



PILLAR 3

Year ended 31 December 2011
(unaudited)





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5 PILLAR 3

The purpose of Pillar 3 - market discipline, is to complement the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2) with a set of disclosures completing the usual financial disclosures. It is designed to allow market participants to evaluate key items of information such as scope of application, capital, exposure to different types of risk, risk assessment procedures, and, consequently, capital adequacy with respect to the institution's risk profile.

This chapter meets on the one hand the obligations set forth in Title IX of the French Decree of 20 February 2007⁽¹⁾ on capital requirements for credit institutions and investment firms which applies to the consolidated BNP Paribas Group (see Article 1), and on the other hand the accounting standards requirements relating to the nature and the extent of the risks.

5.1. Scope of application

The prudential scope of application defined in the French Decree of 20 February 2007 on capital requirements is not the same as the accounting scope of consolidation.

PRUDENTIAL SCOPE

In accordance with French banking regulation ⁽²⁾, BNP Paribas Group has defined a prudential scope to monitor capital adequacy ratios calculated on consolidated data.

The prudential scope is described in note 8.b to the Financial Statements. It will be noted in particular that:

- insurance companies are consolidated using the equity method and are subject to a deduction from Tier 1 capital according to French regulation CRBF 90-02 modified by the Decree of 20 February 2007;
- asset disposals and risk transfers are assessed with regard to the nature of the risk transfer that results; thus, securitisation vehicles are excluded from the prudential scope if the securitisation transaction is deemed effective, that is, providing a significant risk transfer;

The consolidation principles and the scope of consolidation in accordance with the accounting consolidation method used are described respectively in notes 1.b and 8.b to the Financial Statements.

⁽¹⁾ Issued by the French Ministry of the Economy, Finance and Industry of february 20th, 2007, modified by the decrees of October 19th, 2007, of September 11th, 2008, of October 29th, 2009, of August 25th, 2010, of December 13th, 2010 and of November 23rd, 2011.

⁽²⁾ CRBF Regulation 2000-03 of 6 September 2000.



5.2. Risk management

Risk appetite is defined as the risk level by type of risk BNP Paribas is willing to accept in support of its business strategy.

At Group level, risk appetite is expressed through:

- risk appetite principles and related metrics, specified in four categories:

- > risk adjusted profitability and growth
- > capital adequacy
- > funding and liquidity
- > concentration

- key qualitative principles, especially on risks that are hardly quantifiable by nature such as reputation risk or operational risk, as well as qualitative guidelines stemming from the decisions of the various executive risk forums.

The risk appetite thus defines BNP Paribas' overall medium to long term appetite for risk taking. This statement allows to:

- define an explicit and forward-looking view of the Group's desired risk profile;
- guide risk taking activities within the boundaries of the stated risk appetite, and enhance the consistency of risk practices throughout the Group;
- monitor risk profile, thus contributing to proactively manage risks, capital and liquidity in a controlled and optimized way;
- facilitate the dialogue with the Board and with the supervisors.

The Group calculates the risks related to its banking activities using methods approved by the French banking supervisor under Pillar 1. The scope covered by these methods (so called "prudential scope") is defined in section 5.1.

Since the first-time consolidation of the Fortis Group entities acquired by BNP Paribas in 2009 and the launch of convergence work on the rating systems applied within the BNP Paribas Group, the convergence of methodologies is subject to a procedure worked out with the Autorité de Contrôle Prudentiel, whereby the French supervisor ("home") has to approve common methodologies jointly with its local counterparts ("hosts"), principally the Belgian and Luxembourgish supervisors. Pending completion of the convergence work, the Group applies thus a hybrid approach to calculate risk-weighted assets based on methods validated by the regulators in France, Belgium and Luxembourg, according to the relevant scope.

The information presented in this chapter reflects all the risks carried by the Group, which are measured as consistently as possible.

In addition to the regulatory-required information about its banking risks, BNP Paribas has provided information about the risks related to its insurance business, in section 5.12, "Insurance risks".

RISK MANAGEMENT ORGANISATION

Risk management is key in the business of banking. At BNP Paribas, operating methods and procedures throughout the organisation are geared towards effectively addressing this matter. The entire process is supervised primarily by the Group Risk Management Department (GRM), which is responsible for measuring and controlling risks at Group level. GRM is independent from the core businesses, business lines and territories and reports directly to Group Executive Management. The Group Compliance (GC) function monitors the operational risk under the authority of GRM, which is responsible for all the risk management procedures, and the reputation risk as part of its permanent control responsibilities.

While front-line responsibility for managing risks lies with the divisions and business lines that propose the underlying transactions, GRM is responsible for providing assurance that the risks taken by the Bank comply and



are compatible with its risk policies and its profitability and rating objectives. GRM, and GC for operational and reputation risk, perform continuous, generally ex-ante controls that are fundamentally different from the periodic, ex-post examinations of the Internal Auditors. GRM reports regularly to the Internal Control, Risk and Compliance Committee of the Board on its main findings, as well as on the methods used by GRM to measure these risks and consolidate them on a Group-wide basis. GC reports to the Committee on issues relevant to its remit, particularly those concerning operational risk, financial security, reputation risk and permanent controls.

GRM covers risks resulting from the Group's business operations. It intervenes at all levels in the risk taking and monitoring process. Its remit includes formulating recommendations concerning risk policies, analysing the loan portfolio on a forward-looking basis, approving corporate loans and trading limits, guaranteeing the quality and effectiveness of monitoring procedures, defining and/or validating risk measurement methods, and producing comprehensive and reliable risk reporting data for Group management. GRM is also responsible for ensuring that all the risk implications of new businesses or products have been adequately evaluated. These evaluations are performed jointly by the sponsoring business line and all the functions concerned (Group Tax Department, Group Legal Department, Group Development and Finance Department, Group Compliance Department and Information Technology and Processes Department). The quality of the validation process is overseen by GRM which reviews identified risks and the resources deployed to mitigate them, as well as defining the minimum criteria to be met to ensure that growth is based on sound business practices. GC has identical responsibilities as regards operational and reputation risk. It plays an important oversight and reporting role in the process of validating new products, new business activities and exceptional transactions.

RISKS CATEGORIES

The risk categories reported by BNP Paribas evolve in line with methodological developments and regulatory requirements.

All the risk categories discussed below are managed by BNP Paribas. However, no specific capital requirement is identified for reputation and strategy risk as these are risks that may lead to a change in share price which is borne directly by the shareholders and cannot be protected by the Bank's capital.

Reputation risk is thus contingent on other risks and, apart from market rumours leading to a change in share price, its impacts are included in estimated losses incurred for other risk categories.

Similarly, strategy risk arising from the strategic decisions published by the Bank, which could give rise to a change in share price, is a matter for the highest level of governance and is the shareholder's responsibility.

The implementation of regulatory definitions in accordance with the Basel Accord (International Convergence of Capital Measurement and Capital Standard), is discussed in sections 5.4 to 5.9 of this chapter.

Credit risk

Credit risk is the risk of incurring a loss on loans and receivables (existing or potential due to commitments given) resulting from a change in the credit quality of the Bank's debtors, which can ultimately result in default. The probability of default and the expected recovery on the loan or receivable in the event of default are key components of the credit quality assessment.

Credit risk is measured at portfolio level, taking into account correlations between the values of the loans and receivables making up the portfolio concerned.

Counterparty risk

Counterparty risk is the manifestation of credit risk in market, investment and/or payment transactions that potentially expose the Bank to the risk of default by the counterparty. It is a bilateral risk on a counterparty with whom one or more market transactions have been concluded. The amount of this risk may vary over time in line with market parameters that impact the value of the relevant market instrument.

Market risk

Market risk is the risk of incurring a loss of value due to adverse trends in market prices or parameters, whether directly observable or not.

Observable market parameters include, but are not limited to, exchange rates, interest rates, prices of securities and commodities (whether listed or obtained by reference to a similar asset), prices of derivatives, prices of other



goods, and other parameters that can be directly inferred from them, such as credit spreads, volatilities and implied correlations or other similar parameters.

Non-observable factors are those based on working assumptions such as parameters contained in models or based on statistical or economic analyses, non confirmed by market information.

Liquidity is an important component of market risk. In times of limited or no liquidity, instruments or goods may not be tradable or may not be tradable at their estimated value. This may arise, for example, due to low transaction volumes, legal restrictions or a strong imbalance between demand and supply for certain assets.

Operational risk

Operational risk is the risk of incurring a loss due to inadequate or failed internal processes, or due to external events, whether deliberate, accidental or natural occurrences. Management of operational risk is based on an analysis of the “cause – event – effect” chain.

Internal processes giving rise to operational risk may involve employees and/or IT systems. External events include, but are not limited to floods, fire, earthquakes and terrorist attacks. Credit or market events such as default or fluctuations in value do not fall within the scope of operational risk.

Operational risk encompasses human resources risks, legal risks, tax risks, information system risks, misprocessing risks, risks related to published financial information and the financial implications resulting from reputation and compliance risks.

Compliance and reputation risk

According to French regulation, compliance risk is the risk of legal, administrative or disciplinary sanctions, together with the significant financial loss that a bank may suffer as a result of its failure to comply with all the laws, regulations, codes of conduct and standards of good practice applicable to banking and financial activities (including instructions given by an executive body, particularly in application of guidelines issued by a supervisory body).

By definition, this risk is a sub-category of operational risk. However, as certain implications of compliance risk involve more than a purely financial loss and may actually damage the institution’s reputation, the Bank treats compliance risk separately.

Reputation risk is the risk of damaging the trust placed in a corporation by its customers, counterparties, suppliers, employees, shareholders, supervisors and any other stakeholder whose trust is an essential condition for the corporation to carry out its day-to-day operations.

Reputation risk is primarily contingent on all the other risks borne by the Bank.

Additional information about risk definitions

Although a lot of material has been written on the classification of banking risks, and industry regulations have produced a number of widely accepted definitions, there is still no comprehensive account of all of the risks to which banks are exposed. A good deal of progress has nevertheless been made in understanding the precise nature of risks and how they interact. The interaction between these risks has not yet been quantified, but is captured by global stress scenarios. The following comments review the Group’s latest conceptual developments.

- **Market risk and credit/counterparty risk**

In Fixed Income trading books, credit instruments are valued on the basis of bond yields and credit spreads, which represent market parameters in the same way as interest rates or exchange rates. The credit risk arising on the issuer of the debt instrument is therefore a component of market risk known as issuer risk.

Issuer risk is different from counterparty risk. In the case of credit derivatives, issuer risk corresponds to the credit risk on the underlying asset, whereas counterparty risk represents the credit risk on the third party with whom the derivative was contracted. Counterparty risk is a credit risk, while issuer risk is a component of market risk.

- **Operational risk, credit risk and market risk**

Operational risk arises from inadequate or failed internal processes of all kinds, ranging from loan origination and market risk-taking to transaction execution and risk oversight.

However, human decisions taken in compliance with applicable rules and regulations cannot give rise to operational risk, even when they involve an error of judgment.



Residual risk, defined by internal control regulations as the risk that credit risk mitigation techniques prove less efficient than expected, is considered to derive from an operational failure and is therefore a component of operational risk.

Asset-liability management risk

Asset-liability management risk is the risk of incurring a loss as a result of mismatches in interest rates, maturities or nature between assets and liabilities. For banking activities, asset-liability management risk arises in non-trading portfolios and primarily relates to global interest rate risk. For insurance activities, it also includes the risk of mismatches arising from changes in the value of shares and other assets (particularly property) held by the general insurance fund.

Liquidity and refinancing risk

Liquidity and refinancing risk is the risk of the Bank being unable to fulfil its obligations at an acceptable price in a given place and currency.

Insurance subscription risk

Insurance subscription risk corresponds to the risk of a financial loss caused by an adverse trend in insurance claims. Depending on the type of insurance business (life, personal risk or annuities), this risk may be statistical, macro-economic or behavioural, or may be related to public health issues or natural disasters. It is not the main risk factor arising in the life insurance business, where financial risks are predominant.

Breakeven risk

Breakeven risk is the risk of incurring an operating loss due to a change in the economic environment leading to a decline in revenue coupled with insufficient cost-elasticity.

Strategy risk

Strategy risk is the risk that the Bank's share price may fall because of its strategic decisions.

Concentration risk

Concentration risk and its corollary, diversification effects, are embedded within each risk, especially for credit, market and operational risks using the correlation parameters taken into account by the corresponding risk models.

It is assessed at consolidated Group level and at financial conglomerate level.

Summary of risks

RISKS MONITORED BY THE BNP PARIBAS GROUP

Risks affecting the Group's capital adequacy	Risks affecting the Group's value (share price)	Pillar 1		ICAAP ⁽⁴⁾ (Pillar 2)		Additional risk identified by BNP Paribas
		Risk covered	Measurement method	Risk covered	Measurement and management method	
Credit and counterparty risk		✓	Basel 2.5	✓	Basel 2.5	
Equity risk		✓	Basel 2	✓	Basel 2	
Operational risk		✓	Basel 2	✓	Basel 2	
Market risk		✓	Basel 2.5	✓	Basel 2.5	
Concentration risk ⁽¹⁾				✓	Internal Model	
Asset & liability management risk ⁽²⁾				✓	Internal Model	
Breakeven risk				✓	Internal Model	
Insurance risks ⁽³⁾ , including insurance subscription risks					Internal Model	✓
	Strategy risk			✓	Procedures; market multiples	
	Liquidity and Refinancing risk			✓	Quantitative and qualitative rules; stress tests	
	Reputation risk			✓	Procedures	



- (1) Concentration risk is managed within credit risk at BNP Paribas.
- (2) Asset & liability management risk comes under what the banking supervisors call global interest rate risk.
- (3) Insurance risks are not included in the scope of banking activities; insurance businesses are exposed to market risk, operational risk and insurance subscription risk.
- (4) Internal Capital Adequacy Assessment Process.

RISK FACTORS

Risks Related to the Bank and its Industry

Difficult market and economic conditions could have a material adverse effect on the operating environment for financial institutions and hence on the Bank's financial condition, results of operations and cost of risk.

As a global financial institution, the Bank's businesses are highly sensitive to changes in financial markets and economic conditions generally in Europe, the United States and elsewhere around the world. The Bank has been and may continue to be confronted with a significant deterioration of market and economic conditions resulting, among other things, from crises affecting sovereign obligations, capital, credit or liquidity markets, regional or global recessions, sharp fluctuations in commodity prices, currency exchange rates or interest rates, inflation or deflation, restructurings or defaults, corporate or sovereign debt rating downgrades or adverse geopolitical events (such as natural disasters, acts of terrorism and military conflicts). Market disruptions and sharp economic downturns, which may develop quickly and hence not be fully hedged, could affect the operating environment for financial institutions for short or extended periods and have a material adverse effect on the Bank's financial condition, results of operations or cost of risk.

European markets have recently experienced significant disruptions as a result of concerns regarding the ability of certain countries in the euro-zone to refinance their debt obligations and the extent to which European Union member states or supranational organizations will be willing or able to provide financial support to the affected sovereigns. These disruptions have contributed to tightened credit markets, increased volatility in the exchange rate of the euro against other major currencies, affected the levels of stock market indices and created uncertainty regarding the near-term economic prospects of certain countries in the European Union as well as the quality of bank loans to sovereign debtors in the European Union.

The Bank holds and in the future may hold substantial portfolios of sovereign obligations issued by the governments of, and has and may in the future have substantial amounts of loans outstanding to borrowers in, certain of the countries that have been most significantly affected by the current crisis. The Bank is also active in the interbank financial market and as a result, is indirectly exposed to risks relating to the sovereign debt held by the financial institutions with which it does business. More generally, the sovereign debt crisis has had, and may continue to have, an indirect impact on financial markets and, increasingly, economies, in Europe and worldwide, and therefore on the environment in which the Bank operates.

If economic conditions in Europe or in other parts of the world were to deteriorate, particularly in the context of an exacerbation of the sovereign debt crisis (such as a sovereign default), the Bank could be required to record additional impairment charges on its sovereign debt holdings or record further losses on sales thereof, and the resulting market and political disruptions could have a significant adverse impact on the credit quality of the Bank's customers and financial institution counterparties, on market parameters such as interest rates, currency exchange rates and stock market indices, and on the Bank's liquidity and ability to raise financing on acceptable terms.

Legislative action and regulatory measures taken in response to the global financial crisis may materially impact the Bank and the financial and economic environment in which it operates.

Legislation and regulations recently have been enacted or proposed with a view to introducing a number of changes, some permanent, in the global financial environment. While the objective of these new measures is to avoid a recurrence of the financial crisis, the impact of the new measures could be to change substantially the environment in which the Bank and other financial institutions operate.

The new measures that have been or may be proposed and adopted include more stringent capital and liquidity requirements, taxes on financial transactions, restrictions and taxes on employee compensation over specified levels, limits on the types of activities that commercial banks can undertake (particularly proprietary trading and, potentially, investment banking activities more generally), restrictions on certain types of financial products such as derivatives, and the creation of new and strengthened regulatory bodies.



Certain measures that have been adopted and will be applicable to the Bank, such as the Basel 3 and Capital Requirements Directive 4 prudential frameworks, the requirements in relation to them announced by the European Banking Authority and the designation of the Bank as a systemically important financial institution by the Financial Stability Board, will increase the Bank's regulatory capital and liquidity requirements and may limit its permissible leverage. The Bank has announced certain measures in relation to these requirements; ensuring and maintaining compliance with them in the future may lead the Bank to take various measures, such as further reducing its balance sheet or bolstering its capital base, that could weigh on its profitability and adversely affect its financial condition and results of operations.

Some of the new regulatory measures are proposals that are under discussion and that are subject to revision, and would in any case need adapting to each country's regulatory framework by national regulators. As a result, it is not possible to predict which proposed new measures will ultimately be adopted, what their final form will be or what impact they will have on the Bank. Depending on the nature and scope of regulatory measures that are ultimately adopted, they could (in addition to having the effects noted above) affect the Bank's ability to conduct (or impose limitations on) certain types of activities, its ability to attract and retain talent (particularly in its investment banking and financing businesses) and more generally its competitiveness and profitability, which would in turn have an adverse effect on its business, financial condition, and results of operations. Finally, it is difficult to predict what impact these measures might have on financial market conditions. It is conceivable that they could trigger or exacerbate future financial crises, particularly if they included significantly enhanced risk exposure disclosure requirements that could heighten investor concern about banks and hence restrict their sources of financing.

The Bank's access to and cost of funding could be adversely affected by a further deterioration of the Euro-zone sovereign debt crisis, worsening economic conditions, a ratings downgrade or other factors.

The Euro-zone sovereign debt crisis as well as the general macroeconomic environment adversely affected the availability and cost of funding for European banks in 2011. This was due to several factors, including a sharp increase in the perception of bank credit risk due to their exposure to sovereign debt in particular, credit rating downgrades of sovereigns and of banks, and debt market speculation. Many European banks, including the Bank, experienced restricted access to wholesale debt markets and to the interbank market, as well as a general increase in their cost of funding. Accordingly, reliance on direct borrowing from the European Central Bank increased substantially. Were such adverse credit market conditions to persist for an extended period or worsen due to factors relating to the economy or the financial industry in general or to the Bank in particular (such as ratings downgrades), the effect on the liquidity of the European financial sector in general and the Bank in particular could be materially adverse.

A substantial increase in new provisions or a shortfall in the level of previously recorded provisions could adversely affect the Bank's results of operations and financial condition.

In connection with its lending activities, the Bank regularly establishes provisions for loan losses, which are recorded in its profit and loss account under "cost of risk". The Bank's overall level of provisions is based on its assessment of prior loss experience, the volume and type of lending being conducted, industry standards, past due loans, economic conditions and other factors related to the recoverability of various loans. Although the Bank uses its best efforts to establish an appropriate level of provisions, its lending businesses may have to increase their provisions for loan losses substantially in the future as a result of deteriorating economic conditions or other causes. Any significant increase in provisions for loan losses or a significant change in the Bank's estimate of the risk of loss inherent in its portfolio of non-impaired loans, as well as the occurrence of loan losses in excess of the related provisions, could have a material adverse effect on the Bank's results of operations and financial condition.

The Bank may incur significant losses on its trading and investment activities due to market fluctuations and volatility.

The Bank maintains trading and investment positions in the debt, currency, commodity and equity markets, and in unlisted securities, real estate and other asset classes. These positions could be adversely affected by volatility in financial and other markets, i.e., the degree to which prices fluctuate over a particular period in a particular market, regardless of market levels. There can be no assurance that the extreme volatility and market disruptions experienced during the height of the 2008/2009 financial crisis will not return in the future and that the Bank will not incur substantial losses on its capital market activities as a result. Moreover, volatility trends that prove substantially different from the Bank's expectations may lead to losses relating to a broad range of other products that the Bank uses, including swaps, forward and future contracts, options and structured products.

