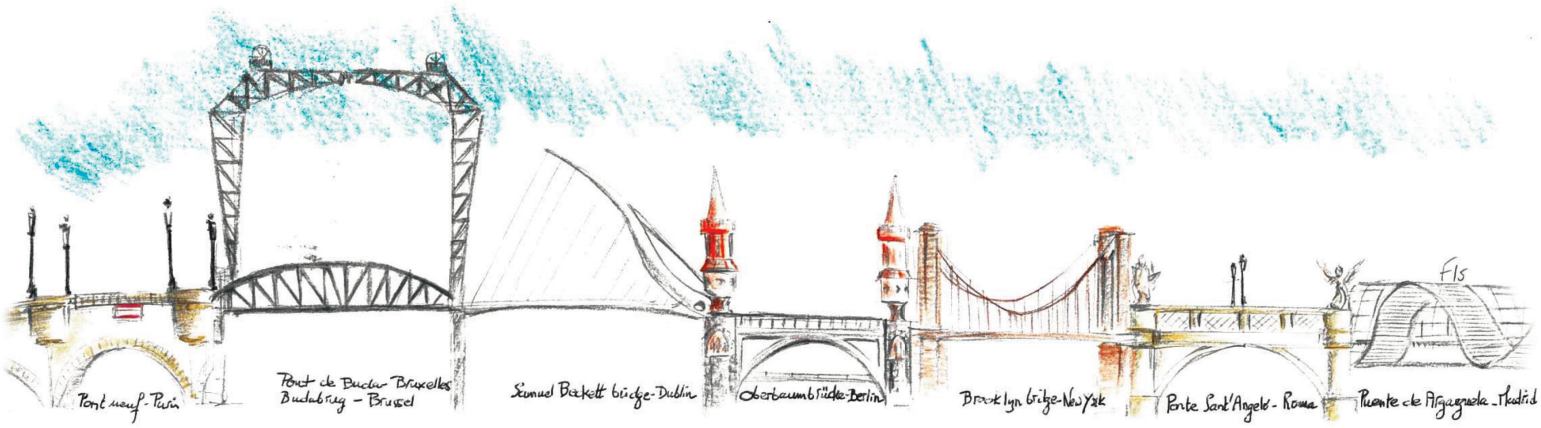


2018

RISK REPORT

PILLAR 3 OF BASEL III

DEXIA

Contents

Introduction

Basel framework

Basel III is the response of the Basel Committee on Banking Supervision (BCBS) to the financial crisis, which revealed some deficiencies in the Basel II regulation as to the appropriate measurement of credit risk.

As a result the Basel Committee undertook a comprehensive set of reform measures, known as the Basel III reform, aimed at strengthening the regulation, supervision and risk management of the banking sector.

In 2013, the European Parliament and Council adopted a set of measures to implement the Basel III reform within the EU legal framework. Taking effect on 1 January 2014, with some provisions to be phased-in between 2014 and 2019, the Capital Requirement Regulation (CRR) and the Capital Requirement Directive IV (CRD IV) form the common regulatory bases for all Member States in implementing Basel III capital requirements. The CRR contains detailed prudential requirements for credit institutions and investment firms while the CRD IV was transposed by Member States into their respective national legal frameworks.

The Basel III capital standards have significantly changed the minimum requirements framework by introducing:
- New capital definition and capital buffers;
- Liquidity and stable funding requirements;
- Governance requirements;
- A leverage ratio to complement the risk-weighted framework and restrict the build-up of excessive leverage;
- Own funds for Credit Valuation Adjustment (CVA) risk;
- Additional disclosure for large exposures.

The general framework defined by Basel II, which is developed around three Pillars, was upheld.

First Pillar

The first Pillar, related to minimum capital requirements, defines the way banking institutions calculate their regulatory capital requirements in order to cover credit risk, market risk and operational risk. The framework provides different approaches for calculating:
- Credit risk through three different approaches: Standard Approach, Foundation Internal Rating-Based Approach and Advanced Internal Rating-Based Approach;
- Market risk through two approaches: Standard Approach and Internal Model Approach;
- Operational risk through three approaches: Basic Indicator Approach, Standard Approach and Advanced Measurement Approach.

Regarding credit risk, since 1 January 2008, Dexia has been authorised to use the Advanced Internal Rating-Based Approach (AIRB Approach) for the determination of its regulatory capital requirements under the Basel III Pillar 1 for credit risk and for the calculation of its solvency ratios.

This is applicable to all entities and subsidiaries consolidated within the Dexia Group, which are established in a Member State of the European Union and subject to the Capital Requirement Directive.

Dexia nevertheless decided to maintain a Standard Approach for some portfolios for which this approach is specifically authorised by the Basel III framework, such as small business units and non-material portfolios.

As a result of the disposal of some entities and the drastic decrease of some portfolios, Dexia presented an official request to the National Bank of Belgium (NBB) to switch some portfolios from the Advanced to the Standard Approach. These portfolios have indeed become non-material in terms of exposures and/or number of counterparties. The switch from Advanced to Standard Approach was implemented as from June 2013 reporting date following the NBB's official acceptance. In 2018, following to the decrease of the Portuguese Municipalities exposures and the closing of DCL's branch in Lisbon, Dexia requested and obtained the approval of the Joint Supervisory Team for the switch from Advanced to Standard Approach for the Portuguese Municipalities, and this was implemented as from the December 2018 reporting date. There was no other change in the list of portfolios under the Advanced Approach in 2018.

In terms of market risk, Dexia calculates its capital requirements on the basis of both the Internal Model Approach and the Standard Approach for general interest rate risk and the Standard Approach for specific interest rate risk and foreign exchange risk.

For operational risk, Dexia applies the Standard Approach. Incident collection and reporting take place on a regular basis and the Risk and Control Self-Assessment (RCSA) process covers the entire bank, including foreign subsidiaries and branches.

Second Pillar

The aim of the Pillar 2 internal processes as recalled by the EBA is "to enhance the link between an institution's risk profile, its risk management and risk mitigation systems, and its capital planning." Pillar 2 can be divided into two major components:

- The Internal Capital Adequacy Assessment Process (ICAAP) aimed at establishing sound, effective and complete strategies and processes to assess and maintain, on an ongoing basis, the amounts, types and distribution of internal capital commensurate to Dexia's risk profile, as well as robust governance and internal control arrangements.
- The Supervisory Review and Evaluation Process (SREP). The purpose of the SREP is to ensure that Dexia has adequate arrangements, strategies, processes and mechanisms as well as capital and liquidity to ensure a sound management and coverage of its risks, to which it is or might be exposed, including those revealed by stress-testing.

Dexia has developed adapted and proportionate capabilities to address all Pillar 2 requirements under its orderly resolution plan and keeps its supervisors closely informed of all related developments undertaken.

Third Pillar

The third Pillar, market discipline, encourages market discipline by developing a set of qualitative and quantitative disclosures which will allow market participants to make a better assessment of capital, risk exposure, risk assessment processes, and hence the capital adequacy of the institution.

Part of the information requested by the CRR to comply with the disclosure requirements is provided in Dexia and Dexia Crédit Local's annual reports. In such case, a clear reference has been included in this report.

Dexia's Annual Report 2018 is available on:

http://www.dexia.com/EN/journalist/publications/annual_reports/Documents/Dexia_RA_2018_EN.pdf

An internal validation process at a Dexia level guarantees the quality of the information provided.

The Pillar 3 report is a joint publication by the Risk Management and Communication departments. The Management Board is responsible for final validation of the Pillar 3 disclosure. Statutory Auditors' approval is not required. Information is not disclosed if considered non-material, proprietary or confidential.

Dexia Crédit Local, as an institution controlled by a EU parent financial holding company, must fulfil with the obligations laid down in Part Eight of the CRR in the framework of Pillar 3 disclosure requirements under the Basel III capital framework on the basis of the consolidated situation of the financial holding company. This consolidation is achieved by Dexia located at Tour Bastion, Place du Champ de Mars 5, B-1050 Brussels, Belgium.

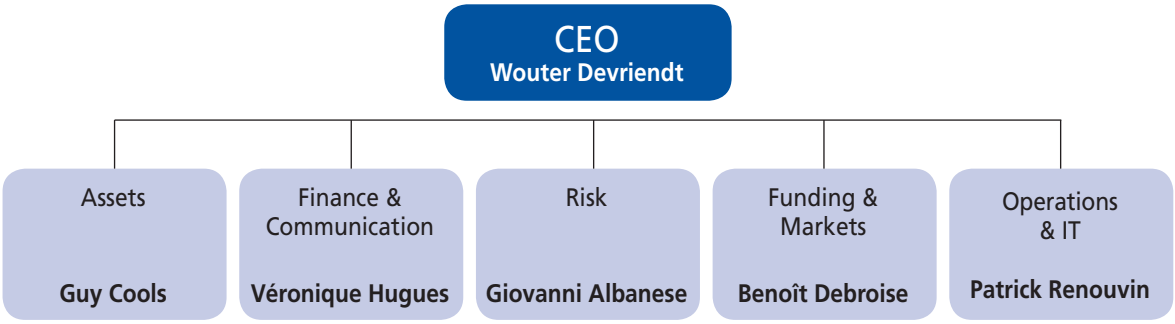
The Pillar 3 report has been published since 2008. The disclosure is organised on an annual basis together with the publication of the Annual Report.

Dexia releases the Risk Report – Pillar 3 of Basel III on Dexia and Dexia Crédit Local's websites: www.dexia.com and www.dexia-creditlocal.fr.

The figures in the tables displayed in this report are provided in millions of Euros (EUR) unless otherwise stated.

The requirements of the third Pillar are met by this publication.

Dexia Management Board



Dexia's key figures and risk profile

After significant efforts made in recent years to dispose of its main commercial activities, splitting large sections of its activities and outsourcing its IT and back office activities in France & Belgium, in 2018 Dexia actively continued to simplify its structure. Indeed:

- in March 2018, Dexia disposed of its shares in Dexia Israel Bank (Dexia Israel), completing the mandatory programme to dispose of its main commercial franchises, as part of the undertakings made by the Belgian, French and Luxembourg States within the framework of the orderly resolution plan approved by the European Commission in December 2012.
- in June 2018, the Group closed the Dexia Crédit Local branch in Lisbon, after finalising the transfer of assets to its Paris office. The same centralisation work is under way for the Madrid branch, and should enable it to be closed at the latest during the first half-year 2019.
- in December 2018, Dexia signed with the German banking group Helaba a sale agreement on 100% of the shares in Dexia Kommunalbank Deutschland (DKD). The transaction was completed on 30 April 2019[1].

Furthermore, Dexia continued and intensified its proactive strategy of reducing the balance sheet, materialised in an annual reduction at Group level by EUR 24.9 billion, or 14%. Asset sales in 2018 related in particular to US public sector securities and French public sector loans, Spanish covered bonds and ABS on US student loans or exposures to the Japanese sovereign and local public sector. As part of its credit risk reduction, efforts were concentrated on the management of heavily provisioned files. In particular, the Group sold almost all of its exposure in relation to the Commonwealth of Puerto Rico and obtained the redemption of debts associated with the Bulgarian railway sector.

In 2018, the Risks activity line continued Dexia's active risk management. The Risk Appetite Framework (RAF) *mechanism* was reviewed and completed during the year and includes operational risk and activity continuity indicators associated with the transitional phase of the outsourcing of IT and back office services. Its task is to define the principles for assessing any difference in the risk profile compared to the strategic plan approved by the Group's executive bodies.

Since the end of 2011, the Dexia Group has been managed under an orderly resolution plan, approved by the European Commission in December 2012. As a consequence, Dexia's residual assets are managed in run-off and new transactions are only performed with a view to reducing the risk profile.

The risk profile is illustrated by the following key figures as at 31st December 2018:

- Total Capital ratio stood at 27.3% (IFRS 9 transitional[2] definition).
- CET 1 ratio stood at 26.7% (IFRS 9 transitional definition).
- Total risk-weighted assets amounted to EUR 30,365 billion.
- Credit risk
  - Dexia's Exposure at Default (EAD) amounted to EUR 123.6 billion, a decrease of 13% in comparison with 2017, explained by natural portfolio amortisation, asset disposals and early redemptions. Exposure was at EUR 61 billion in loans and EUR 54 billion in bonds. It is for the most part concentrated in the European Union (78%) and the United States (12%);
  - As at 31 December 2018 the majority of exposures remained concentrated on the local public sector and sovereigns (75%), taking account of Dexia's historical activity;
  - The portfolio comprises high quality assets that are 91% investment grade; non-investment grade exposures are predominantly situated in the 'BB' range;

(1) Cf. Joint press release Dexia/Helaba dated 2 May 2019, available at www.dexia.com.
(2) Dexia decided to opt for transitional provisions enabling it to spread over five years the impact on prudential equity resulting from the implementation of the new IFRS 9 impairment model.

  – Total impairments amounted to EUR 650 million, of which EUR 345 million of collective impairments, and EUR 305 million of specific impairments;
  – Credit risk-weighted assets (EUR 28.7 billion) are mostly on Sovereigns (31%), Public Sector Entities (25%), Corporate & Project Finance (21%) and Financial Institutions (20%);
  – Counterparty credit risk on derivatives and repo is included in the figure for credit risk-weighted assets and amounted to EUR 2.4 billion.
- Market risk (including interest rate and FX risk)
  – The end-of-period value at risk amounted to EUR 1.7 million concentrated on interest risk;
  – Market risk-weighted assets amounted to EUR 695 million.
- Operational risk-weighted assets amounted to EUR 1 billion.

End of recognition of Dexia's specific and unique situation

Since the introduction of the Single Supervisory Mechanism (SSM), Dexia has been under the direct prudential supervision of the ECB. As such, the implementation of the resolution plan has been the subject of prolonged discussions with the supervisor, especially in the past year.

Considering Dexia's specific and unique situation as a bank in orderly resolution, the public nature of its shareholder structure and the liquidity guarantee put in place by the Belgian, French and Luxembourg States, and in order to maintain financial stability, an objective of the orderly resolution plan, in 2015 the European Central Bank decided to apply a tailored, pragmatic and proportionate prudential supervisory approach to Dexia. This approach was extended in 2016, 2017 and 2018. Nevertheless, the renewal in 2018 was accompanied by a convergence towards the general supervisory framework applied by the ECB, reflected by the strengthening of certain requirements, in particular regarding observance of the Liquidity Coverage Ratio (LCR). On the request of the European Central Bank, Dexia must also deduct from its Common Equity Tier 1 Capital the economic impact which might be generated by remediation on a failure to observe the constraint regarding large exposures. As at 31 December 2018, this related to one exposure and the deduction from regulatory capital was of EUR 60 million for Dexia SA and EUR 90 million for Dexia Crédit Local.

The Dexia Group posted a consolidated LCR ratio of 202% as at 31 December 2018, against 111% as at 31 December 2017, in line with these requirements. This ratio is also respected at subsidiary level, each exceeding the required minimum of 100%.

Furthermore, the ECB informed the Dexia Group that as from 1 January 2019, the approach of specific supervision would not be renewed. As for liquidity, Dexia must therefore observe all the regulatory requirements applicable to banking institutions supervised by the ECB, at every level of the Group consolidation.

1. Risk management objectives and policies

Dexia Group policy on risks is defined and supervised by the Board of Directors.

The role of the Risk activity line is to implement the Group's strategy on monitoring and managing risk and to put independent and integrated risk measures in place. The Risk activity line identifies and monitors the risks to which the Group is exposed. If necessary, it proactively alerts the relevant committees and proposes corrective actions where applicable. In particular, the Risk activity line decides on the amount of provisions deemed necessary to cover the risks to which the Group is exposed.

The main tasks of the Risk activity line are to:
- Define and control the bank's risk appetite and provide relevant independent information, analyses and expert judgement on risk exposures, and advice on proposals and risk decisions made by the management bodies, other business divisions or support units as to whether they are consistent with the risk tolerance and appetite;
- Set up risk policies, guidelines, calculation methodologies and limits to constrain risk generated by the bank activities;
- Ensure each key or emerging risk is identified and properly managed by the relevant units in the institution and that a comprehensive overview of all relevant risks is submitted to the management body;
- Establish a comprehensive and integrated assessment of risks: integrated risk map with appropriate granularity of risk factors, demonstrating diversification and major sensitivities/vulnerabilities in order to assess the adequacy of capital to Dexia's risk profile;
- Control and monitor credit, market and operational risks;
- Maintain the IRBA advanced status, e.g. design / review internal models and carry out model performance assessment, including calibration of model buffers when needed;
- Anticipate negative risk evolution so that action can be taken by the bank to mitigate such risk;
- Manage strategic and regulatory projects proactively and evaluate the potential impact of regulatory evolutions;
- Set frameworks for the better identification of areas of increasing operational risk so that dedicated mitigating action plans can be implemented by the relevant activity lines;
- Maintain appropriate data-warehouses and risk systems ensuring timely and accurate regulatory and internal risk reporting;
- Implement best risk management practices in the entire Group and maintain efficient coordination with the risk units of subsidiaries and branches;
- Recommend improvements to the risk management framework and options to remedy breaches of risk policies, procedures and limits.

Information flow on risk to the management body (Management Board, Board of Directors or Risk Committee) is organised through regular presentations including:
- The Quarterly Risk Report and sector annual reviews;
- The risk appetite framework monitoring (half yearly);
- Presentations on the status of IRB models related works and changes, as well as significant issues or changes to the model use if any;
- New or updates of risk policies;
- Annual disclosures in regulatory risk related reports, including ICAAP/ILAAP reports and outcomes of Pillar 2 related analyses;
- Presentations on expected changes in the regulatory and prudential framework impacting the bank's models and systems;
- Recommendations on the risk monitoring framework and operational management of Group risks under the supervision of the Transaction Committee.

The terms of office of Directors and members of the Management Board are detailed in the chapter "Declaration of Corporate Governance" of Dexia's Annual Report 2018.

1.1. Risk organisation and governance

1.1.1. Organisation

1.1.1.1. Role of the Risk Committee, the Management Board, the Market Risk Committee, the Transaction Committee and the ALCO

The Risk Committee, created within the Dexia Board of Directors is responsible for monitoring aspects relating to risk strategy and validation of the level of tolerance of both current and future risk, as defined by the Board of Directors. It assists the Board of Directors in its supervision of the implementation of that strategy.

The Management Board is responsible for implementation of the various policies and directives framing Group strategy, particularly with regard to risk. To facilitate Group operations, a system of delegation of Management Board powers has been put in place.

The Management Board delegates its decision-taking powers in relation:
- To operations giving rise to credit risk to a Transaction Committee;
- To balance sheet management to an ALCO Committee;
- To market operations to a Market Risk Committee.

The Risk activity line establishes risk policies and submits its recommendations to the Management Board and to the sub-committees. It deals with the monitoring and operational management of Group risks under the supervision of those committees.

More detailed information on the Risk Committee, the Management Board, the Transaction Committee and the ALCO Committee is provided in the chapter "Declaration of Corporate Governance" of Dexia's Annual Report 2018.

