

The contributions of the three key subsidiaries collectively contributing more than 10% of the Group's risk-weighted assets are as follows:

#### ■ Table 7: Key subsidiaries' contribution to the Group's risk-weighted assets

	Cré	dit du Nord		Rosbank	Kome	rčni Banka
(in EURm)	IRB	Standard	IRB	Standard	IRB	Standard
Credit and counterparty risks	11,154	5,400	562	8,337	9,910	1,329
Sovereign	0	0	-	660	580	1
Credit institutions	251	0	-	1,102	1,056	77
Corporate	6,400	2,947	-	4,191	6,035	217
Retail	3,962	1,725	-	2,153	1,971	941
Securitisation	0	0	-	-	7	-
Equity	103	132	38	-	0	-
Other assets	438	597	524	232	260	93
Market risk		41		396		12
Operational risk		940		1,231		869
2010 total	17	,535	•	10,526	1:	2,121
2009 total	14	,879		10,433	1	1,522

The increase in Crédit de Nord's risk-weighted assets in 2010 mainly reflects the impact of the *Société Marseillaise de Crédit* acquisition. Risk-weighted assets remained virtually stable at Rosbank, reflecting the unfavourable economic conditions in

Russia at the beginning of 2010. Lastly, at *Komerčni Banka*, the increase in risk-weighted assets followed the increase in the portfolio of retail loans, especially mortgage loans.

# 2 CAPITAL AND RISK MANAGEMENT POLICY

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#### CAPITAL MANAGEMENT OBJECTIVES AND STRATEGY

Societe Generale's capital management is aimed at ensuring that the Group's solvency level is at all times consistent with its objectives of:

- i) Maintaining a high level of financial strength, closely correlated to the Group's overall risk profile and risk appetite.
- ii) Preserving financial flexibility for funding internal and external arowth.
- iii) Ensuring the optimal deployment of capital across its various businesses to optimise the risk/reward balance.
- iv) Ensuring the strong resilience of the Group in case of adverse stress scenarii.
- v) Satisfying the expectations of various stakeholders: counterparties, debt obligors, rating agencies and shareholders.

The Group's internal solvency target is established in reference to its regulatory Core Tier 1 and Tier 1 ratios. Under the Pillar 1 framework, capital requirements arising from credit risk, market risk and operational risk are determined according to quantitative rules, which are further described in this Pillar 3 report.

#### CAPITAL MANAGEMENT PROCESS

The Group's capital management process is administered by the Finance Division on behalf of the General Management and is subject to the overall guidance and control of the Board. Fully integrated within the Group's financial and strategic planning, the capital management process takes into account the Group's regulatory capital constraints set by the Regulator as well as its own internal assessment of the amount of capital required to adequately cover risks, including in adverse scenarii.

The Internal Capital Adequacy Assessment Process (ICAAP) which is closely supervised by Senior Management is based on a multi-pronged approach taking into account:

- Capital planning, updated at regular intervals (e.g. in conjunction with budget and financial planning or the production of a growth funding plan) based on a Group-wide simulation tool. This helps ensure at all times that sources and application of capital fit well with the Group's overall objectives and business needs.
- Business and risk cyclicality, to explicitly factor in the effect of credit cycles, while also taking into account risks outside the scope of Pillar 1 (e.g. business risk, interest rate risk etc.).

- Stress testing: the Group continues to constantly improve its global stress testing framework which is designed to incorporate all dimensions of the Group's risk profile and to better measure the Group's resilience to adverse macroeconomic scenarii. The stress testing exercises are used to assess and define the Group's financial objectives and target Core Tier 1 and Tier 1 ratios. They are carried out regularly (at least annually) as part of the budget process and the results are presented to the Risk Committee.
- The Group also participates in the European stress test exercise carried out under the aegis of the competent European bodies: Committee of European Banking Supervisors (CEBS) in 2010 and European Banking Authority (EBA) in 2011. The 2010 exercise confirmed the Group's strong degree of resilience, in an adverse *scenario* which included shocks on trading book sovereign debt outstandings. This resulted in Tier 1 ratio of 10.0% for the Societe Generale Group in the adverse *scenario*, i.e. a level in line with the average ratios for its peers. The 2011 European stress test exercise is currently taking place under the aegis of the EBA, and the results are expected to be published in June 2011.

Capital management process

Finally, in order to vet the outcome of its forward-looking capital management process, the Group supplements the capital planning exercise by conducting benchmarking with relevant

peers, as well as by maintaining a constant dialogue with investors, equity analysts and rating agencies.

#### ■ FORMALISATION OF RISK APPETITE

2010 was marked by the development of the risk appetite framework with a view to further improving the Group's strategic management process. The framework, run jointly by the Finance Division and the Risk Division, under the auspices of the General Management, documents the setting and validation by the Board of Directors of risk appetite targets and boundaries for key Group financial indicators. At the same time it incorporates a risk/return analysis for various Group businesses thereby refining the view already provided by the global stress test exercise. A first set of indicators has already been

presented to the Audit, Internal Control and Risk Committee, as well as to the Board of Directors.

This framework should also ultimately enable the Group's Management to regularly monitor various indicators relating to the type of risks incurred by the Group. It will thus allow a more accurate analysis of changes in the risk profile of the Group and its various businesses and help to develop a composite view by risk type (market risk, credit risk, operational risk, other risks).

#### RISK MANAGEMENT STRATEGY

Given the diversity of businesses, markets and regions in which the Societe Generale Group operates, the implementation of a high performance and efficient risk management structure is a critical undertaking for the bank. Specifically, the main objectives of the Group risk management are:

- to contribute to the development of the Group's various businesses by optimising their overall risk-adjusted profitability;
- to guarantee the Group's sustainability as a going concern, through the implementation of an efficient system for risk analysis, measurement and monitoring.

In defining the Group's overall risk appetite, the General Management takes various considerations and variables into account, including:

- the relative risk/reward of the Group's various activities;
- earnings sensitivity to economic cycles and credit or market events;
- sovereign and macro-economic risks, both on the emerging markets and in developed countries;
- the balance in the portfolio of earning streams.

#### TYPES OF RISKS

Given the diversity and changes in the Group's activities, its risk management focuses on the following main categories of risks, any of which could adversely affect its performance:

- Credit risk (including country risk): risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk includes the counterparty risk linked to market transactions, as well as securitisation activities. In addition, credit risk may be further amplified by concentration risk, which arises from a large exposure to a given risk, to one or a few counterparties, or to one or more homogeneous groups of counterparties;
- Market risk: risk of loss resulting from changes in the price of market products, volatility and correlations across risks. These changes include, but are not limited to, changes in foreign exchange rates, bond prices and interest rates, securities and commodities prices, derivatives prices and prices of all other assets such as real estate;
- Operational risks (including accounting and environmental risks): risk of losses or sanctions due to inadequacies or failures in internal procedures or systems, human error or external events;
- Investment portfolio risk: risk of unfavourable changes in the value of the Group's investment portfolio;
- Non-compliance risk (including legal, tax and reputational risks): risk of legal, administrative or disciplinary sanction, material financial losses or reputational damage arising from failure to comply with the provisions governing the Group's activities;

- Structural interest and exchange rate risk: risk of loss or of write-downs in the Group's assets arising from variations in interest or exchange rates. Structural interest and exchange rate risk arises from commercial activities and transactions entered into by the Group's corporate centre (operations involving equity capital, investments and bond issues);
- Liquidity risk: risk of not being able to meet the Group's requirements for cash or collateral as they arise;
- Strategic risk: risks tied to the choice of a given business strategy or resulting from the Group's inability to execute its strategy; and
- Business risk: risk of losses if costs exceed revenues.

Through the Group's insurance subsidiaries, it is also exposed to a variety of risks linked to the insurance business. These include premium prices risk, mortality risk and structural risk of life and non-life insurance activities, including pandemics, accidents and catastrophic events (such as earthquakes, windstorms, industrial disasters, or acts of terrorism or war).

Through the Group's Specialised Financial Services division, mainly in its operational vehicle leasing subsidiaries, it is exposed to residual value risk (the net resale value of an asset at the end of the leasing contract being less than estimated). Any of these risks could materially adversely affect the Group's business, results of operations and financial condition.

Principles of risk management, governance, control and organisation

## PRINCIPLES OF RISK MANAGEMENT, GOVERNANCE, CONTROL AND ORGANISATION

Societe Generale Group's risk management governance is based on:

- strong managerial involvement, throughout the entire organisation, from the Board of Directors down to operational field management teams;
- a tight framework of internal procedures and guidelines;
- continuous supervision by an independent body to monitor risks and to enforce rules and procedures.

The Group's risk management is organised around two key principles:

- independence of risk assessment departments from the operating divisions;
- risk monitoring as well as a consistent approach to risk assessment to be applied throughout the Group.

Compliance with these principles forms part of the integration plans for subsidiaries acquired by the Group.

Group risk management is governed by two main bodies: the Board of Directors, via the Audit, Internal Control and Risk Committee, and the Risk Committee. The Group's corporate divisions, such as the Risk Division and Finance Division, which are independent from the business divisions, are dedicated to permanent risk management and control under the authority of the General Management.

#### THE BOARD OF DIRECTORS

The Board of Directors defines the Company's strategy, by assuming and controlling risks, and ensures its implementation. In particular, the Board of Directors ensures the adequacy of the Group's risk management infrastructure, controls the global risk exposure of its activities and approves the risk limits for market risks. Presentations on the main aspects of, and notable changes to the Group's risk management strategy, are made to the Board of Directors by the General Management at least once a year (more often if circumstances require it).

#### THE AUDIT, INTERNAL CONTROL AND RISK COMMITTEE

The Board of Directors' **Audit, Internal Control and Risk Committee** plays a crucial role in the assessment of the quality of the Group's internal control. More specifically it is responsible for examining the internal framework for risk monitoring to ensure consistency and compliance with existing procedures, laws and regulations. The Committee benefits from specific presentations made by the General Management, reviews the procedures for controlling market risks as well as the structural interest rate risk and is consulted about the setting of risk limits. It also issues an opinion on the Group's overall provisioning policy as well as on large specific provisions. Lastly, it examines the annual report on internal control, which is submitted to the Board of Directors and to the French Prudential Supervisory Authority (*Autorité de Contrôle Prudentiel*).

#### THE RISK COMMITTEE

Chaired by the General Management, the Risk Committee (CORISQ) meets at least once a month to discuss the major trends in terms of the Group's risk. Generally, the Committee, upon proposal of the Risk Division, takes the main decisions pertaining to, on the one hand, the architecture and the implementation of the Group's risk monitoring system, and on the other, the framework of each type of risk (credit risk, country risk, market and operational risks). The Group also has a Large Exposures Committee, which focuses on reviewing large individual exposures.

#### **RISK DIVISION**

The Risk division's primary role is to establish a risk management system and to contribute to the development of the Group's businesses and profitability. In exercising its functions, it reconciles independence from and close cooperation with the core businesses, these being responsible first and foremost for the transactions they initiate.

Accordingly, the Risk Division is responsible for:

- providing hierarchical and functional supervision of the Group's Risk structure;
- identifying the risks borne by the Group;
- putting into practice a governance and monitoring system for these risks, including cross-business risks, and regularly reports on their type and scope, to the General Management, the Board of Directors and the banking supervisory authorities:
- contributing to the definition of risk policy, taking into account the aims of the core businesses and the corresponding risk issues:
- defining or validating risk analysis, assessment, approval and monitoring methods and procedures;
- validating the transactions and limits proposed by the business managers;
- defining the risk monitoring information system, and ensuring its suitability for the needs of the core businesses and its consistency with the Group's information system.

#### THE FINANCE DIVISION

Structural interest rate, exchange rate and liquidity risks as well as the Group's long-term refinancing programme are managed by the Asset and Liabilities Management (ALM) Department, whereas capital requirements and capital structure are managed by the Financial Management and Capital Planning Department. Both departments report to the Group Finance Division.

As of January 1, 2011, a new management structure was implemented in order to manage structural risks. Its objective is to strengthen structural risk management (interest, exchange rate and liquidity risks) and to ensure the compliance of governance with regulations by separating structural risk management and control functions.

The ALM Department has therefore been separated into two new departments:

- The Financing and ALM Department, which is dedicated to structural risk management. It also monitors and coordinates all Group treasury functions (external Group financing, internal entity financing, centralised collateral management);
- The ALM Risk Monitoring Department, which is dedicated to Group structural risk management, and in particular verification of models, monitoring of compliance with limits and management practices by the Group's business divisions, business lines and entities.

The Finance Division is also responsible for assessing and managing the other major types of risk, namely strategic risks, business risks, etc.

The Finance Policy Committee is chaired by the General Management and validates the system used to analyse and measure risks as well as the exposure limits for each Group entity. It also serves an advisory role for the business divisions and entities.

Societe Generale's risk measurement and assessment processes are an integral part of the bank's ICAAP (Internal Capital Adequacy Assessment Process<sup>(1)</sup>). Alongside capital management, the ICAAP is aimed at providing guidance to both CORISQ and COFI in defining the Group's overall risk appetite and setting risk limits.

#### OTHER DIVISIONS

The Group Corporate Secretariat also deals with compliance, ethics, legal and tax risks.

Finally, the bank's risk management principles, procedures and infrastructures and their implementation are monitored by the Internal Audit team, the General Inspection Department and the Statutory Auditors.

<sup>(1)</sup> ICAAP: Internal Capital Adequacy Assessment Process, corresponds to the Pillar 2 process required under the Basel Accord that enables the Group to ensure that it has adequate capital adequacy to bear all business risks.

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## CREDIT RISK MANAGEMENT: ORGANISATION AND STRUCTURE

The Risk Division has defined a control and monitoring system, in conjunction with the divisions and based on the credit risk policy, to provide a framework for the Group's credit risk management. The credit risk policy is periodically reviewed and validated by the Audit, Internal Control and Risk Committee.

Credit risk supervision is organised by division (French Networks, International Retail Banking, Specialised Financial Services and Insurance, Private Banking, Global Investment Management and Services and Corporate and Investment Banking) and is supplemented by departments with a more cross-business approach (monitoring of country risk and risk linked to financial institutions). The team that handles counterparty risk on market transactions reports to the Market Risk Department.

Within the Risk Division, each of these departments is responsible for:

■ setting global and individual credit limits by customer, customer group or transaction type;

- authorising transactions submitted by the sales departments;
- validating credit score or internal customer rating criteria;
- monitoring and supervision of large exposures and various credit portfolios;
- reviewing specific and general provisioning policies.

In addition, a specific department performs comprehensive portfolio analyses and provides the associated *reports*, including those for the supervisory authorities. A monthly report on the Risk Division's activity is presented to CORISQ and specific analyses are submitted to the General Management.

## RISK APPROVAL

Societe Generale's credit policy is based on the principle that approval of any credit risk undertaking must be based on sound knowledge of the client and a thorough understanding of the client's business, purpose and nature, the structure of the transaction and the sources of repayment. Credit decisions must also ensure that the structure of the transaction is adequate to cover the risk of loss in case of default. Risk approval forms part of the Group's risk management strategy in line with its risk appetite.

The risk approval process is based on four core principles:

all transactions involving counterparty risk (credit risk, settlement or non-delivery risk and issuer risk) must be pre-authorised;

- responsibility for analysing and approving risk lies with the most appropriate business line or risk unit respectively. The business and risk unit examine all authorisation requests relating to a particular specific client or client group, to ensure a consistent approach to risk management;
- this business line and risk unit must be independent;
- all credit decisions are based on internal counterparty risk ratings, as provided by the business lines and approved by the Risk Division.