To the extent that the Bank owns assets, or has net long positions, in any of those markets, a market downturn could result in losses from a decline in the value of its positions. Conversely, to the extent that the Bank has sold assets that it does not own, or has net short positions in any of those markets, a market upturn could expose it to



potentially unlimited losses as it attempts to cover its net short positions by acquiring assets in a rising market. The Bank may from time to time have a trading strategy of holding a long position in one asset and a short position in another, from which it expects to earn revenues based on changes in the relative value of the two assets. If, however, the relative value of the two assets changes in a direction or manner that the Bank did not anticipate or against which it is not hedged, the Bank might realize a loss on those paired positions. Such losses, if significant, could adversely affect the Bank's results of operations and financial condition.

The Bank may generate lower revenues from brokerage and other commission and fee-based businesses during market downturns.

Financial and economic conditions affect the number and size of transactions for which the Bank provides securities underwriting, financial advisory and other investment banking services. The Bank's corporate and investment banking revenues, which include fees from these services, are directly related to the number and size of the transactions in which it participates and can decrease as a result of market changes that are unfavorable to its investment banking business and clients. In addition, because the fees that the Bank charges for managing its clients' portfolios are in many cases based on the value or performance of those portfolios, a market downturn that reduces the value of its clients' portfolios or increases the amount of withdrawals would reduce the revenues the Bank receives from its asset management, equity derivatives and private banking businesses. Independently of market changes, below-market performance by the Bank's mutual funds may result in increased withdrawals and reduced inflows, which would reduce the revenues the Bank receives from its asset management business.

During the market downturn in 2008-2009, the Bank experienced all of these effects and a corresponding decrease in revenues in the relevant business lines. There can be no assurance that the Bank will not experience similar trends in future market downturns, which may occur periodically and unexpectedly.

Protracted market declines can reduce liquidity in the markets, making it harder to sell assets and possibly leading to material losses.

In some of the Bank's businesses, protracted market movements, particularly asset price declines, can reduce the level of activity in the market or reduce market liquidity. These developments can lead to material losses if the Bank cannot close out deteriorating positions in a timely way. This is particularly true for assets that are intrinsically illiquid. Assets that are not traded on stock exchanges or other public trading markets, such as derivatives contracts between banks, may have values that the Bank calculates using models rather than publicly-quoted prices. Monitoring the deterioration of prices of assets like these is difficult and could lead to losses that the Bank did not anticipate.

Significant interest rate changes could adversely affect the Bank's revenues or profitability.

The amount of net interest income earned by the Bank during any given period significantly affects its overall revenues and profitability for that period. Interest rates are affected by many factors beyond the Bank's control. Changes in market interest rates could affect the interest rates charged on interest-earning assets differently than the interest rates paid on interest-bearing liabilities. Any adverse change in the yield curve could cause a decline in the Bank's net interest income from its lending activities. In addition, maturity mismatches and increases in the interest rates relating to the Bank's short-term financing may adversely affect the Bank's profitability.

The soundness and conduct of other financial institutions and market participants could adversely affect the Bank.

The Bank's ability to engage in funding, investment and derivative transactions could be adversely affected by the soundness of other financial institutions or market participants. Financial services institutions are interrelated as a result of trading, clearing, counterparty, funding or other relationships. As a result, defaults, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to further losses or defaults. The Bank has exposure to many counterparties in the financial industry, directly and indirectly, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, and other institutional clients with which it regularly executes transactions. Many of these transactions expose the Bank to credit risk in the event of default of a group of the Bank's counterparties or clients. In addition, the Bank's credit risk may be exacerbated when the collateral held by it cannot be realized upon or is liquidated at prices not sufficient to recover the full amount of the loan or derivative exposure due to the Bank.

In addition, misconduct by financial market participants can have a material adverse effect on financial institutions due to the interrelated nature of the financial markets. A recent example is the fraud perpetrated by Bernard Madoff, as a result of which numerous financial institutions globally, including the Bank, have announced losses or exposure



to losses in substantial amounts. Potentially significant additional potential exposure is also possible in the form of litigation, claims in the context of the bankruptcy proceedings of Bernard Madoff Investment Services (BMIS) (a number of which are pending against the Bank), and other potential claims relating to counterparty or client investments made, directly or indirectly, in BMIS or other entities controlled by Bernard Madoff, or to the receipt of investment proceeds from BMIS.

There can be no assurance that any losses resulting from the risks summarized above will not materially and adversely affect the Bank's results of operations.

The Bank's competitive position could be harmed if its reputation is damaged.

Considering the highly competitive environment in the financial services industry, a reputation for financial strength and integrity is critical to the Bank's ability to attract and retain customers. The Bank's reputation could be harmed if it fails to adequately promote and market its products and services. The Bank's reputation could also be damaged if, as it increases its client base and the scale of its businesses, the Bank's comprehensive procedures and controls dealing with conflicts of interest fail, or appear to fail, to address conflicts of interest properly. At the same time, the Bank's reputation could be damaged by employee misconduct, misconduct by market participants to which the Bank is exposed, a decline in, a restatement of, or corrections to its financial results, as well as any adverse legal or regulatory action. The loss of business that could result from damage to the Bank's reputation could have an adverse effect on its results of operations and financial position.

An interruption in or a breach of the Bank's information systems may result in lost business and other losses.

As with most other banks, BNP Paribas relies heavily on communications and information systems to conduct its business. Any failure or interruption or breach in security of these systems could result in failures or interruptions in the Bank's customer relationship management, general ledger, deposit, servicing and/or loan organization systems. The Bank cannot provide assurances that such failures or interruptions will not occur or, if they do occur, that they will be adequately addressed. The occurrence of any failures or interruptions could have an adverse effect on the Bank's financial condition and results of operations.

Unforeseen external events can interrupt the Bank's operations and cause substantial losses and additional costs.

Unforeseen events such as political and social unrest, severe natural disasters, terrorist attacks or other states of emergency could lead to an abrupt interruption of the Bank's operations and, to the extent not covered by insurance, could cause substantial losses. Such losses can relate to property, financial assets, trading positions and key employees. Such unforeseen events could also lead to additional costs (such as relocation of employees affected) and increase the Bank's costs (particularly insurance premiums).

The Bank is subject to extensive and evolving regulatory regimes in the countries and regions in which it operates.

The Bank is exposed to regulatory compliance risk, such as the inability to comply fully with the laws, regulations, codes of conduct, professional norms or recommendations applicable to the financial services industry. Besides damage to the Bank's reputation, non-compliance could lead to fines, public reprimand, enforced suspension of operations or, in extreme cases, withdrawal of operating licenses. This risk is exacerbated by continuously increasing regulatory oversight. This is the case in particular with respect to money laundering, the financing of terrorist activities or transactions with countries that are subject to economic sanctions. For example, U.S. laws require compliance with the rules administered by the Office of Foreign Assets Control relating to certain foreign countries, nationals or others that are subject to economic sanctions.

In addition to the measures described above, which were taken or proposed specifically in response to the financial crisis, the Bank is exposed to the risk of legislative or regulatory changes in all of the countries in which it operates, including, but not limited to, the following:

- monetary, interest rate and other policies of central banks and regulatory authorities;
- general changes in government or regulatory policy that may significantly influence investors' decisions, particularly in the markets in which the Group operates;
- general changes in regulatory requirements applicable to the financial industry, such as rules relating to applicable capital adequacy and liquidity frameworks;
- changes in tax legislation or the application thereof;



- changes in the competitive environment and prices;
- changes in accounting norms;
- changes in financial reporting requirements; and
- expropriation, nationalization, confiscation of assets and changes in legislation relating to foreign ownership.

These changes, the scope and implications of which are highly unpredictable, could substantially affect the Bank, and have an adverse effect on its business, financial condition and results of operations.

Notwithstanding the Bank's risk management policies, procedures and methods, it could still be exposed to unidentified or unanticipated risks, which could lead to material losses.

The Bank has devoted significant resources to developing its risk management policies, procedures and assessment methods and intends to continue to do so in the future. Nonetheless, the Bank's risk management techniques and strategies may not be fully effective in mitigating its risk exposure in all economic market environments or against all types of risk, particularly risks that the Bank may have failed to identify or anticipate. The Bank's ability to assess the creditworthiness of its customers or to estimate the values of its assets may be impaired if, as a result of market turmoil such as that experienced during the recent financial crisis, the models and approaches it uses become less predictive of future behaviours, valuations, assumptions or estimates. Some of the Bank's qualitative tools and metrics for managing risk are based on its use of observed historical market behaviour. The Bank applies statistical and other tools to these observations to arrive at quantifications of its risk exposures. The process the Bank uses to estimate losses inherent in its credit exposure or estimate the value of certain assets requires difficult, subjective, and complex judgments, including forecasts of economic conditions and how these economic predictions might impair the ability of its borrowers to repay their loans or impact the value of assets, which may, during periods of market disruption, be incapable of accurate estimation and, in turn, impact the reliability of the process. These tools and metrics may fail to predict future risk exposures, e.g., if the Bank does not anticipate or correctly evaluate certain factors in its statistical models, or upon the occurrence of an event deemed extremely unlikely by the tools and metrics. This would limit the Bank's ability to manage its risks. The Bank's losses could therefore be significantly greater than the historical measures indicate. In addition, the Bank's quantified modelling does not take all risks into account. Its more qualitative approach to managing certain risks could prove insufficient, exposing it to material unanticipated losses.

The Bank's hedging strategies may not prevent losses.

If any of the variety of instruments and strategies that the Bank uses to hedge its exposure to various types of risk in its businesses is not effective, the Bank may incur losses. Many of its strategies are based on historical trading patterns and correlations. For example, if the Bank holds a long position in an asset, it may hedge that position by taking a short position in another asset where the short position has historically moved in a direction that would offset a change in the value of the long position. However, the hedge may only be partial, or the strategies used may not protect against all future risks or may not be fully effective in mitigating the Bank's risk exposure in all market environments or against all types of risk in the future. Unexpected market developments may also reduce the effectiveness of the Bank's hedging strategies. In addition, the manner in which gains and losses resulting from certain ineffective hedges are recorded may result in additional volatility in the Bank's reported earnings.

The Bank may experience difficulties integrating acquired companies and may be unable to realize the benefits expected from its acquisitions.

The Bank has in the past and may in the future acquire other companies. Integrating acquired businesses is a long and complex process. Successful integration and the realization of synergies require, among other things, proper coordination of business development and marketing efforts, retention of key members of management, policies for effective recruitment and training as well as the ability to adapt information and computer systems. Any difficulties encountered in combining operations could result in higher integration costs and lower savings or revenues than expected. There will accordingly be uncertainty as to the extent to which anticipated synergies will be achieved and the timing of their realization. Moreover, the integration of the Bank's existing operations with those of the acquired operations could interfere with the respective businesses and divert management's attention from other aspects of the Bank's business, which could have a negative impact on the business and results of the Bank. In some cases, moreover, disputes relating to acquisitions may have an adverse impact on the integration process or have other adverse consequences, including financial ones.

Although the Bank undertakes an in-depth analysis of the companies it plans to acquire, such analyses often cannot be complete or exhaustive. As a result, the Bank may increase its exposure to doubtful or troubled assets and incur



greater risks as a result of its acquisitions, particularly in cases in which it was unable to conduct comprehensive due diligence prior to the acquisition.

Intense competition, especially in France where it has the largest single concentration of its businesses, could adversely affect the Bank's revenues and profitability.

Competition is intense in all of the Bank's primary business areas in France and the other countries in which it conducts a substantial portion of its business, including other European countries and the United States. Competition in the Bank's industry could intensify as a result of the ongoing consolidation of financial services that accelerated during the recent financial crisis. If the Bank is unable to respond to the competitive environment in France or in its other major markets by offering attractive and profitable product and service solutions, it may lose market share in key areas of its business or incur losses on some or all of its activities. In addition, downturns in the economies of its principal markets could add to the competitive pressure, through, for example, increased price pressure and lower business volumes for the Bank and its competitors. In addition, new lower-cost competitors may enter the market, which may not be subject to the same capital or regulatory requirements or may have other inherent regulatory advantages and, therefore, may be able to offer their products and services on more favourable terms. It is also possible that the increased presence in the global marketplace of nationalized financial institutions, or financial institutions benefiting from State guarantees or other similar advantages, following the recent financial crisis could lead to distortions in competition in a manner adverse to private-sector institutions such as the Bank.



5.3. Sovereign risks

Holding of bonds issued by Sovereign states is conditioned by the liquidity management of the Group. Liquidity management is based on holding securities eligible as collateral for refinancing by central banks and includes a substantial share of highly rated debt securities issued by governments, representing a low level of risk. Moreover, as part of its assets and liability management and structural interest-rate risk management policy, the Group also holds a portfolio of assets including sovereign debt instruments, with interest-rate characteristics that contribute to its hedging strategies. In addition, the Group is market-maker in sovereign debt securities in a number of countries, thus holding temporary trading inventories (long and short), partially hedged by derivatives.

Inventories held by the Group in these various portfolios are presented in the table below:



BANKING AND TRADING BOOK SOVEREIGN EXPOSURES BY GEOGRAPHICAL BREAKDOWN

31 December 2011		Banking Book (1)			Trading Book		
		Central Governments			Central Governments Issuer risk	Central Governments counterparty risk (2)	
<i>In millions of euros</i>		Securities	Loans	CDS	Securities (2)	Derivatives (3)	
Eurozone							
	Austria	539	0	0	44	-26	0
	Belgium	17 383	1 826	0	-218	-369	12
	Cyprus	22	0	0	31	-18	0
	Estonia	0	0	0	0	20	0
	Finland	293	0	0	240	-364	2
	France	13 981	161	101	-3 375	2 898	216
	Germany	2 550	0	0	-1 230	-29	273
	Italy	12 656	552	92	1 063	111	3 242
	Luxembourg	31	147	0	0	0	0
	Malta	0	0	0	0	0	0
	Netherlands	7 423	1 685	0	-919	600	11
	Slovakia	29	0	0	2	-157	0
	Slovenia	41	0	0	230	-188	0
	Spain	457	349	0	58	-59	6
Countries under support							
	Greece	972	5	0	78	13	167
	Ireland	270	0	0	-10	37	19
	Portugal	1 381	0	0	-15	62	0
Total eurozone		58 028	4 726	193	-4 021	2 531	3 948
Other EEA countries							
	Bulgaria	0	0	0	0	0	0
	Czech Republic	164	0	0	1	-5	0
	Denmark	0	0	0	-65	-40	0
	Hungary	201	0	0	161	-9	0
	Iceland	0	0	0	0	42	0
	Latvia	0	0	0	0	16	0
	Liechtenstein	0	0	0	0	0	0
	Lithuania	36	0	7	1	8	0
	Norway	51	0	0	4	7	0
	Poland	1 650	0	0	33	79	0
	Romania	0	59	0	13	1	0
	Sweden	0	0	0	-42	-60	0
	United Kingdom	679	0	0	-664	-69	10
Other EEA countries		2 781	59	7	-558	-30	10
	<i>o/w AFS</i>	<i>57 845</i>					
	<i>o/w HTM ou L&R</i>	<i>2 964</i>					
TOTAL EEA 30		60 809	4 784	200	-4 579	2 501	3 958
	United States	4 782	378	0	4 226	-3 893	9
	Japan	6 035	0	0	4 530	-733	19
	Others	5 147	3 154	0	4 536	-677	126
TOTAL World		76 773	8 316	200	8 713	-2 803	4 112

(1) Banking book exposures are reported in accounting value before revaluation and after impairment for depreciation, in particular in the case of Greece.

(2) The issuer risk on trading book sovereign securities and the counterparty risk on the derivatives traded with sovereign counterparts are reported in terms of market value, representing the maximum loss in the case of an event of default of the sovereign (assuming zero recovery).

(3) Net Issuer Risk on Credit Derivative Products (such as CDS Single Name) and on other derivative related sovereign products corresponds to the maximum loss/gain (assuming zero recovery) which would be incurred in the event of a sovereign default.



Sovereign debt markets in the Euro zone faced in 2011 strong disturbances, in particular in second half of the year, due to the deterioration of economic condition in some Euro zone countries, especially Greece, Ireland and Portugal which are supported by a European plan. The details of the exposures to those three countries are presented in Note 4 of the Group's consolidated financial statements.



5.4. Capital management and capital adequacy

REGULATORY CAPITAL

The BNP Paribas Group is required to comply with the French regulation that transposes European Union capital adequacy directives (Directive on the Capital Adequacy of Investment Firms and Credit Institutions and Financial Conglomerates Directive) into French law.

In the various countries in which the Group operates, BNP Paribas also complies with specific regulatory ratios in line with procedures controlled by the relevant supervisory authorities. These ratios mainly address the issues of capital adequacy, risk concentration, liquidity and asset/liability mismatches.

Since 1 January 2008, the capital adequacy ratio has been calculated in accordance with the decree issued by the Ministry of the Economy, Finance and Industry on 20 February 2007 introducing the Basel II capital adequacy ratio, *i.e.* regulatory capital expressed as a percentage of the sum of:

- risk-weighted assets calculated using the standardised approach or the internal ratings based approach depending on the entity or Group business concerned;
- the regulatory capital requirement for market and operational risks, multiplied by 12.5. The capital requirement for operational risk is measured using the basic indicator, standardised or advanced measurement approach, depending on the Group entity concerned.

Breakdown of regulatory capital

Regulatory capital is determined in accordance with Comité de la Réglementation Bancaire et Financière (CRBF) regulation 90-02 dated 23 February 1990. It comprises three components – Tier 1 capital, Tier 2 capital and Tier 3 capital – determined as follows:

- core capital (Tier 1) corresponds to consolidated equity (excluding unrealised or deferred gains and losses), adjusted for certain items known as “prudential filters”. The main adjustments consist of (i) deducting the planned dividend for the year, as well as goodwill and other intangibles, (ii) excluding consolidated subsidiaries that are not subject to banking regulations – mainly insurance companies – and (iii) applying limits to the eligibility of certain securities, such as undated super subordinated notes;
- supplementary capital (Tier 2) comprises some subordinated debt and any positive credit and counterparty risk valuation differences between provisions for incurred losses taken under the book method and expected losses on credit exposure measured using the internal ratings based approach;
- a discount is applied to subordinated debt with a maturity of less than five years, and dated subordinated debt included in Tier 2 capital is capped at the equivalent of 50% of Tier 1 capital. Total Tier 2 capital is capped at the equivalent of 100% of Tier 1 capital;
- Tier 3 capital comprises subordinated debt with shorter maturities and can only be used to cover a certain proportion of market risks;
- the following items are deducted for the purpose of calculating regulatory capital, half from Tier 1 capital and half from Tier 2 capital: (i) the carrying amount of investments in credit institutions and finance companies accounted for by the equity method; (ii) the regulatory capital of credit institutions and finance companies more than 10% owned by the Group; (iii) the portion of expected losses on credit exposure measured using the internal ratings based approach which is not covered by provisions and other value adjustments.



AMOUNT OF REGULATORY CAPITAL

In millions of euros	31 December 2011	31 December 2010
Consolidated equity before appropriation of income⁽¹⁾	85 626	85 629
Regulatory deductions and other items	(14 633)	(17 093)
Intangible assets deductions	(13 929)	(13 837)
of which goodwills	(11 783)	(11 735)
Subordinated debt ⁽²⁾	3 358	3 187
Other regulatory items	(4 062)	(6 443)
of which dividend payment ⁽³⁾	(1 430)	(2 511)
of which restatement of the minority shareholders	(1 111)	(1 478)
of which deductions of 50% for uneligible items	(1 653)	(1 303)
- Equity investments in unconsolidated credit or financial institutions held for more than 10%	(672)	(394)
- Investments in credit or financial institutions associates	(756)	(710)
- Subordinated debt issued by credit or financial institutions held for more than 10%	(222)	(196)
- Securitisation positions subject to deductions	0	0
- Expected losses on equity investment portfolio	(3)	(3)
TIER 1 CAPITAL	70 993	68 536
Total Tier 2 capital	14 422	20 109
of which positive difference between provisions and expected losses over 1 year	548	482
Regulatory deductions for remaining uneligible items	(1 653)	(1 303)
Allocated Tier 3 capital	2 200	982
REGULATORY CAPITAL	85 962	88 324

(1) Statement of changes in shareholders' equity (Financial statements 4.5).

(2) Notes to the financial statements 5.a and 5.i.

(3) Dividend to be recommended at the Annual General Meeting of shareholders.