1.1.1.2. Organisation of the Risk activity line

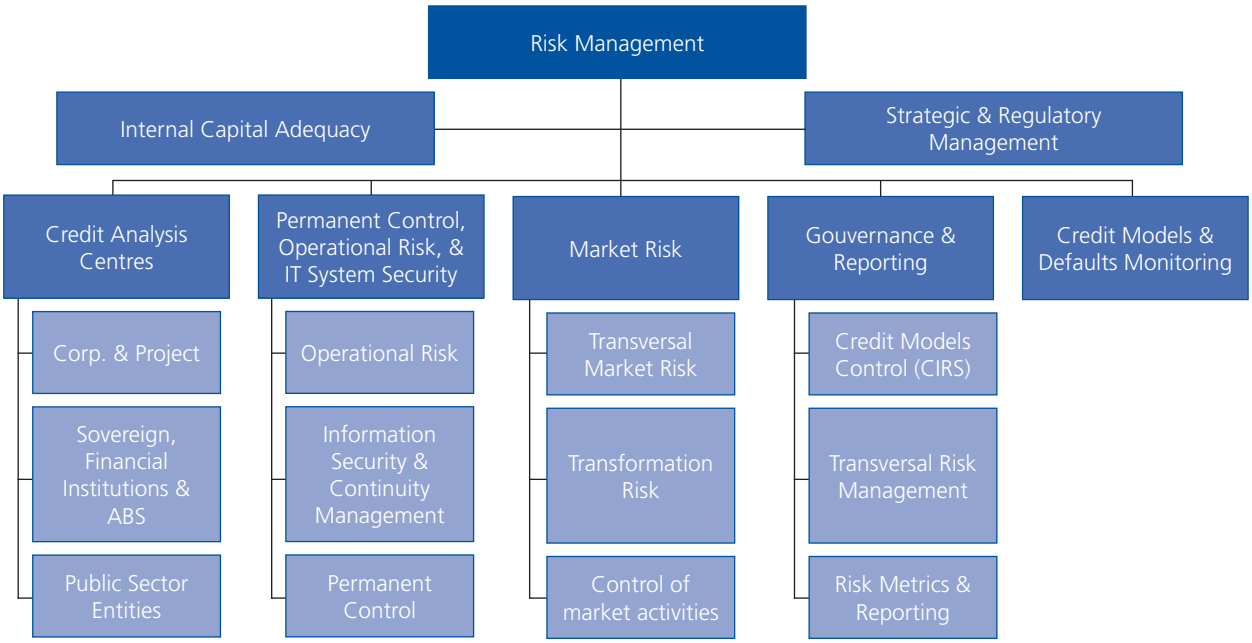
The decision-taking body of the activity line is the Risk Management Executive Committee.

As at 31 December 2018, this committee consists of the Chief Risk Officer and each department is represented within this committee:
- The Credit Analysis Centres department,
- The Market Risk department,
- The Permanent Control, Operational Risk and IT Systems Security department,
- The Strategic Risk and Regulatory Management department,
- The Credit Models, and Default Monitoring department,
- The Comprehensive Risk Assessment department,
- The Governance and Reporting department.

It meets on a weekly basis to review risk management strategies and policies as well as the main internal reports prior to their dissemination outside the activity line. In addition, it is responsible for monitoring regulatory issues, validating collective provisioning methodologies and the general organisation of the activity line.

In particular, the Risk Executive Committee is responsible for monitoring models (developments, reviews, back-testing, stress-testing) on proposals from the teams responsible for the management of credit modelsand default monitoring and the market risk team. It regularly informs the Management Board and the Risk Committee of the use of models and, as the case may be, developments and/or difficulties.

The organisation and operation of the activity line also relies on certain committees, the prerogatives of which are governed by a system for the delegation of powers, defined in relation to the nature of the risks to which the Group is exposed.



Risk appetite framework

The Risk Appetite Framework (RAF) is a regulatory requirement which defines Dexia's level of risk tolerance and falls within the implementation of Dexia strategy. It defines the Group's risk profile, and qualifies the types of risk which Dexia is inclined to hold, minimise, attenuate or transfer in order to achieve its strategic objectives. The RAF considers Dexia's significant risks and relies on Dexia's strategy and capital forecasts.

The RAF was introduced in Dexia in 2016. It includes a declaration of risk appetite, qualitative and quantitative risk limits and an overview of the roles and responsibilities of bodies and functions which supervise implementation and monitoring.

It is subject to regular monitoring and an annual review in order to integrate any new regulatory, strategic or operational development. A half-yearly consolidated schedule is presented by Risk Management to the Risk Committee and to the Board of Directors, with the aim of close and in-depth monitoring of the main risk indicators and of informing the Group's decision-making bodies.

Credit risk

Credit risk represents the potential loss, materialised by the reduction in value of an asset or by the payment default that Dexia may suffer as the result of deterioration in the solvency of a counterparty.

The Credit Analysis Centres department defines the Group's credit risk policy, which encompasses supervision of the processes for rating counterparties, analysing credit files and monitoring exposures within the Group. It also determines the specific provisions presented quarterly when the accounts are drawn up.

Along with the Risk Committee, the Management Board and the Transaction Committee, the following three committees meet on a quarterly basis:

- The Watch-list Committee supervises assets considered "sensitive", placed under watch, and decides on the amount of impairments set aside;
- The Default Committee screens and monitors counterparties in default by applying Group internal rules, in compliance with the regulatory framework;
- The Rating Committee ensures that internal rating processes are aligned with the established principles and that those processes are consistent across the Group's various entities.

Market risk

Market risk represents the Group's exposure to changes in market parameters, such as interest and exchange rates. Interest rate risk consists of structural interest rate risk and specific interest rate risk associated with a given credit counterparty. The latter arises from fluctuations in the credit spread on specific counterparties within a rating class. The foreign exchange risk represents the potential decrease in the value of assets arising from fluctuations in exchange rates against the euro, which is the reference currency in which the Dexia Group prepares its financial statements. The interest rate and foreign exchange risk of the positions within the banking portfolio are part of the transformation risk.

Market risk policy and management are in the hands of the Management Board. To facilitate the Group's operational management, a system of delegated authority has been put in place:

- The Market Risk Committee is responsible for market risk governance and standards. It defines the risk limits that form the general framework for the Group's risk policy, analyses risk results and positions and approves risk measurement methods. It meets on a monthly basis.
- The Valuation and Collateral Monitoring Committee meets on a monthly basis to analyse indicators relating to collateral management, to decide on action plans for significant valuation differences and to monitor the valuation of structured products.

Under the aegis of the Management Board and specialist risk committees, the Market Risk department identifies, analyses and monitors risks and results (including financial instrument valuations) associated with market activities.

Transformation risk

Monitoring transformation risk involves monitoring the risk of loss associated with the transformation of the banking portfolio as well as liquidity risk. Transformation risk arises when assets are refinanced by resources presenting a different maturity, indexation or currency. It includes structural risks associated with the financing of holdings with equity in foreign currencies. Liquidity risk measures Dexia's ability to deal with its current and future cash requirements, both on a discounted basis and in the event of a deterioration of the Group's environment, on the basis of a range of stress scenarios.

Within the Risk activity line, a dedicated ALM Risk team is in charge of defining the risk framework within which management may be placed in the hands of the Financial Strategy team within the Finance activity line, of validating the models used to manage that risk and of monitoring exposures and checking compliance with Group standards. ALM Risk also defines the stresses to be applied to the various risk factors, proposes the risk acceptance levels and ensures that it complies with the regulatory framework in force.

Operational risk and IT systems security

Operational risk represents the risk of financial or non-financial impacts arising from a shortcoming or failure in internal processes, personnel or information systems, or external factors. This definition includes IT, legal and compliance risks.

The Management Board regularly monitors the evolution of the risk profile of the various Group activities and delegates the operational management of risk monitoring to the Operational Risk Committee. This committee examines the main risks identified and decides on the corrective actions to be taken. It validates measurement, prevention or improvement proposals in relation to the various elements of the mechanism. The Operational Risk Committee relies on committees dedicated to activity continuity and IT systems security, which examine and decide on actions to be taken to guarantee activity continuity and the implementation of a policy for IT systems security.

Operational risk, activity continuity and IT systems security management is coordinated by a central team within the Risk activity line supported by a network of correspondents within all subsidiaries and branches, as well as within the Group's various departments. Within each activity domain, an operational risk correspondent coordinates data collection and assesses risks, and proposes and monitors remediation action plans. Supported by the operational risk management function, it ensures good operational continuity management.

Regulatory risk

To ensure a proactive response to the various regulatory requirements, the Regulatory Risk Committee is responsible for defining Dexia's general approach to prudential problems and ensuring exhaustive cover for the various regulatory topics. It informs the different activity lines of the main regulatory developments, asks for and organises the various impact analyses and liaises with the various international entities on the implementation of new reforms.

ICAAP/ILAAP

In 2017, Dexia established the StressTests and Pillar II Committee under the joint responsibility of the Finance and Risk activity lines in order to guarantee appropriate governance and consistency in the measurement of the risks of deviation from strategic plans, internal ICAAP and ILAAP processes and to ensure observance of the appropriate requirements. This committee approves all of these subjects prior to their submission to the Management Board, the Risk Committee and the Board of Directors. It played a full role during 2018, particularly within the context of analyses of the risks of deviation from the strategic plan, the object of exchanges with the European Central Bank within the framework of the SREP.

1.1.2. Governance

The elements related to the description of governance arrangements pursuant to Article 435 §2 of the Regulation (EU) No. 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms ("CRR") are disclosed in the section entitled "Declaration of corporate governance" of Dexia Crédit Local's registration document 2018, as well as, if needed at a Dexia level, in the "Declaration of corporate governance" published in Dexia's Annual Report 2018.

1.2. Accounting and prudential consolidation scope

There is no difference between the consolidation scope for accounting and prudential purposes. The Dexia Group applies all rules with regard to the consolidation scope resulting from:
- IFRS 10 on the preparation and presentation of consolidated financial statements;
- IFRS 3 on business combinations and the impact of accounting methods on the consolidated accounts;
- IAS 28 (revised) on Investments in associates and joint ventures;
- IFRS 11 on Joint Arrangements.

The policies laid down by these standards imply that all companies over which the Group exercises exclusive or joint control or notable influence must be consolidated. Consequently, all companies exclusively or jointly controlled, or over which the Group holds a notable influence, are consolidated.

Pursuant to the principle of a true and fair view of the Group's financial statements, any companies, the contribution of which to the consolidated financial statements is not material shall not be included in the consolidation scope.

Entities are considered as non-significant when, at a consolidated level, the aggregate of their total assets, liabilities, equity and net income does not exceed 1% of the total of consolidated balance sheet and net income (respectively EUR 1.59 billion and EUR 4.38 million (average on 3 years) in 2018).

As at 31 December 2018, the sum of the total balance sheet and net income of unconsolidated entities does not exceed this threshold.

The list of subsidiaries by method of consolidation is available in the Note 1.2 to the consolidated financial statements of Dexia's Annual Report 2018.

No participation is deducted from the prudential equity as at 31December 2018.

1.3. Own funds and capital adequacy

Dexia monitors its solvency using rules established by the Basel Committee on Banking Supervision and European Directive CRD IV. On the other hand, the Group ensures observance of the capital requirements imposed by the European Central Bank (ECB), within the framework of Pillar 2 of Basel III, following the Supervisory Review and Evaluation Process (SREP).

The year 2018 was marked by the first time application of the standard IFRS 9 "Financial instruments" which had a positive impact on the Group's prudential equity.

The IFRS 9 "Financial Instruments" accounting standard replaces IAS 39 "Financial instruments: Recognition and Measurement". The IFRS 9 "Financial Instruments" accounting standard came into force on 1 January 2018, replacing the standard IAS 39. It has three aspects:
- The first relating to the classification and valuation of financial instruments;
- The second relating to the financial asset provisioning model;
- The third relating to hedge accounting.

The main impacts of the first-time application of IFRS 9 on 1 January 2018 are presented in Dexia's Annual Report 2018, section entitled "Impact of the first-time application of the IFRS 9 accounting standard for the Dexia Group" in the chapter entitled "Financial Results" and in note 1.6 to the consolidated financial statements.

As permitted by IFRS 9, Dexia decided to apply the requirements related to the presentation of gains or losses related to the credit risk on financial liabilities designated at fair value through profit or loss early on 1 January 2017 without application of other IFRS 9 requirements. Also, while awaiting the future IASB standard on macro hedging, and as allowed by IFRS 9, Dexia decided to maintain the requirements of IAS 39 for all the hedge relationships (micro and macro-hedge).

1.3.1. Strengthening of prudential requirements applicable to Dexia with regard to solvency

On 14t February 2019, the ECB informed the Dexia Group of the qualitative and quantitative prudential requirements with regard to solvency applicable to Dexia and its subsidiaries as from 1 March 2019, in accordance with Council Regulation (EU) 1024/2013 dated 15th October 2013. These requirements are based in particular on the conclusions of work carried out by the ECB within the framework of the Supervisory Review and Evaluation Process, (SREP).

The Total SREP Capital Requirement (TSCR) has been set at 11% on a consolidated basis. This level includes a minimum own funds requirement of 8% (Pillar 1) and an additional own funds requirement of 3% (P2R – Pillar 2 Requirement). By including the capital conservation buffer of 2.5%, as well as the countercyclical buffer relating to exposures in France and the United Kingdom, estimated at 0.35%, this takes the own funds requirement to 13.85%.

In addition, the ECB expects Dexia to comply with Pillar 2 capital guidance (P2G) of 1%, to be held over the level of 13.85% and to be made up entirely of Common Equity Tier 1 capital (CET 1). As a consequence, the minimum level of the CET1 ratio goes to 11.35%, taking account of P2G.

These levels are also applicable to Dexia Crédit Local, on a consolidated basis.

1.3.2. Accounting and prudential equity figures

(in EUR million)	31/12/2017			31/12/2018		
	Financial statements IAS 39	Regulatory purposes	Difference	Financial statements IFRS 9	Regulatory purposes	Difference
Equity, Group share	4,992	6,466	(1,474)	7,504	8,227	(723)
of which share capital and related reserves	*2,489*	*2,449*	*40*	*2,489*	*2,449*	*40*
of which consolidated reserves	*7,228*	*7,228*	*0*	*6,390*	*6,390*	*0*
of which gains and losses directly recognised in equity	*(4,263)*	*(2,748)*	*(1,515)*	*(902)*	*(139)*	*(763)*
of which net result of the period	*(462)*	*(462)*	*0*	*(473)*	*(473)*	*0*
Minority interests	410	197	213	336	148	189
TOTAL EQUITY	**5,402**	**6,663**	**(1,261)**	**7,840**	**8,375**	**(534)**
Prudential filters		(167)			(423)	
Phase-in IFRS 9 (1)					168	
Common Equity Tier 1		6,496			8,119	
Additional Tier 1		48			38	
Tier 2		267			121	
TOTAL CAPITAL		**6,811**			**8,278**	

(1) Transitional provision to mitigate the impact of the application of the standard IFRS 9

Share capital and related reserves

The residual outstanding of Deeply Subordinated Non-Cumulative Notes issued on October 2006 by Dexia Funding Luxembourg (DFL) amounted to EUR 40 million. Following the merger of DFL with Dexia, this amount is booked in equity, Group share. However, for regulatory purposes and taking into account the transitional dispositions of Basel III, this amount has to be considered partly as Additional Tier 1 and as Tier 2.

Minority interests

The recognition of minority interests is limited by the Regulation (EU) 575/2013, Article 84.

Gains and losses directly recognised in equity - breakdown

(in EUR million)	31/12/2017			31/12/2018		
	Financial statements	Regulatory purposes	Difference	Financial statements	Regulatory purposes	Difference
Gains and losses directly recognised in equity	(4,263)	(2,748)	(1,515)	(902)	(139)	(763)
Available for sale reserve on debt instruments, loans and receivables and equities	(3,495)	(2,796)	(699)			
Change in fair value of debt instruments and of equity instruments measured at fair value through other comprehensive income				(212)	(212)	0
Cash flow hedge reserve	(922)	(25)	(897)	(578)	(6)	(572)
Non realised performance - own credit risk on liabilities designated at fair value through profit or loss	81	0	81	48	0	48
Actuarial gains and losses on defined benefit plans	(1)	(1)	0	0	0	0
Cumulative translation adjustments	45	45	0	88	88	0
Gains and losses directly recognised in equity of non-current assets held for sale	29	29	0	(248)	(9)	(239)

As at 31 December 2017, the difference between the booked amount of available for sale reserve and the amount recognised as prudential equity is explained by the calendar defined by the CRD IV Directive: the transitional provisions allowed to recognition of 80% of the booked amount of the AFS reserve in the prudential own funds.

Following the first application of the standard IFRS 9 "Financial instruments" as from 1st January 2018, the IAS 39 available for sale reserve was cancelled. Under IFRS 9, when financial assets are measured at fair value through other comprehensive income, their change in fair value is directly recognised in equity, in the financial statements and also in regulatory capital. The main impacts of the first-time application of IFRS 9 on 1 January 2018 are presented in Dexia's Annual Report 2018, section "Impact of the first-time application of the IFRS 9 accounting standard for the Dexia Group" in the chapter entitled "Financial Results" and in note 1.6 to the consolidated financial statements.

In application of the Article 33.1 (a) of Regulation (EU) 575/2013, only the amount of cash flow hedge reserve related to financial instruments at fair value is taken into account in prudential equity. An amount of EUR -6 million was taken into account as at 31 December 2018 (EUR -25 million as at 31 December 2017).

Regarding own credit risk on financial liabilities at fair value through profit and loss, as allowed by the IFRS 9 accounting standard, since 1 January 2017, Dexia recognises the own credit risk of those financial liabilities in gains and losses directly recognised in equity. In application of Article 33.1 (b) in the CRR 575/2013, this amount is not recognised in the prudential equity.

Following the application of the IFRS 5 accounting standard, as at 31 December 2017, Dexia Israel's gains and losses directly recognised in equity were presented separately in the own funds. The amount mainly represented cumulative translation adjustments (EUR 28 million). Dexia Israel was sold and left the scope of consolidation in 2018. As at 31 December 2018, Dexia Kommunalbank Deutschland was classified as non-current assets held for sale. Its gains and losses directly recognised in equity were presented separately. Those were mainly Cash Flow Hedge reserve amounts, largely filtered out from the prudential equity.

1.3.3. Prudential equity

- Total capital can be broken down as follows:
  - – Common Equity Tier 1 capital, including in particular:
  - – share capital, issuance premiums, retained capital,
  - – profits for the year,
  - – gains and losses directly recognised in equity (revaluation of instruments at fair value through equity, revaluation of cash flow hedge derivatives, translation adjustments and actuarial differences on defined benefit plans)
  - – the eligible amount of non-controlling interests,
  - – after deduction of intangible assets, goodwill, accrued dividends, own shares, the amount exceeding thresholds provided with regard to deferred tax assets and for holding shares and interests in credit or financial institutions, irrevocable payment commitments (IPC) to resolution funds and other guarantee funds, the amount for persistent breaches of the large exposure constraint(1) and elements subject to prudential filters (own credit risk, Debit Value Adjustment, cash flow hedge reserve, Prudent Valuation).
- Additional Tier 1 including Tier 1 subordinated debt;
- Tier 2 Capital which includes the eligible portion of Tier 2 subordinated debt as well as surplus provisions on the level of expected losses, reduced by the surplus amount of thresholds provided with regard to holding subordinated debt issued by financial institutions.