Credit risk management: organisation and structure

The Risk Division submits recommendations to CORISQ on the limits it deems appropriate for particular countries, geographic regions, sectors, products or customer types, in order to reduce risks with strong correlations. The allocation of limits is subject to final approval by the Group's General Management and is

based on a process that involves the Business Divisions exposed to risk and the Risk Division.

Finally, the supervision provided by CORISQ is supplemented by the Large Exposures Committee.

#### RISK MONITORING AND AUDIT

The Group's risk information systems centralise the operating entities' commitments in a single database and reconcile total counterparty exposure with the corresponding authorisations. These systems constitute a data source for portfolio analysis.

All Group operating units, in particular the trading rooms, are equipped with information systems enabling them to check, on a daily basis, that the exposure limits set for each counterparty have not been exceeded.

The Risk Division and business lines regularly review the quality of commitments when validating credit scores or in the course of quarterly provisioning procedures.

The Inspection and Audit Division carries out regular credit file reviews or risk audits in the Group's operating divisions, whose conclusions are sent to the heads of the operating divisions, the Risk Division and the General Management for some parameters.

## RISK MEASUREMENT AND INTERNAL RATINGS

The Group's rating system makes a key distinction between retail customers and corporate, bank and sovereign clients:

- for retail customer portfolios, internal models are used to measure credit risks, expressed according to the borrower's probability of default (PD) within one year and the percentage loss if the counterparty defaults (Loss Given Default, LGD). These parameters are automatically assigned, in line with the Basel Accord's rules;
- for the corporate, bank and sovereign portfolios, the rating system relies on two main pillars: a system of obligor rating models as a decision support tool when assigning a rating

and a system that automatically assigns LGD and CCF (Credit Conversion Factor) parameters according to the characteristics of the transactions.

In both cases a set of procedures sets the rules for the use of ratings (scope, frequency of rating revision, procedure for approving ratings, etc.), and for the supervision, backtesting and validation of models. Amongst other things, these procedures facilitate human judgement, which takes a critical view of the results and is an essential complement to the models for these portfolios.

The main outputs from Societe Generale's credit risk models, which are used as key variables for the calculation of RWA under IRB and are selectively detailed further in this report, are:

- Probability of Default (PD), which measures the financial strength of a counterparty and the likelihood of its failing to make timely payments through its estimated one-year default probability;
- Maturity (M) of the exposure, which helps factor in the likelihood of the counterparty's rating migrating over time;
- Exposure at Default (EAD), which combines the drawn portion of loans as well as the conversion of off-balance sheet commitments into on-balance sheet exposure through the Credit Conversion Factor (CCF);
- Loss Given Default (LGD), which is an estimation of the loss incurred through exposure to a defaulting counterparty;
- Expected Loss (EL), which is the potential loss incurred, taking into account the quality of the transaction's structuring and any risk mitigation measures such as obtaining collateral. More simply put, EL equals EAD x PD x LGD (except for defaulted exposures);
- Exposure is defined as all assets (e.g. loans, receivables, accruals, etc.) associated with market or customer transactions, recorded on- and off-balance sheet.

The Group's internal models thus enable a quantitative assessment of credit risks based on the probability of default of the counterparty and the loss given default. These parameters are factored into loan applications and the calculation of the risk-adjusted return on capital. They are used as a tool for structuring, pricing and approving transactions. As such, obligor ratings are one of the criteria for determining the decision-making approval limits granted to operational staff and the risk function.

The set of Group risk models is developed and validated on the basis of the longest available internal data histories, bearing in mind the estimates must be representative (in terms both of the portfolios concerned and the effects of the economic environment on the period in question) and conservative. As a result, the Group's estimates are not excessively sensitive to changes in the economic environment, while being able to detect any deterioration of risks. The PD modelling for large

corporates has also been calibrated against long-term default statistics, obtained from an external rating agency.

#### Risk-modelling governance

Governance consists in developing, validating, monitoring and making decisions on changes with respect to internal rating models. A dedicated department within the Risk Division is specifically in charge of defining the bank's process for evaluating the key credit metrics used under AIRB method (Probability of Default, PD; Loss Given Default, LGD; Credit Conversion Factor, CCF), and validating the internal rating models.

A screening committee (the *Comité Modèles*) and a decision-making committee (the *Comité Experts*) are actively involved in the process. The conclusions of the audits by the independent model control entity are formally presented to the modelling entities at the meetings of the *Comité Modèles*. Most of the discussion centres on the technical and statistical issues raised by the audit's conclusions. This committee also screens the issues to be put before the *Comité Experts*).

The *Comité Experts* is placed under the authority of the Group Chief Risk Officer and the Heads of the relevant Divisions. The committee's role is to validate, from a banking perspective, the risk parameters proposed by the *Comité Modèles*. This *Comité Experts* is also the decision-making body for issues that have not been resolved by the *Comité Modèles*. Furthermore, it establishes the work priorities in terms of modelling.

The credit models used to model the Bank's capital requirements under the AIRB method are reviewed once a year in compliance with the related Basel II regulations, and may then be adjusted as needed. To this end, the modelling entities carry out annual backtesting and present their findings to the independent model control entity. The backtesting results and the opinion of the entity responsible for independently reviewing models based on their performance and risk indicator parameters are used as a basis for the discussions by the *Comité Modèles* and *Comité Experts*. Finally, the Risk Committee is notified of the conclusions and decisions of the Committees.

Scope of application of capital evaluation methods

#### SCOPE OF APPLICATION OF CAPITAL EVALUATION METHODS

In December 2007, Societe Generale obtained authorisation from its supervisory authorities to apply the internal ratings (IRB) method for most of its exposures – this is the most advanced method for calculating capital requirements in respect of credit risk.

Societe Generale has planned the transition to the IRB method over several years for some of its activities and exposures that are currently assessed using the standard method and a roll-out plan for this transition is being implemented. This plan did not involve any transition towards the IRB method in 2010.

The following table presents the scope of application of the Standard and IRB approaches for the Group:

#### Table 8: Scope of application of the IRB and Standard approaches for the Group

	IRB Approach	Standard Approach
French Networks	Majority of portfolios	Some retail customer portfolios including those of the Sogelease subsidiary
International Retail Banking	KB (Czech Republic) subsidiary	All the other subsidiaries
Corporate and Investment Banking	Majority of portfolios	<del>-</del>
Specialised Financial Services and Insurance	The subsidiaries Franfinance Particuliers, CGI, Fiditalia and GEFA	The other consumer finance subsidiaries. All the equipment finance subsidiaries and ALD excluding GEFA
Private Banking, Global Investment Management and Services	Mainly the subsidiaries SG Hambros, SGBT Luxembourg, SGBT Monaco, SG Private Banking Suisse	The majority of the credit institution and corporate portfolios
Corporate Centre	Majority of portfolios	-

In addition, the Bank received authorisation from the regulator to use the Internal Assessment Approach (IAA) when calculating regulatory capital requirements for Asset-Backed Commercial Paper conduits.

## REPLACEMENT RISK

Counterparty or replacement risk corresponds to the market value of transactions with counterparties. It represents the current cost to the Group of replacing transactions with a positive value should the counterparty default. Transactions giving rise to a counterparty risk are, inter alia, security repurchase agreements, security lending and borrowing and over-the-counter derivative contracts such as swaps, options and futures.

# The management of counterparty risk linked to market transactions

Societe Generale places great emphasis on carefully monitoring its replacement risk exposure in order to minimise its losses in case of default. Furthermore counterparty limits are assigned to all counterparties (banks, other financial institutions, corporates and public institutions).

In order to quantify the potential replacement risk, Societe Generale uses an internal model: the future fair value of trading transactions with counterparties is modelled, taking into account any netting and correlation effects. Estimates are derived from Monte Carlo models developed by the Risk Division, based on a historical analysis of market risk factors, and take into account guarantees and collateral.

Societe Generale uses two indicators to characterise the subsequent distribution resulting from the Monte-Carlo simulations:

- current average risk, suited to analysing the risk exposure for a portfolio of clients;
- credit VaR (or CVaR): the largest loss that would be incurred after eliminating the top 1% of the most adverse occurrences, used to set the risk limits for individual counterparties.

Societe Generale has also developed a series of stress test scenarii used to calculate the exposure linked to changes in the fair value of transactions with all of its counterparties in the event of an extreme shock to one or more market parameters.

#### Setting individual counterparty limits

The credit profile of counterparties is reviewed on a regular basis and limits are set both by the type and maturity of the instruments concerned. The intrinsic creditworthiness of counterparties and the reliability of the associated legal documentation are two factors considered when setting these limits. Fundamental credit analysis is also supplemented by relevant peer comparisons and market surveillance.

Information technology systems allow both traders and the Risk Division to continually ensure that counterparty limits are not exceeded, on an on-going daily basis, and that incremental authorisations are obtained as needed.

A significant weakening of the bank's counterparties also prompts urgent internal rating reviews. A specific supervision and approval process is implemented for more sensitive counterparties or more complex trading instruments.

# Calculation of Value at Risk within the regulatory framework

Societe Generale uses the marked-to-market valuation method to calculate the counterparty risk-adjusted capital. The EAD relative to the bank's counterparty risk is determined by aggregating the positive market values of all transactions (replacement cost) and increasing the sum with an add-on. This add-on, which is calculated in line with the CRD guidelines, is a fixed percentage according to the type of transaction and the residual lifetime, which is applied to the transaction's nominal value. The effects of netting agreements and collateral are factored in by applying the netting rules as defined by the marked-to-market method and subtracting guarantees or collateral. Regulatory capital requirements also depend on the internal rating of the debtor counterparty.

The Group uses only the Current Exposure Method (CEM) to estimate EAD relating to counterparty risk.

#### CREDIT RISK MITIGATION

The Group uses credit risk mitigation techniques both for market and commercial banking activities. These techniques provide partial or full protection against the risk of debtor insolvency.

There are two major categories:

- Personal guarantees correspond to the commitment made by a third party to substitute for the primary debtor in the event of the latter's default. By extension, credit insurance and credit derivatives (purchase of protection) also belong to this category.
- Collateral established in favour of the Group ensures the timely execution of a debtor's financial commitments.

In the case of netting agreements (subject to eligibility in accordance with Basel II regulations), the Group takes into account their impact by applying the compensatory effect based on the Exposure at Default (EAD) used to calculate its risk-weighted assets.

For guarantees and credit derivatives, the Group takes into account their impact by substituting the guarantor's Probability

of Default (PD), Loss Given Default (LGD) and risk-weighting formula for that of the borrower (the exposure is considered as a direct exposure to the guarantor) where the guarantor's risk-weighting is more favourable than the borrower's.

In the case of collateral (physical or financial), the Group's methodology related to the applicable credit risk mitigation depends on the Basel II approach.

Exposures under the IRB approach – two methodologies can be used:

- Credit risk mitigation (CRM) techniques can be incorporated in the LGD calculation, which itself is based on internal loss data and calculated using IRB models ("preliminary" LGD).
- Credit risk mitigation (CRM) techniques are not incorporated in the LGD defined by the model. The impact of each CRM is taken into account individually in the LGD for each transaction.

Exposures under the standard approach: eligible CRM techniques (after regulatory deductions) are taken into account directly in EAD.

#### Table 9: Personal guarantees (including credit derivatives) and collateral by exposure class

Exposure class	Guarantees	Collateral
(in EURbn) – Dec. 31, 2010		
Sovereign	4.1	0.1
Credit institutions	3.4	2.3
Corporate	27.9	43.3
Retail	48.0	38.7
TOTAL	83.4	84.4

# Table 10: Personal guarantees (including credit derivatives) and collateral related to past due, unimpaired outstanding loans and impaired outstanding loans

	December	31, 2010	December 31, 2009			
(in EURbn)	Retail	Non-retail	Retail	Non-retail		
Guarantees and collateral related to past due, unimpaired outstanding loans	1.5	0.9	1.2	0.6		
Guarantees and collateral related to impaired outstanding loans	2.1	1.9	1.7	1.7		

The amounts of the guarantees and collaterals presented in the table above correspond to the amounts of the Basel II eligible guarantees and collaterals, limited to the amounts remaining due. Some guarantees and collaterals, among which personal guarantees provided by a business owner and pledge over unlisted securities, for instance, are not included in these amounts.

#### **GUARANTEES AND COLLATERAL**

Personal guarantees and collateral are used to partially or fully protect the bank against the risk of losses due to debtor insolvency and can be broken down as follows:

- Guarantees that encompass the protection commitments and mechanisms provided by banks and similar credit institutions, specialised institutions such as mortgage guarantors (*Crédit Logement* in France), monoline or multiline insurers, public export agencies, etc. This category also includes Credit Default Swaps (CDS).
- Collateral which can consist of physical assets in the form of property, commodities or precious metals, as well as financial instruments such as cash, high quality investments and securities and also insurance policies. Appropriate haircuts are applied to the value of collateral, reflecting its quality and liquidity.

The Group proactively manages its guarantees, with the aim of reducing its risk-taking, through diversification: physical collateral, personal guarantees and others (including CDS'). In addition, the Group has strengthened its policies on guarantees and collateral and the updating of their valuation (guarantee and collateral database and operational procedures).

During the credit approval process, an assessment of the value of the guarantees and collateral, their legal enforceability and the capacity of the guarantor to meet its obligations is undertaken. This process also ensures that the collateral or guarantee successfully meet the criteria required by the Capital Requirement Directive (CRD).

Guarantor ratings are reviewed internally at least once a year and collateral is subject to revaluation at least once a year.

The Risk department is responsible for validating the operational procedures established by the business divisions for the regular valuation of guarantees and collateral either automatically or based on an expert's opinion, both during the decision phase for a new loan or upon the annual renewal of the credit application.

#### **USE OF CREDIT DERIVATIVES**(1)

The Group uses credit derivatives in the management of its Corporate loan portfolio. They serve primarily to reduce individual, sector and geographic concentration and also to implement proactive risk and capital management. The Group's over-concentration management policy has led it to take major individual hedging positions: for example, the ten most-hedged names account for 49% of the total amount of individual protection purchased.

The notional value of credit derivatives purchased for this purpose is booked in off-balance sheet commitments under guarantee commitments received.

Total outstanding purchases of protection through credit derivatives (Credit Default Swaps, CDS) decreased from EURbn 13.0 to EURbn 7.7 at end-December 2010, mainly due to the unwinding of certain positions and the sale of CDS protection on investment grade counterparties in which the Group is not concentrated.

In 2010, CDS levels on European investment grade issues (Itraxx index) widened because of the sovereign debt crisis, whereas they remained more or less stable in the other regions.

Almost all protection was purchased from bank counterparties with ratings of A- or above, the average being between AA- and A+. Concentration with any particular counterparty is carefully monitored.

#### CREDIT INSURANCE

As well as turning to Export credit agencies (for example Coface and Exim) and multilaterals, Societe Generale has been developing relationships with private insurers over the last few years in order to hedge part of the financing of the Corporate and Investment Banking Division against non payment risks.

Credit risk mitigation

This activity, Trade credit and political risk insurance, is subject to a risk framework and monitoring system validated by the Group's General Management. It is founded on strict criteria of minimum eligibility for each insurer, and on a global limit for the activity, in addition to sub-limits by maturity and individual limits in order to reduce concentration by counterparty.

The implementation of such a policy contributes to the sound reduction of risks.

#### **MASTER NETTING AGREEMENTS**

With regard to trading counterparties, SG Group seeks to implement global closeout/netting agreements wherever it can. Netting agreements are used to net all of the amounts owed and due in case of default. The contracts usually call for the revaluation of required collateral at regular time intervals (often on a daily basis) and for the payment of the corresponding margin calls. Collateral is largely composed of cash and high-quality, liquid assets such as government bonds. Other tradable assets are also accepted, after any appropriate value adjustments ("haircuts") to reflect the lower quality and/or liquidity of the asset.