CAPITAL ADEQUACY

Under the European Union regulation transposed into French law by regulation 91-05, the Group's capital adequacy ratio must be at least 8% at all times, including a Tier One ratio of at least 4%. Under United States capital adequacy regulations, BNP Paribas is qualified as a Financial Holding Company and as such is required to have a capital adequacy ratio of at least 10%, including a Tier One ratio of at least 6%.

Ratios are monitored and managed centrally, on a consolidated basis, at Group level. Where a French or international entity is required to comply with banking regulations at its own level, its ratios are also monitored and managed directly by the entity.

Capital management and planning

Capital adequacy ratios are managed prospectively on a prudent basis that takes into account the Group's profitability and growth targets. The Group maintains a balance sheet structure that allows it to finance business growth on the best possible terms while preserving its very high quality credit rating. In line with the commitment to offering shareholders an optimum return on their investment, the Group places considerable emphasis on efficiently investing equity capital and attentively managing the balance between financial strength and shareholder return. In 2010 and 2011, the BNP Paribas Group's capital adequacy ratios complied with regulatory requirements and its own targets.

Regulatory capital levels are managed using information produced during the budget process and quarterly estimates, including forecast growth in earnings and risk-weighted assets, planned acquisitions, planned issues of hybrid capital instruments, exchange rate assumptions and of the anticipated regulatory enhancements. Changes in ratios are reviewed quarterly by the Group's Executive Management and whenever an event occurs or a decision is made that will materially affect consolidated ratios.



5.5. Credit risk

EXPOSURE TO CREDIT RISK

The following table shows all of BNP Paribas Group's financial assets, including fixed-income securities, which are exposed to credit risk and securitisation positions, held or acquired. Credit risk exposure does not include collateral and other security taken by the Group in its lending business or purchases of credit protection. It is based on the carrying value of financial assets before re-evaluation recognised on the balance sheet.

EXPOSURE TO CREDIT RISK BY BASEL ASSET CLASS AND APPROACH

In millions of euros	31 December 2011				31 December 2010			
	IRBA	Standardised Approach	Total	2011 Average exposure	IRBA	Standardised Approach	Total	2010 Average exposure
Central governments and central banks	155 605	21 011	176 616	185 298	174 362	19 618	193 980	203 515
Corporates	406 617	159 762	566 379	583 601	446 141	154 683	600 824	584 582
Institutions (*)	80 575	27 031	107 606	117 463	100 104	27 217	127 321	132 842
Retail	199 570	173 654	373 224	373 769	198 304	176 009	374 313	363 328
Securitisation positions	47 826	2 180	50 006	53 561	53 332	3 784	57 116	57 498
Other non credit-obligation a	134	117 882	118 016	103 735	0	89 455	89 455	84 805
Total exposure	890 327	501 520	1 391 847	1 417 428	972 243	470 766	1 443 009	1 426 570

(*) Institutions asset class comprises credit institutions and investment firms, including those recognised in other countries. It also includes some exposures to regional and local authorities, public sector agencies and multilateral development banks that are not treated as central government authorities.

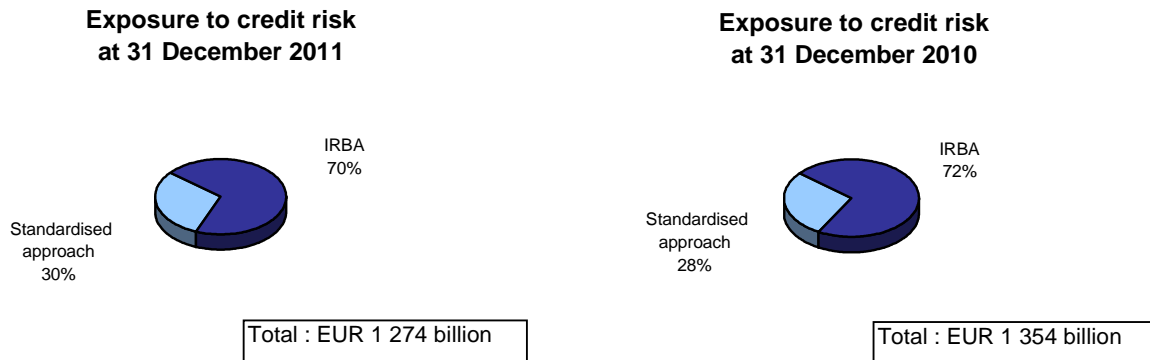
(**) Other non credit-obligation assets include tangible assets and accrued income and other assets.

BNP Paribas has opted for the most advanced approaches allowed under Basel II. In accordance with the EU Directive and its transposition into French law, in 2007 the French banking supervisor (Autorité de Contrôle Prudentiel) allowed the Group to use internal models to calculate capital requirements starting on 1 January 2008. The use of these methods is subject to conditions regarding progress and deployment. The Group committed itself to comply with those conditions under the supervision of the French supervisor. Prior to its acquisition, the Fortis Group had been authorised by Belgian banking and insurance supervisor, the National Bank of Belgium, to use the most advanced approach to assess its regulatory capital requirement. The internal rating policies and systems of the BNP Paribas Fortis and BGL BNP Paribas subgroups on the one hand and BNP Paribas on the other are set to converge to a single methodology used uniformly across the entire Group. The review being conducted for this purpose has shown the compatibility of the concepts developed in each of the two perimeters and allowed a harmonisation of the ratings of the key counterparties, but has not been completed yet. However, several applications for approval of common methodologies have been submitted to the Autorité de Contrôle Prudentiel. Therefore an approach based on methods that have been approved by the French, Belgian or Luxembourg supervisors for each of the non-convergent perimeters has been adopted at 31 December 2011.

For credit risk (excluding other non-credit obligation assets), the share of exposures under the IRB approach represents 70% at 31 December 2011, compared with 72% at 31 December 2010. This significant scope includes in particular Corporate and Investment Banking (CIB), French Retail Banking (FRB), a part of the BNP Paribas Personal Finance business (Cetelem), BNP Paribas Securities Services (BP2S), and, since 30 June 2009, the entities of the subgroup BNP Paribas Fortis and BGL BNP Paribas for which efforts to achieve convergence with the methods, processes and software tools of the BNP Paribas Group are nearing completion. However, some entities, such as BNL and BancWest, are temporarily excluded from the scope of consolidation. Other smaller entities, such as the subsidiaries in emerging countries, will use the Group's advanced methods only at a later stage.



CREDIT RISK EXPOSURE BY APPROACH (*)



(*) Excluding other non-credit obligation assets.

CREDIT RISK MANAGEMENT POLICY

General credit policy and control and provisioning procedures

The Bank’s lending activities are governed by the Global Credit Policy approved by the Risk Committee, chaired by the Chief Executive Officer. The purpose of the committee is to determine the Group’s risk appetite. The policy is underpinned by core principles related to compliance with the Group’s ethical standards, clear definition of responsibilities, the existence and implementation of procedures and thorough analysis of risks. It is rolled down in the form of specific policies tailored to each type of business or counterparty.

Decision-making procedures

A system of discretionary lending limits has been established, under which all lending decisions must be approved by a formally designated member of GRM. Approvals are systematically evidenced in writing, either by means of a signed approval form or in the minutes of formal meetings of a Credit Committee. Discretionary lending limits correspond to aggregate commitments by business group and vary according to internal credit ratings and the specific nature of the business concerned. Certain types of lending commitments, such as loans to banks, sovereign loans and loans to customers operating in certain industries are subject to specific authorisation procedures and require the sign-off of an industry expert or designated specialist. In retail banking, simplified procedures are applied, based on statistical decision-making aids.

Loan applications must comply with the Bank’s Global Credit Policy and with any specific policies, and must in all cases comply with the applicable laws and regulations. In particular, before making any commitments BNP Paribas carries out an in-depth review of any known development plans of the borrower, and ensures that it has thorough knowledge of all the structural aspects of the borrower’s operations and that adequate monitoring will be possible.

The Group Credit Committee, chaired by one of the Chief Operating Officers or the Head of GRM, has ultimate decision-making authority for all credit and counterparty risks.

Monitoring and portfolio management procedures

Monitoring exposures

In addition to carefully selecting and evaluating individual risks, a comprehensive risk monitoring and reporting system applies to all Group entities. The system is organised around Credit Risk Control units which are responsible for ensuring that lending commitments comply with the loan approval decision, that credit risk reporting data are reliable and that risks accepted by the Bank are effectively monitored. Daily exception reports are produced and various forecasting tools are used to provide early warnings of potential escalations of credit risks. Monitoring is carried out at different levels, generally reflecting the organisation of discretionary lending limits. Depending on the level, the monitoring teams report to GRM or to the Group Debtor Committee. This committee meets at monthly intervals to examine all loans in excess of a given threshold, for which it decides on the amount of impairment losses to be recognised or reversed, based on a recommendation from the business lines, with GRM’s approval. In addition, a quarterly committee reviews sensitive or non-performing loans.



Collective portfolio management policy

This monitoring system is supported by a collective portfolio management system including risk concentration by borrower, by sector and by country.

The results of this policy are regularly reviewed by the various risk units, including the Risk Policy Committee and its various versions, which may modify or fine-tune the general priorities as appropriate, based on GRM's analysis framework and recommendations. For risk concentration by country, country risk limits are set at the appropriate level of delegated authority in each country. Concentration at specific counterparty level is monitored regularly, particularly within the Group's individual concentration policy.

Stress tests are used to identify vulnerable areas of the Group's portfolios and analyse any underlying correlations.

Lastly, BNP Paribas may use credit risk transfer instruments, such as securitisation programmes or credit derivatives, to hedge individual risks, reduce portfolio concentration or cap potential losses arising from crisis scenarios.

Impairment procedures

GRM reviews all corporate, bank and sovereign loans in default at monthly intervals to determine the amount of any impairment loss to be recognised, either by reducing the carrying amount or by recording a provision for impairment, depending on the applicable accounting standards. The amount of the impairment loss is based on the present value of probable net recoveries, including from the possible realisation of collateral.

In addition, a collective impairment is established for each core business on a statistical basis. A committee comprising the Core Business Director, the Group Chief Financial Officer or his representative and the Head of GRM meets quarterly to determine the amount of the impairment. This is based on simulations of losses to maturity on portfolios of loans whose credit quality is considered as impaired, but where the customers in question have not been identified as in default (*i.e.* loans not covered by specific impairment). The simulations carried out by GRM use the parameters of the internal rating system described below.

Internal rating system

The BNP Paribas Group uses an advanced internal ratings-based approach (IRBA) to credit risk for the retail, sovereign, institutions, corporate and equity asset classes to calculate the regulatory capital requirements for Corporate and Investment Banking, French Retail Banking, part of BNP Paribas Personal Finance, BNP Paribas Fortis and BNP Paribas Securities Services (BP2S). For other businesses, the standardised approach is used to calculate regulatory capital based on external ratings. Each counterparty is rated internally by the Group using the same methods, regardless of the approach used to calculate regulatory capital requirements.

The Bank has a comprehensive internal rating system compliant with regulatory requirements regarding capital adequacy. A periodic assessment and control process has been deployed within the Bank to ensure that the system is appropriate and correctly implemented. The system was formally validated by the French banking supervisor (Autorité de Contrôle Prudentiel) in December 2007. BNP Paribas' rating system was rolled out at BNP Paribas Fortis in May 2010.

For corporate loans, the system is based on three parameters: the counterparty's probability of default expressed via a rating, Global Recovery Rate (or Loss Given Default), which depends on the structure of the transaction, and the Credit Conversion Factor (CCF), which estimates the portion of off-balance sheet exposure at risk.

There are twelve counterparty ratings. Ten cover performing clients with credit assessments ranging from "excellent" to "very concerning", and two relate to clients classified as in default, as per the definition by the banking supervisor.

Ratings are determined at least once a year, in connection with the loan approval process, drawing on the combined expertise of business line staff and GRM credit risk managers, who conduct a second review. High quality tools have been developed to support the rating process, including analysis aids and credit scoring systems. The decision to use these tools and the choice of technique depends on the nature of the risk.

Where external ratings exist, they are taken into account by credit risk analysts, relying on an indicative mapping of the internal rating scale against the external ratings based on the one-year default probability for each rating. The Bank's internal rating for an exposure is not necessarily the same as the external rating, and there is no strict correspondence between an external "investment grade" rating ⁽¹⁾ and an internal rating equal to or higher than 5.

⁽¹⁾ Defined as an external rating from AAA to BBB-



Counterparties with a BBB- external rating may be rated 6 internally, even though an external BBB- theoretically equates to an internal 5. Annual benchmarking studies are carried out to compare internal and external ratings.

Various quantitative and other methods are used to check rating consistency and the rating system's robustness. Loans to private customers and very small businesses are rated using statistical analyses of groups of risks with the same characteristics. GRM has overall responsibility for the quality of the entire system. This responsibility is fulfilled by either defining the system directly, validating it or verifying its performance. The teams responsible for verifying performance are not the same as those who build the models. At BNP Paribas Fortis, a special Steering Center has been set up for this purpose.

Loss Given Default is determined either using statistical models for books with the highest degree of granularity or using expert judgment based on indicative values, in line with a process similar to the one used to determine the counterparty rating for corporate books⁽²⁾. Regulation defines loss given default as the loss that the Bank would suffer in the event of the counterparty's default in times of economic slowdown.

For each transaction, it is measured using the recovery rate for a senior unsecured exposure to the counterparty concerned, adjusted for any effects related to the transaction structure (e.g. subordination) and for the effects of any risk mitigation techniques (collateral and other security). Amounts recoverable against collateral and other security are estimated each year on a conservative basis and discounts are applied for realising security in a stressed environment.

Various credit conversion factors have been modelled by the Bank where permitted (*i.e.* excluding high-risk transactions where the conversion factor is 100% and provided there was a detailed enough track record to be statistically exploitable), either using historical internal default data or other techniques when there is insufficient historical data. Conversion factors are used to measure the off-balance sheet exposure at risk in the event of borrower default. Unlike rating and recovery rate, this parameter is assigned automatically depending on the transaction type and is not determined by the Credit Committee.

Each of the three credit risk parameters are backtested and probability of default benchmarked annually to check the system's performance for each of the Bank's business segments. Backtesting consists of comparing estimated and actual results for each parameter. Benchmarking consists of comparing the parameters estimated internally with those of external organisations.

For backtesting ratings, the default rate of populations in each rating category, or each group of risks with similar characteristics for retail banking operations, is compared with the actual default rate observed on a year by year basis. An analysis by rating policy, rating, geographical area and rating method is carried out to identify any areas where the models might be underperforming. The stability of the rating and its population is also verified. The Group has also developed backtesting techniques for default probabilities tailored to low default portfolios to assess the appropriateness of the system, even where the number of actual defaults is very low, such as sovereigns and banks, for example. The impacts of economic cycles are also taken into account. This backtesting work has proved that the ratings assigned by the Group are consistent with "through the cycle" ratings and that, the estimated default rate is conservative.

For benchmarking work on non retail exposures, internal ratings are compared with the external ratings of several agencies based on the mapping between internal and external rating scales. Some 10% to 15% of the Group's corporate clients have an external rating and the benchmarking studies reveal a conservative approach to internal ratings.

Backtesting of global recovery rates is based mainly on analysing recovery flows on exposures in default. When an exposure has been written off, each amount recovered is discounted back to the default date and calculated as a percentage of the exposure. When an exposure has not yet been written off, the amount of provisions taken is used as a proxy for future recoveries. The recovery rate determined in this way is then compared with the initially forecasted rate one year before default occurred. As with ratings, recovery rates are analysed on an overall basis and by rating policy and geographical area. Variances on an item by item and average basis are analysed taking into account the bimodal distribution of recovery rates. The results of these tests show that the Group's estimates are relevant in economic downturns and are conservative on an average basis. Benchmarking of recovery rates is based on data pooling initiatives in which the Group takes part.

The result of all backtesting and benchmarking work is presented annually to the Chief Risk Officer and to the bodies responsible for overseeing the rating system and risk practitioners worldwide. These results and ensuing discussions are used to help set priorities in terms of developing methodology and deploying tools.

⁽²⁾ Within the Group, the Corporate book includes institutions, corporates, specialised financing and sovereign states.



Internal estimates of risk parameters are used in the Bank's day-to-day management in line with regulation recommendations. Thus apart from calculating capital requirements, they are used for example when setting delegated limits, granting new loans or reviewing existing loans to measure profitability, determine collective impairment and for internal and external reporting purposes.

Scope and nature of risk reporting and measurement systems

All the processes and information systems used by the credit risk reporting function were submitted for review to the French banking supervisor (Autorité de Contrôle Prudentiel). For BNP Paribas Fortis and BGL BNP Paribas, where the convergence work has not yet been completed, the processes and information systems used are those approved by the banking supervisory authorities of Belgium and Luxembourg.

The current credit risk measurement system is based on a two-tier architecture:

- a central tier mainly comprising the credit risk exposure consolidation system, central databases and the engine for computing regulatory capital, developed in-house;
- a local tier comprising credit risk monitoring and reporting systems owned by GRM.

CREDIT RISK DIVERSIFICATION

The Group's gross exposure to credit risk stands at EUR 1,224 billion at 31 December 2011, compared with EUR 1,296 billion at 31 December 2010. This portfolio, which is analysed below in terms of its diversification, comprises all exposures to credit risk shown in table "Exposure to credit risk by Basel asset class" excluding securitisation positions and other non credit-obligation assets¹. A dedicated chapter (chapter 6) describes banking book securitisations exposures.

No single counterparty gives rise to an excessive concentration of credit risk, due to the size of the business and the high level industrial and geographical diversification of the client base. The breakdown of credit risks by industry and by region is presented in the charts below.

DIVERSIFICATION BY COUNTERPARTY

Diversification is a key component of the Bank's policy and is assessed by taking account of all exposure to a single business group. BNP achieves diversification largely through the extent and variety of its business activities and the widespread system of discretionary lending authorities.

Diversification of the portfolio by counterparty is monitored on a regular basis, notably under the Group's individual risk concentration policy. The risk concentration ratio also ensures that the aggregate risk on each beneficiary² does not exceed 25% of the Group's net consolidated shareholders' equity. BNP Paribas remains well below the concentration limits set out in the European Directive on Large Exposures.

In addition, gross commitments to the top 20 counterparties in the corporate asset class accounted for 4% of this asset class total gross exposure at 31 December 2011, which represents a similar proportion to that recorded at 31 December 2010.

INDUSTRY DIVERSIFICATION

The breakdown of exposure by business sector is monitored carefully and supported by a forward-looking analysis for dynamic management of the Bank's exposure. This analysis is based on the in-depth knowledge of independent sector experts who express an opinion on trends in the sectors they follow and identify the factors underlying the

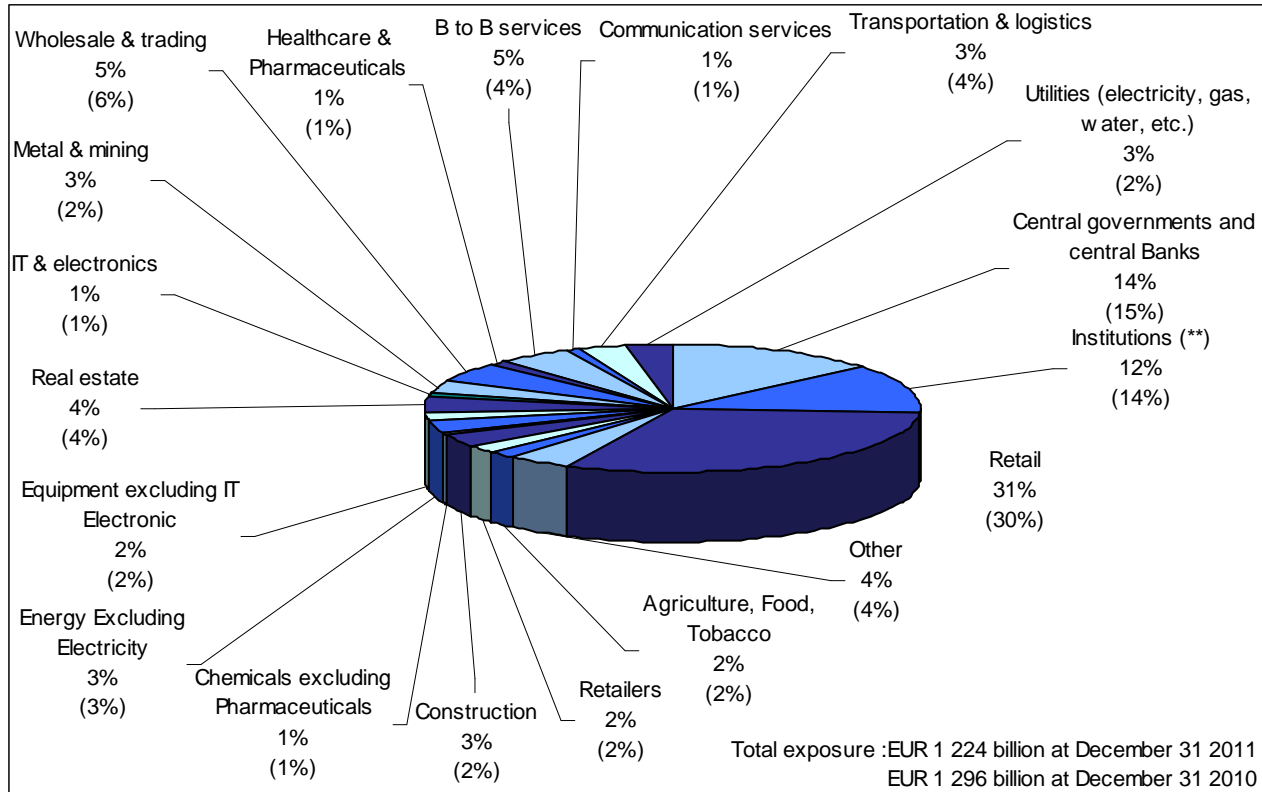
⁽¹⁾ The scope covered includes loans and receivables due from customers, amounts due from credit institutions and central banks, the Group's credit accounts with other credit institutions and central banks, financing and guarantee commitments given (excluding repos) and fixed-income securities in the banking book.