In accordance with regulatory requirements and applicable transitional provisions:
- Dexia uses a dynamic approach to mitigate the impact of the new IFRS 9 provisioning model on prudential capital. This is spread over five years. In 2018, the effect of increasing provisions for expected credit losses in view of the application of the IFRS 9 accounting standard was 95% mitigated.
- Certain adjustments on subordinated and hybrid debt are taken into consideration in the calculation of capital in order to reflect the loss-absorption characteristics of these instruments.

As at 31 December 2018, Dexia Group's Total Capital was EUR 8.3 billion, compared to EUR 6.8 billion as at 31 December 2017. At the same date, Dexia Group's Common Equity Tier 1 capital was EUR 8.1 billion, compared to EUR 6.5 billion as at 31 December 2017.

The first-time application of the IFRS 9 accounting standard on 1 January 2018 led to an increase of EUR +2.1 billion in the Group's Common Equity Tier 1 capital, mainly due to the cancellation of unrealised gains and losses recognised in equity under IAS 39 (cf. Dexia's Annual Report 2018, section "Impact of the first-time application of the IFRS 9 accounting standard for the Dexia Group" in the chapter entitled "Financial Results" and note 1.6 tot the consolidated financial statements).

The Group's Common Equity Tier 1 capital as at 31 December 2018 was burdened by the negative net income for the year (EUR -473 million) and also benefited from a positive evolution of the item "gains and losses directly recognised in equity" (EUR +207 million), mainly as a result of the improvement in credit spreads on American and Spanish sovereigns.

(1) On the request of the European Central Bank, Dexia must deduct from its Common Equity Tier 1 Capital the economic impact which might be generated by remediation on a failure to observe the constraint regarding large exposures (Cf. Dexia Press Release dated 5 February 2018, available at www.dexia.com).

Prudential equity- breakdown

(in EUR million)	31/12/2017	01/01/2018	31/12/2018
TOTAL CAPITAL	**6,811**	**8,846**	**8,278**
Common Equity Tier 1 Capital	**6,496**	**8,635**	**8,119**
Core shareholders' equity	9,214	8,815	8,365
Eligible gains or losses directly recognised in equity(1)	(2,792)	(406)	(227)
Cumulative translation adjustments (group share)	45	62	88
Actuarial differences on defined benefit plans	(1)	(1)	0
Non-controlling interests eligible in Tier 1	197	197	148
Mitigation at 95% of the effect of the increase of ECL(2) following the application of IFRS 9		168	168
Items to be deducted:			
Intangible assets and goodwill	*(35)*	*(35)*	*(37)*
Debit Valuation Adjustment	*(48)*	*(48)*	*(52)*
Prudent Valuation	*(84)*	*(84)*	*(227)*
Deduction of irrevocable payment commitments to resolution funds and other guarantee funds		*(32)*	*(47)*
Deduction for persistent breaches of the large exposure constraint			*(60)*
Additional Tier 1 Capital	**48**	**38**	**38**
Subordinated debt	48	38	38
Tier 2 Capital	**267**	**173**	**121**
Subordinated debt	52	62	58
of which additional Tier 1 reclassified	*48*	*58*	*58*
IRB provision excess (+); IRB provision shortfall 50% (-)	215	111	63

(1) 2017: Eligible amount of available for sale reserve, reserve for reclassified financial assets and cash flow hedge reserve as well as eligible gains or losses directly recognised in equity for non-current assets held for sale. 2018: Revaluation reserve of financial assets at fair value through equity, cash flow hedge reserve and gains or losses recognised directly in equity for assets held for sale.

(2) Expected Credit Losses

In line with European Central Bank requirements, two items are deducted from prudential equity for a total of EUR -107 million:
- The theoretical loss amount corresponding to the remediation of the non-compliance with the large exposure constraint, which amounts to EUR -60 million(2);
- The amount of irrevocable payment commitments (IPC) to resolution funds and other guarantee funds, for an amount of EUR -47 million.

As at 31 December 2018, the Group's hybrid Tier 1 capital securities represented a nominal total of EUR 96 million, including EUR 38 million eligible as additional Tier 1.

No hybrid debt buyback was carried out in 2018, in line with the prohibition imposed by the European Commission and communicated by Dexia on 24 January 2014[3]. The Group's hybrid Tier 1 capital therefore consists of:
- EUR 56.25 million nominal of perpetual non-cumulative securities issued by Dexia Crédit Local. These securities (FR0010251421) are listed on the Luxembourg Stock Exchange.
- EUR 39.79 million nominal of perpetual non-cumulative securities issued by Dexia Funding Luxembourg, today incorporated with Dexia. These securities (XS0273230572) are listed on the Luxembourg Stock Exchange.

Tier 2 Capital amounted to EUR 121 million as at 31 December 2018 and included the additional Tier 1 reclassified and the IRB provision excess.

Dexia's revised orderly resolution plan includes certain restrictions concerning the payment of coupons and the exercise of calls on subordinated debt and hybrid capital from the Group's issuers. In this way, Dexia is only required to pay coupons on hybrid capital and subordinated debt instruments if there is a contractual obligation to do so. In addition, Dexia cannot exercise any discretionary options for the early redemption of these securities. Finally, the Dexia Group is not authorised to repurchase hybrid capital debt issued by Dexia Funding Luxembourg (XS0273230572), and by Dexia Crédit Local (FR0010251421), as creditors must share in the financial burden resulting from the restructuring of financial institutions which have been granted State aid.

(2) Cf. Dexia press release dated 5 February 2018, available at www.dexia.com.
(3) Cf. Dexia press release dated 24 January 2014, available at www.dexia.com.

In February 2019, the Belgian and French States notified the European Commission of the renewal, beyond 31 December 2021, of the funding guarantee from which Dexia benefits. On the basis of the draft currently envisaged, the commission which Dexia would pay to the States in the case of liquidation by virtue of remuneration for the guarantee could absorb the net proceeds of the liquidation of Dexia, with the result that the holders of Dexia and Dexia Crédit Local hybrid Tier 1 debt would receive no proceeds[4].

Prudential filters

As a consequence of the application of Article 33 of the Regulation (EU) No. 575/2013 (Capital Requirements Regulation – CRR) on cash flow hedges and changes in the value of own liabilities, Dexia shall not include the following items in any element of own funds:

- The fair value reserves related to gains or losses on cash flow hedges of financial instruments not valued at fair value, including projected cash flows. Out of the amount of EUR 578 million of CFH reserve as at 31 December 2018, EUR -572 million was filtered out. As a consequence, EUR 6 million was eligible as prudential equity. As at 31 December 2017, EUR 897 million was filtered out from the total CFH reserve, which amounted to EUR 922 million and EUR 25 million was eligible as prudential equity.
- The gains or losses on liabilities of the institution that are valued at fair value that result from changes in the own credit risk (OCR) of Dexia. As from 1 January 2017 onwards, as allowed by the standard IFRS 9, Dexia booked the OCR of those financial liabilities in "gains and losses directly recognised in equity". As a consequence, it was fully filtered out of the prudential equity.
- Fair value gains and losses arising from Dexia's own credit risk related to derivative liabilities. The Debit Valuation Adjustment (DVA) amounted to EUR 52 million as at 31 December 2018 (EUR 48 million as at 31 December 2017).

Also, in accordance with the regulation prudent valuation requirements are applied to all fair-valued positions regardless of whether they are held in the trading book or banking book.

The prudent valuation requirement (Additional Valuation Adjustment) was EUR 227 million as at 31 December 2018 (EUR 84 million as at 31 December 2017).

Deductions pursuant to Articles 36, 56 and 66 and items not deducted in accordance with Articles 47,48,56,66 and 79 of the CRR

As at 31 December 2018, the Dexia Group was concerned by the deductions under review only for the intangible assets.

- The amount of intangible assets (software acquired or internally developed) to be deducted represented EUR 37 million.
- The holdings in capital instruments of financial sector entities without representing a significant investment in those entities amounted to EUR 57 million as at 31st December 2018, far below the threshold (EUR 818 million) from which deductions have to be made.
- The holdings of those capital instruments decreased during 2018 mainly due to natural amortisation (EUR 167 million).
- Regarding deferred taxes, the Group mainly had a position of unrecognised deferred tax assets, due to the losses resulting from the wind-down of its activities. The deferred tax assets on the face of the balance sheet represented an amount of EUR 20 million as at 31 December 2018 and arose from temporary differences. (EUR 30 million as at 31 December 2017).
- Significant investments in financial sector entities, at less than EUR 1 million, did not exceed the threshold for deduction. This limited amount, together with the amount of deferred tax assets arising from temporary differences did not exceed the second threshold required in Article 48. They are included in the risk-weighted assets with a weight of 250%.

1.4. Risk-weighted asset by type of risk

The following table shows the risk-weighted assets (RWA) and capital for each type of risk (and exposure class for credit risk) at year-end 2018. Regarding credit risk, the breakdown by exposure class presented in the following table reflects the presence of Dexia in financing public sector entities and project finance.

(4) Cf. Dexia press release dated 26 February 2019, available at www.dexia.com.

Risk-weighted assets and capital requirements

(in EUR million)			31/12/2017		31/12/2018	
Type of risk	Basel III treatment	Exposure class	RWA	Capital Requirements	RWA	Capital Requirements
Credit risk	Advanced	Corporate	3,204	256	2,982	239
		Equities	315	25	300	24
		Fin. Institutions	5,088	407	4,396	352
		Project Finance	2,729	218	2,334	187
		Public Sector Entities	2,941	235	2,167	173
		Securitisation	4	0	0	0
		Sovereign	7,353	588	8,755	700
		Total	***21,633***	***1,731***	***20,934***	***1,675***
	Standard	Corporate	537	43	268	21
		Equities	32	3	30	2
		Fin. Institutions	830	66	944	76
		Financial guarantors	499	40	343	27
		Project Finance	511	41	501	40
		Public Sector Entities	6,215	497	4,904	392
		Securitization	2	0	1	0
		Sovereign	198	16	0	0
		Total	***8,824***	***706***	***6,992***	***559***
	RBA	Securitisation	915	73	743	59
		Total	***915***	***73***	***743***	***59***
Market risk	Internal Model	Interest Rate Risk	319	26	307	25
		Total	***319***	***26***	***307***	***25***
	Standard	Interest Rate Risk	445	36	3	0
		Foreign Exchange risk	215	17	385	31
		Total	***660***	***53***	***388***	***31***
Operational risk	Basic	***Total***	***1,000***	***80***	***1,000***	***80***
TOTAL			**33,351**	**3,468**	**30,365**	**2,429**

At the end of 2018, risk-weighted assets stood at EUR 30.4 billion, of which EUR 28.7 billion for credit risk, EUR 695 million for market risk and EUR 1 billion for operational risk. To recall, at the end of 2017 they were at EUR 33.4 billion, of which EUR 31.4 billion for credit risk. The EUR 2.7 billion decrease of credit risk-weighted assets was for the most part a result of the reduction of the asset portfolio, partially offset by the impact of the first-time application of the IFRS 9 accounting standard.

Risk-weighted assets

(in EUR million)	31/12/2017	01/01/2018	31/12/2018
Credit risk-weighted assets	31,371	32,750	28,670
Market risk-weighted assets	980	980	695
Operational risk-weighted assets	1,000	1,000	1,000
TOTAL	**33,351**	**34,730**	**30,365**

1.5. Capital adequacy

1.5.1. Regulatory solvency ratios

Dexia's Common Equity Tier 1 ratio was 26.7% as at 31 December 2018, against 19.5% at the end of 2017. The Total Capital ratio was 27.3%, against 20.4% at the end of 2017, a level higher than the minimum imposed for the year 2018 by the European Central Bank within the framework of the Supervisory Review and Evaluation Process (SREP).

On-site inspections (OSI) by the supervisors are currently ongoing, in particular an inspection with regard to credit risk. Dexia will integrate the conclusions of such inspections, which might have an impact on the solvency ratios of Dexia Crédit Local and of the Dexia Group, when they are communicated.

Regulatory equity and solvency ratios

(in EUR million except where indicated)	31/12/2017 IAS 39	01/01/2018 IFRS 9	31/12/2018 transitional definition	31/12/2018 fully-loaded definition
Common Equity Tier 1	6,496	8,635	8,119	7,951
Total capital	6,811	8,846	8,278	8,155
Risk-weighted assets	33,351	34,730	30,365	30,353
Common Equity Tier 1 ratio	19.5%	24.9%	26.7%	26.2%
Total Capital ratio	20.4%	25.5%	27.3%	26.9%

1.5.2. Internal capital adequacy

From 2012 Dexia began to reshape the internal capital adequacy assessment process, taking account of its specific situation as a bank in orderly resolution and in line with regulatory requirements.

Dexia in fact developed a "Risk and Capital Adequacy" approach which was inspected by the supervisory authorities. Within the framework of the Single Supervisory Mechanism (SSM), this approach is the Group's response to the requirements of the European Central Bank (ECB) in relation to the Internal Capital Adequacy Assessment Process (ICAAP), the Internal Liquidity Adequacy Assessment Process (ILAAP) and the Supervisory Review and Evaluation Process (SREP).

This approach consists of establishing an exhaustive map of the qualitative and quantitative risks which might simultaneously affect the Group's accounting and prudential situation as well as its liquidity. Such risk mapping aims primarily to measure the sensitivities and exposure to different risk factors impacting the bank. Secondly, the simultaneous impact of various unfavourable future risk scenarios is measured, particularly in terms of the evolution of the principal accounting and prudential indicators. In this regard, and within the same framework, multiple transversal stress-tests are performed. Possible departures from financial and strategic plans are thus identified, measured and analysed. These unfavourable scenarios simultaneously include scenarios of macroeconomic stress and scenarios which are simulated mathematically.

In accordance with the requirements of Pillar 2 and in line with best market practices, the conclusions from these processes are regularly submitted for the approval of the bank's decision-taking bodies (Management Board and Board of Directors).

The "Risk & Capital Adequacy" (RCA) approach builds upon key strengths of regular economic capital approaches, stress testing techniques and risk appetite frameworks. It aims at being fully integrated into the financial planning process, thus demonstrating the capital and liquidity adequacy as required by regulations.

In practical terms, the RCA capacity encompasses three key achievements with dedicated IT tools:

- **An Integrated Risk Map (IRM):** this IRM is Dexia's comprehensive risk taxonomy and cartography inter alia allowing assessments to measure the sensitivities of the financial and prudential statements to each major identified risk factor (default, rating migration, market spread indices, foreign exchange rates, interest rates…). It covers all qualitative and quantitative risks affecting Dexia beyond the risks of Pillar 1. As an illustration, this IRM provides the sensitivity to a decrease of interest rates simultaneously on liquidity reserve, CVA, cash collateral, hedge accounting, risk-weighted assets, etc. and ultimately on available capital, capital ratios and funding sources. This risk map establishes a transparent link between a comprehensive and economic approach to risks and their impact on accounting and prudential measures. For illustration, Total Capital ratios under multiple macro-economic scenarios are estimated.
- **Multiple scenario analysis:** consistent comparison of risk scenarios and assessment of their impact. Multiple risk scenarios (expert, historical, market forwards and Monte Carlo) are consolidated in a single format for comparison and benchmarking purposes. Their impact in terms of capital and liquidity requirements is assessed and benchmarked towards base case scenarios. The adequacy between available financial and funding resources and the risks facing the bank for a variety of risk scenarios at different severity levels is assessed.
- **Reporting:** an integrated cascade of reporting is devised ranging from the most synthetic reports submitted to the boards, to more detailed reporting for intermediate Finance and Risk committees. These reports are designed to meet regulatory requirements in terms of ICAAP and ILAAP (Internal Capital/Liquidity Adequacy Assessment Process) and above all to provide insights into key risks and drivers of the volatilities of key accounting and prudential indicators. These reports will ultimately be used by the departments in charge of optimising Dexia's run-off.

The conclusions of this internal approach in terms of capital adequacy measures and capacities to absorb losses were formally submitted to the bank's executive bodies on a quarterly basis in 2018. Capital adequacy is thus analysed over horizons aligned to those of the strategic plans. Analyses from three months to ten years were produced in 2018. Those used for ICAAP and ILAAP purposes are established over a horizon of three years with an annual step. ICAAP and ILAAP stresses form an integral part of these analyses.

In fact, within the framework of the Single Supervisory Mechanism (SSM), this approach known as "Risks and Capital Adequacy" also constitutes the response given by the Group to the requirements of the European Central Bank (ECB) in relation to the Internal Capital Adequacy Assessment Processes and the Supervisory Review and Evaluation Processes (SREP). Inspected by the supervisor in 2016, it has evolved since then to integrate inter alia the recommendations from that inspection.

Possible departures from financial and strategic plans are identified, measured and analysed. These unfavourable scenarios simultaneously include macroeconomic stress scenarios, scenarios simulated mathematically and reverse stress tests.

This internal approach is renewed in 2019, taking account of the evolution of risks, market conditions and multiple exchanges with the supervisor throughout the year 2018.

1.5.3. Stress tests

The objective of the stress-test framework is to ensure that the Dexia Group's financial position provides sufficient resilience to withstand the impact of severe economic and financial stress.

Stress tests and scenario analyses in line with the final versions of the EBA guidelines published in July 2018 – Guidelines on the revised common procedures and methodologies for the supervisory review and evaluation process (SREP) and supervisory stress testing and Guidelines on institutions' stress testing – and the requirements formulated by the European Central Bank in November – ECB Guide to the internal capital adequacy assessment process (ICAAP) and ECB Guide to the internal liquidity adequacy assessment process (ILAAP) – for application as from 1 January 2019, Dexia performs multiple scenario analysis exercises and stress tests in a transversal and integrated approach to the Group's risk management process. This is a complete programme of stress tests in observance of the EBA guidelines which guarantees consistent articulation between the different types and granularities of stress.

Globally and transversally, these stress tests consist of sensitivity analyses, scenario impact analyses at multiple levels of severity and reverse stress tests. They exhaustively cover all the bank's risks, particularly and principally credit and counterparty risk, market and exchange risk, liquidity risk, rate risk specific to banking portfolios (excluding the trading portfolio), operational risk including legal risk and concentration risk.