In order to reduce its credit risk exposure, Societe Generale Group has signed a number of master netting agreements with various counterparties (ISDA contracts governing financial derivative transactions). In the majority of cases, these agreements do not result in any netting of assets or liabilities on the books, but the credit risk attached to the financial assets covered by a master netting agreement is reduced insofar as, in the event of a default, the amounts due are settled on the basis of their net value.

At December 31, 2010, based on gross EAD measured using the Current Exposure Method, 94% of counterparty risk exposure related to over-the-counter derivative instruments is dealt with under a framework contract and 86% is collateralised. After factoring in netting agreements, gross EAD is reduced to a quarter.

# IMPACT OF THE DETERIORATION IN THE GROUP'S RATING ON THE AMOUNT OF COLLATERAL TO BE PROVIDED

A number of framework contracts signed with counterparties provide for the implementation of collateral or a reduction of the threshold in the event of a deterioration in the Group's rating. The impact of a deterioration depends on the type of contract:

- The dormant clause in the Credit Support Annex (CSA): dormant clauses in a CSA contract provide for the Group to pay no margin call as long as it retains a minimum credit rating level as defined in the contract. This type of contract is used mainly when the Group acts as counterparty in derivative instrument contracts as part of a securitisation vehicle. In this situation, the Group's credit rating becomes an essential factor in its signature and the rating agencies therefore require the signature of such contract, where the commitment is made unilaterally, as a condition for the rating of the instruments securitised by the vehicle in question. If the Group's rating were downgraded, some of these CSA contracts would become active, resulting in the need for the Group to hedge an additional financing risk corresponding to the initial margin calls required by the derivative instruments contract. For each rating level, the Group monitors the breakdown of dormant CSA contracts that could be reactivated by a downgrading of the Group's credit rating, as well as the corresponding margin call commitments. In the case of a rating downgrade by one level, 32 CSAs with a dormant clause would be activated out of a total of around 5,000 (respectively 112 in the case of a rating downgrade by two levels).
- Credit Support Annex (CSA) dependent on a credit rating clause: in such a clause, the Marked-to-Market value below which it is not necessary for the Group to pay margin calls depends on the Group's credit rating. A downgrade in the Group's rating can therefore result in a decrease in this value causing the Group to be faced with an imminent margin call situation. The Group monitors margin calls that are likely to be generated by credit rating level. Such a CSA contract does not include a dormant support clause as in the contract described previously. This is therefore a means of avoiding having to take into account this type of refinancing risk twice. In the case of a rating downgrade by one level, 14 CSAs dependent on a credit rating clause would be activated out of a total of around 5,000 (respectively 57 in the case of a rating downgrade by two levels).

#### THE GROUP'S INTERNAL RATING SCALE

The following table presents Societe Generale's internal rating scale and the corresponding scales of the main External Credit Assessment Institutions<sup>(1)</sup>, as well as the corresponding mean estimated probability of default.

#### ■ Table 11: Societe Generale's internal rating scale and corresponding scales of rating agencies

Counterparty internal rating	Fitch Rating	Moody's rating	S&P rating	1 year probability of default
1	AAA	Aaa	AAA	0.01%
2	AA+ to AA-	Aa1 to Aa3	AA+ to AA-	0.02%
3	A+ to A-	A1 to A3	A+ to A-	0.04%
4	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	0.30%
5	BB+ to BB-	Ba1 to Ba3	BB+ to BB-	2.16%
6	B+ to B-	B1 to B3	B+ to B-	7.93%
7	CCC+ to CCC-	Caa1 to Caa3	CCC+ to CCC-	20.67%
8, 9 and 10	CCC and below	Ca and below	CC and below	100.00%

Societe Generale's definition of a default replicates the definition provided in the Basel II framework, whereby a borrower has defaulted if at least one of the three following conditions has been verified:

- A significant deterioration in the borrower's financial condition that would prevent them from fulfilling their unguaranteed or uncollateralised credit obligations, and that will therefore likely entail a high probability of loss, and/or;
- One or several arrears have been outstanding for more than 90 days (180 days for public obligors) and/or out-of-court settlement proceedings have been initiated, and/or;
- Legal insolvency proceedings are in progress (the obligor has been declared bankrupt or placed under similar conservatory or creditor protection measures).

Finally, Societe Generale applies a principle of contagion whereby any obligation declared "in default" will result in the classifying as "in default" of all the obligor's debts, possibly as well as those of all companies belonging to the same economic entity.

Credit risk: quantitative disclosures

#### CREDIT RISK: QUANTITATIVE DISCLOSURES

The following tables set forth detailed information on the bank's global credit risk, notably with regard to total exposure, exposure at default and risk-weighted assets as at December 31, 2010. The information provided below is consistent with the bank's published financial statements at that

In most of the tables below, Societe Generale's credit risk exposures are laid out along the lines of the obligor categories defined in the Basel II framework (the "Basel exposure class"):

#### ■ Table 12: Societe Generale's credit risk exposures by obligor category

Sovereign:	Claims or contingent claims on central governments, regional governments, local authorities or public sector entities as well as on multilateral development banks and international organisations.
Credit institutions:	Claims or contingent claims on regulated credit institutions, as well as on governments, local authorities and other public sector entities that do not qualify as sovereign counterparties.
Corporate:	Claims or contingent claims on corporates, which include all exposures not covered in the portfolios defined above. In addition, small/medium-sized enterprises are included in this category as a subportfolio, and defined as entities with total annual sales below EURm 50.
Retail:	Claims or contingent claims on an individual or individuals, or on a small or medium-sized entity, provided in the latter case that the total amount owed to the credit institution does not exceed EURm 1.
	Retail exposure is further broken down into residential mortgages, revolving credit and other forms of credit to individuals, the remainder relating to exposures to very small entities and self-employed.
Securitisation:	Claims relating to securitisation transactions.

The following tables<sup>(1)</sup> provide a breakdown of Societe Generale's credit risk exposures, exposures at default (EAD) before the risk mitigation effect and risk-weighted assets (RWA) relating to the Group's on- and off-balance sheet exposures after factoring in risk mitigation. They include the residual value risk.

Information is also provided for defaulted exposures.

These quantitative disclosures are presented according to their valuation approaches (Standard or IRB), exposure class and geographical region, as necessary.

#### ■ Table 13: Summary of quantitative credit and counterparty risk disclosures

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Credit risk: quantitative disclosures

# ■ Table 14: Credit risk exposure, exposure at default (EAD) and risk-weighted assets (RWA) by approach and exposure class

Global portfolio	IRB approach			Standard approach			Total			Average <sup>(1)</sup>		Total Dec. 31, 2009		2009
(in EURbn) – Dec. 31, 2010	Exposure	EAD	RWA	Exposure	EAD	RWA	Exposure	EAD	RWA	Exposure	RWA	Exposure	EAD	RWA
Exposure class														
Sovereign	70.4	66.0	6.4	3.8	3.7	1.3	74.1	69.7	7.7	68.5	7.0	63.0	61.1	6.9
Financial institutions	131.3	111.1	11.5	15.2	10.4	4.0	146.5	121.4	15.6	159.5	16.0	134.7	118.5	14.6
Corporate	315.1	230.9	94.2	113.6	69.3	64.2	428.8	300.2	158.3	406.2	156.2	378.6	279.6	151.2
Retail	131.7	129.0	23.7	58.1	50.2	33.0	189.9	179.2	56.7	183.1	55.4	174.3	165.0	54.5
Securitisation	39.1	38.0	6.0	2.8	1.0	0.5	41.9	39.0	6.5	43.7	6.8	43.6	42.5	6.5
TOTAL	687.6	575.0	141.8	193.5	134.6	103.0	881.2	709.6	244.9	861.1	241.4	794.3	666.7	233.6

<sup>(1)</sup> The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.

The credit risk exposure and the exposure at default (EAD) of the Group as at December 31, 2010 are up from December 31, 2009, mainly for the Corporate, Retail and Sovereign classes.

The increase in exposure at default (EAD) for the Corporate class was caused in particular by the growing momentum of structured financing and the growth of loans to large corporates.

The increase in credit exposure to the Retail class was largely driven by mortgage loans in France.

Exposure to the Sovereign class was higher as a result of the Group's liquidity management strategy, especially in the US and France.

Moreover, there was a significant decline regarding securitisation exposure due to sales and, to a lesser extent, amortisation.

# ■ Table 15: Retail credit risk exposure, exposure at default (EAD) and risk-weighted assets (RWA) by approach and exposure class

Retail portfolio	IRB approach			Standard approach			Total			Average <sup>(1)</sup>		Total Dec. 31, 2009		009
(in EURbn) – Dec. 31, 2010	Exposure	EAD	RWA	Exposure	EAD	RWA	Exposure	EAD	RWA	Exposure	RWA	Exposure	EAD	RWA
Exposure class														
Residential mortgages	71.7	71.8	6.2	13.2	12.9	4.7	85.0	84.6	10.9	81.6	10.0	77.2	76.8	9.6
Revolving credit	11.0	7.6	2.9	5.2	3.3	2.5	16.2	11.0	5.5	15.8	5.3	15.3	10.5	5.3
Other credit to individuals	34.1	34.3	9.1	28.1	24.3	18.5	62.2	58.6	27.5	59.4	26.9	54.8	51.9	25.7
Very small enterprises and self-employed	14.8	15.4	5.5	11.6	9.7	7.3	26.4	25.1	12.8	26.4	13.1	27.1	25.8	13.9
TOTAL	131.7	129.0	23.7	58.1	50.2	33.0	189.9	179.2	56.7	183.1	55.4	174.3	165.0	54.5

<sup>(1)</sup> The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.

#### Breakdown of credit risk

#### ■ Table 16: Credit and counterparty risk exposure by approach and exposure class

		IRB approach	Standard approach					Total		Total Dec. 31, 2009				
Exposure class (in EURbn) – Dec. 31, 2010	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total		
Sovereign	59.0	11.4	70.4	3.0	0.8	3.8	61.9	12.2	74.1	54.9	8.1	63.0		
Financial institutions	72.8	58.5	131.3	14.2	1.1	15.2	87.0	59.6	146.5	81.4	53.3	134.7		
Corporate	279.5	35.7	315.1	110.9	2.7	113.6	390.4	38.4	428.8	344.3	34.4	378.6		
Retail	131.6	0.1	131.7	58.1	0.0	58.1	189.7	0.2	189.9	174.2	0.1	174.3		
Securitisation	38.4	0.7	39.1	2.8	0.0	2.8	41.1	0.7	41.9	43.1	0.4	43.6		
TOTAL	581.2	106.4	687.6	189.0	4.6	193.5	770.2	111.0	881.2	698.0	96.3	794.3		

#### ■ Table 17: Credit and counterparty exposure at default (EAD) by approach and exposure class

		IRB approach	Standard approach					Total		Total Dec. 31, 2009				
Exposure class (in EURbn) – Dec. 31, 2010	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total	Credit risk	Counterparty risk	Total		
Sovereign	54.6	11.4	66.0	2.9	0.8	3.7	57.5	12.2	69.7	53.0	8.1	61.1		
Financial institutions	52.6	58.5	111.1	9.4	1.0	10.4	62.0	59.5	121.4	65.4	53.1	118.5		
Corporate	195.2	35.7	230.9	66.6	2.7	69.3	261.9	38.4	300.2	245.2	34.4	279.6		
Retail	128.9	0.1	129.0	50.2	0.0	50.2	179.1	0.2	179.2	164.9	0.1	165.0		
Securitisation	37.3	0.7	38.0	1.0	0.0	1.0	38.3	0.7	39.0	42.1	0.4	42.5		
TOTAL	468.6	106.4	575.0	130.1	4.5	134.6	598.7	110.9	709.6	570.5	96.1	666.7		

The Group's credit and counterparty exposure at default as at December 31, 2010 is up from December 31, 2009, mainly for the Sovereign, Credit Institution and Corporate classes, primarily due to the increase in derivatives activity.

Credit risk: quantitative disclosures

#### ■ Table 18: Corporate credit exposure at default (EAD) by industry sector

	Corporat	tes - Dec. 31, 2010	Corporates - Dec. 31, 2009		
EAD (in EURbn)	EAD	Breakdown in %	EAD	Breakdown in %	
Finance & insurance	57.9	19.3%	51.2	18.3%	
Real estate	24.4	8.1%	22.4	8.0%	
Public administration	0.4	0.1%	0.4	0.1%	
Food & agriculture	15.0	5.0%	13.1	4.7%	
Consumer goods	8.1	2.7%	7.4	2.7%	
Chemicals, rubber, plastics	6.4	2.1%	5.6	2.0%	
Retail trade	13.9	4.6%	13.2	4.7%	
Wholesale trade (import, export)	23.6	7.9%	21.0	7.5%	
Construction	12.7	4.2%	12.5	4.5%	
Shipbuilding, aircraft & railway industry	3.3	1.1%	3.2	1.1%	
Education and Associations	1.0	0.3%	0.9	0.3%	
Hotels, catering & leisure	4.7	1.6%	5.1	1.8%	
Automobiles	5.3	1.8%	5.3	1.9%	
Electrical, electronic and mechanical equipment and components	10.6	3.5%	10.7	3.8%	
Forestry, paper	2.1	0.7%	2.0	0.7%	
Metals, minerals	13.6	4.5%	14.3	5.1%	
Media	4.4	1.5%	5.2	1.9%	
Oil & Gas	17.8	5.9%	13.6	4.9%	
Health, social services	2.4	0.8%	2.1	0.7%	
Business services (including multi-activity conglomerate)	21.3	7.1%	22.6	8.1%	
Utilities	20.4	6.8%	17.5	6.3%	
Personal & domestic services	0.2	0.1%	0.3	0.1%	
Telecoms	8.7	2.9%	8.9	3.2%	
Transport & logistics	22.0	7.3%	20.9	7.5%	
TOTAL	300.2	100%	279.6	100%	

#### ■ Table 19: Exposure at default (EAD) by geographical region

<b>EAD</b> (in EURbn) – Dec. 31, 2010	Sovereign	Credit institutions	Corporate	SME	Retail	Securitisation	Total	Breakdown in %	Total Dec. 31, 2009
France	16.9	34.1	82.2	28.3	127.9	6.0	295.4	41.6%	286.2
EU countries (excluding France)	25.6	48.3	76.2	18.0	39.0	7.0	214.0	30.2%	204.2
– o/w Eastern European countries	11.3	3.4	11.6	8.4	16.9	0.0	51.6	7.3%	49.9
Central and Eastern Europe (excluding EU)	3.7	2.6	11.3	2.6	5.9	0.0	26.2	3.7%	26.0
Africa/Middle East	8.6	2.6	13.1	5.2	4.5	0.1	34.2	4.8%	28.9
America	11.5	28.6	45.7	0.3	1.4	23.5	111.0	15.6%	96.0
Asia	3.3	5.2	17.2	0.2	0.6	2.3	28.9	4.1%	25.4
TOTAL	69.7	121.4	245.6	54.6	179.2	39.0	709.6	100%	666.7