⁽²⁾ Beneficiaries whose individual risks each exceed 10% of shareholders' equity, with a disclosure threshold set by the ACP at EUR 300 million in exposure, are considered as Large Exposures.



risks faced by the main companies in the sector. This process is adjusted by sector according to its weighting in the Group's exposure, the technical knowledge required to understand the sector, its cyclical nature and degree of globalisation and the existence of any particular risk issues.

BREAKDOWN OF CREDIT RISK BY BASEL ASSET CLASS AND BY CORPORATE INDUSTRY AT DECEMBER 31 2011^(*)



Prudential scope: exposures excluding counterparty risk, other non credit obligation assets and securitisation positions.

(*) The percentages in brackets reflect the breakdown at 31 December 2010.

(**) The Institutions asset class comprises credit institutions and investment firms, including those recognised in other countries. It also includes some exposures to regional and local authorities, public sector agencies and multilateral development banks that are not treated as central government authorities.

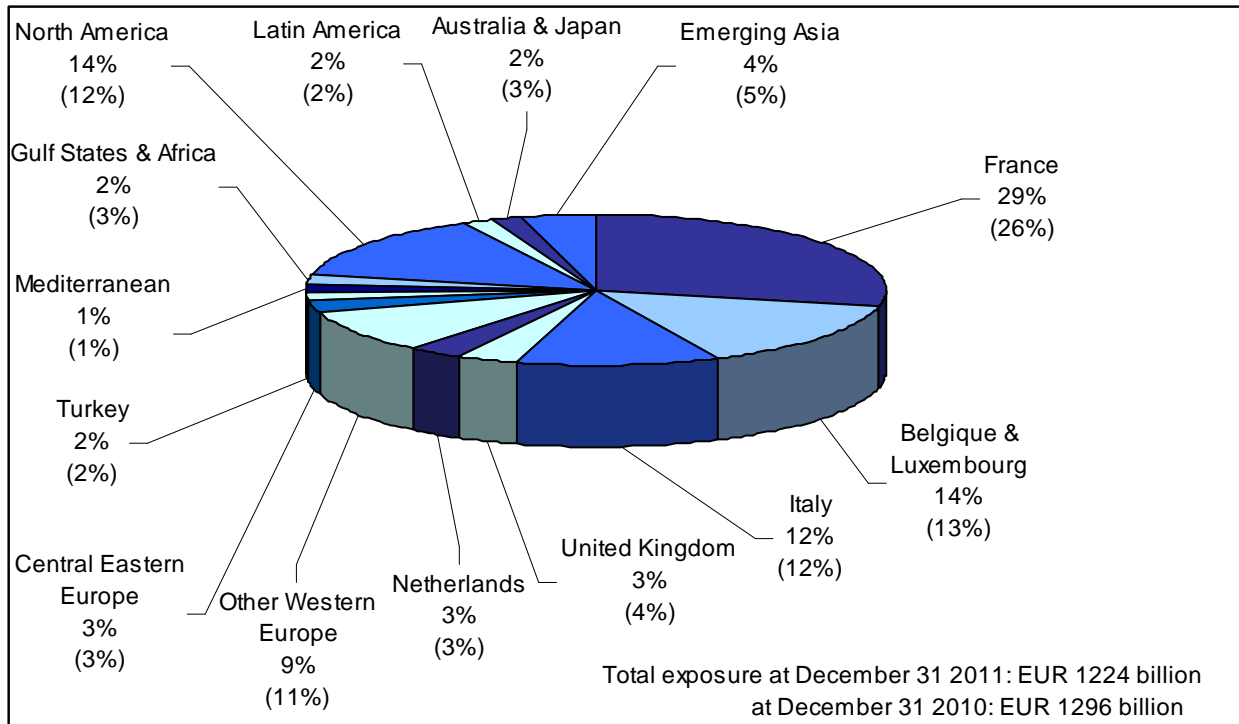
GEOGRAPHIC DIVERSIFICATION

Country risk is the sum of all exposures to obligors in the country concerned. It is not the same as sovereign risk, which is the sum of all exposures to the central government and its various offshoots. Country risk reflects the Bank's exposure to a given economic and political environment, which are taken into consideration when assessing counterparty quality.

The geographic breakdown below is based on the country where the counterparty conducts its principal business activities, without taking into account the location of its head office. Accordingly, a French company's exposure arising from a subsidiary or branch located in the United Kingdom is classified in the United Kingdom.



GEOGRAPHIC BREAKDOWN OF CREDIT RISK BY COUNTERPARTY'S COUNTRY OF BUSINESS AT DECEMBER 31 2011(*)



Prudential scope: exposure excluding counterparty risk, other non credit obligation assets and securitisation positions

(*) The percentages in brackets reflect the breakdown at 31 December 2010.

The geographic breakdown of the portfolio's exposure has remained balanced and stable. The Group has maintained its predominantly European dimension (73% at 31 December 2011, compared with 72% at 31 December 2010).

The Group, which is naturally present in most economically active areas, strives to avoid excessive concentrations of risk in countries whose political and economic infrastructure is acknowledged to be weak or whose economic position has been undermined.

In this respect, country risk limits are set at the appropriate level of delegated authority for each country.

CREDIT RISK: INTERNAL RATINGS BASED APPROACH (IRBA)

INTERNAL RATING SYSTEM

The internal rating system developed by the Group covers the entire Bank. The IRBA, validated in December 2007, covers the Corporate and Investment Banking (CIB) portfolio, the French Retail Banking (FRB) portfolio, as well as BP2S and part of BNP Paribas Personal Finance. Convergence projects are continuing with a view to harmonise methods, processes and systems, particularly in the scope resulting from the acquisition of BNP Paribas Fortis and BGL BNP Paribas. Common methods have already been rolled out for institutions and sovereigns. For most of the other portfolios, prior applications for approval were made to the relevant banking supervisors during 2011.

CORPORATE MODEL

The IRBA for the Corporate book (i.e. institutions, corporates, specialised financing and sovereigns) is based on a consistent rating procedure in which GRM has the final say regarding the rating assigned to the counterparty and the recovery rate assigned to transactions. Credit Conversion Factors (CCF) of off-balance sheet transactions are assigned according to counterparty and transaction type.



The generic process for assigning a rating to each segment of the Corporate book is as follows:

- for corporates and structured financing, an analysis is carried out by the unit proposing the rating and a Global Recovery Rate to the Credit Committee, using the rating models and tools developed by GRM. The rating and Global Recovery Rate are validated or revised by the GRM representative during the Credit Committee meeting. The committee decides whether or not to grant or renew a loan and, if applicable, reviews the counterparty rating at least once a year;
- for banks, the analysis is carried out by analysts in the Risk Management Function. Counterparty ratings and Global Recovery Rates are determined during review committees by geographical area to ensure comparability between similar banks;
- for sovereigns, the ratings are approved at Country Committee meetings which take place several times a year. The committee comprises members of Executive Management, the Risk Management Department and the Business Lines;
- for medium-sized companies, a score is assigned by the business line’s credit analysts and GRM has the final say;
- for each of these sub-portfolios, the risk parameters are measured using a model certified and validated by the GRM teams, based mainly on an analysis of the Bank’s historical data. The model is supported as far as possible by tools available through a network to ensure consistent use. However, expert judgment remains an indispensable factor. Each rating and recovery rate is subject to an opinion which may differ from the results of the model, provided it can be justified.

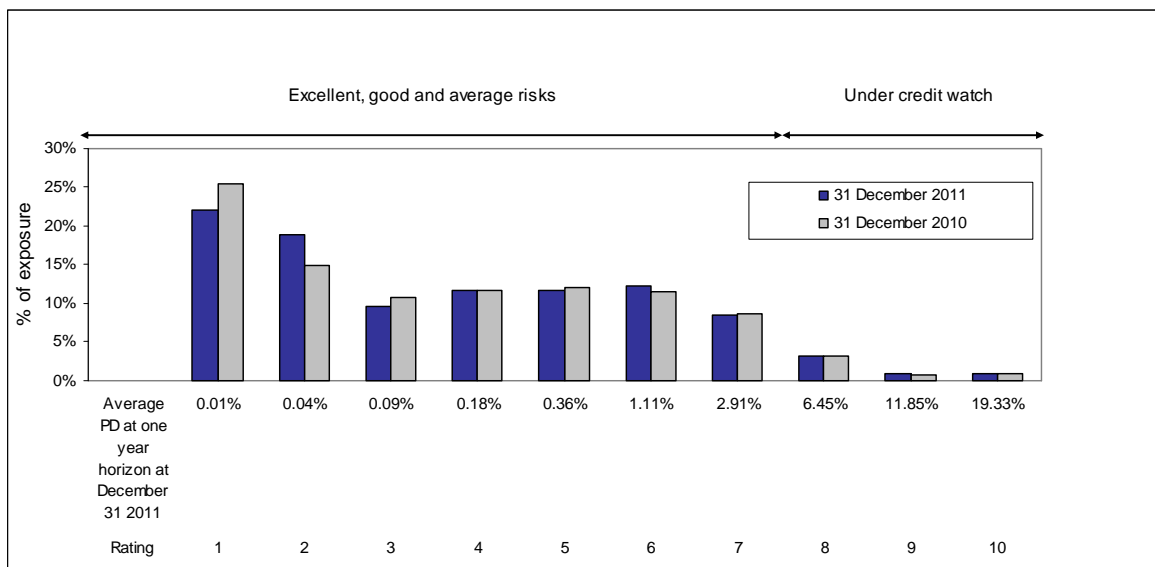
The method of measuring risk parameters is based on a set of common principles, and particularly the “two pairs of eyes” principle which requires at least two people, at least one of whom has no commercial involvement, to give their opinion on each counterparty rating and each transaction global recovery rate (GRR).

The same definition of default is used consistently throughout the Group for each asset class. For local counterparties (SMEs, local authorities), this definition may be adapted slightly to meet any specific local regulatory requirements, particularly as regards the length of past-due or the materiality threshold.

The chart below shows a breakdown by credit rating of performing loans and commitments in the Corporate book (asset classes: corporates, central governments and central banks, institutions) for all the Group’s business lines, measured using the internal ratings-based approach.

The majority of commitments are towards borrowers rated as good even excellent quality, reflecting the heavy weighting of large multinational groups and financial institutions in the Bank’s client base. A significant proportion of commitments to non-investment grade borrowers are highly structured or secured by high quality guarantees implying a high recovery rate in the event of default. They include export financing covered by export credit insurance written by international agencies, project finance, structured finance and transaction financing.

BREAKDOWN OF IRBA CORPORATE^(*) EXPOSURES BY CREDIT RATING



(*) The Corporate book shown in the chart above includes corporates, central governments and central banks, and institutions.



RETAIL BANKING OPERATIONS

Retail banking operations are carried out by the BNP Paribas network of branches in France and by various subsidiaries, particularly in Italy, Belgium and Luxembourg, as well as by BNP Paribas Personal Finance.

The Standard Ratings Policy for Retail Operations [SRPRO] provides a framework allowing Group core businesses and risk management departments to assess, prioritise and monitor credit risks consistently. This policy is used for transactions presenting a high degree of granularity, small unit volumes and a standard risk profile. Borrowers are assigned scores in accordance with the policy, which sets out:

- standard internal ratings based principles, underlining the importance of a watertight process and its ability to adapt to changes in the credit environment;
- principles for defining homogeneous pools of credit risk exposures;
- principles relative to credit models, particularly the need to develop discriminating and understandable models, and to model or observe risk indicators downstream in order to calibrate exposures. Risk indicators must be quantified based on historical data covering a minimum period of five years, and in-depth, representative sampling. All models must be documented in detail.

The majority of FRB's retail borrowers are assigned a behavioural score which serves as a basis to determine the probability of default and, for each transaction, the global recovery rate (GRR) and exposure at default (EAD). These parameters are calculated monthly on the basis of the latest available information. They are drilled down into different scores and made available to the commercial function, which has no involvement in determining risk parameters. These methods are used consistently for all retail banking customers.

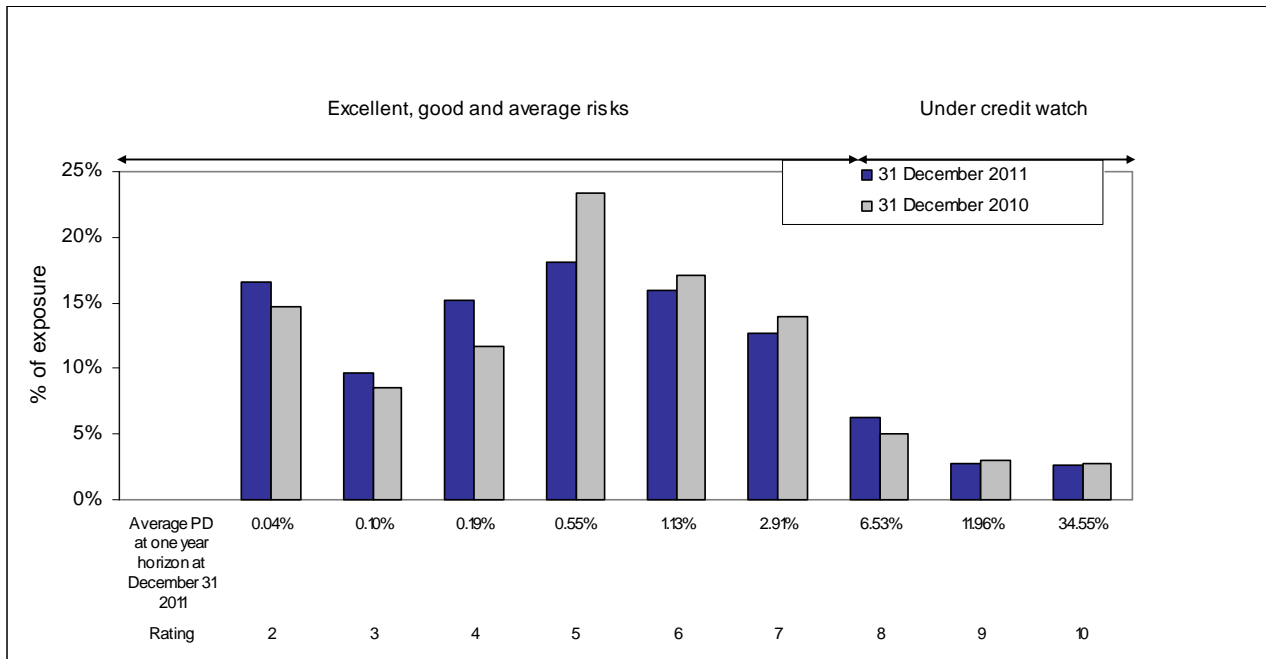
For the portion of the BNP Paribas Personal Finance book eligible for the IRBA, the risk parameters are determined by the Risk Management Department on a statistical basis according to customer type and relationship history.

Scoring techniques are used to assign retail customers to risk groups presenting the same default risk characteristics. This also applies to the other credit risk inputs: Exposure at Default (EAD) and Loss Given Default (LGD).

The chart below shows a breakdown by credit rating of performing loans and commitments in the retail book for all the Group's business lines, measured using the internal ratings based approach.



BREAKDOWN OF IRBA RETAIL EXPOSURES BY CREDIT RATING



CREDIT RISK: STANDARDISED APPROACH

For exposures in the standardised approach, BNP Paribas uses the external ratings assigned by Standard & Poor's, Moody's and Fitch Ratings. These ratings are mapped into equivalent credit quality levels as required by the regulation framework in accordance with the instructions issued by the French banking supervisor (Autorité de Contrôle Prudentiel).

When there is no directly applicable external rating, the issuer's senior unsecured rating may, if available, be obtained from external databases and used for risk-weighting purposes in some cases.

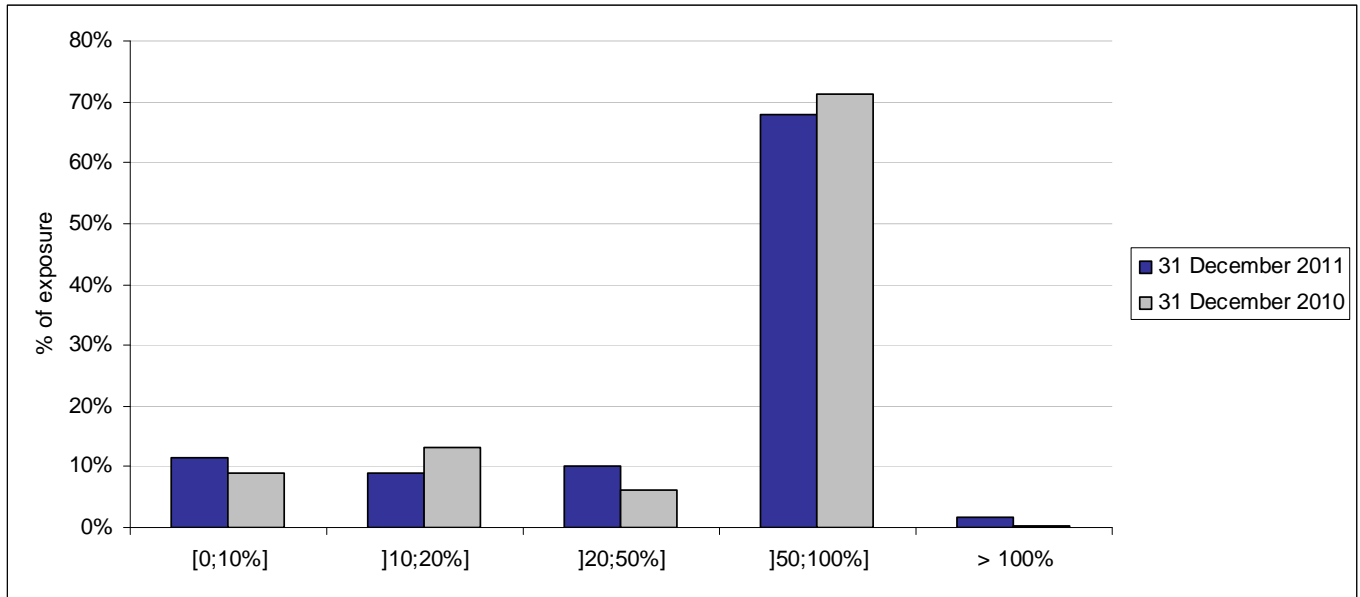
Standardised approach exposure represents at 31 December 2011 30% of the BNP Paribas Group's total gross exposures, compared with 28% at 31 December 2010. The main entities that used the standardised approach at 31 December 2010 are BNL, BancWest, BNP Paribas Personal Finance (consumer finance outside Western Europe and all mortgage lending), BNP Paribas Leasing Solutions (BPLS), TEB A.S. and others emerging country subsidiaries, private banking entities, and Banque de la Poste in Belgium.

Corporate portfolio

The chart below shows a breakdown by credit rating of performing loans and commitments in the Corporate book (exposure classes: corporates, central governments and central banks, institutions) for all the Group's business lines, measured using the standardised approach.



BREAKDOWN OF CORPORATE (*) EXPOSURE BY WEIGHTING IN THE STANDARDISED APPROACH



(*) The Corporate book shown in the chart above includes corporates, central governments and central banks, and institutions.