In addition to the stress tests performed within the framework of the ICAAP/ILAAP described below, Dexia has principally developed:

- Specific credit stress tests for the main asset classes. In particular, within the framework of Basel Pillar 1, the credit exposures covered by internal rating systems were subjected to sensitivity tests, of macroeconomic, historic and expert scenarios.
- Market stress tests (highlighting potential events outside the probability of VaR measurement techniques). They have been divided into tests of unique risk factors, tests of historic scenarios, tests of hypothetical scenarios and reverse stress tests.
- Stress tests associated with the structural interest rate risk enabling the potential impact on Dexia equity of a sudden and unexpected fluctuation of interest rates, to be measured, responding to regulatory expectations;
- Liquidity stress tests enabling additional liquidity requirements to be estimated in exceptional but plausible scenarios at different time horizons up to two years. Their aim is to identify possible vulnerabilities and simultaneously in an adverse shock situation to assess the possible increase of risk-weighted assets, additional liquidity requirements or capital requirements;
- A series of internal transversal stress tests, complementary to and consistent with those of the ICAAP and ILAAP processes, relying on macroeconomic scenarios simulating crisis situations for Dexia for the purpose of internal analyses of capital adequacy and the risks of deviations from the strategic plan. They were approved internally and forwarded to the supervisory authorities on various occasions in 2018, in addition to the formal documentation of the ICAAP and ILAAP processes.

Crisis simulations for the purposes of ICAAP and ILAAP, described in detail in the following sections, are the object of internal validation and verification.

In accordance with regulatory requirements, the complete annual exercise for 2018 was forwarded to the ECB.

1.5.3.1. Stress-tests related to credit risk

In the context of Pillar 1 of Basel III, credit exposures covered by the internal rating based approach (IRBA) are regularly subject to sensitivity tests and scenario analyses based on macro-economic and expert scenarios reflecting crisis situations.

The objective is to estimate the impact of adverse although plausible assumptions of economic recession on the main credit risk parameters: Probability of Default (PD) and Loss Given Default (LGD), and risk measures such as risk-weighted assets, Expected Loss (EL) or direct losses.

A quantitative point-in-time modelling per credit sector has been developed, for the purpose of stress testing, financial planning and IFRS 9 multi-scenario Expected Credit Loss Calculations, to link the evolution of the credit risk parameters to the change of the main macro-economic variables (GDP evolution rate, unemployment rate, interest rate, etc.) under stressed rating migration matrices.

This quantitative modelling is completed by an expert approach to take into account the actual vulnerabilities of each credit sector and the inner limits of historical observations between macro-economic variables and risk parameters (PD, LGD). These expert scenarios are designed and discussed during the credit workshops with credit risk experts involved in the different asset classes.

The outcomes of the macro-economic stress and expert stress scenarios are benchmarked with historical scenarios and the Pillar 2 ICAAP Risk & Capital Adequacy credit risk results. A stress-test report is drafted for each credit sector, including data description, principles of methodology, results and conclusions of different sensitivity tests and scenarios, as well as possible management actions to face hypothetical and adverse situations. The results of the stress-test exercises are presented to the Risk Management Executive Committee. All stress-test reports are submitted for validation by the internal methodological validation team in charge of IRBA models.

1.5.3.2. Stress-tests related to market risk

The market risk stress-tests complete the risk management framework by stressing potential exceptional events outside the probability framework of VaR measurement techniques. They are performed on a quarterly basis on the Group scope. The results of these stress-tests are reported to the Market Risk Committee.

A number of scenarios are regularly assessed covering the main market risk factors: interest rate, foreign exchange rate, volatility and credit spread.

Stress tests performed by Dexia can be broken down into four categories:
- Single risk factor (mono-factorial) stress-tests, including some stress-tests recommended by the banking supervisors.
- Integrated Historical scenario stress-tests: Equity crash (1987), Monetary crisis (1992), Terrorist attack (2001), Financial crisis scenario (2008) capturing the turmoil triggered by the Lehman default, Sovereign Crisis (2012) simulating the crisis propagation of the sovereign debt crisis in the Euro zone.
- Integrated hypothetical scenarios stress-tests;
- Reverse stress tests.

1.5.3.3. Stress tests related to structural interest rate risk

Dexia applies the supervisory standard shock as defined by the EBA, assessing the change in economic value by more than 20% on own funds as a result of a sudden and unexpected change in interest rates. This test is achieved by means of a 200 basis point parallel shift of the yield curve. The results of these stress-tests are reported to the Group Assets & Liabilities Committee.

1.5.3.4. Stress tests related to liquidity risk

Dexia performs liquidity stress-tests to estimate the additional liquidity requirements under exceptional although plausible scenarios in a certain time horizon up to two years such as:
- Market-wide shocks that affect all banks in the system;
- Idiosyncratic shocks, e.g., due to financial deterioration of Dexia;
- Combined scenario.

Stress scenarios are applied on balance sheet and off-balance sheet components of the residual gap that is the main liquidity driver. The residual gap is the difference between:
- Dynamic liquidity gap composed of the static liquidity gap profile adjusted for gap assumptions (new transactions, roll of repo, roll of short-term funding, etc.);
- Dynamic buffer of reserves composed of the static buffer of eligible reserves adjusted for reserve assumptions.
- Stress tests mainly performed on wholesale funding, cash collateral and reserves (assets) eligible for pledging to central banks, funding deposits and secured funding. The stress encompasses off-balance sheet commitments and downgrade triggers.

1.5.3.5. Integrated Pillar 2 stress tests

As mentioned above and following the Pillar 2 regulation recalled by the JST, in 2016 Dexia included in its ICAAP a comprehensive stress-testing framework, clearly distinct and independent from the ICAAP risk measurement, providing a challenging perspective to the latter, including of its underlying assumptions.

More specifically, for regulatory stresses of the ICAAP and ILAAP type, as defined in the EBA guidelines and in association with reviews of financial plans over multiple horizons, Dexia performed a complete review of its vulnerabilities to cover all material risks associated with its business model under stressed macroeconomic and financial conditions in addition to reverse stress tests. In accordance with regulatory requirements, the documentation for the ICAAP 2018 annual exercise was forwarded to the ECB.

The ICAAP stress tests form an integral part of the bank's reporting system, and its risk appetite framework (RAF) and are incorporated in the definition and review of global strategy. They systematically complete the financial planning process. The link between risk tolerance, adaptations to the strategic plan for resolution and the ICAAP and ILAAP stress tests is also guaranteed by specific consumption and capital adequacy indicators forming part of the RAF.

1.5.3.6. Internal transversal stress-tests

A series of internal transversal stress tests, complementary to and consistent with those of the ICAAP and ILAAP processes, relying on macroeconomic scenarios simulating crisis situations for Dexia for the purpose of internal analyses of capital adequacy and the risks of deviations from the strategic plan. They were approved internally and forwarded to the supervisory authorities on various occasions in 2018, in addition to the formal documentation of the ICAAP and ILAAP processes.

1.6. Leverage ratio

The Basel III /CRD IV Regulation introduced the leverage ratio, the main objective of which is to serve as a complementary measure on capital. This ratio is obtained by dividing Tier 1 capital by exposures calculated using the balance sheet assets and off-balance sheet commitments, assessed according to a prudential approach. Derivatives and repurchase agreements are also adjusted.

The Delegated Act amending Regulation (EU) No. 575/2013 adopted by the European Commission on 10 October 2014, specifies the changes in the methods for calculating the ratio relative to the initial 2013 text. In November 2016, the European Commission published a draft of the CRR revision (CRR2). The CRR2 proposes a complete framework for Leverage ratio which will be binding in 2019. The proposal confirms a minimum level of 3% from that year onwards. However, banks have been required to publish their leverage ratio since 1 January 2015.

As at 31 December 2018, the Group ratio calculated according to the CRR/CRD IV rules as amended by the Delegated Act of October 2014 reached 6.59% (using a transitional definition of Tier 1 capital), compared to 4.59% as at 31 December 2017. This improvement is explained by the increase of Tier 1 capital exposure as well as a lower exposure.

As at 31 December 2018, the Group leverage ratio calculated using a fully phased-in definition of Tier 1 capital reached 6.42%.

Quarterly follow-up of the leverage ratio is performed at both Group and entity levels, in order to manage the risk of excessive leverage. This follow-up is included in the quarterly "Capital Management" report.

Summary comparison of accounting assets against leverage ratio exposure measure

LEVERAGE EXPOSURE: RECONCILIATION WITH TOTAL BALANCE SHEET		
(in EUR million except where indicated)	31/12/2017	31/12/2018
TOTAL BALANCE SHEET	**180,938**	**158,804**
Neutralisation of the balance sheet value of items whose leverage exposure is different from that of the balance sheet	**(50,462)**	**(44,623)**
Trading derivatives (assets)	*12,509*	*10,354*
Hedging derivatives (assets)	*4,985*	*4,421*
SFT (assets)	*2,980*	*2,575*
Cash collateral (paid)	*29,989*	*27,273*
Leverage exposure of derivatives	**5,427**	**4,849**
Leverage exposure of reverse repo	**0**	**0**
Leverage exposure of repo (liabilities) counterparty credit risk	**5,642**	**4,204**
Leverage exposure of off-balance sheet items	**1,020**	**834**
Leverage exposure adjustment on assets deducted from CET1	**(119)**	**(264)**
Intangible assets	*35*	*37*
Breach of threshold on deduction on CET1 of instruments from fin. institutions	*0*	*0*
Breach of threshold on deductions on AT1 of instruments from fin. institutions	*0*	*0*
Additional value adjustments	*84*	*227*
TOTAL LEVERAGE EXPOSURE	**142,447**	**123,803**
TIER 1 capital, transitional provisions	6,544	8,158
LEVERAGE RATIO	**4.59%**	**6.59%**

Leverage ratio common disclosure template

(in EUR million except where indicated)		31/12/2017	31/12/2018
On-balance sheet exposures			
1	On-balance sheet items (excluding derivatives and SFTs, but including collateral)	160,465	141,454
2	(Asset amounts deducted in determining Basel III Tier 1 capital transitional definition)	(119)	(264)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)	160,347	141,189
Derivative exposures			
4	Replacement cost associated with all derivatives transactions (where applicable net of eligible cash variation margin and/or with bilateral netting)	6,281	5,950
5	Add-on amounts for PFE associated with all derivatives transactions	1,924	1,781
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	(29,989)	(27,273)
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(2,778)	(2,882)
8	(Exempted CCP leg of client-cleared trade exposures)	0	0
9	Adjusted effective notional amount of written credit derivatives	0	0
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	0	0
11	Total derivative exposures	5,427	4,849
Securities financing transaction exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions		
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)		
14	CCR exposure for SFT assets	5,642	4,204
15	Agent transaction exposures		
16	Total securities financing transaction exposures (sum of lines 12 to 15)	5,642	4,204
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	1,739	1,353
18	(Adjustments for conversion to credit equivalent amounts)	(719)	(519)
19	Off-balance sheet items (sum of lines 17 and 18)	1,020	834
Capital and total exposures			
20	Tier 1 capital – Transitional definition	6,544	8,158
21	Total exposures (sum of lines 3, 6, 11, 16 and 19)	142,447	123,803
Leverage ratio			
22	Basel III leverage ratio – using a transitional definition of Tier 1 capital	4.59%	6.59%

1.7. Significant banking subsidiary: Dexia Crédit Local

Dexia Crédit Local (DCL) is Dexia Group's sole significant subsidiary following the orderly resolution plan. DCL exposure amounts are almost the same as those of the Dexia Group.

Prudential equity and solvency ratios

(in EUR million except where indicated)	31/12/2017 IAS 39	01/01/2018 IFRS 9	31/12/2018 transitional definition	31/12/2018 fully-loaded definition
Common equity Tier 1	5,354	7,314	7,012	6,844
Total capital	5,629	7,485	7,134	7,008
Risk-weighted assets	33,177	34,576	30,182	30,170
Common equity Tier 1 ratio	16.1%	21.2%	23.2%	22.7%
Total capital ratio	17.0%	21.7%	23.6%	23.2%

As at 31 December 2018, Dexia Crédit Local's Total Capital was EUR 7.1 billion, compared to EUR 5.6 billion as at 31 December 2017. On the same date, Dexia Crédit Local's Common Equity Tier 1 capital was EUR 7.0 billion, compared to EUR 5.4 billion as at 31 December 2017.

The first-time application of the IFRS 9 accounting standard on 1 January 2018 led to an increase of EUR +2.0 billion in Dexia Crédit Local's Common Equity Tier 1 capital, mainly due to the cancellation of unrealised gains and losses recognised in equity under IAS 39 (cf. Dexia Crédit Local's Annual Report 2018, section "Impact of the first-time application of the IFRS 9 accounting standard for Dexia Crédit Local" in the chapter entitled "Financial Results" and note 1.6 to the consolidated financial statements.

Dexia Crédit Local's Common Equity Tier 1 capital as at 31 December 2018 was burdened by the negative net income for the year (EUR -256 million).

In line with European Central Bank requirements, two items are deducted from regulatory capital for a total of EUR -137 million:
- The theoretical loss amount corresponding to the remediation of the non-compliance with the large exposure constraint, which amounts to EUR -90 million[5];
- The amount of irrevocable payment commitments (IPC) to resolution funds and other guarantee funds, for an amount of EUR -47 million.

As at 31 December 2018, risk-weighted assets decreased compared to the end of December 2017, to EUR 30.2 billion as at 31 December 2018, of which EUR 28.5 billion for credit risk, EUR 0.7 billion for market risk and EUR 1 billion for operational risk. To recall, at the end of 2017, they were at EUR 33.2 billion, of which EUR 31.2 billion for credit risk. At a credit risk level, the decrease was for the most part a result of the reduction of the asset portfolio, partially offset by the impact of the first-time application of the IFRS 9 accounting standard.

Dexia Crédit Local's Common Equity Tier 1 ratio was 23.2% as at 31 December 2018, against 16.1% at the end of 2017. The Total Capital ratio was 23.6%, against 17.0% at the end of 2017, a level higher than the minimum imposed for the year 2018 by the European Central Bank within the framework of the Supervisory Review and Evaluation Process (SREP).

(5) Cf. Dexia press releases dated 5 February and 26 July 2017, available at www.dexia.com.

2. Credit risk

2.1. Credit risk management

Dexia credit risk policy

In order to manage credit risk, Dexia Risk Management has established a general framework of policies and procedures. This framework guides credit risk management in its functions of analysis, decision-making and risk surveillance.

Risk Management contributes to the process of credit by setting up a framework of credit limits mainly for banking activities (funding and derivatives) dedicated to the residual portfolio The rest of the transactions (restructuring, additional credit limits beyond the framework) have to be approved by the Transaction Committee.

Risk measures

As Dexia applies the IRBA Advanced approach, the assessment of credit risk relies principally on internal rating systems developed within the context of the Basel reform: in the Advanced approach, each counterparty is attributed an internal rating by credit risk analysts relying on dedicated rating tools. This internal rating corresponds to an assessment of the level of the counterparty's risk of default, expressed through an internal rating scale, constituting a key element in the credit granting process. Ratings are revised annually, allowing proactive identification of the sensitive counterparties and risks. Watch-list committees are organised to monitor sensitive exposures on the basis of objective criteria or expert judgment.

In order to control the Group's overall credit risk profile, and to limit the concentration of risks, credit risk limits are defined per counterparty, setting the maximum exposure deemed acceptable. The risk management teams can also set limits per product: they proactively monitor limits, and may reduce them at any time depending on the evolution of associated risks.

2.2. Credit risk exposure

Dexia's credit risk exposure is expressed as Exposure at Default (EAD). It corresponds to the best estimate of credit risk exposure in the event of default. The Dexia Group uses both the standard and the advanced approach to calculating its risk-weighted assets. Thus the regulatory metric has been adapted to allow the treatment of impairments to be homogenised for comparability purposes.

- For financial assets measured at amortised cost, the EAD of a credit exposure on the balance sheet corresponds to the book value, gross of impairments, taking account of accrued interest and the impact of hedge accounting;
- For financial assets measured at fair value, the EAD of a credit exposure on the balance sheet corresponds to its book value, before impairments;
- For derivatives, the EAD is calculated using the mark-to-market valuation method under Article 274 of the Regulation (EU) No. 575/2013 and includes the replacement cost as well as the amount representing future potential exposure, obtained by the product of the notional amount and a coefficient depending on the type of derivative and its residual term;
- For off-balance-sheet commitments, the EAD represents the product of the (nominal) amounts of commitments and a Credit Conversion Factor (CCF). The Dexia Group applies the standard method (Article 111 of the Regulation (EU) No. 575/2013) to determine credit conversion factors, except for project finance transactions (advanced approach).

On 14 December 2018, Dexia and the German banking group HELABA signed a sale agreement in relation to Dexia Kommunalbank Deutschland (DKD), the German subsidiary of Dexia Crédit Local. In compliance with the IFRS 5 accounting standard, DKD was classified as "discontinued operations" in the Dexia consolidated financial statements as at 31 December 2018. DKD credit risk exposures are presented separately in Dexia's 2018 Annual Report.

As at 31 December 2018, Dexia's credit risk exposure was EUR 123.6 billion (of which EUR 16.2 billion at the level of DKD), compared with EUR 141.9 billion at the end of December 2017, i.e. down 13%, linked to natural portfolio amortization, asset disposals and early redemptions. Exposure was at EUR 61 billion in loans and EUR 54 billion in bonds. It was for the most part concentrated in the European Union (78%) and the United States (12%).

Exposure on France fell following asset disposals concentrated on the local public sector, natural portfolio amortisation and the reduction deposits with the Bank of France by virtue of the liquidity reserve.

2.2.1. Exposure per type of product and geographic area

The table below shows the total exposure with a breakdown by type of product and geographic area at year-end 2017 and 2018.

Exposure at year-end 2017 (EAD)					
	Eurozone[1]	Rest of Europe	US	Rest of the world	Total
Loans & advances	54,526	13,567	839	3,751	72,681
Debt securities	24,993	6,866	12,293	8,848	53,000
Repo	2,378	559	1,102	1,157	5,196
ABS	553	1,471	2,399	2	4,424
Derivatives	2,906	1,370	436	252	4,964
Given guarantees	938	235	414	27	1,613
Retail loans	2	0	0	0	2
TOTAL	**86,296**	**24,067**	**17,483**	**14,036**	**141,881**

(1) Countries using the Euro currency as at year-end.

Exposure at year-end 2018 (EAD)					
	Eurozone[1]	Rest of Europe	US	Rest of the world	Total
Loans & advances	44,892	12,304	1,731	1,172	60,099
Debt securities	25,321	6,921	7,499	11,255	50,996
Repo	1,670	432	572	828	3,502
ABS	403	1,312	1	1,114	2,831
Derivatives	2,676	1,277	206	388	4,546
Given guarantees	1,141	241	24	261	1,667
Retail loans	2	-	-	0	2
TOTAL	**76,105**	**22,488**	**10,033**	**15,017**	**123,643**

(1) Countries using the Euro currency as at year-end.

2.2.2. Exposure per type of product and obligor grade

The following tables show the total exposure and the average exposure with a breakdown by type of *product and obligor grade at year-end 2017 and 2018. For reporting purposes, a rating "master scale" has* been applied. This scale is structured in grades ranging from AAA to CCC and the modifiers plus, flat and minus.