#### ■ Table 20: Retail exposure at default (EAD) by geographical region

<b>EAD</b> (in EURbn) – Dec. 31, 2010	Residential mortgages	Revolving credit	Other credit to individuals	Very small enterprises and self-employed	Total	Breakdown in %	Total Dec. 31, 2009
France	71.2	8.6	33.1	14.9	127.9	71%	116.4
EU countries (excluding France)	10.4	2.1	17.5	8.9	39.0	22%	37.6
– o/w Eastern European countries	7.5	1.0	6.6	1.7	16.9	9%	16.2
Central and Eastern Europe (excluding EU)	1.6	0.3	3.9	0.1	5.9	3%	5.1
Africa/Middle East	1.1	0.0	2.5	0.9	4.5	3%	4.0
America	0.2	0.0	1.2	0.0	1.4	1%	1.2
Asia	0.0	0.0	0.4	0.2	0.6	0%	0.7
TOTAL	84.6	11.0	58.6	25.1	179.2	100%	165.0

#### ■ Table 21: Under the IRB approach for non-retail customers: credit risk exposure by residual maturity

		Maturity analysis							
Exposure (in EURbn) – Dec. 31, 2010	< 1 year	1-5 years	5-10 years	> 10 years	Total				
Sovereign	26.2	37.4	3.1	3.6	70.4				
Financial institutions	27.1	87.4	3.5	13.4	131.3				
Corporate	97.0	175.9	21.8	20.4	315.1				
Securitisation	11.7	26.1	0.1	1.2	39.1				
TOTAL	162.0	326.9	28.4	38.5	555.9				

Credit risk: quantitative disclosures

# Global credit risk by rating

■ Table 22: Under the standard approach: credit risk exposure by exposure class and external rating

		Credit ris Dec.	sk exposu 31, 2010	re –	Credit risk e Dec. 31,		-
(in EURbn)	External Rating	Gross exposure	EAD	RWA	Gross exposure	EAD	RWA
Sovereign	AAA to AA-	1.4	1.3	0.0	0.7	0.7	-
	A+ to A-	0.0	0.0	0.0	0.2	0.2	0.0
	BBB+ to BBB-	1.6	1.6	0.8	2.2	2.2	1.1
	BB+ to B-	0.4	0.4	0.4	1.1	1.1	1.1
	<В-	0.0	0.0	0.0	0.0	0.0	0.0
	Without external rating	0.3	0.3	0.1	0.0	0.0	0.0
Sub-total		3.8	3.7	1.3	4.1	4.1	2.2
Financial institutions	AAA to AA-	6.8	7.7	1.4	9.7	6.7	1.4
	A+ to A-	0.3	0.3	0.1	0.3	0.3	0.2
	BBB+ to B-	8.2	2.5	2.5	2.8	2.5	2.6
	<b-< td=""><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td></b-<>	0.0	0.0	0.0	0.0	0.0	0.0
	Without external rating	(0.1)	(0.1)	0.0	0.0	0.0	0.0
Sub-total		15.2	10.4	4.0	12.8	9.5	4.2
Corporate	AAA to AA-	12.6	2.1	-0.3	4.4	3.3	0.7
	A+ to A-	3.8	3.2	1.5	3.7	3.3	1.8
	BBB+ to B-	40.9	16.6	16.6	50.4	19.0	19.6
	<b-< td=""><td>3.9</td><td>3.1</td><td>4.7</td><td>3.1</td><td>2.9</td><td>4.3</td></b-<>	3.9	3.1	4.7	3.1	2.9	4.3
	Without external rating	52.5	44.3	41.7	45.6	37.7	35.3
Sub-total		113.6	69.3	64.2	107.1	66.2	61.7
Retail	Without external rating	58.1	50.2	33.0	53.0	46.3	31.4
TOTAL		190.8	133.6	102.5	177.1	126.2	99.5

# ■ Table 23: Under the IRB approach: credit risk exposure by exposure class and internal rating (excluding defaulted exposure)

(in EURbn) – Dec. 31, 2010	Counterparty internal rating	Gross exposure	Balance sheet exposure	Off-balance sheet exposure	Average CCF (Off- balance sheet)	EAD	RWA	Average LGD	Average RW*	Expected losses (EL)
Sovereign	1	42.4	37.3	5.2	66%	39.9	0.0	0%	0%	0.0
	2	7.1	6.2	0.9	23%	6.3	0.5	28%	8%	0.0
	3	4.1	3.6	0.6	90%	4.0	0.3	23%	8%	0.0
	4	9.2	7.5	1.7	74%	8.3	1.4	13%	16%	0.0
	5	6.1	5.9	0.2	81%	6.1	3.6	29%	60%	0.0
	6	1.1	0.8	0.3	71%	1.0	0.4	14%	35%	0.0
	7	0.2	0.1	0.0	75%	0.2	0.1	23%	128%	0.0
Sub-total		70.2	61.4	8.8	66%	65.8	6.3	9%	10%	0.0
Financial institutions	1	17.6	14.7	2.9	82%	16.2	0.4	6%	3%	0.0
	2	34.9	16.4	18.5	94%	29.5	1.2	12%	4%	0.0
	3	60.6	27.9	32.7	96%	49.3	2.7	13%	5%	0.0
	4	13.8	7.5	6.3	84%	12.0	3.7	29%	31%	0.0
	5	2.7	1.5	1.2	67%	2.3	2.2	42%	95%	0.0
	6	0.7	0.5	0.2	59%	0.6	0.6	28%	88%	0.0
	7	0.7	0.3	0.4	61%	0.5	0.6	24%	110%	0.0
Sub-total		130.9	68.7	62.2	93%	110.4	11.3	14%	10%	0.1
Corporate	1	6.9	5.2	1.8	85%	6.5	8.0	78%	11%	0.0
	2	41.5	12.4	29.1	37%	20.7	2.8	39%	13%	0.0
	3	76.3	34.1	42.2	55%	55.3	7.4	29%	13%	0.0
	4	95.2	41.8	53.4	51%	67.3	23.5	31%	35%	0.1
	5	63.4	40.3	23.1	51%	51.8	33.6	27%	65%	0.3
	6	18.8	12.4	6.4	67%	16.4	17.8	28%	109%	0.4
	7	2.8	2.1	0.7	68%	2.6	3.3	25%	129%	0.1
Sub-total		304.9	148.3	156.6	51%	220.6	89.2	31%	40%	0.8
Retail	1	2.5	2.1	0.4	99%	2.5	0.3	100%	10%	0.0
	2	1.7	1.6	0.1	131%	1.7	0.2	100%	10%	0.0
	3	23.1	21.8	1.3	101%	23.1	0.4	17%	2%	0.0
	4	43.9	39.1	4.8	60%	42.1	2.7	15%	6%	0.0
	5	34.7	30.1	4.5	69%	33.4	7.1	18%	21%	0.1
	6	13.1	12.2	0.9	93%	13.2	5.1	23%	39%	0.2
	7	6.7	6.5	0.2	164%	6.9	4.3	23%	63%	0.4
Sub-total		125.6	113.3	12.3	74%	122.9	20.1	20%	16%	0.7
Corporate in IRB slotting		2.5	1.8	0.7	60%	2.1	1.8		82%	0.0
Receivables		2.0	2.0	0.0	0%	2.1	1.5		73%	0.0
TOTAL		636.1	395.5	240.6	53%	523.9	130.2	19%	25%	1.7

<sup>\*</sup> after taking into account the PD floor

Credit risk: quantitative disclosures

# ■ Table 24: Under the IRB approach for retail customers: credit risk exposure by exposure class and internal rating (excluding defaulted exposure)

(în EURbn) – Dec. 31, 2010	Counterparty internal rating	Gross exposure	sheet	Off-balance sheet exposure	EAD / Exposure	EAD	RWA	Average LGD	Average RW*	Expected losses (EL)
Residential mortgages	1	0.2	0.2	0.0	100%	0.2	0.0	100%	10%	0.0
	2	1.5	1.5	0.0	102%	1.5	0.1	100%	10%	0.0
	3	18.4	17.6	0.8	100%	18.4	0.2	11%	1%	0.0
	4	29.9	29.3	0.6	100%	29.9	1.1	11%	4%	0.0
	5	14.3	13.9	0.4	100%	14.3	1.8	11%	12%	0.0
	6	4.1	4.0	0.1	100%	4.1	0.9	11%	22%	0.0
	7	2.4	2.4	0.0	100%	2.4	1.0	12%	43%	0.0
Sub-total		70.7	68.9	1.9	100%	70.8	5.2	11%	7%	0.1
Revolving credit	1	0.0	0.0	0.0	0%	0.0	0.0	0%	0%	0.0
	2	0.0	0.0	0.0	0%	0.0	0.0	0%	0%	0.0
	3	0.4	0.0	0.3	100%	0.4	0.0	45%	1%	0.0
	4	3.8	0.3	3.5	49%	1.8	0.1	42%	7%	0.0
	5	3.5	0.6	3.0	60%	2.1	0.5	36%	21%	0.0
	6	1.7	1.2	0.6	94%	1.6	0.8	35%	50%	0.0
Cub total	7	0.8	0.7	0.2	103%	0.8	0.9	41%	111%	0.1
Sub-total Other credit to individuals	1	<b>10.2</b> 2.3	<b>2.7</b> 2.0	<b>7.5</b> 0.4	<b>67%</b> 100%	2.3	0.2	<b>38%</b> 100%	<b>34%</b> 10%	0.1
Other Great to marviduals		0.2	0.1	0.4	99%	0.2	0.0	100%	10%	0.0
	3	4.3	4.1	0.2	100%	4.4	0.2	40%	5%	0.0
	4	7.0	6.3	0.6	101%	7.0	0.9	22%	14%	0.0
	5	10.6	9.6	1.0	101%	10.7	3.0	22%	28%	0.0
	6	4.9	4.8	0.2	100%	4.9	2.2	28%	45%	0.1
	7	2.0	1.9	0.0	100%	2.0	1.2	26%	63%	0.2
Sub-total Sub-total		31.3	28.8	2.5	101%	31.5	7.9	26%	25%	0.3
Very small enterprises and self-employed	1	0.0	0.0	0.0	0%	0.0	0.0	0%	0%	0.0
	2	0.0	0.0	0.0	0%	0.0	0.0	0%	0%	0.0
	3	0.0	0.0	0.0	118%	0.0	0.0	13%	2%	0.0
	4	3.3	3.2	0.1	101%	3.3	0.5	17%	14%	0.0
	5	6.2	6.0	0.2	101%	6.3	1.9	21%	30%	0.0
	6	2.3	2.2	0.1	110%	2.5	1.2	26%	47%	0.0
	7	1.5	1.5	0.0	111%	1.7	1.1	27%	66%	0.1
Sub-total		13.3	12.9	0.4	104%	13.8	4.6	22%	33%	0.2
TOTAL		125.6	113.3	12.3	98%	122.9	20.1	16%	16%	0.7

<sup>\*</sup> after taking into account the PD floor

# Counterparty risk

#### ■ Table 25: Counterparty exposure at default (EAD) by exposure class

Exposure class (in EURbn)	С	ounterparty risk Dec. 31, 2010	Counterparty risk Dec. 31, 2009		
	EAD	RWA	EAD	RWA	
Sovereign	12.2	0.5	8.1	0.2	
Financial institutions	59.5	4.8	53.1	4.4	
Corporate	38.4	16.1	34.4	15.2	
Retail	0.2	0.0	0.1	0.0	
Securitisation	0.7	0.1	0.4	0.2	
TOTAL	110.9	21.6	96.1	20.0	

The ten most important counterparties in terms of counterparty risk account for 36% of the Group's total exposure to counterparty risk. They are mainly institutional and sovereign counterparties.

#### ■ Table 26: Counterparty exposure at default (EAD) by geographical region

Counterparty risk (in EURbn)	EAD Dec. 31, 2010	EAD Dec. 31, 2009
France	18.1	15.1
EU countries (excluding France)	43.2	41.2
– o/w Eastern European countries	3.5	4.2
Central and Eastern Europe (excluding EU)	0.2	0.3
Africa/Middle East	1.0	0.7
America	42.7	33.9
Asia	5.7	5.0
TOTAL	110.9	96.1

Credit risk: quantitative disclosures

#### ■ Table 27: Under the IRB approach: counterparty exposure at default (EAD) by rating

Counterparty risk – IRB approach (in EURbn)	EAD Dec. 31, 2010	EAD Dec. 31, 2009
Counterparty internal rating		
1	9.5	6.6
2	33.2	29.9
3	46.1	38.2
4	10.7	9.8
5	3.6	3.5
6	2.7	2.4
7	0.2	0.5
8 to 10	0.4	1.8
TOTAL	106.4	92.6

# Unimpaired past due exposures, impaired exposures, value adjustments and expected losses

#### ■ Table 28: Breakdown of unimpaired past due exposures<sup>(1)</sup> by exposure class

Exposure class (in EURbn)		Dec. 31, 2010	Dec. 31, 2009		
	Total	o/w past due amounts less than 29 days in %	Total	o/w past due amounts less than 29 days in %	
Sovereign	0.0	11%	0.0	24%	
Financial institutions	0.1	51%	0.0	49%	
Corporate	2.4	43%	2.4	50%	
Retail	4.6	60%	4.5	61%	
Securitisation	-	-	-		
TOTAL	7.1	54%	6.9	57%	

<sup>(1)</sup> For further details on this scope, refer to the dedicated paragraph in Note 4 of the consolidated financial statements on page 264 of the Registration Document.

#### ■ Table 29: Impaired exposures and value adjustments by exposure class

		Impaired ex Balance Dec. 3	•	Impaired exposure Balance sheet Dec. 31, 2009	Individual value	Individual value	Collective value	
(in EURbn)	Standard approach	IRB approach	Total	Total	adjustments Dec. 31, 2010	adjustments Dec. 31, 2009	adjustments Dec. 31, 2010	2010 cost of risk
Sovereign	0.0	0.1	0.1	0.2	0.1	0.0		
Financial institutions	0.0	0.4	0.4	0.5	0.2	0.2		
Corporate	5.8	5.3	11.0	8.8	5.3	3.9		
Retail	6.1	6.3	12.4	10.9	6.6	6.3		
Securitisation	0.0	3.7	3.7	4.4	2.0	1.3		
TOTAL	11.9	15.7	27.6	24.8	14.2	11.6	1.2	4.2

#### ■ Table 30: Changes in value adjustments\*

(in EURbn) — Dec. 31, 2010	Asset depreciations at Dec. 31, 2009	Write-backs used	Impairment losses	Write-backs available	Other adjustments (currency and other effects)	Asset depreciations at Dec. 31, 2010	Recoveries associated with written-off assets
Collective value adjustments	(1.2)	0.0	(0.7)	0.7	0.0	(1.2)	
Individual value adjustments	(11.6)	1.5	(6.1)	2.4	(0.5)	(14.2)	(0.2)
TOTAL	(12.8)	1.5	(6.8)	3.1	(0.5)	(15.4)	(0.2)

<sup>\*</sup> Excluding equity instruments

#### ■ Table 31: Impaired exposures by geographical region

(in EURbn) – Dec. 31, 2010	Impaired exposures Dec. 31, 2010	Individual value adjustments Dec. 31, 2010	Impaired exposures Dec. 31, 2009	Individual value adjustments Dec. 31, 2009
France	9.4	4.3	9.4	3.3
EU countries (excluding France)	4.7	2.3	4.2	1.5
Central and Eastern Europe (excluding EU)	6.9	3.9	4.9	4.1
Africa/Middle East	1.5	1.1	1.4	0.9
America	4.8	2.5	4.6	1.5
Asia	0.3	0.1	0.4	0.3
TOTAL	27.6	14.2	24.8	11.6

Credit risk: quantitative disclosures

#### ■ Table 32: Impaired exposures by industry sector

(in EURbn) – Dec. 31, 2010	Impaired exposures	%
Finance & insurance	4.5	16%
Real estate	2.1	8%
Public administration (incl. extra-territorial activities)	0.1	1%
Food & agriculture	0.5	2%
Consumer goods	0.6	2%
Chemicals, rubber, plastics	0.3	1%
Retail trade	0.5	2%
Wholesale trade (import, export)	1.5	5%
Construction	0.5	2%
Shipbuilding, aircraft & railway industry	0.0	0%
Education and Associations	0.0	0%
Hotels, catering & leisure	0.3	1%
Automobiles	0.2	1%
Electrical, electronic and mechanical equipment and components	0.3	1%
Forestry, paper	0.1	0%
Metals, minerals	0.5	2%
Media	0.2	1%
Oil & Gas	0.0	0%
Health, social services	0.1	0%
Business services (including multi-activity conglomerate)	0.6	2%
Utilities	0.1	0%
Personal & domestic services	0.0	0%
Telecoms	0.0	0%
Transport & logistics	0.5	2%
Retail	12.4	45%
Other	1.7	6%
TOTAL	27.6	100%

■ Table 33: Under the IRB approach: expected losses (EL) on a one-year horizon by exposure class (excluding defaulted exposure)

Expected	losses	(EL),	exc	luding
	defa	ulted	ex	posure

	401	uuitou oxpoouio
(in EURbn)	Dec. 31, 2010	Dec. 31, 2009
Sovereign	0.0	0.0
Financial institutions	0.1	0.0
Corporate	0.9	1.0
Retail	0.7	0.7
Securitisation	0.0	0.0
TOTAL	1.7	1.7

The expected losses (EL)/Exposure at default (EAD) ratio stood at 0.32% at December 31, 2010, slightly lower than at December 31, 2009 (0.35%). The ratio is calculated on sovereign, banking, institutional, corporate and retail portfolios.