5.6. Securitisation in the banking book

The BNP Paribas Group is involved in securitisation transactions as originator, sponsor and investor as defined by Basel 2.5.

The securitisation transactions described below are those defined in the CRD (Capital Requirement Directive) and described in Title V of the Decree of 20 February 2007. They are transactions in which the credit risk inherent in a pool of exposures is divided into tranches. The main features of these securitisation transactions are:

- there is a significant transfer of risk;
- payments made depend upon the performance of the underlying exposures;
- subordination of the tranches as defined by the transaction determines the distribution of losses during the risk transfer period.

As required by the CRD, assets securitised as part of proprietary securitisation transactions that meet Basel 2.5 eligibility criteria, particularly in terms of significant risk transfer, are excluded from the regulatory capital calculation. Only BNP Paribas' positions in the securitisation vehicle, and any commitment subsequently granted to the securitisation vehicle, are included in the capital requirement calculation using the external ratings based approach.

Proprietary securitisation exposures that do not meet the Basel 2.5 eligibility criteria remain in the portfolio to which they were initially assigned. The capital requirement is calculated as if they had not been securitised and is included in the section on credit risk.

Consequently, the securitisation transactions discussed below only cover those originated by the Group deemed to be efficient under Basel 2.5, those arranged by the Group in which it has retained positions, and those originated by other parties in which the Group has invested.

BNP PARIBAS SECURITISATION ACTIVITY

The Group's activities in each of its roles as originator, sponsor and investor, are described below:

SECURITISED EXPOSURES AND SECURITISATION POSITIONS (HELD OR ACQUIRED) BY ROLE

In millions of euros	31 December 2011		31 December 2010	
	Securitized exposures originated by BNP Paribas (1)	Securitisation positions held or acquired (EAD) (2)	Securitized exposures originated by BNP Paribas (1)	Securitisation positions held or acquired (EAD) (2)
Originator	13 332	3 086	15 985	4 351
Sponsor	251	16 544	217	17 440
Investor	0	25 535	0	30 140
Total	13 583	45 165	16 202	51 931

(*) Securitized exposures originated by the Group correspond to the underlying exposures recognised on the Group's balance sheet which have been securitized.

(**) Securitisation positions correspond to tranches retained in securitisation transactions originated or arranged by the Group, tranches acquired by the Group in securitisation transactions arranged by other parties, and facilities granted to securitisation transactions originated by other parties.



Proprietary securitisation (originator under Basel 2.5)

As part of the day-to-day management of liquidity, the Group's least liquid assets may be swiftly transformed into liquid assets by securitising loans (mortgages and consumer loans) granted to retail banking customers, as well as loans granted to corporate customers.

Four securitisation transactions were carried out in 2011 including three by BNP Paribas Personal Finance and one by the Retail Banking France.

Securitised customer assets totalled EUR 4.6 billion in 2011:

- EUR 3.1 billion of notes issued were retained by the Group, including EUR 1.5 billion that can be used as collateral for refinancing operations;
- EUR 1.5 billion of notes issued were sold on the market.

These transactions have no reducing effect on the calculation of regulatory capital because they do not give rise to any significant risk transfer. The relevant exposures are therefore included in the section on credit risk.

36 transactions, totalling a securitised exposure (Group BNP Paribas' share) of EUR 60.2 billion, are outstanding at 31 December 2011. These include EUR 17.5 billion for BNP Paribas Personal Finance, EUR 0.3 billion for Equipment Solutions, EUR 6.9 billion for BNL, EUR 34.5 billion for BNP Paribas Fortis and one billion of euros for the Retail Banking France.

Only five of these transactions, representing a total securitised exposure of EUR 3.4 billion, have been excluded from Basel 2.5 credit risk framework and integrated in Basel 2.5 securitisation framework due to significant risk transfer, and are included in the table above. Securitisation positions retained in these transactions amount to EUR 1.5 billion at 31 December 2011 compared with EUR 1.2 billion at 31 December 2010.

When BNP Paribas acquired the Fortis Group entities, the riskiest portion of their structured asset portfolio was sold to a dedicated SPV, Royal Park Investment. The SPV's securitised exposures amount to EUR 9.1 billion. The Group retains EUR 1.4 billion in securitisation positions in the SPV at 31 December 2011 compared with EUR 2.9 billion at 31 December 2010, including EUR 0.2 billion of the equity tranche, EUR 0.5 billion of financing corresponding to a senior tranche and EUR 0.6 billion of financing corresponding to a super senior tranche (compared with EUR 2.2 billion at 31 December 2010).

Lastly, the exposures retained in securitisation transactions originated by BNP Paribas amounted to EUR 0.2 billion at 31 December 2011, unchanged compared with 31 December 2010.

Securitisation as sponsor on behalf of clients

CIB Fixed Income carries out securitisation programmes on behalf of its customers. Under these programmes, liquidity facilities and, where appropriate, guarantees are granted to special purpose entities. Special purpose entities over which the Group does not exercise control are not consolidated.

Short-term refinancing

At 31 December 2011, five non-consolidated multiseller conduits (Eliopée, Starbird, J Bird, J Bird 2 and Matchpoint) were managed by the Group on behalf of customers. These entities are refinanced on the local short-term commercial paper market. Liquidity Facilities granted to the five conduits remained stable at EUR 9,7 billion, compared to EUR 9,6 billion at 31 December 2010.

Medium/long-term refinancing

In Europe and Northern America, the BNP Paribas Group's structuring platform remained active in providing securitisation solutions to its clients, based on products adapted to current conditions in terms of risk and liquidity. "Technical" liquidity facilities, designed to cover maturity mismatches are also granted, where appropriate, to non consolidated funds, arranged by the Group for receiving securitised customer assets. The total of these facilities, including the few residual positions retained, amounted to EUR 1.9 billion at 31 December 2011 compared with EUR 1.7 billion at 31 December 2010.

BNP Paribas Fortis has also granted liquidity facilities to the Scaldis multiseller conduit, totalling EUR 4.7 billion at 31 December 2011 compared with EUR 6.1 billion at 31 December 2010.



During 2011, BNP Paribas continued to manage CLO (Collateralized Loan Obligation) conduits for third-party investors. In the context of a primary CLO market still closed due to adverse market conditions, BNP Paribas acquired a CLO management agreement from another collateral manager. Securitisation positions retained amounted to EUR 25 million as at 31 December 2011 (unchanged compared with 2010).

Securitisation as investor

The BNP Paribas Group's securitisation business as an investor (within the meaning of the regulation rules) is mainly carried out by CIB, Investment Solutions and BancWest, aside from the portfolio positions inherited from Fortis.

CIB Fixed Income is responsible for monitoring and managing an ABS portfolio (Asset Backed Securities), which represented a total of EUR 3 billion of ABS (Asset Backed Securities) at 31 December 2011 compared with EUR 4.4 billion at 31 December 2010. Fixed Income also manages liquidity facilities granted by banking syndicates to ABCP (Asset Backed Commercial Paper) conduits managed by a number of major international industrial groups that are BNP Paribas clients representing a total of EUR 0.6 billion at 31 December 2011, compared with EUR 0.5 billion at 31 December 2010.

In addition, Fixed Income also houses Negative Basis Trade (NBT) positions representing an exposure at default of EUR 5.2 billion of euros, compared with EUR 5.5 billion at 31 December 2010.

CIB Resource & Portfolio Management (RPM) also managed securitisation programmes as an investor in 2011, notably with a mixed investment programme (securitisation exposure and corporate loan exposure) that was launched in the fourth quarter of 2010 (80 million of euros). RPM also yielded 12 million euros of exposures to the American real-estate market. The exposure of the RPM-managed portfolio stood at EUR 0.4 billion at 31 December 2011, compared with EUR 0.4 million at 31 December 2010.

During 2011, Investment Solutions realised 0.1 million of fresh investment in securitisation programmes. Meanwhile, repayments (EUR 0.5 billion) and disposals (EUR 0.3 billion) allowed to reduce exposure from EUR 2.1 billion on 31 December 2010 to EUR 1.4 billion on 31 December 2011.

BancWest invests exclusively in securitisation positions in listed securities as a core component of its refinancing and own funds investment policy. BancWest continue to reduce positions requiring significant amounts of capital in 2011. At 31 December 2011, BancWest's securitisation positions amounted to EUR 0.3 billion compared with EUR 0.5 billion at 31 December 2010.

BNP Paribas Fortis' portfolio of structured loans (Portfolio IN), which was not assigned to a business line and is housed in "Other activities", is worth EUR 6.1 billion, compared with 8.4 billion at 31 December 2010.

This portfolio carries a guarantee by the Belgian State on the second level of losses. Beyond a first tranche of final loss, against the notional value of EUR 3.5 billion largely provisioned in BNP Paribas Fortis' opening balance sheet, the Belgian State guarantees on demand a second loss tranche of up to EUR 1.5 billion.

In addition, BNP Paribas Fortis' investments in Dutch RMBS came to EUR 8.1 billion, unchanged compared with 31 December 2010.



5.7. Counterparty risk

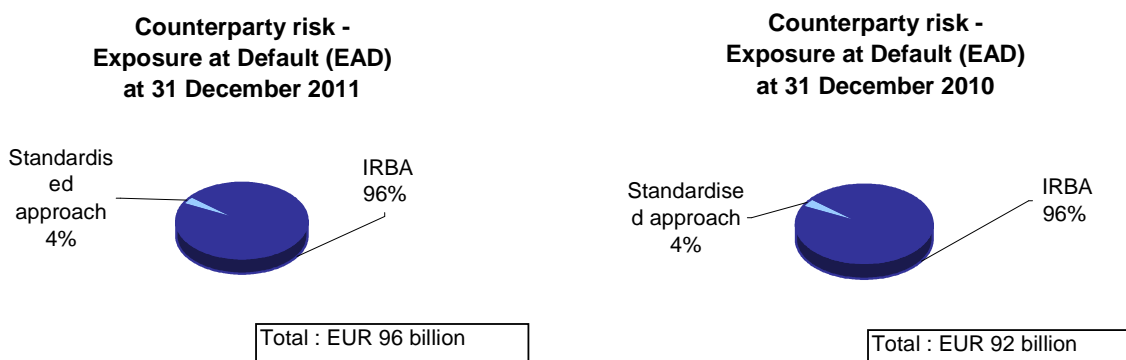
The table below shows exposure to counterparty risk (measured as exposure at the time of default) by Basel asset class on derivatives contracts and securities lending/borrowing transactions, after the impact of any netting agreements.

EXPOSURE AT DEFAULT TO COUNTERPARTY RISK BY BASEL ASSET CLASS OF DERIVATIVES AND SECURITIES LENDING/BORROWING INSTRUMENTS

In millions of euros	31 December 2011				31 December 2010			
	IRBA	Standardised Approach	Total	2011 Average EAD	IRBA	Standardised Approach	Total	2010 Average EAD
Central governments and central banks	11 142	2	11 144	10 073	8 997	6	9 003	8 293
Corporates	45 324	2 484	47 808	46 288	42 212	2 555	44 767	47 525
Institutions (*)	35 803	1 163	36 966	37 750	37 635	898	38 533	40 307
Retail	-	19	19	15	-	12	12	13
Total exposure	92 269	3 668	95 937	94 126	88 844	3 471	92 315	96 138

(*) Institutions asset class comprises credit institutions and investment firms, including those recognised in other countries. It also includes some exposures to regional and local authorities, public sector agencies and multilateral development banks that are not treated as central government authorities.

COUNTERPARTY EXPOSURE AT DEFAULT BY APPROACH



BNP Paribas is exposed to counterparty risk on its capital markets transactions. This risk is managed through the widespread use of standard close-out netting and collateral agreements and through a dynamic hedging policy. Changes in the value of the Bank's exposure are taken into account in the measurement of over-the-counter financial instruments through a credit value adjustment process.

Netting agreements

Netting is used by the bank in order to mitigate counterparty credit risk associated with derivatives trading. The main instance where netting occurs is in case of trades-termination: if the counterparty defaults, all the trades are terminated at their current market value, and all the positive and negative market values are summed to obtain a single amount (net) to be paid to or received from the counterparty. The balance ("close-out netting") may be subject to a guarantee ("collateralisation") granted as collateral cash, securities or deposits.

The bank also applies netting in case of currency-settlements in order to mitigate counterparty credit risk. This corresponds to the netting of all payments and receipts between the bank and one counterparty in the same currency to be settled in the same day. The netting results in a single amount (for each currency) to be paid either by the bank or by the counterparty.

Transactions affected by this are processed in accordance with bilateral or multilateral agreements respecting the general principles of the national or international framework. The main forms of bilateral agreements are those issued



by Fédération Bancaire Française (FBF), and on an international basis by International Swaps and Derivatives Association ("ISDA").

Counterparty Exposure valuation

The Exposure at Default (EAD) for counterparty risk is measured using an internal model and is subsequently incorporated into the credit risk evaluation system. This measure was developed 10 years ago and is regularly updated. It is based on "Monte Carlo" simulations which assess the possible exposure movements. The stochastic processes used are sensitive to parameters including volatilities, correlations, and are calibrated on historical market data. The potential future counterparty risk exposures are measured using an internal model ("ValRisk") which can simulate thousands of potential market scenarios and does the valuation of each counterparty trading portfolio at several points in the future (from 1 day to more than 30 years for the longest transactions). Value changes are calculated up to the maturity of transactions.

When performing the exposure aggregation, the system takes into account the legal contracts linked to each transaction and counterparty, such as netting and margin call agreements.

Counterparty credit risk exposures are characterized by high variability over time due to constant evolution of market parameters affecting the underlying transaction value. It is therefore important to monitor not only the current transaction values, but also to analyze their potential changes in the future.

For counterparty risk exposures from portfolios of BNP Paribas Fortis and BGL BNP Paribas that have not been migrated in the BNP Paribas systems, the Exposure at Default (EAD) is not based on an internal model.

Supervision and monitoring of counterparty risk

Future potential exposures calculated by ValRisk are compared with the limits assigned to each counterparty on a daily basis. In addition, ValRisk can simulate new transactions and measure their impact on the counterparty portfolio. It is therefore an essential tool of the risk approval process. The following Committees (sorted by ascending authority scale): Regional Credit Committee, Global Credit Committee, General Management Credit Committee, set the limits according to their delegation level.

Credit adjustments on financial instruments traded Over-the-Counter (OTC)

The valuation of financial OTC-trades carried out by BNP Paribas as part of its trading activities (Fixed Income, Global Equity & Commodity Derivatives) includes credit adjustments. A credit adjustment (or CVA "Credit Value Adjustment") is an adjustment of the trading portfolio valuation to take into account the counterparty credit risk. It reflects the expected loss in fair value on a counterparty exposure based on the potential positive value of the contract, the counterparty default probability, the credit quality migration, and the estimated recovery rate.

Dynamic management of counterparty credit risk

The credit adjustment value is a variable of the existing exposure movements and the credit risk level of the counterparty, linked to the movements of the Credit Default Swaps spread s(CDS) used in the default probability calculation.

In order to reduce the risk associated with the credit quality deterioration imbedded in a financial operations portfolio, BNP Paribas may use a dynamic hedging strategy, involving the purchase of market instruments such as credit derivative instruments.

Counterparty risk exposures on derivative instruments cover all derivative portfolio exposures of BNP Paribas, all underlying and all combined poles. Fixed Income exposures represent the large majority of these exposures.

The exposure on securities financing transactions and deferred settlement transactions concern the Fixed Income business (primarily bonds), the Equity and Advisory business, primarily equity (stock lending and borrowing) and BNP Paribas Securities Services (BP2S), both bonds and equity.



5.8. Market Risk

MARKET RISK RELATED TO TRADING ACTIVITIES

INTRODUCTION

Market risk, as defined in chapter 5.2, arises mainly from trading activities carried out by the Fixed Income and Equity teams within Corporate and Investment Banking and encompasses different risk factors defined as follows:

- interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates;
- foreign exchange risk is the risk that the value of an instrument will fluctuate due to changes in foreign exchange rates;
- equity risk arises from changes in the market prices and volatilities of equity shares and/or equity indices;
- commodities risk arises from changes in the market prices and volatilities of commodities and/or commodity indices;
- credit spread risk arises from the change in the credit quality of an issuer and is reflected in changes in the cost of purchasing protection on that issuer;
- optional products carry by nature volatility and correlation risks, for which risk parameters can be derived from option market prices observed in an active market.

ORGANISATION PRINCIPLES

Governance

The market risk management system aims to track and control market risks whilst ensuring that the control functions remain totally independent from the business lines.

Market Risk monitoring is structured around several committees:

- the Capital Markets Risk Committee (CMRC) is the main committee governing the risks related to capital markets. It is responsible for addressing, in a coherent manner, the issues related to market and counterparty risk. The CMRC sets the aggregate trading limits, outlines risk approval procedures, and reviews loss statements and hypothetical losses estimated on the basis of stress tests. It meets in theory on a monthly basis and is chaired by either the Group CEO or by one of the Bank's COOs;
- the Product and Financial Control Committee (PFC) is the arbitration and decision-making Committee. It meets quarterly and discusses the actions of the CIB Financial Control teams and their work to enhance control effectiveness and the reliability of the measurement and recognition of the results of market transactions. It is chaired by the Group Chief Financial Officer and brings together the Directors of Group Development and Finance-Accounting, Corporate Investment Banking and Group Risk Management;
- at business unit level, the Valuation Review Committee (VRC) meets monthly to examine and approve the results of Market parameters review and any changes in reserves. The Valuation Review Committee also acts as the referee in any disagreements between trading and control functions. The committee is chaired by the Senior Trader and other members include representatives from trading, GRM, Group Valuation and Risk Control, and Group Development and Finance. Any disagreement is escalated to the PFC;
- created in 2010, the Valuation Methodology Committee (VMC) meets 2 to 3 times a year per business lines to monitor model approvals and reviews, follow up relevant recommendations and present model governance improvements.



Risk monitoring set up and limit setting

The Group uses an integrated system called Market Risk eXplorer (MRX) to follow the trading positions on a daily basis and manage VaR calculations. MRX not only tracks the VaR, but also detailed positions and sensitivities to market parameters based on various simultaneous criteria (currency, product, counterparty, etc.). MRX is also configured to include trading limits, reserves and stress tests.

Risk-IM's responsibility in terms of market risk management is to define, monitor and analyse risk sensitivities and risk factors, and to measure and control Value at Risk (VaR), which is the global indicator of potential losses. Risk-IM ensures that all business activity complies with the limits approved by the various committees and approves new activities and major transactions, reviews and approves position valuation models and conducts a monthly review of market parameters (MAP review) in association with Group Product Control (GPC).

Responsibility for limit setting and monitoring is delegated at three levels, which are, in order, CMRC, Business Line and Activity (Head of a trading book). Limits may be changed either temporarily or permanently, in accordance with the level of delegation and the prevailing procedures.

Core Risk Analysis and Reporting to Executive Management

Risk-Investment and Markets reports, through various risk analysis and reports, to Executive Management and business lines Senior Management on its risk analysis work (limit, VaR monitoring, core risk analysis...). The Global Risk Analysis and Reporting team is responsible for generating/circulating main global risk reports.

The following risk reports are generated on a regular basis:

- weekly "Main Position" reports for each business line (equity derivatives, commodities, credit, fixed income and currency derivatives), summarising all positions and highlighting items needing particular attention; these reports are mainly intended for business line managers;
- bi-monthly "Over €50m at Risk" reports sent to Executive Management;
- CMRC Supporting documents (CMRC Event Summaries, Global Counterparty Exposure Summary, GEaR and Stress Results summary, Back testing summary,...), prepared as an obligor during CMRC meetings;
- "Position Highlights" reports focusing on specific issues; and
- geographical dashboards (e.g. "Monthly UK Risk Dashboard");
- the "Global risk dashboard" circulated to CIB and GRM managers to ensure coordinated efforts in risk management and help decisions in light of recent market developments and changes in counterparties' circumstances.

VALUATION CONTROL

The financial instruments that are part of the prudential Trading Book are valued and reported at Fair Value through P/L, in compliance with applicable accounting standards. However, there exist also products in Banking Book that are also reported at Fair Value.

The valuation control has been strengthened since 2007 thanks to the release of the Charter of Responsibility on Valuation, defining how responsibilities are split as well as the creation of a dedicated Valuation and Risk Control team Group Product Control who shares the control of market parameters with Risk-IM. These policies and governance applies to all CIB Market Activities, namely Fixed-Income, GECD, RPM and is being extended to ALM Treasury.

In addition to the Charter of Responsibilities, the relevant valuation controls are detailed in specific policies. We detail below the main processes that form together the valuation control governance.