Exposure at year-end 2017 (EAD)						
Rating	AAA+ to AA-	A+ to BBB-	NIG[1]	Default	Unrated	Total
Loans & advances	37,065	27,379	6,724	936	578	72,681
Debt securities	9,290	39,275	4,404	28	2	53,000
Repo	0	5,196	0	0	0	5,196
ABS	3,717	585	117	0	5	4,424
Derivatives	179	4,084	583	118	0	4,964
Given guarantees	667	784	126	19	17	1,613
Retail loans	0	0	0	2	0	2
Other assets	0	0	0	0	0	0
TOTAL	**50,917**	**77,304**	**11,955**	**1,104**	**602**	**141,881**

(1) Non-investment grade.

Exposure at year-end 2018 (EAD)						
Rating	AAA+ to AA-	A+ to BBB-	NIG [1]	Default	Unrated	Total
Loans & advances	33,491	20,357	5,176	800	275	60,099
Debt securities	7,869	38,780	3,899	448	0	50,996
Repo	216	3,285	-	-	-	3,502
ABS	2,348	362	73	-	48	2,831
Derivatives	135	3,787	495	129	0	4,546
Given guarantees	534	1,034	66	18	16	1,667
Retail loans	0	-	0	2	0	2
Other assets	0	0	0	0	0	0
TOTAL	**44,594**	**67,606**	**9,708**	**1,397**	**338**	**123,643**

(1) Non-investment grade.

As at 31 December 2018, 91% of the exposure was investment grade. Non-investment grade (NIG) files represented 7.9% of the portfolio, 0.3% were unrated and 1.1% were in default.

2.2.3. Exposure per exposure class and economic sector

The following tables show the total exposure with a breakdown per economic sector and exposure class at year-end 2017 and 2018.

Exposure at year-end 2017 (EAD)										
Economic Sector		Corporate	Fin. inst.	Financial guarantors	Project finance	Public sector entities	Retail	Securitization	Sovereign	Total
Industry		4,906	79	-	2,010	1,979	0	-	-	8,974
Construction		27	-	-	6,098	387	-	-	-	6,512
Trade-tourism		2	-	-	-	34	-	-	-	35
Services	Transp. and storage	645	0	-	540	1,264	-	-	48	2,497
	Financial and insurance activities	0	**13,093**	1,500	0	1,309	-	4,377	11,562	31,841
	Real estate activities	161	3	-	3,005	6,132	-	-	-	9,300
	Professional, scientific and technical activities	0	0	-	-	41	-	-	-	41
	Administrative and support service activities	27	-	-	-	3,389	-	-	-	3,416
	Public administration and defense-compulsory social security	0	0	-	-	**57,964**	-	47	**17,294**	75,306
	Human health and social work activities	22	-	-	-	2,381	-	-	-	2,402
	Arts, entertainment and recreation	-	-	-	-	207	-	-	-	207
	Education	0	-	-	-	296	-	-	-	297
	Other services	-	-	-	-	238	-	-	797	1,035
Others		17	0	-	-	-	1	0	0	18
TOTAL		**5,807**	**13,174**	**1,500**	**11,652**	**75,621**	**1**	**4,424**	**29,701**	**141,881**
%		**4%**	**9%**	**1%**	**8%**	**53%**	**0%**	**3%**	**21%**	

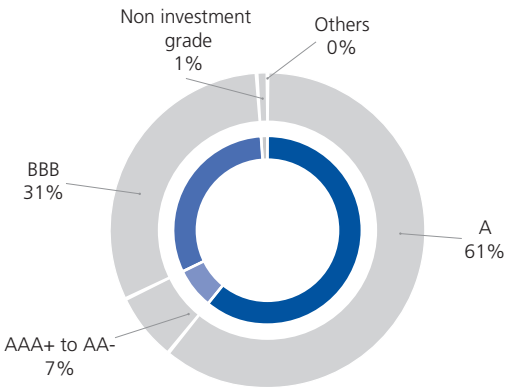
Exposure at year-end 2018 (EAD)

Economic Sector		Corporate	Fin. inst.	Financial guarantors	Project finance	Public sector entities	Retail	Securitization	Sovereign	Total
Industry		4,988	75	-	1,592	1,678	0	-	-	8,333
Construction		9	-	-	5,687	152	-	-	-	5,848
Trade-tourism		1	-	-	-	31	-	-	-	32
Services	Transp. and storage	601	0	-	368	1,130	-	-	47	2,147
	Financial and insurance activities	0	**10,328**	1,488	23	1,474	-	2,822	9,688	25,823
	Real estate activities	106	2	-	2,627	5,296	-	-	-	8,031
	Professional, scientific and technical activities	0	0	-	-	30	-	-	-	30
	Administrative and support service activities	1	-	-	-	2,746	-	-	-	2,748
	Public administration and defense-compulsory social security	0	0	-	2	**50,754**	-	9	**17,058**	67,823
	Human health and social work activities	10	-	-	-	1,962	-	-	-	1,972
	Arts, entertainment and recreation	-	-	-	-	135	-	-	-	135
	Education	1	-	-	-	216	-	-	-	216
	Other services	0	-	-	0	200	-	-	289	489
Others		15	0	-	-	-	1	0	0	16
TOTAL		**5,733**	**10,406**	**1,488**	**10,299**	**65,804**	**1**	**2,831**	**27,081**	**123,643**
%		**5%**	**8%**	**1%**	**8%**	**53%**	**0%**	**2%**	**22%**	**100%**

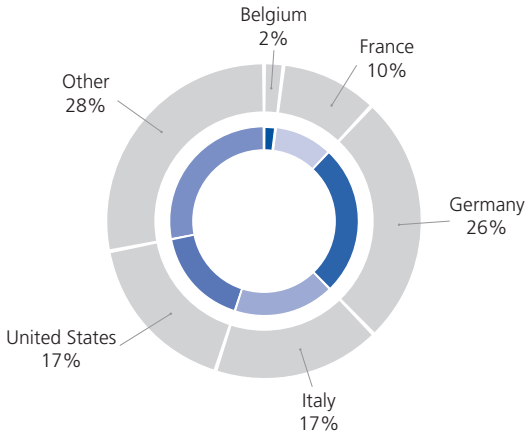
As at 31 December 2018 the majority of exposures remained concentrated on the local public sector and sovereigns (75%), taking account of Dexia's historical activity. Exposure on Sovereigns from the "Financial and insurance activities" class decreased in 2018 following the evolution of deposits of the Group liquidity reserves with the Bank of France.

Exposure in the coloured cells is further detailed in the following diagrams.

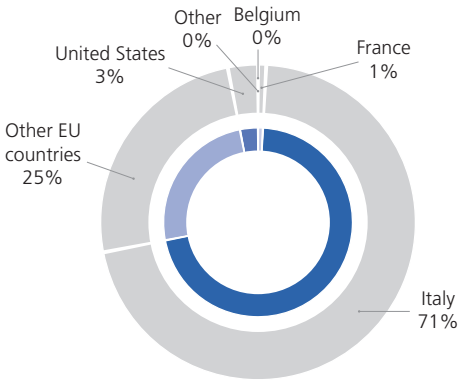
Financial institutions: split by rating class



Public administration / Public sector entities: split by country



Public administration / Sovereign: split by country



2.2.4. Fundamentals of Dexia's credit risk in 2018

2.2.4.1. Dexia Group commitments on sovereigns

Dexia Group commitments on sovereigns are concentrated essentially on Italy and France and to a lesser extent on Portugal and the United States.

	Sovereigns	
	2017	2018
Italy	12,247	12,260
France	10,233	8,458
Portugal	2,050	2,796
United States	1,144	1,409
Poland	486	554
Japan	585	21
Hungary	0	0
Others	2,955	1,584
TOTAL	**29,701**	**27,081**

In Italy, tensions arising with the change of political and economic direction resulted in a downgrade of the sovereign rating by Moody's. Dexia also made a downward revision to the internal rating attributed to Italy in the fourth quarter 2018, thus involving an increase of risk-weighted assets without nonetheless having an impact on collective provisions, the Italian sovereign remaining in stage 1.

Sovereign exposure on France, was EUR 8.5 billion as at 31 December 2018 against EUR 10.2 billion as at 31 December 2017. The fall recorded over the year reflects the reduction of deposits with the Bank of France by virtue of the Group liquidity reserve. In 2018, Dexia took advantage of favourable conditions to dispose of some of its sovereign exposure, particularly on Japan. Exposure on the Japanese sovereign fell by EUR -565 million over the year 2018 and was EUR 21 million as at 31 December 2018.

Dexia also made an upward revision to the internal rating for Portugal where the situation improved with the significant reduction of its foreign debt, the restructuring of its banking sector and several signs of robust economic recovery and diversified growth, thus involving a reduction of risk-weighted assets and collective provisions.

2.2.4.2. Dexia Group commitments on the local public sector

Considering Dexia's historical activity as a lender to local authorities, the local public sector represents a significant proportion of the Group's outstanding, principally concentrated in the countries of Western Europe (Germany, the UK, France, Italy, and Spain) and in North America.

	Local Public Sector	
	2017	2018
Germany	15,165	13,983
United Kingdom	11,038	9,918
France	12,915	9,522
United States	9,684	9,020
Italy	9,739	8,993
Spain	5,489	4,145
Portugal	1,698	1,532
Canada	1,087	922
Greece	3	1
Others	8,803	7,768
TOTAL	**75,621**	**65,804**

Germany
Following to the sale of DKD, Dexia will have a significant decrease in exposure on German Local Public Sector entities.

United Kingdom
Dexia's exposure to the United Kingdom sovereign is marginal (EUR 61 million). Overall exposure on the United Kingdom was nonetheless EUR 21 billion as at 31 December 2018, essentially relating to local authorities, Utilities (water, gas transmission and distribution and electricity), project finance and social housing, all rated in the investment grade category and for which Dexia does not anticipate any major negative impact in the short term as a result of Brexit.

France
The quality of the Group's portfolio, consisting mainly of outstanding on local authorities and social housing, remains very good, with a very limited number of payment incidents observed.

The year 2018 was marked by significant sales of loans within the framework of the deleveraging programme (EUR 1.9 billion).

Spain
The Spanish State's support to the regions and municipalities continued through the renewal of several financial support funds: EUR 29.9 billion was paid to the regions in 2018, particularly by the Autonomous Liquidity Fund (FLA), against EUR 31 billion granted in 2017. In consideration for such aid, State control over regional or local finances was increased: the 2018 budgets were drawn up on the basis of a deficit target of -0.4% of GDP. By way of comparison, the deficit was -0.3% in 2017.

Catalonia is one of the main Spanish regions and a major centre of economic attractiveness for Spain, but. its financial situation remains tense. It presents negative savings, severe indebtedness and tight liquidity leading to dependence on short-term refinancing. As a consequence, it benefits from State support. Following the election of new governments in Catalonia and in Spain, financial control by the Spanish State was raised. The region's finances nonetheless remain subject to control under the FLA. Dexia Group's exposure to Catalonia was high (EUR 1.8 billion) but no payment incident was recorded, as for the other Spanish regions.

Exposure on the Region of Valencia (EUR 300 million) was significantly reduced in June and July 2018 following maturities falling for EUR 340 million.

United States
The majority of the exposures to the local public sector in the United States relates to States (40%) and local authorities (28%). Like the US local public market, the Dexia portfolio is of good quality and is generally covered by financial guarantors.

The main risks affecting the sector are medium and long-term risks relating to the increase of pension debts (with a pension reform capacity more or less significant depending on the legislative framework of each State) and the possible subordination of bond lenders vis-à-vis the beneficiaries of pension schemes, as in certain recent insolvencies (such as the city of Detroit).

In 2018, Dexia remained extremely vigilant as to the evolution of the US public sector, in particular the financial situation of the Chicago Board of Education (CBOE). This counterparty experienced financial difficulties due to a very high level of indebtedness, an under-financing of its pension funds and the ongoing decline of student registrations. The Group's exposure to the CBOE was EUR 441 million as at 31st December 2018. Approximately 12% of the exposure is covered by credit enhancement by Ambac. At the end of 2018, the provision on the CBOE was increased.

Finally, the Dexia Group sold almost all of its exposures on public enterprises associated with the Commonwealth of Puerto Rico, leading to a residual exposure of EUR 5 million as at 31 December 2018. This exposure is fully covered by a good quality financial guarantor.

2.2.4.3. Dexia Group commitments on project finance and corporates
The project finance and corporate loans portfolio amounted to EUR 16 billion as at 31 December 2018, down 8% on the end of 2017. This portfolio contracted on the one hand as a result of natural amortisation and certain early redemptions and on the other hand following disposals.

	Corporate		Project finance	
	2017	2018	2017	2018
United Kingdom	4,277	4,436	3,943	3,570
France	864	694	2,200	1,886
Spain	45	25	1,733	1,364
Canada	0	0	846	813
United States	193	344	418	535
Italy	229	207	170	134
Germany	10	0	166	126
Greece	0	0	85	77
Portugal	0	0	86	70
Others	190	25	2,005	1,724
TOTAL	**5,807**	**5,733**	**11,652**	**10,299**

The portfolio consists 64% of project finance[6], the balance being in finance to corporates, commercial transactions or corporate bonds. The portfolio is good quality: 79% project finance and 99% finance to corporates is rated investment grade.

The UK portfolio represents approximately 50% of the project finance portfolio (PPP) and corporates (utilities), and 97% of the exposure is rated investment grade. There is no anticipation of any significant negative short-term impact following Brexit, even in the event of a non-deal departure from the European Union.

2.2.4.4. Dexia Group commitments on ABS

	ABS/MBS	
	2017	2018
United Kingdom	1,471	1,312
United States	2,399	1,114
Spain	395	316
Others	74	67
Portugal	75	15
Italy	9	7
TOTAL	**4,424**	**2,831**

In 2018, Dexia continued the voluntary reduction of its ABS portfolio. Taking advantage of favourable market conditions, the Group in particular disposed of ABS on US government student loans.

As a consequence, as at 31 December 2018, the Group's ABS portfolio was down 36% compared to 31 December 2017, at EUR 2.8 billion. ABS student loans still represent an important part of the portfolio (EUR 1 billion).

A portion of these loans is guaranteed by the US Federal State and presents a rather long amortisation profile and a limited expected loss. The balance consists for the most part of residential mortgage-backed securities (RMBS) for EUR 0.4 billion, of which EUR 0.3 billion in Spain.

The quality of the portfolio remained stable overall with 96% of the portfolio rated investment grade at the end of December 2018, almost all of the tranches in which Dexia has invested being at a senior level.

2.2.4.5. Dexia Group commitments on financial institutions

	Financial institutions	
	2017	2018
Germany	2,286	2,211
United States	2,514	1,793
France	1,989	1,710
United Kingdom	1,019	1,131
Spain	2,067	1,124
Italy	609	282
Canada	139	147
Portugal	14	9
Others	2,538	2,000
TOTAL	**13,175**	**10,406**

(6) Transactions without recourse to their sponsors the redemption of which is only on the basis of their own cash-flows and strongly secured in favour of the bank, for example via sureties on assets and contracts or a limitation of dividends.

Dexia commitments on financial institutions were EUR 10.4 billion as at 31 December 2018. Commitments consist of bonds, covered bonds and repo operations with financial institutions. The balance includes exposures associated with loans to financial institutions and derivatives.

Moreover, the evolution of the Deutsche Bank Group continues to be monitored carefully given certain negative credit elements such as poor profitability and an uncertain strategic positioning. Dexia's exposure to this Group was EUR 0.9 billion as at 31 December 2018.

Finally, Dexia's exposure to the Italian banking system was limited to EUR 282 million as at 31 December 2018.

2.2.4.6. Dexia Group commitments on financial guarantors

Dexia is indirectly exposed to Financial Guarantors in the form of financial guarantees covering timely payment of the principal and interest payable on credits on certain bonds and loans. Claims against financial guarantors only become payable if real defaults occur in the underlying assets. Dexia's enhanced bonds benefit from increased trading values and, in some cases, a reduction of capital in view of the credit enhancement provided by financial guarantors.

As at 31 December 2018, the amount of exposures enhanced by financial guarantors was EUR 13.8 billion, of which 77% of exposures in assets insured by financial guarantors rated "investment grade" by one or more external rating agencies. All but FGIC continue to honour their original commitments.

2.3. AIRB approaches

2.3.1. Competent authority's acceptance of approach

By letter sent on 21 December 2007 by the Belgian supervisory authorities, Dexia was authorised to use the Advanced Internal Rating-Based Approach (AIRB Approach) for the calculation and the reporting of its capital requirements for credit risk starting from 1 January 2008.

This acceptance is applicable to all entities and subsidiaries consolidated within the Dexia Group, which are established in a Member State of the European Union and are subject to the Capital Requirement Directive.

2.3.2. Internal rating systems

The internal rating systems developed by Dexia are set up to evaluate the three Basel parameters: Probability of Default (PD), Loss Given Default (LGD) and Credit Conversion Factor (CCF). For each counterparty type in the advanced method, a set of two or three models, one for each parameter, has been developed.

The PD models estimate the one-year probability of default. Each model has its own rating scale and each rating on the scale corresponds to a probability of default used for regulatory and reporting purposes. The correspondence between rating and PD for each scale is set during the calibration process, as part of the model development, and is reviewed and adjusted during the yearly back-testing when applicable. The number of ratings on each scale depends on the characteristics of the underlying portfolio (the number of counterparties, their homogeneity, whether it is a low default portfolio or not) and varies between 6 and 18 non-default classes. In addition each scale has been attributed two default classes (named D1 and D2).

LGD models estimate the ultimate loss incurred on a defaulting counterparty before taking the credit risk mitigants into account. The unsecured LGD depends on different factors such as the product type, the level of subordination or the rating of the counterparty. The granularity of the estimate is a function of the quantity and quality of data available.

CCF models estimate the portion of off-balance sheet commitments that would be drawn should counterparties go into default. The regulation authorises the use of CCF models only when CCF under the foundation approach is not equal to 100% (as it is for credit substitutes for instance). CCF granularity also depends on data availability. As a consequence of the orderly resolution plan, internal CCF models are used only on project finance assets; on all other asset classes the foundation parameters are applied. Internal estimates of Basel parameters are used within Dexia in addition to the calculation of the regulatory risk weighted exposure amounts. They are used particularly in the decision-making process, credit risk management and monitoring, internal limit determination, provisioning methodology and pricing.

The control mechanisms for Internal Rating Systems (IRS) are organised in 3 levels:

- Credit IRS control is defined, in accordance with the regulatory directives, as an internal and independent containment function to ensure that the IRS are being used properly, that they are operationally effective and that the audit trail in the rating process remains clear;
- The validation team is responsible for the independent review of all models used within Dexia, back-testing and stress-testing, either market risk models, pricing models, Basel Pillar 1 credit rating models, IFRS 9 models, ALM models, economic capital models;

- Audit is responsible for auditing the general consistency and compliance with the regulation (CRR). Audit then acts as an additional level of control, included in its audit plan.

Cf. Appendix 2 for more details regarding internal rating systems.

2.3.3. Average PD, LGD and risk weight by exposure class and obligor grade

The following tables show the total EAD (banking book), average EAD, average PD, LGD, average risk weights and average expected losses broken down by exposure class and obligor grade at year-end 2017 and 2018. The counterparties are the final counterparties, i.e. after taking into account the Basel III eligible guarantees (substitution principle). Financial guarantors' exposure is essentially an indirect exposure. Average EAD is the quarterly average figure.