The European Banking Federation's Pillar 3 working group suggests comparing the EL/EAD ratio with provision amounts in relation to gross exposures. This ratio stood at 2.01% at December 31, 2010, compared with 1.85% at end-2009.

A comparison between expected losses (EL) and realised losses is not relevant in our opinion insofar as the parameters of the expected loss calculation (PD, LGD, EAD) provide estimations throughout the cycle, whereas the realised loss presents a piece of accounting information pertaining to a particular year.

# 4

# SECURITISATIONS

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# SOCIETE GENERALE'S SECURITISATION STRATEGY AND ACTIVITIES

#### **Definitions**

For the purpose of this report, Societe Generale's securitisation positions relate to credit exposures arising from securitisation transactions included in the bank's balance sheet and off-balance sheet and giving rise to Risk-Weighted Assets (RWA) and capital requirements in the bank's regulatory banking book.

As defined in the CRD, "securitisation" means a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranched, having the following characteristics:

- the transaction achieves significant risk transfer;
- payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures;
- the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.

# Purpose and strategy

Societe Generale is involved in the following securitisation activities:

- Agency business: the bank intervenes in the structuring of securitisation transactions on behalf of third parties, and in the placing of the ensuing notes or bonds. Generally speaking, Societe Generale does not assume direct credit risk in relation to its agency securitisation business, which means that there are no consequent risk-weighted assets and capital requirements.
- Commercial conduits (sponsor activity): Societe Generale has set up a number of bankruptcy-remote special purpose entities ("conduits"), with the intention of financing various asset classes (e.g. client receivables and consumer loans)

through the issuance of short-term notes and commercial paper. This activity, which is closely integrated in its global commercial and investment banking franchise, helps finance the operating capital needs of some of the bank's major clients. The purpose of this business is to generate fees for structuring and managing these conduits (e.g. structuring, commitment, usage and administration fees). The credit risk related to the associated assets is transferred to third party investors, including the riskier tranches. This being said, Societe Generale may incur ancillary credit risk from this activity in its providing of committed back-up liquidity facilities, interest rate or foreign exchange SWAPs and letters of credit, or when it purchases commercial paper issued by the conduits. Ultimately, the underlying credit risk emerging from the pool of assets is guaranteed by strict underwriting standards, high granularity and diversification as well as by over-collateralisation and other credit enhancement techniques.

■ On balance-sheet financing: when conducting its origination, sponsoring or underwriting activities, associated with the securitisation of various asset classes, the bank may retain some of the underlying asset risks. Additionally, as part of its global credit portfolio management strategy, Societe Generale may tranche specific pools of assets and sell some of the riskier tranches to third party investors, in order to reduce its overall risk exposure. Furthermore, while the Group primarily relies on its large and stable funding base to fund its operations, Societe Generale, as part of its broader liquidity management strategy, has set up four transactions backed by (i) French consumer loans (October 2008), (ii) French residential mortgages guaranteed by Crédit Logement (January 2009), (iii) Italian auto loans originated by Fiditalia (October 2009) and (iv) loans to French professional clients (November 2010). The resulting securities have helped boost the Group's inventory of assets eligible for European Central Bank refinancing. Given that these transactions do not result in any risk transfer for the bank, their capital requirements are unaffected by the securitisation.

Societe Generale's securitisation strategy and activities

■ Societe Generale as an investor: in addition to assets arising from its main securitisation activities described above, which may be held on its balance sheet, Societe Generale may occasionally hold securitised assets as an investor, seeking to lock-in a positive net interest margin and an adequate return on the capital employed. While the Group's insurance subsidiaries may also hold securitised assets in their investment portfolios, they are outside the scope of the Group's Basel II regulatory banking solvency.

In addition, as a result of the ongoing financial crisis, a number of securitised assets have been transferred from the bank's trading books, or from money market funds managed by the bank's asset management arm, to its regulatory banking book, and now give rise to capital requirements on account of their related credit risk.

#### 2010 activities

The Group's securitisation activity was very limited in 2010, with no significant new transaction during the year. However, the Group continued to optimise and extinguish its legacy assets portfolio, while ABCP conduit business remained comparable to the previous year. In 2010, in order to increase its inventory of assets eligible for European Central Bank refinancing, the Group securitised a portfolio of loans to French professional clients and increased the size of the securitisation of its portfolio of French residential mortgages guaranteed by *Crédit Logement*.

## ■ TOTAL SECURITISED EXPOSURES

The securitisation transactions detailed in the following tables represent all the transactions where the Group acted as originator and/or sponsor. Exposures are presented on the basis of their book value gross of provisions as at December 31, 2009 and December 31, 2010. These values

cannot be reconciled with data in the Registration Document, mainly because they include assets that have been transferred off the bank's balance sheet. This information is partially produced on the basis of the management reports for the instruments considered.

# ■ Table 34: Total exposures securitised by the Group as originator and/or sponsor as at December 31, 2010 and 2009, broken down by exposure class

	Securitised exposures at Dec. 31, 2010					Securitised	exposures at De	ec. 31, 2009
	Traditional securitisations Synthetic securitisations			Traditional sec	uritisations	Synthetic sec	uritisations	
Underlying portfolio (in EURm)	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor
Residential mortgages	0	2,348	0	0	0	2,821	0	0
Commercial mortgages	0	152	0	0	0	166	0	0
Credit card receivables	0	1,359	0	0	0	1,865	0	0
Leasing	0	479	0	0	0	342	0	0
Loans to corporates and SMEs	0	0	349	0	0	0	1,513	0
Consumer loans	0	2,156	0	0	0	2,629	0	0
Trade receivables	0	3,092	0	0	0	3,509	0	0
Securitisations/ Re-securitisations	0	3,283	0	0	0	3,063	0	0
Other assets	0	1,182	0	0	0	187	0	0
2010 total	0	14,052	349	0	0	14,582	1,513	0

At December 31, 2010, most of the Group's securitised exposures related to traditional securitisations where the Group was the sponsor. The amount of securitised exposures has fallen by EURm 530 to EURm 14,052 since December 31, 2009. This trend can be attributed primarily to the decline of nearly 13% in exposures under the ABCP programmes marketed by Societe Generale. The Group was the originator only in the case of synthetic transactions. The significant decline in exposures

compared with 2009 primarily reflects the Group's decision to close a synthetic CLO for loans to corporates and SMEs, with the remainder being due mainly to the natural amortisation of CDOs.

The following tables present the exposures securitised by the Group where the underlying assets are subject to payment arrears, default or impairment.

Total securitised exposures

#### ■ Table 35: Securitised exposures subject to Past due, default or impairment as at December 31, 2010 and 2009

	Sec	uritised exp	osures at Dec	2. 31, 2010	Sec	uritised exp	osures at Dec	2. 31, 2009
(in EURm)	Past due Defaulted or impaired				Past due	Defaulted or impaired		
Underlying portfolio	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor
Residential mortgages	0	92	0	1	0	90	0	1
Commercial mortgages	0	0	0	0	0	0	0	0
Credit card receivables	0	68	0	118	0	147	0	212
Leasing	0	2	0	5	0	8	0	4
Loans to corporates and SMEs	0	0	1	0	55	0	3	0
Consumer loans	0	70	0	8	0	64	0	18
Trade receivables	0	774	0	219	0	737	0	134
Securitisations/ Re-securitisations	0	0	0	487	0	0	0	579
Other assets	0	0	0	0	0	0	0	0
2010 total	0	1,006	1	838	55	1,047	3	947

This information must be considered in the context of the specific characteristics of the structures used for each transaction and the conduits, which cannot be described here. Taken in isolation, the levels of payment arrears or default do not provide sufficient information on the nature of the exposures securitised by the Group, mainly because the definition of payment arrears and defaults can vary from one transaction to another.

Both payment arrears and defaulted or impaired assets have declined. This reflects the stabilisation of the market and the improved quality of underlying assets. As in 2009, most of the defaulted or impaired assets were to be found in two US RMBS CDOs and in ABCP conduits related to credit card exposures and trade receivables.

## SECURITISATION EXPOSURES RETAINED OR PURCHASED

The following tables present the exposures retained or purchased by the Group by type of underlying and by geographical region. These exposures cannot be reconciled with the securitisation exposures published in the Registration Document version 2010 and 2011, mainly because only banking book exposures are used and also because off-balance sheet exposures are included.

Consultination avanguage

#### ■ Table 36: Securitisation exposures retained or purchased by type of underlying

	Securitisation exposures retained or purchased			
Underlying portfolio (in EURm)	Dec. 31, 2010	Dec. 31, 2009		
Residential mortgages	7,264	6,600		
Commercial mortgages	6,575	7,349		
Credit card receivables	1,946	2,596		
Leasing	917	738		
Loans to corporates and SMEs	5,914	7,137		
Consumer loans	3,379	3,950		
Trade receivables	4,416	4,772		
Securitisations/ Re-securitisations	6,903	3,316		
Other assets	4,574	7,111		
Total	41,887	43,567		

At end-December 2010, Societe Generale's exposure to securitisation transactions totalled EURbn 41.9, of which EURbn 26.5 in on-balance sheet assets and EURbn 15.4 in off-balance sheet commitments, mainly associated with liquidity facilities granted to the securitisation conduits sponsored by Societe Generale. Societe Generale's securitisation exposures cover all asset classes, with a slightly higher share for residential mortgages and commercial property loans as well as CDOs.

During 2010, the Group's securitisation exposures fell by EURm 1,681, or nearly 4% compared with 2009. All exposure

classes showed a decline, except for residential mortgages and re-securitisations. The overall decline in exposures reflects the natural amortisation of effective exposures, as well as transfers and value adjustments related to legacy asset exposures. The dollar's appreciation by more than 7% in one year may have contributed to the increase in RMBS mortgage loans and re-securitisations, where the dollar is the dominant currency. The reclassification of several CDOs following the realisation of protection purchased from a monoline insurer during 2010 also explains the increase in re-securitisations.

Calculation of risk-weighted exposures

#### Table 37: Securitisation exposures retained or purchased by geographical origin of underlying

Securitisation expos	sures retained	or	purchased
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Underlying portfolio (in EURm)	Dec. 31, 2010	Dec. 31, 2009
Americas	25,133	22,712
Asia	2,593	3,281
Europe	10,969	11,114
Other	3,192	6,460
Total	41,887	43,567

Only securitisation exposures based on assets located in the Americas region increased during 2010. This reflects both the impact of the dollar's appreciation in 2010 and the

reclassification of certain CDOs mentioned previously. At end-December 2010, the Americas region accounted for 60% of exposures compared with 26% for Europe.

## CAI CUI ATION OF RISK-WEIGHTED EXPOSURES

# Approach for calculating risk-weighted exposures

Whenever traditional or synthetic securitisations, in whose sponsoring, origination, structuring or management Societe Generale is involved, achieve a substantial and documented risk transfer complying with the CRD's framework, the underlying assets are excluded from the bank's calculation of risk-weighted exposures for traditional credit risk.

For the securitisation positions that Societe Generale may retain, either on- or off-balance sheet, capital requirements are determined based on the bank's exposure, irrespective of its underlying strategy or role. Accordingly, risk-weighted exposure amounts on securitisation positions are calculated by applying the relevant risk weights to the exposures' value. These are determined as follows.

The Group's securitisation positions are predominantly valued using the Internal Ratings Based (IRB) approach, with Societe Generale also resorting to specific alternative valuations included in the CRD. Less than 3% of the bank's securitisation

exposures are calculated using the Standardised Approach (SA) whereby risk-weighted assets are determined on the basis of ratings assigned by rating agencies (e.g. 20% for instruments rated between AAA and AA -, 50% for those rated between A+ and A-, etc.).

The IRB approach is subdivided into three possible calculations:

- First and foremost, the Ratings-Based Approach (RBA) must be applied to all rated exposures or those for which a rating can be inferred. Under this approach, finer risk weights are applied, notably reflecting the positions' seniority and granularity.
- The Supervisory Formula is a methodology for non-rated exposures, where the risk weight is based on five inputs associated with the nature and structure of the transaction.
- Finally, the positions arising from the Asset Backed Commercial Paper (ABCP) programmes' off-balance sheet exposures (such as liquidity facilities) are determined using appropriate Credit Conversion Factors (CCF) and are evaluated by the Internal Assessment Approach (IAA), which in substance allows reference to the risk weights of the RBA.

The following table presents the bank's securitisation exposures broken down by risk weight bands as at December 31, 2010 and December 31, 2009.

#### ■ Table 38: EAD subject to a risk weight

(in EURm)		Dec.	31, 2010		Dec.	31, 2009
Risk weight band	EAD (IRB approach)	EAD (standard approach)	Total	EAD (IRB approach)	EAD (standard approach)	Total
6% – 10%	13,185	0	13,185	16,061	0	16,061
12% – 18%	1,858	0	1,858	1,081	0	1,081
20% – 35%	744	0	744	712	0	712
50% – 75%	758	0	758	683	32	715
100%	344	20	364	351	0	351
250%	124	0	124	131	0	131
425%	364	0	364	113	0	113
650%	54	0	54	169	0	169
1,250%	1,990	0	1,990	3,582	0	3,582
EAD subject to a risk weight	19,421	20	19,442	22,884	32	22,916
Supervisory formula approach	2,100	0	2,100	3,033	0	3,033
Look-through approach	0	955	955	0	1,060	1,060
Internal evaluation approach (ABCP programmes)	12,239	0	12,239	13,655	0	13,655
Total EAD before deductions from regulatory capital	33,760	975	34,735	39,571	1,092	40,664
Exposures deducted from regulatory capital	4,256	0	4,256	1,864	0	1,864
Total securitisation-related EAD	38,016	975	38,992	41,436	1,092	42,528

(1) Exposures risk-weighted at 1,250% correspond solely to fully provisioned exposures. Amounts giving rise to deductions from regulatory capital are included in the exposure and capital requirement tables presented below.