Transaction accounting control

This control is under the responsibility of Middle-Office within the Operations department. However, certain complex transactions are controlled by Risk-IM.



Market Parameter review - Independent Price Verification.

This task is managed and shared by Risk-IM department and Valuation and Risk Control department (V&RC). A comprehensive and formal review of all the market parameters is performed at month end. Some daily controls are performed on the most liquid parameters. The types of parameters controlled by V&RC are precisely listed. These are essentially the parameters for which an automatic control against external sources can be implemented, in particular security prices and the vanilla parameters. This may include the use of consensus price services. Risk-IM is in charge of controlling valuation methodologies as well as the most complex parameters that are very dependent on the choice of models. Risk-IM continues to control any parameters for which the control has not been formally transferred to V&RC.

The outcome of the Market parameter review is the estimation of valuation adjustments communicated to Middle-Office who enters it in the book of account. The results are communicated to the Trading management during the Valuation review Committees, where final arbitrages can be made. The opinion of the control functions prevails, however, disagreement can be escalated to the PFC.

The general principles of the Market parameter reviews are described in the Charter of responsibility on Valuation as well as specialised global policies such as the Global marking and IPV Policy and the MAP review principles. The specific Market parameter review methodologies are described in documents known as the MAP Books organised by product lines and regularly updated. The responsibilities of Risk-IM and V&RC are defined for each point of time. The conclusions of the Market Parameter reviews are documented in the MAP review finding documents.

Model Approval and Reviews

The governance of model controls is described in the Valuation Methodology Control Policy. Activity specific guidelines are detailed in the Model review guidelines documents for each product lines.

Front-Office quantitative analysts propose and design the methodologies used to value the product and measure the risks that are used to take trading decisions. Research team and IT are responsible for the implementation of these models in the systems.

The independent control of the valuation models is under the responsibility of Risk IM. The main processes are:

- the approval of models, by which a formal decision to approve or reject a model is taken following any modification of the valuation methodology called a "Valuation Model Event". In any cases, the approval decisions is taken by a senior Risk-IM analyst. The review required by the approval decision can be fast track or comprehensive. In the latter case, the reasons and conditions of approval are detailed in a Model Approval document. If the approval requires a public discussion, given the number of teams impacted by the decision, a Model Approval Committee can be gathered;
- the review of models can be conducted at inception (linked to an approval) or during the life of a model (re-review). The review is an investigation on the suitability of a model used to value certain products in the context of a certain market environment;
- the control of the use of set up of models, which is a continuous control of the correct parameterisation or configuration of the models as well as the adequacy of the mapping between products and models.

Reserve and other valuation adjustments

Risk-IM defines and calculates reserves. On an accounting point of view, reserves are part of the fair value adjustments. They take into account the exit cost of a position (cost to sell or to hedge) as well as a risk premium that market participant would charge for positions containing non hedgeable or non diversifiable risks.

The reserves cover mainly:

- the bid-offer and liquidity spreads;
- the model or market parameters uncertainties;
- the elimination of non hedgeable risks (smoothing digital or barrier pay-offs).

All reserves compatible with the regulatory concept of prudent valuation. Some reserves may however not be compliant with accounting principles, such that the penalisation of concentrated positions. In this case, the reserves are not shown in the accounting valuation of the relevant positions and instruments.



A general Valuation adjustment policy exists. Reserve methodologies are documented by Risk-IM for each product lines and these documentations are updated regularly. The analysis of reserve variations is reported at the monthly VRC.

Reserve methodologies are improved regularly and any change is a Valuation Model event. Reserve improvements are generally motivated by the conclusion of a model review or by the calibration to market information during the Market parameter review process.

“Day One profit and loss”

Some transactions are valued with “non observable” parameters. IAS 39 require to differ any initial P/L for non observable transactions as the initial Fair value need to be calibrated with the transaction price.

Risk IM works with Group Development and Finance, middle-offices, and business lines on the process of identifying and handling these profit and loss items, and notably:

- determine whether a type of parameter or transaction is observable or not and document the observability rules;
- check that a given transaction is observable or not in accordance with the observability rules, when the automatic screening is not possible or need to be validated.

The P/L impact of the P/L deferral is calculated by the Middle-Office.

Observability rules are also used for the IFRS 7 reporting of the fair value reporting (Fair value products have to be allocated to one of the 3 levels).

MARKET RISK EXPOSURE

Market risk is first analysed by systematically measuring portfolio sensitivity to various market parameters; The results of these sensitivity analyses are compiled at various aggregate position levels and compared with market limits.

VaR (« Value at Risk »)

VaR is calculated using an internal model. It estimates the potential loss on a trading portfolio under normal market conditions over one trading day, based on changes in the market over the previous 260 business days with a confidence level of 99%. The model has been approved by the banking supervisor and takes into account of all usual risk factors (interest rates, credit spreads, exchange rates, equity prices, commodities prices, and associated volatilities), as well as the correlation between these factors in order to include the effects of diversification. It also takes into account of specific credit risk.

The algorithms, methodologies and sets of indicators are reviewed and improved regularly to take into account of growing market complexity and product sophistication.

In December 2010, BNP Paribas Fortis has submitted a request for perimeter extension of the BNP Paribas Internal model to the Fortis Bank SA/NV legal entity to the French (Autorité de Contrôle Prudentiel – Home) and Belgian (Banque Nationale de Belgique - Host) regulators.

The ACP has validated the perimeter extension. The market risk regulatory capital charge on the BNP Paribas Fortis trading portfolio is based since the 1st of July 2011 on the VaR figure computed with BNP Paribas Internal Model.

The VaR Internal Model for BNL has been validated.

Historical VaR (10 days, 99%) in 2011

The Values at Risk (VaRs) set out below are calculated from an internal model, which uses parameters that comply with the method recommended by the Basel Committee for determining estimated value at risk (“Supplement to the Capital Accord to Incorporate Market Risks”). They are based on a ten-day time horizon and a 99% confidence interval.



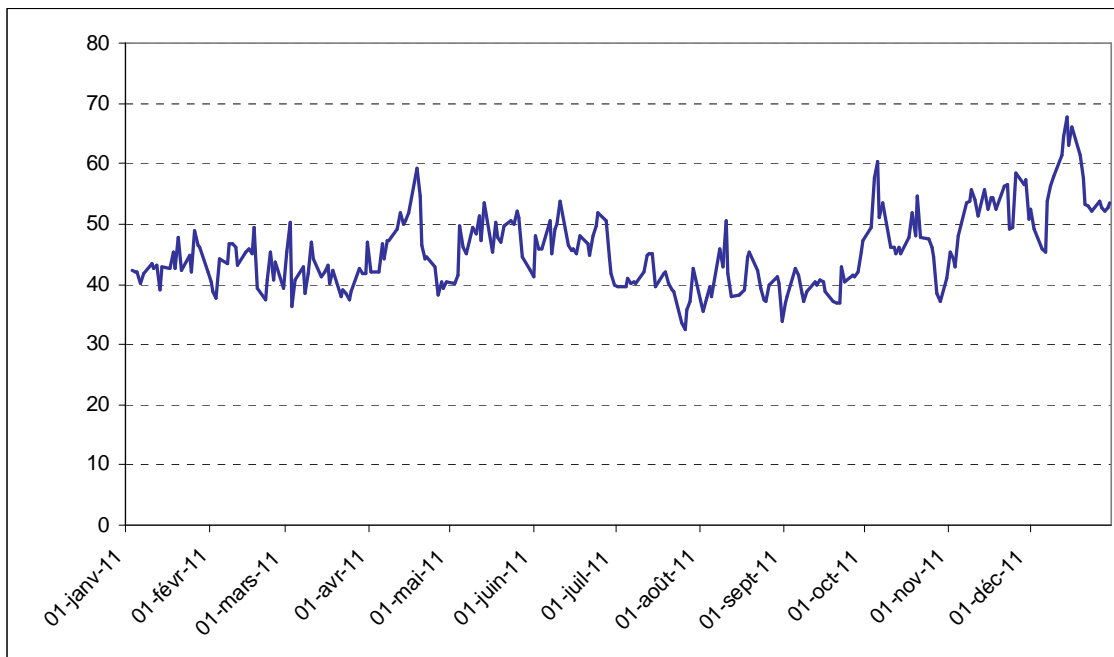
In 2011, total average VaR for the BNP Paribas scope excluding Fortis is EUR 144 million (with a minimum of EUR 103 million and a maximum of EUR 214 million), after taking into account the EUR -178 million netting effect between the different types of risks. These amounts break down as follows:

VALUE AT RISK (10 DAYS - 99%): BREAKDOWN BY RISK TYPE

In millions of euros	Year to 31 Dec. 2011			31 December 2011	Year to 31 Dec. 2010	31 December 2010
	Minimum	Average	Maximum		Average	
Interest rate risk	69	101	166	81	84	109
Credit risk	82	118	166	121	115	118
Foreign exchange risk ⁽¹⁾	14	33	74	44	31	22
Equity price risk	29	51	110	58	74	53
Commodity price risk	11	19	35	13	13	13
Netting Effect	(102)	(178)	(336)	(148)	(173)	(174)
Total Value at Risk	103	144	214	169	144	141

(1) The VaR for foreign exchange risk is outside the scope of Pillar I.

CHANGE IN VAR (1 DAY-99%) IN MILLIONS OF EUROS IN 2011



GRM continuously tests the accuracy of its internal model through a variety of techniques, including a regular comparison over a long-term horizon between actual daily losses on capital market transactions and 1-day VaR.

A 99% confidence level means that in theory the Bank should not incur daily losses in excess of VaR more than two or three days a year.

In 2011, daily losses never exceeded the VaR.



MARKET RISK RELATED TO BANKING ACTIVITIES

The market risk related to banking activities encompasses the risk of loss on equity holdings on the one hand, and the interest rate and foreign exchange risks stemming from banking intermediation activities on the other hand. Only the equity and foreign exchange risks give rise to a weighted assets calculation under Pillar 1. The interest rate risk falls under Pillar 2.

Interest rate and foreign exchange risks related to banking intermediation activities and investments mainly concern retail banking activities in domestic markets (France, Italy, Belgium and Luxemburg), the specialised financing and savings management subsidiaries, the CIB financing businesses, and investments made by the Group. These risks are managed by the ALM-Treasury Department.

At Group level, ALM-Treasury reports directly to one of the Chief Operating Officers. Group ALM-Treasury has functional authority over the ALM and Treasury staff of each subsidiary. Strategic decisions are made by the Asset and Liability Committee (ALCO), which oversees ALM-Treasury's activities. These committees have been set up at Group, division and operating entity level.

EQUITY RISK

Scope

The shares held by the Group outside trading portfolios are securities conferring residual and subordinated rights on issuer's assets or income, or securities representing a similar economic nature.

They encompass:

- Listed and unlisted shares, including shares in investment funds
- Embedded options of convertible bonds, redeemable or exchangeable for shares
- Equity options
- Super-Subordinated securities
- Private Funds commitments
- Equity holdings hedge
- Consolidated entities using the equity method

Equity Risk Model

On the historical perimeter of BNP Paribas, the Group uses an internal model, derived from the one used for the calculation of daily Value-at-Risk of trading portfolios. However, the application of horizon parameters and confidence interval differ in accordance with Article 59.1-c section ii of the decree on February 20 2007 of the French Ministry of Economy, Finance and Industry. This model allows the estimation on this perimeter the value at risk of the group at a 99% confidence level on a 3 months horizon.

Risk factors selected for estimating equity holdings risk depend on the level of availability and usability of securities prices data:

- Listed securities whose historical prices series are long enough are directly selected as risk factors.
- For other listed securities and for unlisted securities, each investment line is attached to a systemic risk factor representative of the business sector and geographic zone where the issuer operates, as well as an idiosyncaric risk.
- For equity holdings of companies operating outside the Euro zone, a risk factor corresponding to the exchange rate is added.

This model was validated by the French banking supervisory authorities in the context of approval for the calculation of capital requirements for equity risk.

Temporarily, with the pending method convergence, the approach used for BNP Paribas Fortis's scope and BGL BNP Paribas is the one approved by the Belgian regulator, the BNB.



Accounting principles and valuation methods

Accounting principles and valuation methods are set out in note 1 of the financial consolidated statement – Summary of significant accounting policies applied by the BNP Paribas Group - 1.c.9 Determination of market value.

EXPOSURE^(*) TO EQUITY RISK

In millions of euros	31 December 2011	31 December 2010
Internal model method	11 198	13 797
Listed equities	3 111	4 529
Other equity exposures	5 343	5 994
Private equity in diversified portfolios	2 744	3 274
Simple risk weight method	622	658
Listed equities	5	5
Other equity exposures	34	82
Private equity in diversified portfolios	584	571
Standardised approach	895	1 427
Total	12 715	15 883

(*) Fair Value (on and off-balance sheet).

Total gains and losses

Total gains and losses are set out in note 5.c. of the financial consolidated statement – Available-for-sale financial assets.

FOREIGN EXCHANGE RISK

Calculation of risk-weighted assets

Foreign exchange risk relates to all transactions whether part of the trading book or not.

Group entities calculate their net position in each currency, including the euro. The net position is equal to the sum of all asset items less all liability items plus off-balance sheet items (including the net forward currency position and the net delta-based equivalent of the currency option book), less structural, non-current assets (long-term equity interests, property, plant and equipment, and intangible assets). These positions are converted into euros at the exchange rate prevailing on the reporting date and aggregated to give the Group's overall net open position in each currency. The net position in a given currency is long when assets exceed liabilities and short when liabilities exceed assets. For each Group entity, the net currency position is balanced in the relevant currency (*i.e.* its reporting currency) such that the sum of long positions equals the sum of short positions.

The rules for calculating the capital requirement for foreign exchange risk are as follows:

- matched positions in currencies of Member States participating in the European Monetary System are subject to a capital requirement of 1.6% of the value of the matched positions;
- CFA and CFP francs are matched with the euro, and are not subject to a capital requirement;
- positions in closely correlated currencies are subject to a capital requirement of 4% of the matched amount;
- other positions, including the balance of unmatched positions in the currencies mentioned above, are subject to a capital requirement of 8% of their amount.

Foreign exchange risk and hedging of earnings generated in foreign currencies

The Group's exposure to operational foreign exchange risks stems from the net earnings in currencies other than the euro. The Group's policy is to systematically hedge the variability of its earnings due to currency movements. Earnings generated locally in a currency other than the operation's functional currency are hedged locally. Net earnings generated by foreign subsidiaries and branches and positions relating to portfolio impairment are managed centrally.



Foreign exchange risk and hedging of net investments in foreign operations

The Group's currency position on investments in foreign operations arises mainly on branch capital allocations and equity interests denominated in foreign currencies, financed by purchasing the currency in question.

The Group's policy consists in hedging portfolio exposure to liquid currencies. This policy is implemented by borrowing amounts in the same currency as the one of equity investments. Such borrowings are documented as hedges of net investments in foreign operations.

INTEREST-RATE RISK

Organization of the Group interest risk management

Interest rate risk management framework Interest rate risk on the commercial transactions of the domestic retail banking (France, Italy, Belgium and Luxemburg) and international retail banking, the specialised financing subsidiaries, and the savings management business lines in the Investment Solutions and CIB's Corporate Banking divisions are managed centrally by ALM-Treasury through the client intermediation book. Interest rate risk on the Bank's equity and investments is also managed by ALM-Treasury, in the equity intermediation and investments book.

Transactions initiated by each BNP Paribas business line are transferred to ALM-Treasury via internal contracts booked in the management accounts or via loans and borrowings. ALM-Treasury is responsible for managing the interest rate risk inherent in these transactions.

The main decisions concerning positions arising from banking intermediation activities are taken at monthly or quarterly Committee meetings for each business line. These meetings are attended by the management of the business line, ALM-Treasury, Group Development and Finance and GRM.

Measurement of interest rate risk

Banking book interest rate gaps are measured, with embedded behavioural options translated into delta equivalents. Maturities of outstanding assets are determined based on the contractual characteristics of the transactions and historical customer behaviour. For retail banking products, behavioural models are based on historical data and econometric studies. The models deal with early repayments, current accounts in credit and debit and savings accounts. Theoretical maturities of equity capital are determined according to internal assumptions.

In the case of retail banking activities, structural interest rate risk is also measured on a going-concern basis, incorporating dynamic changes in balance sheet items, through an earnings sensitivity indicator. Due to the existence of partial or even zero correlations between customer interest rates and market rates, and the volume sensitivity caused by behavioural options, rotation of balance sheet items generates a structural sensitivity of revenues to interest rate changes. Lastly, for products with underlying behavioural options, a specific option risk indicator is analysed in order to fine-tune hedging strategies.

The choice of indicators and risk modelling, as well as the production of indicators, are controlled by independent Product Control teams and by dedicated Group Risk Management teams. The results of these controls are presented regularly to ad-hoc committees and once a year to the Board of Directors.

These indicators are systematically presented to the ALM Committees, and serve as the basis for hedging decisions taking into account the nature of the risk involved.

Risk limits

For the customer banking intermediation books, overall interest rate risk for Retail Banking entities is subject to a primary limit, based on the sensitivity of revenues to changes in nominal and real interest rates and in the inflation rate over at least a three-year timeframe. The limit is based on annual revenues, in order to control uncertainty about future fluctuations in revenues caused by changes in interest rates. This limit is supplemented beyond the three-year timeframe by an interest rate gap limit, expressed as a percentage of customer deposits. This percentage is a declining function of the management period. This limit is used to manage long-term interest rate risk.

The specialised financing subsidiaries are exposed to very low levels of interest rate risk, considering the centralisation of risks at ALM-Treasury level. The residual risk is controlled by technical interest rate gap limits that are monitored by the ALM Committee of the relevant business line.



Sensitivity of revenues to general interest-rate risk

The sensitivity of revenues to a change in interest rates is one of the key indicators used by the Group in its analysis of overall interest-rate risk, both at local and at Group level. The sensitivity of revenues is calculated across the entire banking book including the customer banking intermediation businesses, equity, excluding market activities, and for all currencies to which the Group is exposed. It relies on reasonable activity assumptions at one year horizon.

The indicator is presented in the table below. Over this one-year horizon, the banking intermediation book's exposure to interest-rate risk is limited: an increase of 100 basis points in interest rates right across the yield curve would lead to a increase of about 0.8% in the Group's revenues, all currencies combined.

SENSITIVITY OF REVENUES TO GENERAL INTEREST-RATE RISK BASED ON A 100 BASIS POINT INCREASE IN INTEREST RATES

In millions of euro	31 December 2011		
	Euros	Other currencies	Total
Sensitivity of 2011 revenues	224	119	343

In millions of euro	31 December 2010		
	Euros	Other currencies	Total
Sensitivity of 2010 revenues	(44)	5	(39)

Since the books of financial instruments resulting from the Group's banking intermediation activities are not intended to be sold, they are not managed on the basis of their value. Nonetheless, the sensitivity of the value of these books is calculated in order to measure the overall interest-rate risk over all time horizons. The sensitivity of the value to a 200 basis point increase in interest rates is below 1% of the Group's regulatory capital, compared with the limit of 20% laid down in the Basel regulations.

HEDGING OF INTEREST RATE AND FOREIGN EXCHANGE RISKS

Hedging relationships initiated by the Group mainly consist of interest rate or currency hedges using derivative financial instruments (swaps, options and forwards).

Depending on the hedging objective, derivative financial instruments used for hedging purposes are qualified as either fair value hedges, cash flow hedges, or hedges of net investments in foreign operations. Each hedging relationship is formally documented at inception. The documentation describes the hedging strategy; identifies the hedged item and the hedging instrument, and the nature of the hedged risk; and describes the methodology used to test the expected (prospective) and actual (retrospective) effectiveness of the hedge.

Interest rate risk in the banking book

The Bank's strategy for managing global interest rate risk is based on closely monitoring the sensitivity of the Bank's earnings to changes in interest rates. This allows achieving an optimum level of offset between different risks. This procedure requires an extremely accurate assessment of the risks incurred so that the Bank can determine the most appropriate hedging strategy, after taking into account the effects of netting the different types of risk. These hedging strategies are defined and implemented by business line and for each portfolio and currency.

During 2011, there were two distinct phases in euro zone market conditions. In the first quarter, the European Central Bank raised interest rates twice, causing the euro yield curve to rise. Then after the summer, as the sovereign debt crisis spread more widely, liquidity and credit spreads widened sharply and there was a marked decline in long rates.