		2017					
Exposure class	**Obligor grade**	**EAD[1]**	**Average EAD[2]**	**Average PD**	**Average LGD**	**Average RW**	**Average EL**
Corporate	*AAA to AA-*	-	-	-	-	-	-
	A+ to A-	1,725	1,716	0.07%	39.80%	36.42%	0.03%
	BBB+ to BBB-	3,229	3,560	0.21%	39.50%	61.80%	0.08%
	BB+ to B-	128	112	2.18%	52.02%	148.06%	1.18%
	No external rating	17	13	30.87%	66.68%	423.25%	20.58%
	Total	*5,100*	*5,401*	*0.31%*	*40.01%*	*56.61%*	*0.16%*
Financial institutions	*AAA to AA-*	1	0	0.09%	11.11%	190.00%	0.80%
	A+ to A-	5,568	6,145	0.07%	25.20%	19.91%	0.02%
	BBB+ to BBB-	3,680	3,705	0.25%	37.50%	49.98%	0.11%
	BB+ to B-	1,367	1,939	4.47%	1.79%	7.93%	0.06%
	No external rating	0	0	11.15%	66.18%	333.32%	7.38%
	Total	*10,616*	*11,790*	*0.70%*	*26.45%*	*28.82%*	*0.06%*
Project finance	*AAA to AA-*	-	-	-	-	-	-
	A+ to A-	2,642	2,184	0.07%	12.48%	11.06%	0.01%
	BBB+ to BBB-	5,742	5,109	0.30%	14.42%	25.80%	0.05%
	BB+ to B-	1,837	1,802	1.75%	17.07%	52.29%	0.31%
	Below B-	0	0	-	-	-	-
	No external rating	0	-	-	-	-	-
	Total	*10,222*	*9,094*	*0.50%*	*14.40%*	*26.75%*	*0.08%*
Public sector entities	*AAA to AA-*	14,230	13,236	0.03%	9.36%	4.76%	0.00%
	A+ to A-	8,343	7,680	0.08%	7.06%	5.76%	0.00%
	BBB+ to BBB-	8,088	7,547	0.32%	2.64%	4.58%	0.01%
	BB+ to B-	6,866	5,939	1.87%	4.18%	15.36%	0.15%
	No external rating	378	265	1.96%	4.08%	12.71%	0.11%
	Total	*37,905*	*34,667*	*0.45%*	*6.43%*	*6.94%*	*0.03%*
Securitisation	*AAA to AA-*	10	11	0.00%	5.00%	0.00%	0.00%
	BBB+ to BBB-	-	22	-	-	-	-
	BB+ to B-	37	40	1.48%	3.00%	9.70%	0.04%
	Below B-	-	-	-	-	-	-
	Total	*47*	*73*	*1.17%*	*3.43%*	*7.63%*	*0.03%*
Sovereign	*AAA to AA-*	11,892	8,873	0.00%	9.84%	0.00%	0.00%
	A+ to A-	1,072	1,445	0.08%	17.27%	17.38%	0.01%
	BBB+ to BBB-	14,948	14,964	0.24%	27.85%	46.32%	0.08%
	BB+ to B-	80	83	3.40%	55.00%	212.18%	1.87%
	No external rating	-		-	-	-	-
	Total	*27,991*	*25,366*	*0.14%*	*19.87%*	*26.01%*	*0.05%*
Equities	*AAA to AA-*	53	13	0.09%	11.11%	190.00%	0.79%
	A+ to A-	4	1	0.11%	11.11%	198.38%	0.31%
	BBB+ to BBB-	29	8	0.52%	11.11%	190.25%	0.76%
	BB+ to B-	1	1	3.35%	11.11%	200.85%	0.36%
	Below B-	0	0	30.87%	11.11%	190.00%	0.00%
	No external rating	112	29	32.46%	12.85%	222.50%	0.59%
	Total	*200*	*52*	*18.36%*	*12.09%*	*208.51%*	*0.66%*
Default		749	577	-	-	-	-
TOTAL		**92,830**	**99,509**	-	-	-	-

(1) Trading exposures are not included in this chart.

(2) Average EAD is the quarterly average figure.

		2018					
Exposure class	**Obligor grade**	**EAD[1]**	**Average,EAD[2]**	**Average,PD,**	**Average,LGD**	**Average,RW,**	**Average,EL**
Corporate	*AAA to AA-*	-	-	-	-	-	-
	A+ to A-	2,065	1,961	0.06%	36.06%	32.98%	0.03%
	BBB+ to BBB-	3,193	3,190	0.22%	39.50%	63.34%	0.09%
	BB+ to B-	36	92	1.45%	47.81%	139.04%	0.84%
	Below B-	-	4	-	-	-	-
	No External Rating	16	16	30.87%	66.57%	422.58%	20.55%
	Total	*5,310*	*5,262*	*0.26%*	*38.30%*	*53.13%*	*0.13%*
Financial institutions	*AAA to AA-*	-	-	-	-	-	-
	A+ to A-	4,727	5,260	0.06%	19.24%	16.53%	0.02%
	BBB+ to BBB-	2,781	3,251	0.23%	34.97%	46.27%	0.10%
	BB+ to B-	596	708	4.46%	2.81%	11.33%	0.06%
	No External Rating	0	2	-	-	-	-
	Total	*8,104*	*9,222*	*0.44%*	*23.43%*	*26.35%*	*0.05%*
Project finance	*AAA to AA-*	-	-	-	-	-	-
	A+ to A-	2,326	2,392	0.05%	10.69%	9.61%	0.01%
	BBB+ to BBB-	5,381	5,590	0.24%	12.82%	22.06%	0.04%
	BB+ to B-	1,346	1,543	1.43%	15.77%	46.64%	0.27%
	Below B-	-	-	-	-	-	-
	No External Rating	-	-	-	-	-	-
	Total	*9,053*	*9,525*	*0.37%*	*12.71%*	*22.51%*	*0.07%*
Public sector entities	*AAA to AA-*	12,727	13,689	0.03%	8.51%	4.31%	0.00%
	A+ to A-	6,637	7,148	0.06%	7.92%	6.26%	0.00%
	BBB+ to BBB-	5,812	6,408	0.26%	2.96%	4.64%	0.01%
	BB+ to B-	6,239	6,715	1.44%	2.89%	8.93%	0.04%
	No External Rating	157	216	4.29%	4.12%	15.56%	0.23%
	Total	*31,573*	*34,175*	*0.38%*	*6.23%*	*5.75%*	*0.01%*
Securitisation	*AAA to AA-*	9	9	0.00%	5.00%	0.00%	0.00%
	BBB+ to BBB-	-	-	-	-	-	-
	BB+ to B-	-	11	-	-	-	-
	Below B-	-	-	-	-	-	-
	Total	*9*	*20*	*0.00%*	*5.00%*	*0.00%*	*0.00%*
Sovereign	*AAA to AA-*	10,713	11,943	0.00%	9.71%	0.00%	0.00%
	A+ to A-	575	564	0.10%	19.82%	21.82%	0.02%
	BBB+ to BBB-	15,598	15,848	0.29%	28.43%	52.81%	0.09%
	BB+ to B-	134	131	3.40%	55.00%	212.18%	1.59%
	No External Rating	-	-	-	-	-	-
	Total	*27,020*	*28,487*	*0.19%*	*20.95%*	*32.01%*	*0.06%*
Equities	*AAA to AA-*	53	53	0.09%	11.11%	289.76%	0.80%
	A+ to A-	1	1	0.09%	11.11%	224.63%	0.80%
	BBB+ to BBB-	31	29	0.51%	11.11%	190.23%	0.80%
	BB+ to B-	0	0	2.46%	11.11%	215.40%	0.80%
	Below B-	0	0	30.87%	11.11%	190.00%	0.80%
	No External Rating	41	55	30.84%	15.25%	209.08%	0.82%
	Total	*126*	*139*	*10.29%*	*12.47%*	*238.42%*	*0.81%*
Default		1,131	806	-	-	-	-
TOTAL		**82,325**	**87,635**	-	-	-	-

(1) Trading exposures are not included in this chart.

(2) Average EAD is the quarterly average figure

The decrease of EAD is mainly explained by assets disposals, maturity and early repayments. These effects are offset by FX as well as fair value movements.

The majority of Dexia Group exposure in the AIRB approach (71% of the EAD) is concentrated on the public sector (i.e. public sector entities and sovereign exposures). A vast majority of average PD levels is below 1% reflecting the exposure on highly rated municipal and public related counterparties.

Average LGD is very heterogeneous by exposure class: public sector entities benefit from very low LGD compared to corporate exposures.

2.3.4. Average PD, LGD and risk weight by exposure class and geographic area

The following tables show the total EAD (banking book), average EAD, average PD, LGD, average risk weights and average expected losses broken down by exposure class and geographical location at year-end 2017 and 2018.

The counterparties are the final counterparties, i.e. after taking into account the Basel III eligible guarantees (substitution principle). Financial guarantors' exposure is essentially an indirect exposure. Average EAD is the quarterly average figure.

		2017					
Exposure class	**Geographic area**	**EAD[1]**	**Average EAD[2]**	**Average PD**	**Average LGD**	**Average RW**	**Average EL**
Corporate	*France*	826	870	0.41%	46.61%	68.50%	0.22%
	Italy	228	423	0.22%	39.92%	58.49%	0.09%
	United Kingdom	3,783	3,872	0.15%	38.54%	51.50%	0.06%
	Spain	45	46	1.41%	43.37%	122.66%	0.70%
	Portugal	-	-	-	-	-	-
	Germany	10	11	0.18%	34.93%	51.13%	0.06%
	Greece	-	-	-	-	-	-
	United States	180	222	0.23%	37.52%	56.40%	0.09%
	Canada	-	-	-	-	-	-
	Others Europe	17	18	30.85%	66.27%	420.44%	20.44%
	Other countries	12	55	0.46%	39.34%	61.09%	0.24%
	Total	*5,100*	*5,518*	*0.31%*	*40.01%*	*56.61%*	*0.16%*
Financial institutions	*France*	1,970	2,611	0.11%	28.16%	27.32%	0.06%
	Italy	154	161	0.51%	47.08%	102.51%	0.24%
	United Kingdom	409	728	0.11%	20.57%	26.61%	0.02%
	Spain	2,067	3,269	3.05%	6.14%	12.88%	0.05%
	Portugal	14	15	0.82%	60.75%	215.10%	0.50%
	Germany	1,473	1,579	0.17%	35.86%	36.37%	0.06%
	Greece	-	-	-	-	-	-
	United States	1,960	2,093	0.08%	24.61%	20.62%	0.02%
	Canada	139	179	0.07%	23.50%	16.78%	0.02%
	Others Europe	529	806	0.10%	27.12%	21.77%	0.03%
	Other countries	1,901	2,035	0.18%	40.73%	46.24%	0.10%
	Total	*10,616*	*13,476*	*0.70%*	*26.45%*	*28.82%*	*0.06%*
Project finance	*France*	2,084	2,161	0.35%	11.74%	23.10%	0.05%
	Italy	109	212	0.68%	17.80%	42.80%	0.13%
	United Kingdom	3,738	3,799	0.20%	13.76%	19.19%	0.03%
	Spain	1,263	1,333	1.23%	17.73%	49.50%	0.22%
	Portugal	58	64	0.75%	19.49%	38.95%	0.15%
	Germany	133	151	1.46%	19.49%	57.19%	0.28%
	Greece	-	-	-	-	-	-
	United States	107	126	0.98%	19.49%	40.66%	0.19%
	Canada	846	894	0.28%	13.77%	23.94%	0.04%
	Others Europe	110	114	0.90%	18.52%	46.50%	0.17%
	Other countries	1,775	2,035	0.73%	15.47%	26.43%	0.13%
	Total	*10,222*	*10,889*	*0.50%*	*14.40%*	*26.75%*	*0.08%*
Public sector entities	*France*	10,677	11,745	0.20%	2.22%	1.35%	0.01%
	Italy	9,243	9,555	0.81%	3.00%	6.90%	0.02%
	United Kingdom	3,375	3,495	0.04%	1.57%	1.00%	0.00%
	Spain	4,662	5,162	0.77%	3.00%	5.81%	0.02%
	Portugal	225	241	0.51%	3.00%	5.88%	0.02%
	Germany	-	-	-	-	-	-
	Greece	-	-	-	-	-	-
	United States	8,682	9,809	0.43%	19.19%	17.63%	0.09%
	Canada	-	-	-	-	-	-
	Others Europe	84	118	0.00%	10.00%	0.00%	0.00%
	Other countries	957	973	0.00%	5.00%	0.00%	0.00%
	Total	*37,905*	*41,097*	*0.45%*	*6.43%*	*6.94%*	*0.03%*

		2017					
Exposure class	**Geographic area**	**EAD[1]**	**Average EAD[2]**	**Average PD**	**Average LGD**	**Average RW**	**Average EL**
Securitisation	*Italy*	-	22	-	-	-	-
	Spain	37	40	1.48%	3.00%	9.70%	0.04%
	Other countries	10	11	0.00%	5.00%	0.00%	0.00%
	Total	*47*	*73*	*1.17%*	*3.43%*	*7.63%*	*0.03%*
Sovereign	*France*	10,314	5,232	0.00%	10.00%	0.00%	0.00%
	Italy	12,269	12,556	0.16%	25.00%	34.68%	0.04%
	United Kingdom	61	62	0.00%	10.00%	0.00%	0.00%
	Spain	437	504	0.16%	25.00%	35.95%	0.04%
	Portugal	2,050	1,957	0.71%	45.00%	117.59%	0.32%
	Germany	135	137	0.00%	5.00%	0.00%	0.00%
	Greece	-	-	-	-	-	-
	United States	1,147	5,176	0.00%	10.00%	0.00%	0.00%
	Canada	-	-	-	-	-	-
	Others Europe	704	981	0.15%	20.15%	24.65%	0.05%
	Other countries	874	1,066	0.37%	18.63%	32.41%	0.18%
	Total	*27,991*	*27,671*	*0.14%*	*19.87%*	*26.01%*	*0.05%*
Equities	*France*	63	17	3.31%	11.11%	190.00%	0.73%
	Italy	29	7	7.35%	11.11%	199.41%	0.72%
	United Kingdom	21	6	29.76%	11.11%	216.83%	0.36%
	Spain	0	0	-	-	-	-
	Portugal	-	-	-	-	-	-
	Germany	0	0	-	-	-	-
	Greece	-	-	-	-	-	-
	United States	51	13	30.87%	11.11%	245.54%	0.61%
	Canada	-	-	-	-	-	-
	Others Europe	34	9	30.47%	16.87%	191.25%	0.80%
	Other countries	3	1	7.43%	11.11%	190.00%	0.10%
	Total	*200*	*52*	*18.36%*	*12.09%*	*208.51%*	*0.66%*
Default		749	733	-	-	-	-
TOTAL		**92,830**	**99,509**	-	-	-	-

(1) Trading exposures are not included in this chart.

(2) Average EAD is the quarterly average figure.

		2018					
Exposure class	**Geographic area**	**EAD[1]**	**Average EAD[2]**	**Average PD**	**Average LGD**	**Average RW**	**Average EL**
Corporate	*France*	681	761	0.20%	35.36%	51.36%	0.12%
	Italy	206	215	0.21%	41.92%	59.19%	0.09%
	United Kingdom	4,028	3,887	0.15%	38.59%	49.92%	0.06%
	Spain	25	35	0.73%	37.65%	96.66%	0.28%
	Portugal	-	-	-	-	-	-
	Germany	0	2	0.71%	34.93%	53.97%	0.25%
	Greece	-	-	-	-	-	-
	United States	344	336	0.41%	37.52%	72.14%	0.15%
	Canada	-	-	-	-	-	-
	Others Europe	15	11	30.87%	64.57%	409.88%	19.93%
	Other countries	10	11	0.34%	39.22%	47.34%	0.14%
	Total	*5,310*	*5,258*	*0.26%*	*38.30%*	*53.13%*	*0.13%*
Financial institutions	*France*	1,676	1,748	0.09%	14.52%	15.47%	0.06%
	Italy	277	243	0.36%	46.31%	74.08%	0.17%
	United Kingdom	515	492	0.16%	25.32%	35.50%	0.05%
	Spain	1,124	1,295	2.45%	11.27%	17.39%	0.04%
	Portugal	9	8	0.82%	59.03%	209.01%	0.48%
	Germany	1,026	1,373	0.16%	33.52%	35.87%	0.06%
	Greece	-	-	-	-	-	-
	United States	1,419	1,629	0.06%	23.53%	18.89%	0.02%
	Canada	147	146	0.05%	22.24%	10.42%	0.01%
	Others Europe	726	748	0.10%	25.12%	32.70%	0.03%
	Other countries	1,184	1,537	0.14%	31.39%	32.50%	0.05%
	Total	*8,104*	*9,219*	*0.44%*	*23.43%*	*26.35%*	*0.05%*

		2018					
Exposure class	**Geographic area**	**EAD[1]**	**Average EAD[2]**	**Average PD**	**Average LGD**	**Average RW**	**Average EL**
Project finance	*France*	1,770	1,959	0.26%	11.73%	20.76%	0.05%
	Italy	74	87	0.70%	13.91%	33.35%	0.16%
	United Kingdom	3,538	3,590	0.18%	11.26%	16.32%	0.03%
	Spain	1,002	1,089	1.19%	15.92%	44.18%	0.23%
	Portugal	43	49	0.81%	19.49%	38.77%	0.16%
	Germany	122	127	0.63%	12.36%	33.93%	0.21%
	Greece	-	-	-	-	-	-
	United States	57	78	0.34%	17.32%	23.35%	0.07%
	Canada	813	821	0.25%	11.48%	20.69%	0.05%
	Others Europe	99	104	0.75%	18.40%	43.02%	0.15%
	Other countries	1,534	1,584	0.40%	14.97%	22.38%	0.07%
	Total	*9,053*	*9,487*	*0.37%*	*12.71%*	*22.51%*	*0.07%*
Public sector entities	*France*	7,720	9,006	0.18%	2.39%	1.25%	0.01%
	Italy	8,529	8,797	0.67%	2.83%	5.94%	0.02%
	United Kingdom	2,836	3,129	0.05%	1.44%	0.95%	0.00%
	Spain	3,562	3,980	0.87%	3.00%	6.68%	0.03%
	Portugal	394	346	3.04%	3.00%	9.59%	0.09%
	Germany	-	-	-	-	-	-
	Greece	-	-	-	-	-	-
	United States	7,575	7,917	0.06%	17.58%	12.02%	0.01%
	Canada	-	-	-	-	-	-
	Others Europe	37	53	0.00%	10.00%	0.00%	0.00%
	Other countries	921	944	0.00%	5.00%	0.00%	0.00%
	Total	*31,573*	*34,174*	*0.38%*	*6.23%*	*5.75%*	*0.01%*
Securitisation	*Italy*	-	-	-	-	-	-
	Spain	-	11	-	-	-	-
	Other countries	9	9	0.00%	5.00%	0.00%	0.00%
	Total	*9*	*20*	*0.00%*	*5.00%*	*0.00%*	*0.00%*
Sovereign	*France*	8,610	9,118	0.00%	10.00%	0.00%	0.00%
	Italy	12,284	12,495	0.26%	24.75%	43.08%	0.07%
	United Kingdom	61	61	0.00%	10.00%	0.00%	0.00%
	Spain	478	486	0.16%	24.79%	35.36%	0.04%
	Portugal	2,796	2,760	0.44%	45.00%	98.27%	0.20%
	Germany	401	748	0.00%	5.00%	0.00%	0.00%
	Greece	-	-	-	-	-	-
	United States	1,422	1,781	0.00%	10.00%	0.00%	0.00%
	Canada	-	-	-	-	-	-
	Others Europe	716	722	0.11%	18.78%	21.50%	0.03%
	Other countries	252	277	1.82%	32.45%	113.44%	0.85%
	Total	*27,020*	*28,449*	*0.19%*	*20.95%*	*32.01%*	*0.06%*
Equities	*France*	56	56	0.83%	11.11%	281.62%	0.80%
	Italy	28	26	0.54%	11.11%	190.00%	0.80%
	United Kingdom	6	7	29.41%	11.11%	277.35%	0.80%
	Spain	0	0	-	-	-	-
	Portugal	-	-	-	-	-	-
	Germany	0	0	-	-	-	-
	Greece	-	-	-	-	-	-
	United States	20	19	30.87%	11.11%	194.33%	0.84%
	Canada	-	-	-	-	-	-
	Others Europe	15	29	27.10%	22.60%	213.76%	0.80%
	Other countries	1	1	30.87%	11.11%	190.00%	0.80%
	Total	*126*	*139*	*10.29%*	*12.47%*	*238.42%*	*0.81%*
Default		1,131	806	-	-	-	-
TOTAL		**82,325**	**87,552**	-	-	-	-

(1) Trading exposures are not included in this chart.