At December 31, 2010, around 58% of the bank's IRB exposures were risk-weighted using the RBA approach, 6% using the Supervisory Formula and nearly 36% using the IAA approach. Under the standard approach, the bank's risk-weighted exposures relative to securitisation positions and related capital requirements were evaluated based on a look-through method.

# External Credit Assessment Institutions used by Societe Generale

Societe Generale uses external credit ratings to gauge credit risk on securitisation positions. These are assigned by rating agencies that have been granted External Credit Assessment Institution (ECAI) status by the Committee of European Banking Supervisors (CEBS) and the members of the bank's college of supervisors. The following credit rating agencies have been granted ECAI status: Standard & Poors, Moody's Investors Service, Fitch Ratings and DBRS.

Regulatory capital requirements

# REGULATORY CAPITAL REQUIREMENTS

At end-2010, Societe Generale's exposures evaluated under the standard approach and IRB approach were as follows:

#### ■ Table 39: Capital requirements relating to securitisations

(in EURm)	On-balance sheet/off-balance sheet exposure	EAD	Deduction from regulatory capital	EAD after regulatory capital deduction	RWA	Capital requirements
Originator – IRB	241	241	0	241	29	2
Originator – SA	0	0	0	0	0	0
Total as originator	241	241	0	241	29	2
Investor – IRB	23,158	23,158	(3,273)	19,885	4,720	378
Investor – SA	1,982	168	0	168	20	2
Total as investor	25,139	23,325	(3,273)	20,052	4,741	379
Sponsor – IRB	15,699	14,618	(983)	13,635	1,262	101
Sponsor – SA	808	808	0	808	499	40
Total as sponsor	16,507	15,425	(983)	14,442	1,761	141
2010 TOTAL	41,887	38,992	(4,256)	34,735	6,531	522
o/w traditional securitisations	40,039	37,143	(3,998)	33,146	6,407	513
o/w synthetic securitisations	1,848	1,848	(259)	1,590	124	10
2009 TOTAL	43,567	42,528	(1,864)	40,664	6,463	517

The increase in exposures deducted from regulatory capital reflects the deterioration in the ratings of some traditional securitisations such as RMBS and RMBS CDO and the cumulative effect of the negative currency impact related to the dollar's appreciation. Similarly, the slight increase in risk-weighted assets, despite the decline in exposures, reflects the deterioration in some investor positions, particularly RMBS CDO

which posted high cumulative losses. However, risk-weighted assets related to sponsor and originator activities fell significantly. The sponsor activity experienced a much faster decline in its risk-weighted assets (-33% in one year) than its exposures (-9%), which reflects the improved quality of the underlying assets.

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## ■ INVESTMENT STRATEGIES AND PURPOSES

Societe Generale's exposures to non-trading equity are associated with a number of the bank's strategies and activities. They include shares and similar instruments, shares in mutual funds invested in equities, as well as investments in non-consolidated Group subsidiaries and affiliates that are not deducted from prudential own funds.

- Firstly, the Group has a portfolio of industrial holdings, which primarily reflect strong historical or strategic relationships with these companies.
- In addition, Societe Generale holds small minority stakes in selected banks, for strategic purposes, as a means of fostering increased cooperation with these institutions.
- Furthermore, non-trading equity includes the Group's investments in small, non-consolidated subsidiaries, operating in France or abroad. It also encompasses a variety of holdings and investments, ancillary to the Group's main banking activities, notably in corporate and investment banking, retail banking and securities services.
- Finally, Societe Generale and some of its subsidiaries may hold equity investments arising from their asset management activities (notably seed money in mutual funds sponsored by Societe Generale).

# MONITORING OF BANKING BOOK EQUITY INVESTMENTS AND HOLDINGS

The portfolio of equity investments in non-banking corporations is monitored on a monthly basis by the Group Finance Division and any value adjustments are recognised on a quarterly basis in accordance with the Group's impairment policy. The portfolio is also reviewed annually by a dedicated committee consisting of representatives from the Group's Executive Committee, as well as the Risk and Finance Divisions. The purpose of this review is to validate the portfolio's strategic objectives and assess the strategic nature of these holdings, as well as disposal opportunities. Investment decisions are also submitted to this Committee.

Holdings that are ancillary to Corporate and Investment Banking activities are subject to quarterly monitoring by the Group Finance Division and any value adjustments are recognised on a quarterly basis in accordance with the Group's impairment policy. Investment or disposal decisions are submitted to an Investment Committee consisting of representatives from the Executive Committee, as well as the Risk, Finance and Compliance Divisions. These decisions are also reviewed by Corporate and Investment Banking's Finance Division and the Group Finance Division. Decision-making criteria incorporate both intrinsic financial considerations and an analysis of the contribution of investments to the Corporate and Investment Banking business's activities.

Valuation of banking book equities

# VALUATION OF BANKING BOOK EQUITIES

# Fair value of Available-for-sale equity holdings

From an accounting perspective, Societe Generale's exposures to non-trading equities are classified as Available-for-sale (AFS) financial assets, as they may be held for indeterminate periods of time and be sold at any time. Societe Generale's exposure to

equities that are not part of the trading book is equal to their book value net of provisions.

The following table presents these exposures at end-December 2009 and 2010. The amounts are not comparable with the portfolio of Available-for-sale (AFS) securities, as presented in the Registration Document, mainly on account of differences between the IFRS accounting scope and the prudential scope.

#### ■ Table 40: Exposure to banking book equities

(in EURm)	Dec. 31, 2010	Dec. 31, 2009
Equities and other similar equity instruments	8,024	7,837
Long-term equity investments	3,992	3,928
Equities and holdings in the portfolio of AFS financial assets (IFRS)	12,016	11,765
Regulatory exposures to banking book equities and holdings – Listed shares	1,179	1,399
Regulatory exposures to banking book equities and holdings – Unlisted shares	1,409	1,848
Regulatory exposures to banking book equities and holdings	2,588	3,247
Gains and losses on the disposal of shares	203	877
Asset impairment related to the holdings portfolio	(217)	(1,802)
Share on the basis of the net income of the holdings portfolio	317	324
Realised net gains/ losses from banking book equities and holdings	302	(602)
Unrealised gains/losses on holdings	1,728	1,583
o/w share included in Tier 1 or Tier 2 capital	383	328

Changes in fair value are recorded in the Group's shareholders' equity under "Unrealised or deferred gains or losses". Changes in fair value are recorded in the income statement when assets are sold or durably impaired, in which case they are reported as "Net gains or losses on AFS financial assets". Dividend income earned on these securities is booked in the income statement under "Dividend income".

For listed shares, fair value is taken to be the quoted price on the balance sheet closing date. For unlisted shares, fair value is determined depending on the category of financial instrument and according to one of the following methods:

- share of adjusted net asset value held;
- valuation based on a recent transaction involving the company (third-party buying into the company's capital, appraisal by professional valuer, etc.);
- valuation based on recent transactions in the same sector using market derived, income or asset derived valuation multiples.

#### Impairment policy

The impairment of an available-for-sale financial asset is recognised as an expense in the income statement if there is objective evidence of impairment resulting from one or more events subsequent to the initial recognition of this asset.

For listed equity instruments, a significant or prolonged decline in their prices below their acquisition cost constitutes objective evidence of impairment. The Group believes this to be particularly true for listed shares that at the balance sheet closing date present unrealised losses representing more than 50% of their acquisition cost as well as for listed shares representing an unrealised loss for a continuous period of

24 months or more prior to the balance sheet closing date. Other factors, such as the issuer's financial situation or its growth prospects may lead the Group to believe that it is unlikely to recover its investment even though the abovementioned criteria are not fulfilled. An impairment expense is therefore recognised in the income statement for the difference between the share's quoted price at the balance sheet closing date and its acquisition cost.

For unlisted equity instruments, the impairment criteria adopted are identical to those mentioned above, with the value of instruments at the balance sheet closing date determined on the basis of the valuation methods described in Note 3 of Societe Generale's 2011 Registration Document "Fair Value of Financial Instruments".

## REGULATORY CAPITAL REQUIREMENT

For the calculation of risk-weighted assets under Basel II, the Group applies the simple Internal Ratings Based approach for the larger part of its non-trading equity portfolio. As such, shares in listed companies included in diversified portfolios are risk-weighted at 190%, those in other listed companies are risk-weighted at 290% and unlisted shares are risk-weighted at 370%. However, unlisted equity holdings included in diversified portfolios and acquired before January 2008 may be weighted at 150%.

2009 data have been restated to ensure they correspond to the data in COREP statements. As a result, exposures to equities related to activities classified as ancillary activities or organisations within the industry and weighted at 100% have been removed as they are already recognised in COREP statements in other categories, notably sovereign exposures and corporate exposures.

At December 31, 2010, the Group's risk-weighted assets related to non-trading equities and the associated capital requirements were as follows:

#### ■ Table 41: Capital requirements of banking book equities(1)

(in EURm)	Portfolio	Method	EAD	RWA	Capital requirements
150% risk weighted	Private equity	Standard	165	247	20
190% risk weighted	Listed entities	IRB	194	368	29
290% risk weighted	Listed entities	IRB	739	2,143	171
370% risk weighted	Unlisted entities	IRB	1,009	3,733	299
2010 total			2,106	6,491	519
2009 total			2,290	7,148	572

Note 1: Excluding treasury investments

Against the general backdrop of an appreciation in stocks and shares during 2010, the decline in risk-weighted assets related to the Group's exposure to equity investments and holdings reflects a decline in risk-weighted assets both for listed and unlisted entities.

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## ORGANISATION

Although primary responsibility for managing risk exposure lies with the front office managers, the supervision system is based on an independent structure, i.e. the Market Risk Department of the Risk Division.

It carries out the following tasks:

- ongoing daily analysis (independently from the front office) of the exposure and risks incurred by the Group's market activities and comparison of these exposures and risks with the approved limits;
- definition of the risk-measurement methods and control procedures, approval of the valuation models used to calculate risks and results and setting of provisions for market risks (reserves and adjustments to earnings);
- definition of the functionalities of the databases and systems used to assess market risks;
- approval of the limit applications submitted by the operating divisions, within the global authorisation limits set by the General Management and the Board of Directors, and monitoring of their use;
- centralisation, consolidation and reporting of the Group's market risks;
- proposal of authorised risk limits by type of activity to the Risk Committee.

Besides these specific market risk functions, the Department also monitors the gross nominal value of trading exposures. This system, based on alert levels applying to all instruments and desks, contributes to the detection of possible rogue trading operations.

Within each entity that incurs market risk, risk managers are appointed to implement Level 1 risk controls. The main tasks of these managers, who are independent from the front office, include:

- ongoing analysis of exposure and results, in collaboration with the front office and the accounting departments;
- verification of the market parameters used to calculate risks and results;
- daily calculation of market risks, based on a formal and secure procedure;
- daily monitoring of the limits set for each activity, and constant verification that appropriate limits have been set for each activity.

A daily report on the use of VaR limits, Stress Tests (extreme scenarii) and general sensitivity to interest rates compared to the limits set out at Group level is submitted to General Management and the managers of the business lines, in addition to a monthly report which summarises key events in the area of market risk management and specifies the use of the limits set by General Management and the Board of Directors.

# INDEPENDENT VERIFICATION OF VALUATION

Market products are marked to market, where such market prices exist. Otherwise, they are valued using parameter-based models.

Firstly, each model is independently validated by the Market Risk Department.

Secondly, the parameter values are subject to regular comparison with external sources.

■ if there is a difference between the values used and the external sources, and the sources are deemed reliable by the

Market Risk Department, the values are aligned with the external data. This process, known as IPV (Independent Pricing Verification), contributes to the internal certification of the accounts;

■ if there are no reliable external sources, a conservative valuation is made based on reserves, whose calculation methods have been validated by the Market Risk Department.

# METHODS FOR MEASURING MARKET RISK AND DEFINING EXPOSURE LIMITS

The Group's market risk assessment and the sensitivity analysis of these risks are based on three main indicators, which are used to define exposure limits:

- the 99% Value-at-Risk (VaR) method: in accordance with the regulatory internal model, this composite indicator is used for the day-to-day monitoring of the market risks incurred by the Bank, notably within the scope of its trading activities;
- Stress Test measurements, based on ten-year shock-type indicators. Stress Test measurements limit the Group's exposure to systemic risk and exceptional market shocks;
- complementary measurements (sensitivity, nominal, concentration or holding period, etc.), which ensure consistency between the total risk limits and the operational thresholds used by the front office. These measurements also allow for control of risks that are only partially detected by VaR or Stress Test measurements.

# ■ THE 99% VALUE AT RISK (VaR) METHOD

The internal VaR model, developed since the end of 1996, has been approved by the French regulator for the purpose of determining regulatory capital requirements.

The method used is the "historic simulation" method, which implicitly takes into account the correlation between all markets and is based on the following principles:

- the storage in a database of the risk factors that are representative of Societe Generale's positions (i.e. interest rates, share prices, exchange rates, commodity prices, volatility, credit spreads, etc.);
- the definition of 260 scenarii, corresponding to one-day variations in these market parameters over a rolling one-year period;
- the application of these 260 scenarii to the market parameters of the day;
- the revaluation of daily positions, on the basis of the 260 sets of adjusted daily market parameters.

The 99% Value-at-Risk is the largest loss that would occur after eliminating the top 1% of the most adverse occurrences over one year. Within the framework described above, it corresponds to the average of the second and third largest losses computed.

The VaR assessment is based on a model and a certain number of conventional assumptions whose main limitations are as follows:

the use of "1-day" shocks assumes that all positions can be unwound or hedged within one day, which is not the case for certain products and crisis situations;

- the use of the 99% confidence interval does not take into account losses arising beyond this point; VaR is therefore an indicator of losses under normal market conditions and does not take into account exceptionally large fluctuations;
- VaR is computed using closing prices, so intra-day fluctuations are not taken into account;
- there are a number of approximations in the VaR calculation. For example, benchmark indices are used as opposed to more detailed risk factors and not all of the relevant risk factors are taken into account, in particular due to difficulties in obtaining historical daily data.

The Group mitigates these limitations by:

- systematically assessing the relevance of the model through backtesting to verify whether the number of days for which the negative result exceeds the VaR complies with the 99% confidence interval;
- supplementing the VaR assessment with stress test measurements as well as additional measurements.

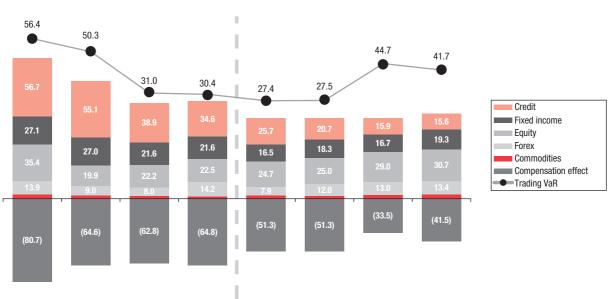
Today, the market risks for almost all of Corporate and Investment Banking's market activities are covered by the VaR method, including those related to the most complex products, as well as certain Retail Banking and Private Banking activities outside France.

The changes in the VaR of the Group's trading activities in 2010, for the entire monitoring scope, are presented below:

■ Table 42: Trading VaR (trading portfolio) changes over the course of 2010 (1 day, 99%, in EURm)



■ Table 43: Breakdown by risk factor of trading VaR – changes in quarterly average over the 2009-2010 period (in EURm)



Q2 10

03 10

Quarterly average of 1-day, 99% Trading VaR (In millions of euros)

Average VaR amounted to EURm 35 for the year 2010 against a yearly average of EURm 42 in 2009.