During 2011, the balance between loan production and inflows of fixed-rate deposits and those showing little correlation with market rates differed fairly significantly from one euro zone domestic market to another:

- in France, loan origination remained buoyant, particularly in the mortgage segment. Meanwhile, the aim to improve the loan-to-deposit ratio led to strong growth in deposit inflows in 2011. Given the interest rate structure of retail loans on the one hand and financing for subsidiaries specialised in loans to consumers and businesses on the other, the overall interest rate position generated by retail banking activities in France gave rise to a net hedging requirement for fixed-rate loans;
- in Italy, commercial activity did not generate any significant shift in the interest-rate position, even though actions were taken to boost the proportion of fixed-rate lending;



- in Belgium and Luxembourg, after two years of strong deposit growth in order to regain market share, deposit inflows returned to a more normal level and, given the fall in long rates, a higher proportion of new loans were made at fixed rates. Consequently, the overall interest rate position generated by Belux retail banking activities did not change significantly.

There was also a marked reduction in the Group's exposure to sovereign risk in 2011. However, these divestments had no impact on the banking book's overall interest-rate position as the position was systematically adjusted using fixed-income derivatives. In Belgium, the impact of divestments on the overall interest-rate position was not entirely offset.

Against this backdrop, the hedging strategies implemented in 2011 varied from one domestic market to another. In France, derivative-based strategies (in the form of swaps) were supplemented option-based hedges of intermediation margin contraction risks.

The hedges comprising derivatives and options are typically accounted for as fair value hedges or cash flow hedges. They may also take the form of government securities and are mostly accounted in the "Available For Sale" category.

Structural foreign exchange risk

Currency hedges are contracted by the ALM department in respect of the Group's investments in foreign currencies and its future foreign currency revenues. Each hedging relationship is formally documented at inception. The documentation describes the hedging strategy, identifies the hedged item and the hedging instrument, and the nature of the hedged risk and describes the methodology used to test the expected (prospective) and actual (retrospective) effectiveness of the hedge.

A hedging relationship is applied and documented for investments in subsidiaries and branches financed by foreign currency loans so as to record movements in exchange rates symmetrically and avoid impacts on the profit and loss account. These instruments are designated as net investment hedges.

Fair value hedges are used to hedge the currency risk on equity investments in non-consolidated companies. During 2011, no Net Investment Hedges relationship was disqualified.

The Group hedges the variability of components of BNP Paribas' earnings, in particular the highly-probable future revenue streams (mainly interest income and fees) denominated in currencies other than the euro generated by the Group's main businesses, subsidiaries or branches.

Hedging of financial instruments recognised in the balance sheet (fair value hedges)

Fair value hedges of interest rate risks relate either to identified fixed-rate assets or liabilities, or to portfolios of fixed-rate assets or liabilities. Derivatives are contracted to reduce the exposure of the fair value of these instruments to changes in interest rates.

Identified assets consist mainly of available-for-sale securities; identified liabilities consist mainly of debt issued by the Group.

Hedges of portfolios of financial assets and liabilities, constructed by currency, relate to:

- fixed-rate loans (property loans, equipment loans, consumer credit and export loans);
- fixed-rate customer deposits (demand deposits, funds deposited under home savings contracts).

To identify the hedged amount, the residual balance of the hedged item is split into maturity bands, and a separate amount is designated for each band. The maturity split is determined on the basis of the contractual terms of the transactions and historical observations of customer behaviour (prepayment assumptions and estimated default rates).

Demand deposits, which do not bear interest at contractual rates, are qualified as fixed-rate medium-term financial liabilities. Consequently, the value of these liabilities is sensitive to changes in interest rates. Estimates of future cash outflows are based on historical analyses. No allowance is made prospectively for the effects of potential increases in customer wealth or for the effects of inflation.

For each hedging relationship, expected hedge effectiveness is measured by ensuring that for each maturity band, the fair value of the hedged items is greater than the fair value of the designated hedging instruments.

Actual effectiveness is assessed on an ex-post basis by ensuring that the monthly change in the fair value of hedged items since the start of the month does not indicate any over-hedging.



Cash Flow Hedge

In terms of interest rate risk, the Group uses derivative instruments to hedge fluctuations in income and expenses arising on floating-rate assets and liabilities. Highly probable forecast transactions are also hedged. Hedged items are split into maturity bands by currency and benchmark interest rate. After factoring in prepayment assumptions and estimated default rates, the Group uses derivatives to hedge some or all of the risk exposure generated by these floating-rate instruments.

In terms of foreign exchange risk, the Group hedges against variability in components of consolidated earnings. In particular, the Group may hedge future revenue flows (especially interest and fee/commission income) derived from operations carried out by its main subsidiaries and/or branches in a currency other than their functional currencies. As in the case of interest rate hedges, the effectiveness of these hedging relationships is documented and assessed on the basis of forecast maturity bands.

The table below concerns the scope of BNP Paribas SA's medium- and long-term transactions and shows the amount of hedged future cash flows (split by forecast date of realisation), which constitute the majority of the Group's transactions.

CASH FLOWS HEDGED

In millions of euros	31 December 2011				31 December 2010			
	Less than 1 year	1 to 5 year	More than 5 years	Total	Less than 1 year	1 to 5 year	More than 5 years	Total
Hedged cash flows	746	1 796	1 132	3 674	186	556	607	1 350

In the year ended 31 December 2011, several hedges of future income representing a non-material impact on profit and loss were requalified as ineligible for hedge accounting on the grounds that the related future event would be no longer highly probable (see note 2.c).



5.9. Liquidity and refinancing risk

Liquidity and refinancing risk is the risk of the Group being unable to fulfil current or future foreseen or unforeseen cash or collateral requirements without affecting routine transactions or its financial position. This risk may arise as a result of total or partial lack of liquidity in certain assets or to the disappearance of certain funding sources. It may be related to the bank itself (reputation risk) or to external factors (crisis in certain markets).

Liquidity and refinancing risk is managed through a global liquidity policy approved by Group Executive Management. This policy is based on management principles designed to apply both in normal conditions and in a liquidity crisis. The Group's liquidity position is assessed on the basis of internal standards, warning flags and regulatory ratios.

LIQUIDITY RISK MANAGEMENT POLICY

Policy objectives

The objectives of the Group's liquidity management policy are to (i) secure a balanced financing mix for the Group's activities; (ii) ensure that the Group is always in a position to discharge its obligations to its customers; (iii) ensure that it does not trigger a systemic crisis solely by its own actions; (iv) comply with the standards set by the local banking supervisor; (v) cope with any liquidity crises; and (vi) control its cost of refinancing.

Roles and responsibilities in liquidity risk management

The Internal Control, Risk and Compliance Committee reports quarterly to the Board of Directors on liquidity policy principles and the Group's position.

The Group's Executive Committee sets the general liquidity risk management policy, including risk measurement principles, acceptable risk levels and internal liquidity billing rules. Responsibility for monitoring and implementation has been delegated to the Group ALM Committee. Dashboard reports are sent to the Group's Executive Committee monthly, weekly or daily depending on the market environment (monthly, weekly, or daily).

Group ALM Committee authorizes implementation of the liquidity policy proposed by ALM Treasury, which relies on the principles set by the Executive Committee. The Executive Committee is notably informed on a regular basis of liquidity risk indicators, stress tests, and the execution of funding program. It is also informed of any crisis situation, and is responsible for deciding on the allocation of crisis management roles and approving emergency plans.

After validation by Group ALM Committee, ALM-Treasury is responsible for implementing the policy throughout the Group.

The business line and entity ALM Committees implement at local level the strategy approved by Group ALM Committee.

Group Risk Management (GRM) contributes to defining liquidity policy principles. It also provides second-line control by validating the models, risk indicators (including liquidity stress tests), limits and market parameters used. GRM take part of Group ALM Committee and the local ALM Committees.

Centralised liquidity risk management

ALM-Treasury is responsible for managing liquidity for the entire Group across all maturities. In particular, it is responsible for refinancing and short-term issues (certificates of deposit, commercial paper, etc.), while the ALM unit is responsible for senior and subordinated debt issues (MTNs, bonds, medium/long-term deposits, covered bonds, etc), preferred share issues, and loan securitisation programmes for the retail banking business and the financing business lines within Corporate and Investment Banking. ALM-Treasury is tasked with providing internal financing to the Group's core businesses, operational entities and business lines, and investing their surplus cash. It is also responsible for building up and managing liquidity reserves, which comprise assets that can be easily liquidated in the event of a liquidity squeeze.

LIQUIDITY RISK MANAGEMENT AND SUPERVISION

Liquidity risk management and supervision is predicated on the following four factors:

- internal standards and indicators at various maturities;



- regulatory ratios;
- available refinancing capacity;
- other measures supplementing these indicators.

Internal liquidity management is based on a full range of standards and indicators at various maturities : thus the Group's consolidated liquidity position is measured regularly, by currency and on various maturities, at both Group and entity level.

An overnight target is set for each Treasury unit, limiting the amount raised on interbank overnight markets. This applies to the major currencies in which the Group operates.

Liquidity stress tests are performed, regularly on short maturities, based on market factors and/or factors specific to BNP Paribas that would adversely affect its liquidity position.

Medium and long term liquidity management is mainly based on the medium and long term liabilities vs. assets mismatch analysis. At a one year horizon, the liabilities/assets ratio has to be greater than 80%, with a target of not less than 85%. It is also monitored on the 2 to 5 years maturities. This ratio is based on the liquidity schedules of the balance sheet and off-balance sheet items for all Group entities, under assumptions concerning clients behaviour (anticipated pre-payments on loans, modelling customer behaviour for regulated savings accounts) or under a number of conventions.

In addition, regulatory ratios complete the liquidity risk management framework. These include the 1-month liquidity ratio, which is calculated monthly for the parent company BNP Paribas SA (French operations and branches) and separately by each subsidiary concerned by the regulations. Foreign subsidiaries and branches may be required to comply with local regulatory indicators.

The availability of sufficient liquidity reserves to cope with an unexpected surge in liquidity needs is regularly measured at Group and business lines level. These reserves mainly comprise available securities and loans eligible for central bank refinancing, deposits with central banks, available ineligible securities that can be sold under repurchase agreements or immediately on the market, and overnight loans not bound to be renewed.

These arrangements are supplemented by additional measures: diversification of BNP Paribas' sources of short-term funds on a worldwide basis (by counterparty, business sector, refinancing market, country and currency), renewal of market-based funding, volume of collateralisable assets for medium and long-term issues, external pricing policy (trends in prices paid) and internal re-invoicing.

RISK EXPOSURE IN 2011

Consolidated balance sheet evolution

The Group had total assets of EUR 1965 billion at 31 December 2011, a decrease of EUR -33 billion compared with end-December 2010, due to the general asset optimisation plan undertaken by the Bank in early 2011 to reduce its balance sheet.

Excluding the fair value of derivatives¹, the balance sheet was reduced by EUR -141 billion over the year. On the assets side, this stemmed mainly from a EUR -123 billion contraction in trading book securities and repos. On the liabilities side, trading book securities and repos contracted by EUR -53 billion. The remainder stemmed principally from the adjustment of financing needs to the balance sheet size.

Cash balance sheet evolutions

Net assets to be refinanced² amounted to EUR 965 billion, a decrease of EUR -132 billion compared with 31 December 2010. Funding needs generated by commercial customer assets, net trading book assets and tangible and intangible assets, accounted for EUR 746 billion euros, and are widely covered by the stable resources (equity, commercial customer deposits and market financing over one year), since the stable resources excess is 24 billion euros.

Internal medium and long-term liquidity ratios

Over one year liabilities/assets ratio for the same maturity was 88% at the end of December 2011 for the consolidated BNP Paribas Group, versus 86% at end-December 2010.

¹ Including hedging derivatives.

² Excluding Insurance and Klépierre.

**Regulatory liquidity ratios**

The average 1-month regulatory liquidity ratio for BNP Paribas SA (parent company and branches) was 150% in 2011 compared with a minimum requirement of 100%.

RISK MITIGATION TECHNIQUES

The main liquidity risk mitigation techniques are building up a liquidity reserve, diversifying funding sources and extending financing maturities.

The Bank's treasury position is adjusted by managing the liquidity reserve, which comprises deposits with central banks and highly liquid assets. One way to strengthen the liquidity reserve is to transform less liquid assets into liquid assets by securitising pools of loans.

Funding sources are diversified through the various distribution networks, entities, currencies and collateralised or non-collateralised financing programmes.

The financing structure can also be improved by extending the maturity of and seeking more stable funding sources.

Given market environment in 2011, the Group also took measures to adapt its solvency, liquidity and balance sheet model. A general asset optimisation plan aimed at reducing the balance sheet sheet was defined and implemented. The main thrust of the plan involved refocusing the business lines on their core activities as well as a specific action plan at CIB for US dollar liquidity. Its realization is spread out over the second six-month period 2011 and the year 2012.

Funding raised by the Group in the markets with an initial maturity of over 1 year came to EUR 47.4 billion in 2011 (EUR 36.5 billion in 2010), with an average maturity of 6 years and including 32% in USD³.

The amount of these issues placed through the branch networks came to EUR 8.6 billion and private placements to EUR 9.9 billion.

Proprietary securitisations

(See the section on Proprietary securitisation in part 5.5).

³ Included the other-currency denominated issues swapped in USD.

5.10. Operational risk

RISK REDUCTION AND HEDGING POLICY

RISK MANAGEMENT FRAMEWORK

Regulatory framework

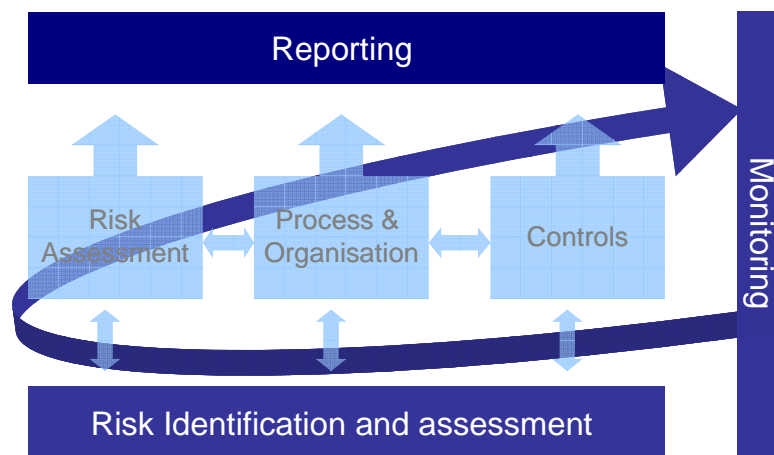
Operational risk management is governed by a strict regulatory framework:

- Basel committee regulation, which requires the allocation of capital to operational risk;
- Regulation CRBF 97-02 as amended, which requires implementation of a risk management system covering all types of risk and an internal control system that ensures the effectiveness and quality of the Bank's internal operations, the reliability of internal and external information, the security of transactions and compliance with all laws, regulations and internal policies.

Objectives and principles

To meet this dual requirement of measuring and managing operational risk, BNP Paribas has developed a five-stage iterative risk management process:

- identifying and assessing operational risks;
- formulating, implementing and monitoring the risk mitigation system, including procedures, checks and all organisational elements designed to help to control risk, such as segregation of tasks, management of clearance rights, etc.;
- producing risk measures and calculating the capital charge for operational risk;
- reporting and analysing oversight information relating to the permanent operational control process;
- managing the system through a governance framework that involves members of management, preparing and monitoring action plans.



There are two key components to the system, which are structuring in scope and illustrate the complementary nature of the Group's operational risk and permanent control systems:

- calculating capital requirements for the BNP Paribas scope excluding Fortis is based on a hybrid approach that combines an internal model for the majority of entities with the standardised or basic approach for other entities depending on their level of maturity. Under the Advanced Measurement Approach (AMA), loss distributions are modelled and calibrated using two sets of data: historical event data since 2002 for the BNP Paribas Group and the major international banks, and internally constructed potential event scenarios to take better account of the extreme risks to which the Bank is exposed. This model was approved by the French banking supervisor (Autorité de Contrôle Prudentiel) in 2008;



- widespread use of control plans: BNP Paribas has rolled out a process of formulating “control plans”, which have three objectives: harmonising practices, rationalising the system and standardising controls. This practice will also cover the Group’s international operations and thereby support its structure enhancements. It is based on a risk mapping exercise carried out to identify and quantify potential risk scenarios, involving all the Group’s core businesses, retail operational entities, business lines and Group functions.

Key players and governance

The BNP Paribas Group’s objective is to implement a permanent control and operational risk management system organised around two types of participants:

- Heads of operational entities, who are on the front line of risk management and implementation of systems to manage these risks.
- Specialised teams, who are present at every level of the Group (core businesses, retail operational entities, functions, business lines) and coordinated centrally by the 2OPC team (Oversight of Operational Permanent Control), which is part of Group Compliance and a participant in the Group’s risk management process. These teams are, in particular, responsible for:
 - coordinating throughout the areas within their remit the definition and implementation of the permanent control and operational risk management system, its standards and methodologies, reporting and related tools;
 - acting as a second pair of eyes that is independent of the operational managers to scrutinise operational risk factors and the functioning of the operational risk and permanent control system, and issuing warnings, where appropriate.

More than 400 employees on a full-time equivalent basis are responsible for these supervisory activities.

Issues that arise in relation to permanent operational risk management and business continuity are discussed with the Group’s Executive Committee on a regular basis, and periodically with the Internal Control Coordination Committee. This committee is chaired by the Internal Control Coordinator and brings together key players in the internal control process. The Group’s core businesses, retail operational entities, business lines and functions tailor this governance structure to their own organisations, with the participation of Executive Management. Most other Group entities, particularly the major subsidiaries, have set up a similar structure.

Scope and nature of risk reporting and measurement

Group Executive Committees, core businesses, retail operational entities, business lines and functions are tasked with overseeing the management of operational and non-compliance risk and permanent control in the areas falling within their remit, in accordance with the Group’s operational risk framework. The committees validate the quality and consistency of reporting data, examine their risk profile in light of the tolerance levels set and assess the quality of risk control procedures in light of their objectives and the risks they incur. They monitor the implementation of risk mitigation measures.

Operational risk management has developed a system of data collection of actual or potential incidents using an approach structured by operational process and entity (activities in a country and a single legal entity) focusing on the cause-and-effect chain behind events. This information is used as the basis for risk mitigation and prevention measures.

The most significant information is brought to the attention of staff at various levels of the organisation, up to and including executive and decision-making bodies, in line with a predefined information reporting process.

MERGER OF BNP PARIBAS WITH THE BNP PARIBAS AND BGL BNP PARIBAS ENTITIES

The Fortis Group entities acquired by BNP Paribas have a very similar operational risk management system to that of BNP Paribas. BNP Paribas Fortis and BGL BNP Paribas were AMA approved before joining the BNP Paribas Group and have established a system that analyses historical incidents and forward-looking data. The BNP Paribas Group’s system should be extended to encompass BNP Paribas Fortis and BGL BNP Paribas in 2012.



COMPONENTS OF OPERATIONAL RISK RELATED TO LEGAL, TAX AND INFORMATION SECURITY RISKS

Legal risk

In each country where it operates, BNP Paribas is bound by specific local regulations applicable to companies engaged in banking, insurance and financial services. The Group is notably required to respect the integrity of the markets and the primacy of clients' interests.

For many years, the Legal Department has had an overarching internal control system designed to anticipate, detect, measure and manage legal risks. The system is organised around:

- specific committees:
 - the Executive Legal Affairs Committee,
 - the Global Legal Committee, which coordinates and supervises the activities of the legal function throughout the Group in all countries that have their own legal staff, and ensures that the Group's legal policies are consistent and applied in a uniform manner,
 - the Legislation Tracking Committee, which monitors draft legislation, and analyses, interprets and distributes throughout the Group the texts of new laws and regulations, as well as details of changes in French and European case law,
 - the Legal Internal Control Committee, whose focuses include overseeing operational risk,
 - the Litigation Committee, which deals with major litigation proceedings in which the Group is the plaintiff or defendant;
- the participation of the Director of Legal Affairs (or one of his/her representatives) as a standing member of the Internal Control, Risk and Compliance Committee;
- internal procedures and databases providing a framework for (i) managing legal risk, in collaboration with the Compliance Function for all matters which also fall under their responsibility, and (ii) overseeing the activities of the Group's legal staff and operating staff involved in legal areas. At the end of 2004, a procedures database detailing all internal procedures was set up on the Group intranet;
- legal reviews, which are carried out in Group entities to ensure that local systems for managing legal risks are appropriate, legal risks are properly managed and tools correctly used;
- internal reporting tools and analytical models, which are upgraded on an ongoing basis by Group Legal Department and contribute to the identification, assessment and analysis of operational risk.

In a difficult economic environment marked by increasing regulations and heavier regulatory requirements, the legal function must be able to take a global view and anticipate the impact of future regulations.