(2) Average EAD is the quarterly average figure.

2.3.5. Back-testing

The purpose of the back-test exercises is to assess the performance of the internal rating system ensuring an appropriate balance between capital and risk. As the formulas to calculate the bank's capital are provided by the Basel Committee on Banking Supervision, the internal back-test relating to Pillar 1 rating systems is based on the back-test of the input parameters PD, LGD and CCF in the Basel III credit risk portfolio model.

The back-test is the evaluation of the predictive power of the rating system and the assessment of its time evolution to detect any reduced performance of the rating system. With this aim, three properties in particular are analysed: the model's calibration, its discriminatory power and its stability.

Decreased performance of the rating system decision tool may reduce the bank's profitability and will impact the risk assessments of the defined risk buckets. The performance is tracked by analysing the ability to discriminate between high and low risk and the stability of the data inputs into the rating system.

The back-test procedures include three types of tests

Calibration

Calibration normally denotes the mapping of the Probability of Default (PD) to the rating grades. A rating system is well calibrated if the estimated PD (or LGD or CCF) slightly exceeds the actual default rates (or loss or CCF observed).

Discriminatory power

The discriminatory power of rating systems denotes their ex-ante ability to identify borrowers in danger of defaulting. A rating system with maximum discriminatory power would be able precisely to identify in advance all borrowers that subsequently default. In practice, however, such perfect rating systems do not exist. A rating system demonstrates a high discriminatory power if the "good" grades subsequently turn out to contain only a small percentage of defaulters and a large percentage of non-defaulters, with the converse applying to the "poor" grades. For LGD and CCF, the precision of the calibration is assessed.

Stability

The stability of the population and its data characteristics: the aim is to make sure that the model applied is in line with the reference data sets and with the model where key risk parameters are estimated, or that the population characteristics do not change significantly over time.

The results of the back-tests are assessed using statistical significance tests on the available short-term and long-term data histories. The outcome of the significance tests indicating an unacceptable decreased performance will drive required action plans. The additional part of the back-test procedure is related to ad hoc analysis (qualitative, benchmarking, expert overruling, model risks…).

Presentation of estimated losses versus actual losses

The analysis of the estimated compared to actual risk parameters (PD & LGD) is carried out on a basis per exposure class over a long period in the back-test reviews. The following table displays the statistical significance of the risk parameter of the 2018 back testing.

	PD		LGD	
	p-value	BT period	p-value	BT period
Financials Institutions		1995-2017		1980-2017
Corporates		1983-2017		1980-2017
Sovereigns		1995-2017		1998-2017
Project Finance		2002-2017		1995-2017
Public Sector Entities		1995-2017		1995-2017

All results are displayed on the longest available period. The realized default rates and losses are in line with the estimated ones. Data used in the table:

- On Project Finance and Public Sector Entities, the results are displayed on internal data on the whole portfolio.
- On Banks, Corporates and Sovereigns, the results are displayed on external data (in line with the results of the annual back-tests) on the Investment Grade (for PD) and Senior Unsecured (for LGD) positions as these positions are the more representative of the Dexia portfolio.

Back-Test policy:

	Indication that the observed values are significantly different from the expected values (calibration, discrimination, stability).
	Indication that the observed values are weakly significantly different from the expected values (calibration, discrimination, stability).
	Indication that the observed values are in line with the expected values (calibration, discrimination, stability). There is no significant difference, though this colour code is an early warning indicator.
	Indication that the observed values are perfectly in line with the expected values (calibration, discrimination, stability). There is no significant difference.
	Indication that the historically observed PD, LGD and CCF values are much lower than the calibrated values.

2.3.6. Model use

In addition to the calculation of risk-weighted exposures, the internal estimates of PD, LGD and CCF models are used in other areas such as lending policies (including exposure limits), early warning systems or credit risk adjustments (provisioning policy).

Use of the A-IRB models is also expanded to the internal exercises of stress tests, financial plan, ICAAP (Internal Capital Adequacy Assessment) as well as the internal and external reporting (notably the Quarterly Risk Report and the Annual Report).

The collection and recovery policies and processes are partially based on the risk parameters of the A-IRB models and have been enhanced in 2018.

Internal ratings, default and loss estimates used in capital requirements play an essential role in Dexia's risk management and decision-making process, in credit approval (limited to activities authorised in the context of the Orderly Resolution Plan), internal capital allocation, and corporate governance functions. An independent unit ensures that effective use of internal ratings and the resulting parameters is made across the risk management processes including: transaction committee files instruction, overall rating process consistency (country ceiling, state/mother support), limits set-up and update, credit watch, corporate governance and reporting.

In particular, Dexia uses regulatory metrics (adjusted EAD, see § 2.2) and IRB parameters in its internal risk reporting and external reports. The current risk reporting system is leveraged on IRB risk parameters. Internal ratings, as well as advanced LGD and CCF values and the regulatory metric of Exposure at Default (used in the computation of own funds requirements) are used for the quarterly risk report (QRR) dedicated to the monitoring of credit risks.

The EAD metric has also been selected since 2015 to provide credit risk related information in the Annual Report, Pillar 3 report and internal control report. The internal IRB ratings' scales (as validated for each IRB models) are mapped to a "master scale" that is used for credit exposure reporting. This master scale is used for comparison purposes between sectors in the QRR – independently from the approach applied to compute the capital requirements – however IRB ratings and parameters are used in model related documentation, as well as in the financial plan long-term projections.

According to Dexia's Watch List policy, all the sensitive files (including counterparties in A-IRB) are followed up by the Watch List Committee, which is entitled to make recommendations of actions on credit issues. The criteria of the counterparties selected in the Watch-List process are based on ratings thresholds defined per sector in the risk policies and as a consequence of the IRB rating models for the IRB portfolio.

2.4. Standard approach

2.4.1. Introduction

Consecutively to the disposal of some entities and to the sharp decrease of some portfolios, Dexia presented an official request to the home supervisors to move some portfolios from advanced to standard approach. The portfolios involved had become non-material in terms of exposure and number of counterparties.

The switch from advanced to standard approach was implemented in June 2013 following the official acceptance of the proposal by the National Bank of Belgium for the following types of counterparties:
- Insurance companies including financial guarantors;
- Belgian 'other' satellites;
- Belgian Region and Communitiy expert models and assimilated counterparties;
- Mid-corporate counterparties.

Then, consecutively to the closing of its Lisbon branch and to the sharp decrease of the Portuguese municipalities portfolio, Dexia presented an official request to the Joint Supervisory Team to move the residual exposures (less than EUR 40 millions) from advanced to standard approach. The official acceptance was provided by the Joint Supervisory Team in the second half of 2018 and implemented in the last quarter of the year.

2.4.2. Nominated external credit assessment institutions (ECAI)

The standard approach provides risk-weighted asset figures based on external ratings. In order to apply the standard approach for risk-weighted exposure, Dexia uses the external ratings assigned by the following rating agencies: Standard & Poor's, Moody's and Fitch.

The rating used for the regulatory capital calculation is the lower of the two ratings, if two ratings are available, or the lower of the best two ratings, if three ratings are available. If no external rating is available, the standard approach provides specific risk weights that vary depending on the counterparty type.

Credit rating agencies and credit quality step under the standard approach			
Standard & Poor's	**Moody's**	**Fitch**	**Regulatory credit quality step**
AAA to AA-	Aaa to Aa3	AAA to AA-	1
A+ to A-	A1 to A3	A+ to A-	2
BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	3
BB+ to BB-	Ba1 to Ba3	BB+ to BB-	4
B+ to B-	B1 to B3	B+ to B-	5
CCC+ and below	Caa and below	CCC+ and below	6

Risk weights are mainly determined in relation to the credit quality step and the exposure class.

2.4.3. Exposure at default and average risk weights

The following table shows the total exposure at default (banking book) and exposure to weighted-average risk weights broken down by exposure class and obligor grade at year-end 2017 and 2018.

		2017		2018	
Exposure Class	**Obligor Grade**	**EAD (M)**	**Average RW**	**EAD (M)**	**Average RW**
Corporate	AAA to AA-	13	20%	-	-
	A+ to A-	419	50%	410	50%
	BBB+ to BBB-	127	100%	-	-
	No External Rating	73	98%	14	111%
Total Corporate		*631*	*65%*	*424*	*52%*
Equities	No external rating	2	250%	0	250%
Total Equities		*2*	*250%*	*0*	*250%*
Financial institutions	AAA to AA-	65	7%	255	44%
	A+ to A-	353	21%	337	17%
	BBB+ to BBB-	3	50%	0	-
	BB+ to B-	-	-	-	-
	No External Rating[1]	1,737	14%	1,712	18%
Total Financial Institutions		*2,201*	*16%*	*2,332*	*21%*
Financial guarantors	AAA to AA-	777	20%	1,431	20%
	A+ to A-	723	50%	-	-
	BBB+ to BBB-	-	-	57	100%
Total Financial guarantors		*1,500*	*34%*	*1,488*	*23%*
Project Finance	AAA to AA-	188	20%	211	20%
	A+ to A-	26	50%	33	50%
	BBB+ to BBB-	5	100%	116	100%
	No External Rating	458	100%	325	106%
Total Project Finance		*676*	*76%*	*685*	*75%*
Public Sector Entities	AAA to AA-	28,030	12%	25,927	12%
	A+ to A-	5,558	27%	5,150	20%
	BBB+ to BBB-	1,900	28%	2,587	32%
	BB+ to B-	1,071	56%	16	147%
	Below B-	3	100%	-	-
	No External Rating[2]	1	75%	1	75%
Total Public Sector Entities		*1*	*75%*	*1*	*75%*
Retail	No External Rating	2	75%	1	75%
Total Retail		*2*	*75%*	*1*	*75%*
Securitisation	AAA to AA-	5	20%	4	20%
	Below B-	0	150%	0	150%
Total Securitisation		*6*	*29%*	*5*	*29%*
Sovereign	AAA to AA-	877	0%	289	0%
	A+ to A-	974	20%	-	-
	BBB+ to BBB-	-	-	-	-
Total Sovereign		*1,851*	*11%*	*289*	*0%*
Others		1,522	21%	1,089	18%
Total Others		*1,522*	*21%*	*1,089*	*18%*
TOTAL		**45,906**	**-**	**39,993**	**-**

(1) Exposure on central counterparties (CCP) clearing houses

(2) Preferential treatment.

In case no external rating is available, standard risk weights can be applied based on national discretions or Basel III rules (reference to the sovereign rating depending on the exposure type).

2.5. Impairment, past-due and related provisions

2.5.1. Concepts and implementation within Dexia

2.5.1.1. Principles of past-due exposure

A past due is defined as a payment that has become due but has not been made according to the terms of the agreement. A past due is considered by contract. Even if a counterparty fails to pay only the required interests at due date, the entire loan exposure is considered as past due.

2.5.1.2. Principles of default (Dexia), non-performing exposure and forbearance (EBA)

The concept of default includes counterparties that have (or are likely in the future to have) difficulties meeting their commitments or counterparties where return to a normal situation seems difficult.

For counterparties that have or are likely to have financial difficulties, Dexia has identified situations described by the different criteria listed below:

- Non-fulfillment of any of the contractual obligations that are material in terms of risk;
- Any significant difficulties of the debtor, repeated delay of payments (even if those payments are lower than the threshold) < 90 days (or a different delay decided for a specific market segment), repeated exceeding or incorrect use of line of credit without improvement prospect, justifying a specific follow-up;
- Deterioration of the credit, or significant downgrading of the external ratings, or situation which could lead, on a statistical basis, to a non-payment of the obligations;
- Significant devaluation (or the probability of devaluation), due to an increase of the risk on an active market, especially where the credit could be threatened, or there is a disappearance of the market including sale of the credit obligation resulting in a material loss due to credit risk;
- Any case of accelerated payment as defined by law, illegal financial operation, important fraud, misrepresentation, accounting's publishing with reservation of external auditors;
- A cross-default, termination of credits by other banks, "protêt", triggering of an accelerated payment clause, social or tax "past-due";
- Total or partial extinction of risk mitigant considered as essential to the credit;
- Legal action against the debtor likely significantly to damage their solvency;
- The debt being classified as "doubtful";
- Any restructuring, including emergency restructuring, triggered by deterioration of the risk and with a disadvantageous character (reduction of the net present value).

These counterparties receive a credit rating of D1 on a case-by-case analysis.

For counterparties where a return to a normal situation seems difficult, Dexia has also identified situations described by the criteria listed below:

- The counterparty is "past-due" for more than 90 days on any payment obligation (or a different delay decided for a specific market segment). For authorised overdrafts, the delay starts at the due date of the authorisation and for non-authorised overdrafts, as soon as they appear. Exceptions to this rule are:
  - In order to comply with Article 178(1) of Regulation (EU) No. 575/2013 on default of an obligor, on 31 December 2016, Dexia switched from a "more than 180 days past-due" default definition (linked to a specific Dexia exemption to a "'more than 90 days past-due' default definition for the categories of exposures specified in Article 178(1)(b) of Regulation (EU) No. 575/2013.
  - Technical past-dues, defined as the consequence of a mistake by the counterparty (or by its accountant, or by its bank) that leads to a delayed payment of the debt;
  - Operational past-dues, defined as a failure in the process, or in the internal system of Dexia. Operational past-dues also include the legal risk when the counterparty has the means to afford its payment but refuses to pay it;
  - Immaterial amounts: Dexia's threshold for past due is a fixed amount established at EUR 500 (from 1 January 2015). The threshold takes into account nominal past due, past-due on interest, penalties and commissions.
- Any case of judicial settlement, unwinding, bankruptcy, composition, Chapters 7, 9 or 11 or any similar legal status;
- Termination of the loan, due to any type of incident;
- The loan being subject to a legal "recovery" procedure.

For these counterparties, a credit rating of D2 is given.

Non-performing exposure

To facilitate monitoring and comparison between the different European banks, the European Banking Authority (EBA) harmonised the definition of Non-Performing Exposure (NPE) and Forbearance.

According to the EBA, non-performing exposures on balance sheet are those that satisfy at least one of the following criteria (§ 145 ITS):

- Material exposures which are more than 90 days past-due (quantitative criterion);

- The debtor is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past-due amount or of the number of days past-due (qualitative criterion).

The Dexia Group has identified exposures corresponding to the said EBA definition.

Non-performing and forborne exposures

Exposures at year-end 2017

(in EUR million)	Gross carrying amount							Accumulated impairment and provision and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
	On performing exposures			On non performing exposures				On performing exposures		On non-performing exposures		On non-performing exposures	
		Of which: past due > 30 and <= 90 days	of which: forborne		Of which: defaulted	Of which: impared	Of which: forborne		Of which: forborne		of which: forborne		of which: forborne
Debt securities	55,688	0	114	195	195	183	0	(138)	-	(64)	-	-	-
Loans and advances	73,420	87	549	1,249	1,001	694	412	(193)	(28)	(193)	(112)	305	210
Off-balance sheet exposures	68,309		5	61	0		0	1		0			

Exposures at year-end 2018

(in EUR million)	Gross carrying amount							Accumulated impairment and provision and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
	On performing exposures			On non performing exposures				On performing exposures		On non-performing exposures		On non-performing exposures	
		Of which: past due <= 90 days or not past due	Of which: forborne		Of which: defaulted	Of which: impared	Of which: forborne		Of which: forborne		of which: forborne		of which: forborne
Debt securities	50,236	49,664	0	573	573	459	0	(247)	0	(94)	0	0	0
Loans and advances	72,006	70,669	172	1,337	823	801	392	(91)	(2)	(192)	(111)	324	134
Debt instruments other than held for sale	122,242	120,332	172	1,910	1,396	1,260	392	(338)	(2)	(286)	(111)	324	134
Debt instruments held for sale (DKD)	20,758	20,654	50	104	0			(4)	(2)	0	0		0
Off-balance sheet exposures	1,723	1,685	0	38	30		6	2	0	7	0		0

Forbearance (EBA)

Forborne exposures are restructured contracts in respect of which forbearance measures have been extended. Forbearance is applied to healthy or safe assets or on non-performing assets. Regarding Dexia activities, restructured exposures include 3 different types of restructuring:

1. Restructuring related to commercial relationships with customers, which represented almost all restructuring until 2011 except litigations in the Netherlands;

2. Restructuring related to litigation, mainly on structured loans, with customers without any financial difficulties;

3. Restructuring related to financial difficulties of the counterparty either under normal relationship or under litigations. In accordance with the EBA's definition of Forbearance, only the 3rd case is considered as a forborne loan. Forbearance measures consist of concessions towards a debtor facing or about to face difficulties in meeting its financial commitments.

As at 31 December 2018, EUR 614 million of outstanding were considered as forborne (compared to EUR 1.1 billion as at 31 December 2017).

2.5.1.3. Impairments

The IFRS 9 standard introduces a new impairment model of financial assets based on expected credit losses (ECL), which applies to debt instruments (loans or bonds) measured at amortised cost or measured at fair value through OCI, as well as lease receivables and trade receivables. The impairment model also applies to Dexia's off balance sheet undrawn loan commitments and financial guarantee given. The ECL model constitutes a change from the guidance in IAS 39 based on incurred losses.