Q3 09

Q4 09

Q1 10

Q2 09

Q1 09

This slight fall in the average is attributable to varying trends: stability over the first two quarters followed by an increase over the last two.

The increase observed in the third quarter results from a significant drop in netting between the various types of risk, the positions taken having been largely less defensive due to the normalisation of the markets, and hence more sensitive to the scenarii of May 2010.

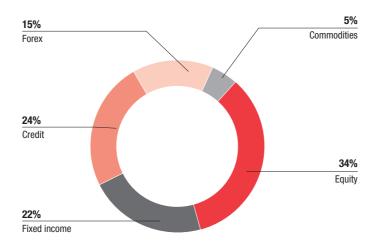
Q4 10

In the fourth quarter, with the markets focused on the struggles of peripheral European countries, VaR was maintained at low levels via new defensive positions, despite the addition of the implied dividends risk factor.

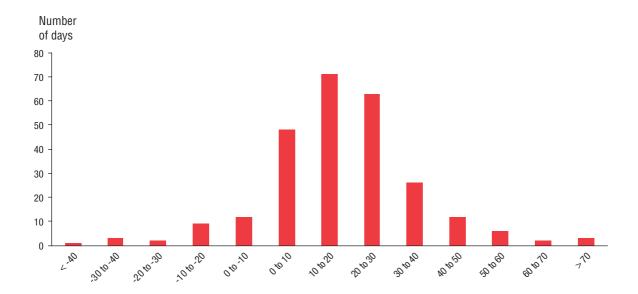
Improvements were made to the VaR model in 2010, thanks in large part to the addition of a new risk factor: implied dividends.

Daily P&L exceeded VaR five times in 2010.

#### ■ Table 44: Breakdown of trading VaR by type of risk – 2010 (in %)



#### ■ Table 45: Daily trading P&L – 2010 (EURm)



Stress test assessment

## STRESS TEST ASSESSMENT

Alongside the internal VaR model, Societe Generale monitors its exposure using stress test simulations to take into account exceptional market occurrences.

A stress test estimates the loss resulting from an extreme change in market parameters over a period corresponding to the time required to unwind or hedge the positions affected (5 to 20 days for most trading positions).

The stress test risk assessment methodology is based on 19 historical scenarii and 8 hypothetical scenarii, including the "Societe Generale Hypothetical Financial Crisis Scenario" (or "Generalised" scenario), based on the events observed in 2008. Together with the VaR model, the stress test risk assessment methodology is one of the main pillars of the risk management system. The underlying principles are as follows:

- risks are calculated every day for each of the Bank's market activities (all products combined), using the 19 historical scenarii and 8 hypothetical scenarii;
- stress test limits are established for the Group's activity as a whole and then for the Bank's various business lines. They reflect the most adverse result arising from the 27 historical and hypothetical scenarii;
- the various stress test scenarii are revised and supplemented by the Risk Division on a regular basis, in conjunction with the Group's teams of economists and specialists.

In the context of regular reviews, a new hypothetical scenario ("GIIPS" (Greece, Ireland, Italy, Portugal and Spain)) has been implemented as of October 25, 2010: for the risk factors that were the most affected by the European sovereign debt crisis in April/May 2010 (government bond spreads, equity spot prices and volatility, etc.), this scenario applies the shocks observed; for the other risk factors (corporate bond spreads, dividends, etc.), it applies the levels of the "Generalised" scenario.

#### Historical stress tests

This method consists of an analysis of the major economic crises that have affected the financial markets since 1995 (a period since which the financial markets have become global and subject to increased regulatory requirements): the changes

in the prices of financial assets (equities, interest rates, exchange rates, credit spreads, etc.) during each of these crises have been analysed in order to define scenarii for potential variations in these risk factors which, when applied to the bank's trading positions, could generate significant losses. Using this methodology, Societe Generale has established 19 historical scenarii.

#### Hypothetical stress tests

The hypothetical scenarii are defined by the Bank's economists and are designed to simulate possible sequences of events that could lead to a major crisis in the financial markets (e.g. a major terrorist attack, political instability in the main oil-producing countries, etc.). The Bank's aim is to select extreme, but nonetheless plausible events which would have major repercussions on all the international markets.

Societe Generale has therefore adopted 8 hypothetical scenarii described below:

- Generalised: considerable mistrust of financial institutions after the Lehman Brothers' bankruptcy; collapse of equity markets, sharp decline in implied dividends, significant widening of credit spreads, pivoting of yield curves (rise in short-term interest rates and decline in long-term interest rates), substantial flight to quality;
- GIIPS crisis: mistrust of risky sovereign issuers and increased interest in higher-rated sovereign issuers such as Germany, followed by the spreading of fears to the other markets (equities, etc.);
- Middle East crisis: refers to instability in the Middle East leading to a significant shock to oil and other energy sources, a stock market crash, and a steepening of the yield curve;
- Terrorist attack: major terrorist attack on the United States leading to a stock market crash, strong decline in interest rates, widening of credit spreads and sharp decline of the US dollar:
- Bond crisis: crisis in the global bond markets inducing the delinking of bond and equity yields, strong rise in US interest rates (and a more modest rise for other international rates), moderate decline on the equity markets, flight to quality with moderate widening of credit spreads, rise in the US dollar;

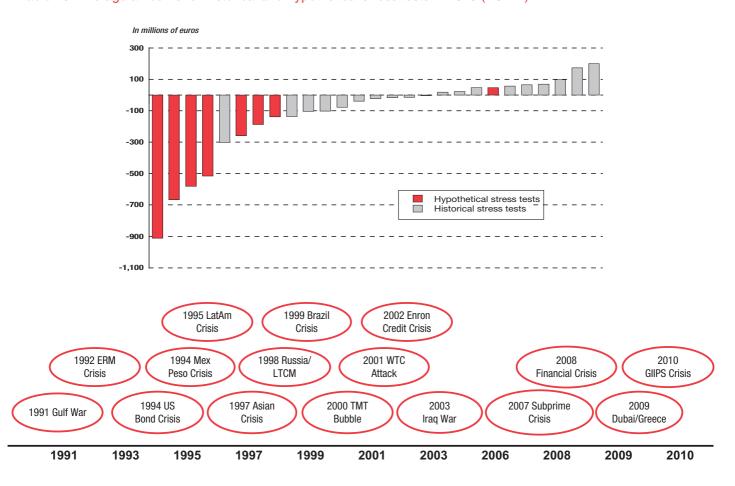
- US dollar crisis: strong depreciation of the US dollar against major international currencies due to the deterioration of the US trade balance and budget deficit, the rise of interest rates and the narrowing of US credit spreads;
- Euro zone crisis: decision by some countries to withdraw from Euroland following the Euro's excessive appreciation against the US dollar: decline in euro exchange rates, sharp rise in euro zone interest rates, sharp fall in euro equities and rise in US equities, significant widening of euro credit spreads;
- Yen carry trade unwinding: change in monetary policy in Japan leading to yen carry trade strategies being abandoned: significant widening of credit spreads, decline in JPY interest rates, rise in US and euro zone long-term interest rates and flight to quality.

# Average stress tests in 2010

The scenarii leading to the largest potential losses are theoretical scenarii representing very severe, or even extreme, shocks to the price of each of the assets held (e.g. a 15%, or even 30%, fall in global stock market indices).

The graph below shows the average of the stress test amounts in 2010. The scenario that results in the highest potential loss (GIIPS crisis) was only included in the Group's stress test procedure at the end of October 2010. Its average has therefore been calculated for a period of around two months.

■ Table 46: Average amounts for historical and hypothetical stress tests in 2010 (EURm)



# CAPITAL REQUIREMENTS

Societe Generale's capital requirements in respect of market risk are mainly determined using an approach based on internal models (89% in 2010). For 2010, these capital requirements were concentrated on interest rate risk and the risk related to trading book shares and equity securities.

#### ■ Table 47: Capital requirements by specific risk sub-factor

(in EURm)	Dec. 31, 2010			Dec. 31, 2009			
Market risk	Internal models approach	Standard approach	Total	Internal models approach	Standard approach	Total	
Interest rate risk	514	55	569	632	69	701	
Risks related to trading book shares and equity securities	371	7	378	231	6	237	
Foreign exchange risk	19	44	63	9	133	142	
Risks related to commodity positions	24	12	36	6	26	32	
Total	928	118	1,046	878	234	1,112	

Capital requirements related to market risk fell by nearly 6% overall in 2010. This decline can be attributed to a number of different factors: the increase in the risk related to trading book shares and equity securities and, to a lesser extent, the risk related to commodity positions, which were more than offset by a decline in the foreign exchange risk and interest rate risk.

# 7 INTEREST RATE RISK

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# STRATEGY AND PROCESSES

Societe Generale manages its structural exposure to interest rate risk within its global Asset and Liability Management (ALM) structure which, besides the interest rate risk, also manages the Group's exposure to liquidity and foreign exchange risks<sup>(1)</sup>.

Structural exposure to interest rate risk encompasses all exposures due to i) the commercial activity of the Group's various entities (hereinafter referred to as the "banking book") and ii) the proprietary activity (equity transactions, refinancing investments and transactions) of Group entities. Interest rate risks associated with trading activities are excluded from the scope of structural interest rate risk, and are dealt with under market risk. The structural and market exposures constitute the overall interest rate exposure of the Group.

#### Governance

When it comes to the management of structural interest rate risk, governance is based on the following core principles:

- A general policy and overall management standards validated by the Group's Finance Committee and translated into detailed management norms by the Group Finance Division.
- Decentralised risk management at entity level, controlled via limits.
- Tight supervision by the Group Finance Division on the implementation of norms and interest rate risk management by the entities.

Group norms and procedures set precise guidelines for:

- Policy implementation and management of structural interest rate risk.
- Investment norms covering entities' shareholders' equity.
- How structural and market interest rate risks are to be differentiated

#### Organisation

The Group's Management is involved in managing the banking book's interest rate risk through the Group's quarterly Finance Committee meetings, which approve the management principles and sensitivity limits for each entity. It examines the management reports and analyses prepared by the Finance Division. The Finance Committee is also kept regularly informed of the main changes made to the ALM models used by the retail banking network in France (particularly the amortisation rules for current accounts and regulated savings accounts).

The Group Finance Division is in charge of defining management norms (relating to organisation and methodologies) and validating the models developed and used by the entities. It also notifies Group entities of the respective sensitivity limits under which they must operate. In addition, the Finance Division is responsible for the centralisation and reporting of the interest rate risk and second level controls.

Conversely, Group entities are responsible for the management and control of the interest rate risk at their own level, within the guidelines defined for the Group.

Responsibility for adhering to Group policy and enforcing the limits defined lies with each entity's Managing Director, who is assisted in this task by his Structural Interest Rate Risk Manager. Furthermore, the Group's main retail banking entities have set up ALM Committees responsible for monitoring the interest rate risk in accordance with Group principles.

The interest rate risk is measured monthly for the Group's main entities, and at least quarterly for the other entities. Every quarter, all the Group entities report their ALM positions to the Group Finance Division, which prepares a consolidated structural interest rate risk management report.

# INTEREST RATE RISK MANAGEMENT METHODOLOGY AND OBJECTIVES

The general principle is to concentrate interest rate risks within capital market activities, where they are monitored and controlled according to the methods set out in chapter 7, and to reduce structural interest rate and foreign exchange risk within the consolidated entities as much as possible.

Whenever possible, commercial transactions are hedged against interest rate risk, either through micro-hedging (individual hedging of each commercial transaction), or macro-hedging (global hedging of portfolios of similar commercial transactions). These principles also apply for proprietary transactions. The interest rate risk exposure on the banking book therefore results only from residual positions. The sensitivity of residual positions must comply with the limits set for each entity, and for the Group overall, as approved by the Finance Committee.

In order to quantify its exposure to structural interest rate risk, the Group analyses all its balance sheet's fixed rate assets and liabilities to identify any gaps which reflect mismatches in the maturity and/or repricing of the fixed interest rate assets and liabilities recorded on the balance sheet. The maturities and amortisation of outstanding positions are determined based on their contractual terms, or models reflecting historical customer behaviour observed as well as conventional assumptions for certain aggregates (mainly shareholders' equity).

Once the fixed rate gaps have been identified, the position's resulting sensitivity to interest rate variations is calculated.

Group policy calls for the transfer of residual risk from commercial activity either into local treasuries or in the Group Treasury using an internal transfer price. The interest rate risk is then managed within the authorised limits of the related trading books.

For products without a fixed maturity date (the French retail banking network's current and savings accounts, for example), the Group uses amortisation models, in which the outstanding amounts are deemed to be composed of a stable portion and a volatile portion (i.e. the difference between the total outstanding amount and the stable portion). For example, for Societe Generale's French retail banking network, the volatile portion of its deposits is scheduled at sight, while the stable portion is determined by using an auto-regressive model that is regularly back-tested. Its amortisation profile was defined based on an auto projective model and on the bank's historical data.

The amortisation of loans takes into account early repayment models that may be sensitive to the level of interest rates.

# ■ KEY INTEREST BATE BISK INDICATORS

Societe Generale uses several indicators to measure its interest rate risk, its three preferred measurements being:

- Interest rate gap analysis (see definition above): the fixed rate positions and gaps are the main indicators for assessing the characteristics of the hedging operations required, they are calculated on a static basis.
- The sensitivity of the economic value is a supplementary and synthetic indicator used to set limits for the entities. It is calculated as the effect on Economic Value of variations in interest rates. This measurement is calculated for all the currencies to which the Group is exposed.
- The sensitivity of the interest margin to variations in interest rates in various stress scenarii takes into account the sensitivity which is generated by future commercial productions over a three-year rolling horizon, calculated on a dynamic basis.

Sensitivity limits for the economic value are set for each entity and periodically reviewed by the Group Finance Division. The Group's global sensitivity limit is currently set at EURbn 1, which represents 2.5% of Societe Generale's total regulatory capital.

# ■ INTEREST RATE RISK INDICATORS AT END-2010

At December 31, 2010, the sensitivities of the economic value by currency in the case of different movements in the yield curve were as follows:

# ■ Table 48: Measurement of the sensitivity of the balance sheet's economic value, by currency, to interest rate variations as at December 31, 2010

(in EURm) – Dec. 31, 2010	Sensitivity by currency							
Level of sensitivity by currency	EUR	USD	GBP	JPY	CZK	RUB	Others	Total
Parallel increase in interest rates of 200 basis points	(574.3)	(111.6)	17.6	16.3	29.7	83.1	74.6	(464.6)
Parallel decrease in interest rates of 200 basis points	(752.8)	121.5	(20.4)	(19.8)	(37.0)	(95.2)	(81.1)	(884.7)
Parallel increase in interest rates of 100 basis points	(271.4)	(56.9)	9.1	8.5	15.7	43.0	38.2	(213.9)
Parallel decrease in interest rates of 100 basis points	(37.2)	59.4	(9.8)	(9.4)	(17.5)	(46.0)	(39.8)	(100.3)
Parallel increase in interest rates of 50 basis points	(121.3)	(28.8)	4.6	4.4	8.1	21.8	19.3	(91.8)
Parallel decrease in interest rates of 50 basis points	146.1	4.2	1.8	1.0	(1.7)	7.9	6.0	165.3
Parallel increase in interest rates of 10 basis points	(19.7)	(5.8)	0.9	0.9	1.6	4.4	3.9	(13.7)
Parallel decrease in interest rates of 10 basis points	14.4	5.8	(0.9)	(0.9)	(1.7)	(4.5)	(3.9)	8.3
Steepening of the yield curve	(96.3)	16.8	2.5	3.4	10.2	15.6	18.9	(28.9)
Flattening of the yield curve	27.6	(16.4)	(2.6)	(3.5)	(10.7)	(15.8)	(18.4)	(39.7)

The main assumptions used to measure sensitivity concern early loan repayment and the behaviour of deposits without a contractual term. The assumptions of early loan repayment rates is based on historical data by entity and type of product.