With this in mind, the new Group Legal Department has reorganised the legal function to give the various general or specialist committees more responsibility and ensure that they work more closely together. The various legal departments, particularly centrally, have been restructured to make their areas of involvement clearer. A stronger focus has also been placed on sharing strategic data. For example, the objectives and operating methods of the Legal Practice Groups (LPG) have been clarified, a Steering Center for European Law common to BNP Paribas and BNP Paribas Fortis has been created to encourage greater knowledge-sharing in this area and to provide a knowledge management tool, the Legal Portal has been developed for exchanging legal and organisational informations provided by the central and local legal teams in France and abroad.

In addition, further work was carried out on developing a broader legal outsourcing policy with a view to combining quality with cost control.

Tax risk

In each country where it operates, BNP Paribas is bound by specific local tax regulations applicable to companies engaged for example in banking, insurance or financial services.

The Group Tax Department is a global function, responsible for overseeing the consistency of the Group's tax affairs. It also shares responsibility for monitoring global tax risks with Group Development and Finance. The Group Tax Department performs controls to ensure that tax risks remain at an acceptable level and are consistent with the Group's reputation and profitability objectives.



To ensure its mission, the Group Tax Department has established:

- a network of dedicated tax specialists in 16 countries completed by tax correspondents covering other countries where the Group operates;
- a qualitative data reporting system in order to manage tax risks and assess compliance with local tax laws;
- regular reporting to Group Executive Management on the use made of delegations of authority and compliance with internal standards.

The Group Tax Department co-chairs the Tax Coordination Committee with Group Development and Finance. The committee also includes the Compliance Function and may involve the core businesses when appropriate. It is responsible for analysing key tax issues for the Group.

In addition, Group Development and Finance is obliged to consult the Group Tax Department on any tax issues arising on transactions processed.

Lastly, the Group Tax Department has drawn up procedures covering all core businesses, designed to ensure that tax risks are identified, addressed and controlled appropriately.

Information security

Information, and digital data in particular, is a key commodity for banks and effective management of information security risk is vital in an era of near full-scale migration to electronic media, growing demand for swift online processing of ever more sophisticated transactions, and widespread use of the internet or multiple networks as the primary interface between a bank and its individual or institutional customers.

Information security incidents experienced by the banking and credit/payment card industries, their cost and media disclosure in various countries requires the Group to continuously strengthen its ability to anticipate, prevent, protect, detect and react in order to counter the major threats and track regulations and case law on data protection.

The Group's information security policy is set out in a corpus of reference documents geared to its various needs, both functional and technical. These documents include the general security policy; more specific policies for various issues related to information systems security; ISO 27001 requirements; practical guides to security requirements; operational procedures and all documents intended to raise the awareness of employees and users of the Group's information systems.

The security framework is drilled down to each individual business line, taking account of any regulatory requirements, the security risk appetite of the business line in question and the specific threats it faces. Each business line uses the Group's standardised approach to managing information security (the primary methodology used is ISO 27005, supported by the French EBIOS risk analysis methodology), objective indicators, residual risk assessments and action plans. This approach is supported by information security control plans designed to assess its effectiveness (deployment and quality) with regard to all the Group's key assets and to measure the level of maturity of the various structure. It forms part of the permanent and periodic control framework set up for each banking activity pursuant to CRBF regulation 97-02 (amended in 2004) in France or similar regulations in other countries.

Each of BNP Paribas' business lines is exposed to some specific form of information security risk, with some risks common to all businesses. The Group's policy for managing these risks takes into consideration the specific nature of the business, often made more complex by legally and culturally-specific regulations in the different countries in which the Group does business.

The availability of information systems is vital to allow BNP Paribas to continue operating in a crisis or emergency. Although it is impossible to guarantee 100% availability, the Group maintains, improves and regularly verifies the information back-up capabilities and system robustness, in line with its values of operational excellence, in response to tighter regulations and extreme stress scenarios (natural disasters or other catastrophes, health pandemics, etc.). Its action in this area is consistent with the Group's general business continuity plan.

Confidentiality of customer data and transaction integrity are also areas covered by the Bank's continuous progress approach, not only to counter the threats described earlier but also to provide our customers with a service that meets their expectations.

BNP Paribas seeks to minimise information security risk and optimise resources by:

- updating the procedural framework for each business line governing day-to-day practices to take account of developments in business activities and new trends;



- raising employees' awareness of information security imperatives and training key players in the appropriate procedures and behaviours related to information system resources;
- rolling out and developing controls for BNP Paribas entities and external partners, and strengthening support actions;
- strengthening the security of IT developments, better measurement of responsiveness in terms of information security and preventing data leaks;
- monitoring incidents and developing intelligence of technological vulnerability and information systems attacks.

BNP Paribas takes a continuous progress approach to information security. Apart from investing heavily in protecting its information systems assets and information resources, the level of security must be supervised and controlled continuously. This enables the Bank to adjust swiftly to new threats caused by cyber crime. As a result of this continuous progress approach, the security model has been revised to ensure that it takes account of technological changes that have a strong impact on interactions between users (clients and employees) and their information systems. This requires Group-level investments in developing tools to scale up security processes, set up a security community and continue the major projects forming part of the Group's information security development plan.

APPROACH AND SCOPE

The Group Compliance department has outlined the Group's operational risk management approach, by delegation from the Risk Management Department. This approach uses an operational risk model scaled to be proportionate to the risk being incurred and aims to ensure that the vast majority of operational risks are covered.

The corresponding capital requirement is calculated for each legal entity in the BNP Paribas Group prudential scope. The amount of risk-weighted assets is calculated by multiplying the capital requirement by 12.5.

BNP Paribas uses a hybrid approach combining the Advanced Measurement Approach (AMA), standardised approach, and basic indicator approach.

For the Group in its pre-Fortis configuration, the AMA methodology has been deployed in the most significant entities of each Division or Retail Banking Operational entities. This includes most of Retail Banking in France and Italy, CIB, and Investment Solutions.

BNP Paribas Fortis and BGL BNP Paribas business lines are also due to use the Group's AMA model as of 2012. For other entities, an AMA transition plan has been set up for future years.

In the meantime, or for smaller entities, the standardised or even the basic approach is used.

ADVANCED MEASUREMENT APPROACH (AMA)

Under the Advanced Measurement Approach (AMA) for calculating capital requirements as deployed within the historical scope of BNP Paribas (before the acquisition of Fortis), the bank must develop an internal operational risk model based on internal loss data (historical and potential), external loss data, various scenarios analyses, environmental factors, and internal controls.

BNP Paribas' internal model meets the AMA criteria and includes the following features:

- the model uses an aggregate annual loss distribution, meaning that the frequency and severity of losses from operational risks are modelled using an actuarial approach and according to distributions calibrated with available data;
- it uses historical data as well as forecasts to calculate capital requirements, with a predominance for forecasts because forecast can be shaped to reflect severe risks;
- the model is faithful to its input data, so that its results can be used easily by each of the Group's business lines. Most of the assumptions are therefore included in the data themselves;
- it is prudent in its capital requirement calculations. The input data are thoroughly reviewed, and any supplemental data are added if needed to cover all relevant risks within the Group.

The AMA uses VaR (Value at Risk), or the maximum potential loss over one year, at a 99.9% confidence level to calculate regulatory capital requirements.



Capital requirements are calculated on an aggregate level using data from all Group entities that have adopted the AMA, then allocated to individual legal entities.

FIXED-PARAMETER APPROACHES

BNP Paribas uses fixed-parameter approaches (basic or standardised) to calculate the capital requirements for entities in the Group’s scope of consolidation that are not integrated in the internal model.

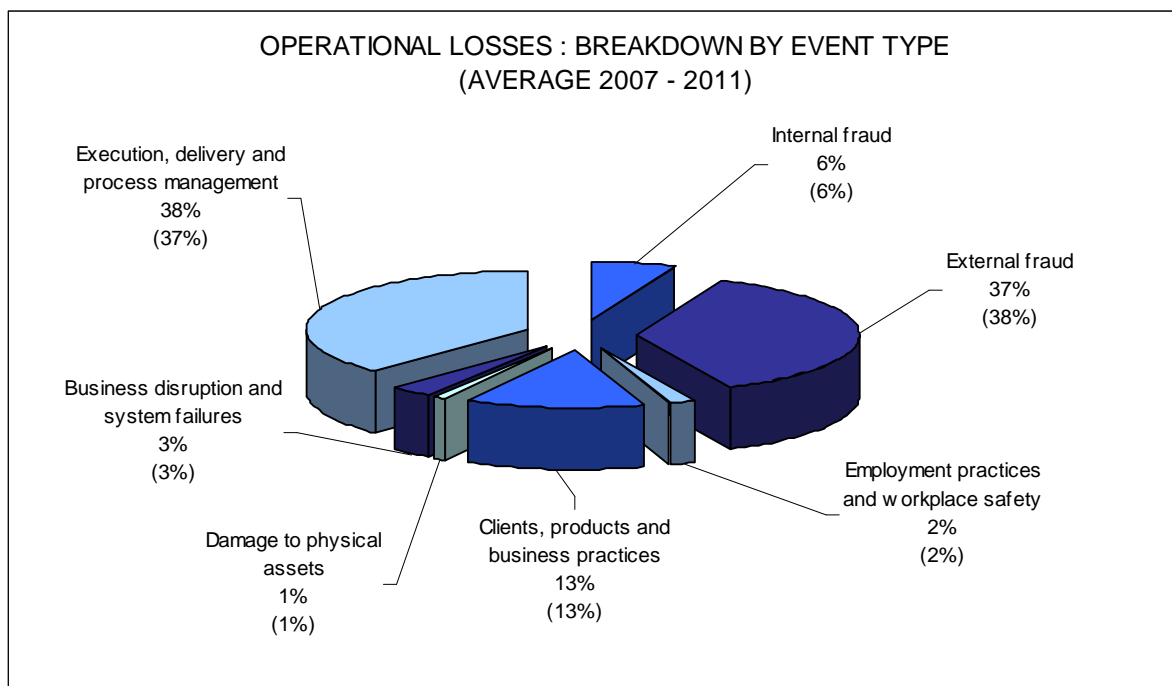
Basic indicator approach: The capital requirement is calculated by multiplying the entity’s average net banking income (the exposure indicator) over the past three years by an alpha parameter set by the regulator (15% risk weight).

Standardised approach: The capital requirement is calculated by multiplying the entity’s average net banking income over the past three years by a beta factor set by the regulator according to the entity’s business category. Therefore in order to use the banking supervisor’s beta parameters, the Group has divided all its business lines into the eight business categories, with each business line assigned to these categories, without exception nor overlap.

BNP PARIBAS GROUP OPERATIONAL RISK EXPOSURE

Banking regulation divides operational loss events into seven categories: (i) internal fraud, (ii) external fraud, (iii) employment practices and workplace safety (such as an anomaly in the recruitment process), (iv) customers, products and business practices (such as product defects, mis-selling, etc.), (v) damage to physical assets, (vi) business disruption and system failures, (vii) failures in process execution, delivery and management (data entry error, error in documentation, etc.).

OPERATIONAL LOSSES: BREAKDOWN BY EVENT TYPE (AVERAGE 2007 -2011) (*)



(*) Percentages in brackets correspond to average loss by type of event for the 2006-2010 period.

Process failures, typically arising from execution or transaction processing errors, and external fraud represent the main operational loss event. Fraud of this kind, such as payment and credit fraud, is fairly common in the world of retail banking. In corporate and investment banking, incidents of fraud are rarer but of larger scale.

The third biggest loss event corresponds to events associated with business practices, and the prevalence of these has been trending to stabilize over time after a phase of increase. Internal fraud accounts for about 6% of the groups operational losses, with marked differences in geographic concentration.

The remaining types of incidents account for relatively small amounts of losses.

The BNP Paribas Group pays the utmost attention to analysing its operational risk incidents in order to improve its already well-structured control system.



RISK REDUCTION THROUGH INSURANCE POLICIES

Risks incurred by the BNP Paribas Group may be covered by major insurers with the dual aim of protecting its balance sheet and profit and loss account. The Group's insurance policy is based on a risk identification and assessment procedure underpinned by risk mapping, detailed operating loss data and forward-looking analysis.

The Group purchases insurance from leading insurers in the market covering fraud, theft, property and casualty, business disruption, liability and other risks for which it may be held responsible.

In order to optimise costs and effectively manage its exposure, the Group self-insures some well identified risks whose impact in terms of frequency and cost is known or can be adequately estimated.

In selecting insurers, the Group pays close attention to the credit rating and claims paying ability of the companies concerned.

Detailed information on risks incurred by BNP Paribas as well as risk assessment visits, enable insurers to assess the quality of coverage and risk prevention within the Group, as well as the safeguard measures put in place and upgraded on a regular basis in light of new standards and regulations.



5.11. Compliance and reputation risks

Effective management of compliance risk is a core component of the Bank's internal control framework and covers adherence to applicable laws, regulations, codes of conduct and standards of good practice. Compliance also involves protecting the Group's reputation as well as the reputation of its investors and customers; ensuring that members of staff act in an ethical manner and avoid conflicts of interest; protecting the interests of its customers and the integrity of the market; implementing anti-money laundering procedures, combating corruption and terrorist financing; and respecting financial embargos.

As required by French regulations, the Compliance Function manages compliance risk for all of the Group's domestic and international businesses. The Compliance Function reports to the Chief Executive Officer and has direct, independent access to the Board's Internal Control, Risk and Compliance Committee.

The function includes a central structure in Paris responsible for overseeing and supervising all compliance matters, and local teams within the Group's various core businesses, retail operational entities, business lines and functions acting under delegated authority from the central team. This system has been reinforced on a regular basis since 2004.

Management of compliance and reputation risks is based on a system of permanent controls built on four axes:

- general and specific procedures;
- coordination of action taken within the Group to guarantee the consistency and effectiveness of monitoring systems and tools;
- deployment of tools for detecting and preventing money laundering, terrorist financing and corruption, and detecting market abuses, etc.;
- training, both at Group level and in the divisions and business lines.

Protecting the Bank's reputation is high on the Group's agenda. It requires ongoing revisions to the risk management policy in line with developments in the external environment. The Group has strengthened its anti-money laundering, terrorist financing and corruption techniques due to the international climate, the increasing number of fraudulent practices and the introduction of tighter regulations by many countries. Following discussion with the US Department of Justice and the New York County District Attorney's Office, the Bank is conducting an internal review of certain U.S. dollar payments involving countries, persons and entities that could be subject to U.S. sanctions.



5.12. Insurance risks

The insurance subsidiaries' risk exposures result from the sale, in France and abroad, of savings and protection contracts.

FINANCIAL RISKS

Financial risks arise mainly in the Savings business, which accounts for over 95% of the insurance subsidiaries' liabilities.

There are three types of financial risk:

Interest rate and asset values risk

Policyholder yields on non-unit-linked life insurance policies are based on either a fixed rate specified in the policy or a variable rate, with or without a fixed floor rate. All of these policies give rise to an interest rate and asset values risk, corresponding to the risk that the return on admissible assets (*i.e.* assets acquired by investing premiums) is less than the contractual yield payable to policyholders.

This risk is managed centrally by the BNP Paribas Cardif Asset/Liability Management unit, which coordinates its activities with the BNP Paribas ALM-Treasury Department. Regular asset-liability matching reviews are performed to measure and manage the financial risks, based on medium and/or long-term income statement and balance sheet projections prepared according to various economic scenarios. The results of these reviews are analysed in order to determine any adjustments to assets (through diversification, use of derivatives, etc.) that are required to reduce the risks arising from changes in interest rates and asset values.

The management of interest rate risk for the General Insurance Fund and the assets diversification policy drive to invest in real estate assets portfolios, equities and fixed income securities, among which government bonds in particular of the Euro zone countries.

The sovereign risk exposure remains however limited for the BNP Paribas Group Cardif. Indeed, the mechanism attached to the participation insurance contracts leads to affect the (revaluation) reserve for deferred participation in profits made up for the benefit of insured persons by the main part of the variation of the asset value held by General Insurance Fund.

In France, to cover future potential financial losses, estimated over the life of the policies, a provision for future adverse deviation (*provision pour aléas financiers*) is booked when total amount of technical interest plus the guaranteed yield payable to policyholders through technical reserves is not covered by 80% of the yield on the admissible assets. No provision for future adverse deviation was booked at 31 December 2011 or 2010 as the yields guaranteed by the insurance subsidiaries are low and the guarantees are for short periods, resulting in only limited exposure.

Surrender risk

Savings contracts include a surrender clause allowing insured people to request reimbursement of all or part of their accumulated savings. The insurer is exposed to the risk of surrender rates being higher than the forecasts used for ALM purposes, which may force it to sell assets at a loss.

The surrender risk is limited, however, as:

- most policies provide for the temporary suspension of surrender rights in the event that the insurer's financial position were to be severely impaired such that the surrenders would deprive other policyholders of the ability to exercise their rights;
- policyholder behaviour is monitored on an ongoing basis, in order to regularly align the duration of assets with that of the corresponding liabilities and reduce the risk of abrupt, large-scale asset sales. Changes in assets and liabilities are projected over periods of up to 40 years, in order to identify mismatches giving rise to a liquidity risk. These analyses are then used to determine the choice of maturities for new investments and the assets to be sold. Short-term (one year) liquidity analyses are also carried out, which include various surrender rate increase assumptions to ensure that the Group can face stress situation;



- in addition to the guaranteed yield, policyholders are paid dividends that raise the total yield to a level in line with market benchmarks. These dividends, which are partly discretionary, reduce the risk of an increase in surrender rates in periods of rising market interest rates;
- the return on financial assets is protected mainly through the use of hedging instruments.

Unit-linked contracts with a capital guarantee

The carrying amount of linked liabilities is equal to the sum of the fair values of the assets held in the unit-linked portfolios. The insurer's liability is therefore covered by corresponding assets. The match between linked liabilities and the related assets is checked at monthly intervals.

Certain unit-linked contracts include whole life cover providing for the payment of a death benefit at least equal to the cumulative premiums invested in the contract, whatever the conditions on the financial markets at the time of the insured's death. The risk on these contracts is both statistical (probability of a claim) and financial (market value of the units).

The capital guarantee is generally subject to certain limits. In France, for example, most contracts limit the guarantee to one year and a maximum of EUR 765,000 per insured. In addition, the guarantee is not normally available beyond the insured's 80th birthday.

The capital guarantee reserve is (re)assessed every quarter and takes into account the probability of death, based on a deterministic scenario, and stochastic analyses of changing financial market prices. The capital guarantee reserve amounted to EUR 19 million at 31 December 2011 (versus EUR 16 million at 31 December 2010).

INSURANCE UNDERWRITING RISKS

The insurance underwriting risks arise mainly in the Protection Business Line, which accounts for some 5% of the insurance subsidiaries' liabilities.

They result mainly from the sale of loan protection insurance worldwide and other personal risk insurance (individual death and disability, extended warranty, annuity policies in France).

The actuarial oversight system set up to prevent and control actuarial risks in France and internationally is based on guidelines and tools that describe (i) the principles, rules, methods and best practices to be followed by each actuary throughout the policies' life cycle, (ii) the tasks to be performed by the actuaries and their reporting obligations and (iii) practices that are banned or that are allowed only if certain conditions are met.

Underwriting limits are set at various local and central levels, based on capital at risk, estimated maximum acceptable losses, estimated Solvency II capital requirements and estimated margins on the policies concerned. The experience acquired in managing geographically diversified portfolios is used to regularly update risk pricing databases comprising a wide range of criteria such as credit risk, the type of guarantee and the insured population). Each contract is priced by reference to the margin and return-on-equity targets set by the Executive Management of BNP Paribas Cardif.

Risk exposures are monitored at quarterly intervals by BNP Paribas Cardif's Executive Committee, based on an analysis of loss ratios.

Loan protection insurance covers death, total or partial disability, loss of employment and financial loss risks for personal loans and home loans. The insurance book comprises a very large number of individual policies representing low risks and low premiums. Margins depend on the size of the insurance book, effective pooling of risks and tight control of administrative costs.

Loss ratios for annuity contracts are based on mortality tables applicable under insurance regulations, adjusted in some cases by portfolio specific data which is certified by independent actuaries. Annuity risks are low.

Actual loss ratios are compared with forecast ratios on a regular basis by the actuarial department, and premium rates are adjusted when necessary.

The insurance subscription risks are covered by various technical reserves, including the unearned premiums reserve generally calculated on an accruals basis policy-by-policy, the outstanding claims reserve, determined by reference to reported claims, and the IBNR (claims incurred but not reported) reserve, determined on the basis of either observed settlements or the expected number of claims and the average cost per claim.

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