Modelling the behaviour of deposits without a contractual term allows a volatile component and a stable component to be identified. The volatile component is scheduled on a short-term basis, i.e one month. The stable component is scheduled to mature over a number of years, depending on the depth and representativeness of the historical data. The risk of a liquidity crisis arising in a given country, as provided by the analyses prepared by the Risk division, is also taken into account.

The results of the analysis of the Group's sensitivity to interest rate variations are different from those published in the 2011

Registration Document, for three reasons: firstly, the prudential scope is different from the accounting scope. Secondly, in the common scope, it was only possible to take into account 83% of outstanding amounts when the Registration Document was produced compared with 100% for Pillar 3. Finally, unlike the Registration Document, the calculations for interest rate risk sensitivity used in this report also take into account optional elements relating to the French Networks, inherent notably in mortgages and home-ownership savings plans (PEL).

An analysis of the Group's sensitivity to interest rate variations shows a substantial asymmetry to the decline in interest rates. This is due primarily to the modelling of the French Networks' optional elements: mortgages and, to a lesser extent, homeownership savings plans, which exhibit greater elasticity to a decline than to a rise in interest rates.

# 8 OPERATIONAL RISKS

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# OPERATIONAL RISK MANAGEMENT: ORGANISATION AND GOVERNANCE

Over the last few years, Societe Generale has developed processes, management tools and a full control infrastructure to enhance the control and management of the operational risks that are inherent to its various activities. These include, inter alia, general and specific procedures, permanent supervision, business continuity plans<sup>(1)</sup>, New Product Committees<sup>(2)</sup> and functions dedicated to the oversight and management of specific types of operational risks, such as fraud, risks pertaining to payment systems, legal risks<sup>(3)</sup>, information system security risks<sup>(4)</sup> and non-compliance risks<sup>(5)</sup>.

## The Operational Risk Department

Incorporated in 2007 within the Group's Risk Division, the Operational Risk Department works in close cooperation with operational risk staff in the Business and Corporate Divisions.

The Operational Risk Department is notably responsible for:

- running the Operational Risk function;
- devising and implementing Societe Generale's operational risk control strategy, in cooperation with the Business and Corporate Divisions;
- promoting an operational risk culture throughout the Group;

- defining, at Group level, methods for identifying, measuring, monitoring, reducing and/or transferring operational risk, in cooperation with the Business and Corporate Divisions, in order to ensure consistency across the Group;
- preparing a global Group business continuity plan (BCP) and crisis management policy, managing the policy and coordinating its implementation.

#### The operational risk function

In addition to the Operational Risk Department, the operational risk function includes Operational Risk Managers (ORMs) in the Business and Corporate Divisions, who are under the operational authority of the Group's Chief Operational Risk Officer.

ORMs operate throughout the Group's entities, and are responsible for implementing the Group's procedures and guidelines, and monitoring and managing operational risks, with the support of dedicated operational risk staff in the business lines and entities and in close collaboration with the respective entities' line management.

Operational risk committees have been set up at Group level, as well as at Business Division, Corporate Division and subsidiary level.

<sup>(1)</sup> See Chapter 5 of the Registration Document, Chairman's Report on internal control and risk management, page 96.

<sup>(2)</sup> See Chapter 5 of the Registration Document, Chairman's Report on internal control and risk management, page 97.

See Chapter 9 of the Registration Document, original 3

<sup>(4)</sup> See Chapter 5 of the Registration Document, Chairman's Report on internal control and risk management, page 100.

<sup>(5)</sup> See Chapter 8 of the Registration Document, page 162, and chapter 9 of the Registration Document, page 212.

Operational risk measurement

## OPERATIONAL RISK MEASUREMENT

Since 2004, Societe Generale has been using the Advanced Measurement Approach (AMA), as proposed by the Capital Requirement Directive, to measure operational risk. This approach notably makes it possible to:

- identify i) the businesses that have the greatest risk exposures and, ii) the types of risk that have the greatest impact on the Group's risk profile and overall capital requirements;
- enhance the Group's operational risk culture and overall management, by introducing a virtuous circle of risk identification, improved risk management and risk mitigation and reduction.

In 2007, the French Prudential Supervisory Authority conducted an in-depth review of the system in place at Societe Generale. As a result, it authorised the Group to use the most advanced measurement approach, as defined by the Basel II Accord (i.e. the AMA or Advanced Measurement Approach) to calculate the Group's capital requirements for operational risks, starting from January 1, 2008. This authorisation covers more than 90% of the Societe Generale Group's total net banking income. A few subsidiaries still use the standardised approach. A gradual transition to the advanced measurement approach is in place for some of them.

# OPERATIONAL RISK MONITORING PROCESS

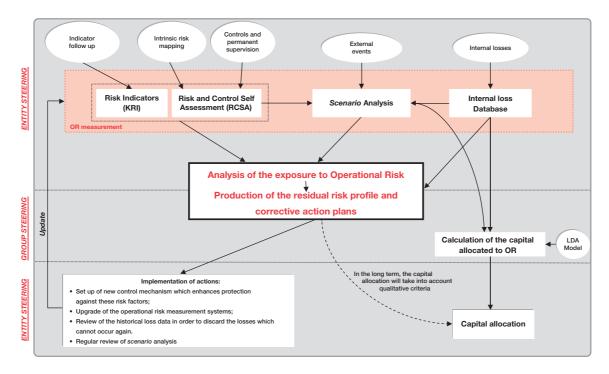
The frameworks specifically established by the Basel II regulations (the Capital Requirement Directive and "sound practices for the management and supervision of operational risk") have been implemented, on the basis of existing procedures wherever possible, to support the "virtuous circle" referred to previously. They notably include:

- the gathering of internal data on operational risk losses;

■ the Risk and Control Self-Assessment (RCSA) processes;

- the Key Risk Indicators (KRI);
- the scenario analyses;
- the analysis of external loss data.

#### Table 49: Operational risk monitoring process



Societe Generale's classification of operational risks in eight event categories and forty-nine mutually exclusive sub-categories is the cornerstone of its risk modelling, ensuring consistency throughout the system and enabling analyses across the Group.

Commercial disputes

Disputes with authorities

Pricing or risk evaluation errors

Execution errors

Fraud and other criminal activities

Rogue trading

Loss of operating resources

IT system interruptions

#### Internal loss data collection

Internal loss data has been compiled throughout the Group since 2003, enabling operational staff to:

- define and implement the appropriate corrective actions (changes to activities or processes, strengthening of controls, etc.);
- build expertise in operational risk management concepts and tools:
- achieve a deeper understanding of their risk areas;
- help disseminate an operational risk culture throughout the Group.

The minimum threshold above which a loss is recorded is EUR 10,000 throughout the Group, except for Corporate and Investment Banking, where this threshold is EUR 20,000 due to the scope of its activity, the volumes involved and the relevance of regulatory capital modelling points. Below these thresholds, loss information is collected by the Group's various divisions but is not identified by the Operational Risk Department. The threshold's impact is therefore taken into account in the capital requirement calculation model.

# Risk and Control Self-Assessment (RCSA)

The purpose of Risk and Control Self-Assessment (RCSA) is to assess and then measure the Group's exposure to operational risks. This involves:

- identifying and assessing the operational risks to which each of the Group's businesses is inherently exposed (the "intrinsic" risks), while disregarding the impact of risk prevention and mitigation measures;
- assessing the quality of risk prevention and mitigation measures, including their existence and effectiveness in detecting and preventing risks and/or their capacity to reduce their financial impact;
- measuring the risk exposure of each Group business that remains once the risk prevention and mitigation measures are taken into account (the "residual exposure"), while disregarding insurance coverage;
- correcting any inadequacies in risk prevention and mitigation measures and implementing corrective action plans;

- facilitating and/or supporting the implementation of key risk indicators;
- adapting the risk insurance strategy, if necessary.

#### Key Risk Indicators (KRI)

KRIs complement the overall operational risk management system, by providing a dynamic view of changes in business risk profiles as well as a warning system. Regular KRI monitoring assists both management and staff in their assessment of the Group's operational risk exposure obtained from the RCSA, the analysis of internal losses and *scenario* analyses, by providing them with:

- a quantitative and verifiable risk measurement;
- a regular assessment of the improvements or deteriorations in the risk profile and the control and prevention environment which require particular attention or an action plan.

KRIs that may have a significant impact on the entire Group are reported to the Group's General Management.

# Scenario analyses

Scenario analyses serve two purposes: informing the Group about potential significant areas of risk and contributing to the calculation of the capital required to cover the operational risk.

For the calculation of capital, the Group uses scenario analyses to:

- measure its exposure to potential losses arising from low frequency/high severity events;
- provide an expert's opinion of loss distribution for event categories whose internal loss data history is insufficient.

In practice, for each event category, various scenarii are reviewed by experts, who gauge the magnitude of the potential impact for the Bank, in terms of severity and frequency, by factoring in internal and external loss data and the external (regulatory, business, etc.) and internal (controls and prevention systems) environment. The potential impacts of various scenarii are combined to obtain the loss distributions for the risk category in question.

Analyses are undertaken for two types of scenarii:

- major Group stress scenarii, involving very severe events that cut across businesses and departments, having an external cause in most cases and requiring a business continuity plan (BCP). The ten scenarii analysed so far have helped to develop the Business Impact Analysis aspects of the BCPs;
- business scenarii that do not strictly speaking fall into the category of business continuity, but are used to measure the unexpected losses to which the businesses may be exposed. Around 100 scenarii have been prepared so far.

### Analysis of external losses

Finally, Societe Generale also uses externally available loss databases to supplement the identification and assessment of the Group's operational risk exposures, by benchmarking internal loss records against industry-wide data.

# Crisis management and business continuity planning

Moreover, the Group is reinforcing its crisis management by working on the intrinsic resilience of its activities and incorporating this factor in its existing business continuity plans.

# RISK MODELLING

The method used by the Group for operational risk modelling is based on the Loss Distribution Approach (LDA).

This statistical approach models the annual distribution of operating losses, through historical data on internal or external losses or scenario analyses, according to a bottom-up process that produces a matrix of losses in the different operational risk categories and business divisions with a granularity of 32 event categories.

The annual loss distributions are modelled for each element of the matrix, then aggregated to obtain the annual loss distributions of the Business Divisions and then the Group. This loss distribution indicates the loss amounts that the Bank may be exposed to, and associates a probability of occurrence with each of these amounts.

The Group's regulatory capital requirements for operational risk are then defined as the 99.9% quantile of the Group's annual loss distribution.

The correlation between events, their frequency and their severity is also factored in throughout the calculation process.

Based on the Group's models, Societe Generale's capital requirements for operational risks were EURm 3,766 at the end of 2010, representing EURbn 47.1 in risk-weighted assets.

Risk Modelling

#### Insurance cover in risk modelling

As permitted under the Basel II Accord, Societe Generale has developed a method that enables the calculated regulatory capital to be reduced by as much as 20% when insurance policies meet the Basel II regulatory requirements, and are able to at partly cover operating losses.

Group-wide mapping is used to identify insurance policies that are able to cover the various operational risk categories and their corresponding characteristics: deductibles, coverage and coverage probability.

The modelling process therefore takes into account the effect of Group insurance policies that cover major banking risks, i.e. liability, fraud, fire and theft, as well as policies covering systems interruptions and operating losses due to a loss of operating resources.

Insurance is an operational risk mitigation factor that may be included in the model for both internal losses and *scenario* analyses. In Societe Generale's model, insurance has an impact on severity distributions by reducing the loss amounts ultimately booked. The modelled frequency distribution however remains unchanged.

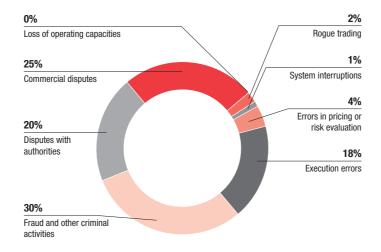
For regulatory requirements, two calculations are carried out, one including, and the other excluding, coverage from existing insurance policies. The aim is to verify that the reduction applied to the total capital requirement as a result of these policies remains below the maximum 20% threshold set by regulations.

The capital relief arising from Societe Generale's insurance cover calculated using the Advanced Measurement Approach (AMA) represents 6% of its total capital requirements for operational risks.

# QUANTITATIVE DATA

The following chart breaks down operating losses by risk category for the 2006-2010 period.

■ Table 50: Operational risk losses (excluding exceptional rogue trading loss): breakdown by Societe Generale risk category (average from 2006 to 2010)



Societe Generale's operational risks are concentrated in four risk categories, which account for 93% of the Group's total operational losses (excluding the exceptional rogue trading loss):

- on average, fraud accounted for 30% of the losses incurred over the 2006 to 2010 period. The incidents were divided between a handful of large, isolated losses and a number of small losses, mainly consisting of fraud by using forged documents to obtain loans:
- commercial disputes account for 25% of the Group's losses. These include a few large losses, often linked to counterparty defaults and therefore bordering on credit risk. Although the financial and economic crisis has led to more customer claims, the amounts involved in the disputes have not increased in the same proportion;

- disputes with the authorities account for 20% of overall losses. These are mainly losses linked to tax adjustments;
- execution errors account for 18% of losses. At the start of the crisis in 2008, they increased as a result of market volatility. They are now falling considerably thanks to risk management action plans.

The other categories of Group operational risks (rogue trading – excluding the exceptional rogue trading loss – IT system interruptions, pricing or risk evaluation errors and loss of operating resources) are fairly insignificant, representing only 7% of the Group's losses on average over the 2006 to 2010 period.

# OPERATIONAL RISK INSURANCE

# Description of insurance policies

#### **General policy**

Since 1993, Societe Generale has implemented a global policy of hedging Group operational risks through insurance. This consists in looking on the market for the broadest and highest levels of guarantee with regard to the risks incurred and enabling all entities to benefit from these guarantees wherever possible. Coverage is taken out with leading insurers. When required by local legislation, local policies are taken out, which are then reinsured by insurers that are part of the global programme.

In addition, special insurance policies may be taken out by entities which exercise specific activities.

A Group internal reinsurance company intervenes in several policies in order to pool high frequency, low-level risks between entities. This approach contributes to the improvement of the Group's knowledge and management of its risks.

# Description of coverage

#### General risks

Buildings and their contents, including IT equipment, are insured at their replacement value. The guarantee covering acts of terrorism abroad has been renewed.

Liability other than professional liability (i.e. relating to operations, Chief Executive Officers and Directors, vehicles, etc.) is covered by insurance policies around the world. The amounts insured vary from country to country to meet operating requirements.

Operational risk insurance

#### Risks arising from operations

Insurance is only one of the financing methods that can be used to offset the consequences of the risks inherent in the Group's activity, and as such it complements the Group's risk management policy.

#### Theft/Fraud

These risks are included in a "global bank" policy that insures all the Bank's financial activities around the world. With regard to fraud, the coverage includes actions committed by an employee or a third-party acting alone or with another employee with the intention of achieving illicit personal gain. Acts of malice assume the intention to cause harm to the Group.

#### **Professional Liability**

The consequences of any lawsuits are insured under a global policy.

#### **Operating losses**

The consequences of any accidental interruptions to activity are insured under a global policy. This policy supplements the business continuity plans. The amounts insured are designed to cover losses incurred between the time of the event and the implementation of an emergency solution.