Each financial instrument (except assets that are purchased or originated in default) is allocated amongst 3 stages according to the wording used by IFRS 9) depending of the evolution of credit risk since initial recognition:
- Stage 1: financial instruments that have not deteriorated significantly in credit quality since initial recognition.
- Stage 2: financial instruments that have deteriorated significantly in credit quality since initial recognition but that do not have objective evidence of a credit loss.
- Stage 3: financial assets that have objective evidence of impairment at the reporting date, i.e. the related counterparty is identified as defaulted.

A loss allowance is defined according to the stage in which the financial instrument is allocated:
- When the financial instrument is in Stage 1, the amount of loss allowance is equal to 12-month expected credit losses corresponding to the lifetime cash-shortfall that would result of a default occurring in the next 12 months, weighted by the probability that the default occurs during this 12 months period.
- When the financial instrument is in Stage 2 or 3, the amount of loss allowance is equal to lifetime expected credit losses, corresponding to the lifetime cash-shortfall that would result in case of a default occurring over the life of the instrument, weighted by the default probability (PD) that the default occurs over the residual maturity of the instrument. Interest revenue for financial assets allocated in Stage 1 or 2 are calculated by applying the Effective Interest Rate (EIR) to the gross carrying amount, while for financial assets in Stage 3, EIR is applied to amortised cost.

Dexia does not apply the simplified approach allowed by IFRS 9 for trade receivables (that have a significant financing component) or lease receivables. The ECL calculation of these assets follows the general approach described below.

Significant Increase in Credit Risk (SICR)

For financial instruments which do not show objective evidence of impairment, and which, therefore, shall be allocated to either Stage 1 or 2, Dexia developed an approach based on both a qualitative and a quantitative test to assess if there is any significant increase in credit risk since initial recognition.

The quantitative test consists in comparing lifetime average through the cycle PDs of the contract at the reporting date and at the inception date. This variation of PD is then normalised by the PD of the worst pre-default rating, defined accordingly to the sector of the counterparty. This normalisation enables the significance of the PD variation to be estimated and also allows a homogeneous comparison of this variation between different sectors. These PDs are considered over a time horizon equal to the initial maturity of the financial instrument.

If the variation is above a given threshold, the variation of the PDs indicates that there is a significant deterioration of credit risk and that the financial instrument shall be allocated to Stage 2. This threshold is calibrated so as to anticipate a possible default in a horizon of at least 2 years, such as validated by Dexia's Management. It is included in regular validation processes by governance bodies.

The qualitative part of the approach, relying on forward looking counterparty specific indicators, consists of allocating to Stage 2 exposures which are closely followed up under the watch list process, that have been granted forbearance measures or that belong to a sensitive economic sector[7]. IFRS 9 accounting standard indicates that regardless of the way in which an entity assesses significant increases in credit risk, there is a rebuttable presumption that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due. Given Dexia's portfolio characteristics and especially its significant public sector sub-portfolio, administration procedures may delay contractual payments. Therefore, for this type of population, a first analysis is performed to ensure that this delay is not related to administrative procedures, and if not, then the presumption applies and any exception is analysed and documented individually.

The PD at origination is not expected to be modified and is determined once and for all for each exposure. However, if the contractual terms of a financial asset are restructured (i.e. renegotiated or refinanced), and if this restructuring leads to a de-recognition according to IFRS 9 accounting rules, the restructured asset is considered as a new asset. This new asset is either recognised as a POCI (Purchased or Originated Credit Impaired) if it meets the identification criteria for this type of assets and in this case a lifetime ECL will be recognised, or it is initially recognised in Stage 1. The test of SICR is then performed on the new characteristics of the restructured asset. The PD at origination is therefore updated given the rating of the counterparty at the restructuring date and the maturity of the restructured financial asset.

Measurement of Expected Credit Losses

Expected Credit Losses calculation for financial instruments classified in Stage 1 or 2:

Forward-looking: the calculation of Expected Credit Losses is a function of rating migration probabilities, default probabilities (PD), Loss Given Default (LGD) and Exposure at Default (EAD) parameters. The rating migration probabilities, PD and LGD are point-in-time and forward-looking, meaning they take into account current and forecast macro-economic conditions.

(7) Sensitive sectors are economic sectors, which show indication(s) of elevated credit risk.

Capitalising on Pillar 1 framework Dexia developed internal rating models based on sector segmentation as well as best estimate average PD, rating migrations and LGD models, built on a multi-year horizon based on historical data.

These best estimate parameters have been adjusted to derive IFRS 9 Point in Time (PIT) PD and LGD models, which capture dependencies between various macro-economic variables and risk parameters and are built statistically by finding historical relations between them. The most relevant macro-economic variables include GDP, unemployment rate, inflation, GDP growth, as well as yields and interest indicators. Such approach allows the projection of PD, rating migrations and LGD given any state of the economy.

The PIT rating migration probabilities, default probabilities and LGD are back-tested on a regular basis according to Dexia's internal back-test policy. The results of these back-tests are submitted to the internal validation department and presented to the management bodies.

Scenarios: Dexia developed ECL projections for 3 macro-economic scenarios: baseline, upward and downturn, the last two defined symmetrically around the baseline. The base- line macro-economic scenario consists of predictions over a 3-year time horizon on a number of macro-economic and financial market data obtained from international institutions, such as the European Commission and the International Monetary Fund (IMF). The projections are discussed by the working group, combining experts from the Risk and Finance functions, who can additionally overrule certain forecasts if appropriate. The methodology to construct the upturn and downturn scenarios is based upon the historical error range observed between economic forecasts and empirical observations. Probability-weighted ECLs are then obtained by weighting the various scenario ECL outcomes with probabilities of the two alternative scenarios.

Cure rate: The probability that an obligor cures the default to return to a normal situation (i.e. with zero loss) is taken into account in all risk parameters estimation.

Credit Risk Mitigants: Credit risk deterioration is measured by the default risk evolution of the original counterpart. The guarantors contractually allocated to the exposure (for example the credit risk enhancer) are taken in account in the calculation of credit risk expected loss by applying the probability of double default of both the borrower and the guarantor. The other guarantees (like mortgages, pledges and cash collateral) when they are not recognised separately are taken into account in the calculation of expected credit loss by reducing the loss in case of default.

Discounting: Yearly probability weighted ECLs are discounted to the reporting date by the effective interest rate.

For instruments in Stage 1 and Stage 2, interest revenue is calculated based on the gross carrying amount of the instrument according to models defined for different sub-portfolios of Dexia.

Expected Credit Losses calculation for financial instruments classified in Stage 3:

Expected credit losses are defined according to the individual characteristics of the exposure, mainly based on cash flow models, market price models or collateral value. In some marginal cases, no impairment may be allocated, especially when the collateral value exceeds the value of the debt instrument. For instruments in Stage 3, interest revenue is calculated on the amortised cost (i.e., the gross carrying amount after deducting the impairment loss allowance).

When Dexia has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof, the gross carrying amount of a financial asset is reduced. Dexia policy is therefore to recognize a loss through profit or loss upon debt forgiveness, which means that no enforcement action will take place.

Accounting treatment of expected credit losses

Dexia recognises the changes in the amount of expected credit losses related to debt instruments, loan commitments and financial guarantee contracts in profit or loss in "Cost of credit risk" as an impairment gain or loss.

For off balance sheet undrawn loan commitments and financial guarantee given, expected credit losses are booked on the liability side of Dexia's balance sheet.

For purchased or originated credit impaired financial assets, the amount of loss allowance recognised in profit or loss is the cumulative changes in lifetime expected credit losses since initial recognition. The amount of favourable change in life- time expected credit losses is recognised in profit or loss as an impairment gain.

2.5.2. Overview of Past-Due Exposure and Impairments

Counterparties shall be considered as defaulted when:

- Dexia considers that the obligor is unlikely to pay its dues to the bank, or any of its subsidiaries in full, without recourse by the institution to actions such as realising security. Identification of an unlikely to pay situation may rely on the following situations: allocation of specific credit risk adjustment, identification of material distressed restructuring, existence of a bankruptcy situation and other indications of unlikely to pay.
- The obligor has past-dues over EUR 500 that last for more than 90 days on any credit obligation

By exceptions to this rule, not considered as defaulted are:
- Technical past-dues, defined as the consequence of a mistake by the counterparty (or by its accountant, or by its bank) that leads to a delayed payment of the debt
- Operational past-dues, defined as a failure in the process, or in the internal system of Dexia. Operational past-dues also include the legal risk when the counterparty has the means to afford its payment but refuses to pay it

The year 2018 was marked by the first-time application of the IFRS 9 accounting standard as at 1 January. Implementation of the new credit risk provisioning model under IFRS 9 was reflected by an increase of impairments by EUR 180 million as at 1 January, of which an allocation of EUR 188 million as collective provisions, offset by a reversal of EUR 8 million of specific provisions (cf. Dexia Annual Report 2018, section dedicated to the first-time application of the IFRS 9 accounting standard in the chapter entitled "Financial results" and note 1.6 to the consolidated financial statements).

Dexia's stock of impaired assets was EUR 1,273 million as at 31 December 2018, up EUR 396 million on the end of 2017. Specific provisions allocated were EUR 305 million, up EUR 48 million on 31 December 2017.

	31/12/2017 IAS 39	31/12/18 IFRS 9
Impaired assets	877	1,273
Specific impairments	257	305
Of which Stage 3		299
Of which POCI		6
Coverage ratio	29.3%	23.9%
Collective provisions	331	345
Of which Stage 1		5
Of which Stage 2		340

This increase of impaired assets and specific provisions is essentially explained by the increase of the provision on the Chicago Board of Education, and the provisioning of a Spanish asset financing and receivables on a French hospital association. Furthermore, the disposal of several exposures associated with the Commonwealth of Puerto Rico as well as the repayment of debts associated with the Bulgarian railway sector allowed for the reversal of provisions established on those exposures. As a consequence, the coverage ratio was 23.9% as at 31 December 2018.

As at 31 December 2018, collective provisions were EUR 345 million, of which EUR 5 million of Stage 1 provision and EUR 340 million of Stage 2 provision. The Stage 2 provision is established for a little more than one half by provisions on the Portuguese sovereign and on Portuguese local authorities following downgrades of rating since origin. The increase linked to the first application of IFRS 9 is partially offset by:
- The natural amortisation of assets over the year;
- The continuation of disposal programmes particularly on French public sector outstanding;
- The evolution of exchange rates.

Despite 91% of the Group's assets being rated investment grade, some counterparties may have suffered a significant increase in credit risk since their initial recognition, like the exposure on the Portuguese sovereign, which was classified in Stage 2 as of 1 January 2018. Other investment grade counterparties, mainly on Italian sovereign and some US municipalities might be reclassified from Stage 1 to Stage 2 depending on economic and financial developments and their own financial situation. Taking into account the amount of exposure involved and the maturity of those assets, a reclassification to Stage 2 might have a significant impact on the Group's financial statements.

Non-performing exposures bring together outstanding amounts unpaid for more than 90 days or for which the Group considers that the counterparty is unable to repay without implementing guarantees. As at 31 December 2018, the outstanding amount on non-performing exposures represented EUR 2.1 billion, corresponding to 88 counterparties. The EUR 0.5 billion increase is linked to the default of new counterparties such as the CBOE, in an amount of EUR 441 million.

Overview of exposures with past-due amounts at year-end 2017

	Past-due but not impaired financial assets (*)	
(in EUR million)?	Less than 90 days	Over 90 days
Loans and advances (at amortised cost)	457	216
Other financial instruments	16	10
TOTAL	**473**	**225**

(*) As of IAS39 standard, gross carrying amount

Overview of exposures with past-due amounts at year-end 2018

(in EUR million)?	Carrying amount (*)		
Loans and advances	**Less than 90 days**	**Over 90 days**	**Total**
Assets without SICR (**) since initial recognition (Stage 1)	93	43	**136**
Assets with SICR (**) since initial recognition but not credit-impaired (Stage 2)	210	6	**216**
Credit-impaired assets (Stage 3)	121	19	**140**

(*) Net of provisions (**) Significant Increase in Credit Risk

(in EUR million)	2018						
	As at 1 Jan.	**Transfers in non current assets held for sale**	**Transfers between stages**	**Decreases due to de-recognition**	**Changes due to change in credit risk**	**Other adjustments**	**As at 31 Dec.**
Allowances for financial assets without increase in credit risk since initial recognition (Stage 1)	**10**	**(1)**			**(4)**		**5**
Financial assets at amortised cost	**7**	**(1)**			**(2)**		**4**
- Interbank debt securities	2				(2)	0	0
- Customer debt securities	*3*					*(0)*	3
- Customer loans and advances	*2*	*(1)*					1
Financial assets at fair value through other comprehensive income	**3**				**(2)**		**1**
- Debt securities	3				(2)		1
Allowances for financial assets with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	**497**	**(32)**	**(8)**	**(1)**	**(149)**	**31**	**337**
Financial assets at amortised cost	**489**	**(32)**	**(8)**		**(146)**	**31**	**333**
- Interbank debt securities	24	(1)			(5)	1	19
- Customer debt securities	309	(28)	(3)		(86)	30	223
- Interbank loans and advances	2				(1)		2
- Customer loans and advances	153	(3)	(5)		(55)		90
Financial assets at fair value through other comprehensive income	**8**			**(1)**	**(3)**		**4**
- Debt securities	6				(3)		2
- Customer loans and advances	3			(1)			2
Allowances for credit-impaired debt instruments (Stage 3)	**233**		**9**	**(1)**	**38**	**13**	**292**
Financial assets at amortised cost	**230**		**9**	**(1)**	**36**	**7**	**281**
- Customer debt securities	64				26	3	93
- Customer loans and advances	165		9	(1)	10	3	187
Financial assets at fair value through other comprehensive income	**1**				**(0)**		**1**
-Customer loans and advances	1				(1)		1
Other accounts receivable	**1**				**3**	**6**	**10**
Allowances for purchased or originated credit impaired debt instruments	**13**				**(6)**		**7**
Financial assets at amortised cost	**13**				**(6)**		**7**
-Customer loans and advances	13				(6)		7
Total allowances for financial assets	**752**	**(33)**	**1**	**(1)**	**(120)**	**44**	**641**
Provisions on commitments and financial guarantees given							
Total provisions on commitments and financial guarantees given (Stage 2)	7				(4)		2
Total provisions on commitments and financial guarantees given (Stage 3)	6						6
TOTAL PROVISIONS ON COMMITMENTS AND FINANCIAL GUARANTEES GIVEN	**13**	**0**	**0**	**0**	**(4)**	**0**	**8**

Past-due amounts overview displayed by cause and counterparty type

Operational default past-dues represent 34% of the past-dues followed by Credit default (27%). By counterparty type, the local public sector represents 74% of total followed by Project Finance (17%)

Overview of past-due amounts at year-end 2017

Counterparty Type	Credit default	Operational default	Technical Default	Short term technical pastdues	Past-due amounts (M€)
Sovereign	0	0	0	237	237
Corporate	1	19	0	3	23
Local Public Sector	166	50	0	51	268
Project Finance	39	1	2	1	43
TOTAL	**206**	**70**	**2**	**293**	**570**

Overview of past-due amounts at year-end 2018

Counterparty Type	Not qualified	Operational default	Operational default > 1 year	Credit default	Past-due amounts (M€)
Corporate	1	0	19	1	20
Local Public Sector	18	78	50	26	172
Project Finance	3	0	0	37	40
TOTAL	**22**	**78**	**69**	**64**	**232**

Past-due amounts overview displayed by countries and cause

France represents 34% of past-due amounts, followed by Portugal (32%) and Brazil (15%).

Overview of past-due amounts at year-end 2017

Country	Credit default	Operational default	Short term technical past-due	Technical Default	Total Past-due amounts (M€)
Italy	8	10	272	0	290
Portugal	120	0	0	0	120
France	3	55	16	2	76
Brazil	39	0	0	0	39
Bulgaria	21	0	0	0	21
United States	12	0	0	0	12
Germany	0	4	0	0	4
Belgium	0	0	3	0	3
Spain	0	0	2	0	2
Serbia	2	0	0	0	2
GRAND TOTAL	**206**	**70**	**293**	**2**	**570**

Overview of past-due amounts at year-end 2018

Country	Credit default	Operational default	Short term technical past-due	Technical Default	Total Past-due amounts (M€)
France	3	64	13	-	80
Portugal	0	75	0	0	75
Brazil	36	0	0	0	36
Italy	11	4	5	0	20
United States	13	0	0	0	13
Germany	0	5	0	0	5
Spain	0	0	2	0	2
United Kingdom	0	0	2	0	2
GRAND TOTAL	**64**	**147**	**22**	**0**	**232**

Past-due amounts overview by country and bucket past-due date

Overview of past-due amounts at year-end 2017

Country	< 6 days	< = 90 days	> 90 days	Total Past due amounts (M€)
Italy	273	0	17	290
Portugal	0	0	120	120
France	13	3	60	76
Brazil	0	0	39	39
Bulgaria	0	0	21	21
United States	0	0	12	12
Germany	0	0	4	4
Belgium	3	0	0	3
Spain	1	1	0	2
Serbia	0	0	2	2
TOTAL	**290**	**4**	**276**	**570**

Overview of past-due amounts at year-end 2018

Country	< 6 days	< = 90 days	> 90 days	Total Past due amounts (M€)
Brazil	0	0	36	36
France	5	8	68	80
Germany	0	0	5	5
Italy	6	0	14	20
Portugal	0	0	75	75
Spain	0	1	1	2
United Kingdom	0	2	0	2
United States	0	0	13	13
TOTAL	**11**	**10**	**211**	**232**

2.6. Credit risk mitigation techniques

2.6.1. Description of the main types of credit risk mitigants (CRM)

Credit risk mitigants (CRM) are used by a bank to reduce the credit risk associated with an exposure. CRM are one of the "risk" components used to determine the regulatory capital. CRM can be classified in two main categories:

- Funded credit protection, gathered under the generic name "collaterals";
- Unfunded credit protection, gathered under the generic name "guarantees and credit derivatives".

Funded credit protection: collaterals

From a regulatory point of view, funded credit protection represents a technique for mitigating credit risk whereby the credit risk associated with the bank's exposure is reduced by the institution's right – in the event of a default by the counterparty or the occurrence of other predetermined events involving the counterparty – to liquidate certain amounts or assets, to have them transferred, to seize or to hold them, or to reduce the amount of the exposure by the difference between this exposure and the amount of a claim that might be held on the bank, or to replace it by the balance of this difference.

Funded credit protection can adopt several sub-forms:

- *Financial collateral* (securities portfolio under ratings conditions, cash, gold, precious materials, etc.…)
- *Netting agreements:* banks have legally enforceable netting arrangements by which they may calculate capital requirements on the basis of net credit exposures subject to specific regulatory conditions. Types of netting are payment netting, novation netting, close-out netting or multilateral netting.
- *Physical collaterals:*
  - Residential or commercial real estate collateral;
  - Receivables (eligible only under advanced approach);
  - Other types of physical collaterals…

Unfunded credit protection: guarantees and credit derivatives

From a regulatory point of view, unfunded credit protection represents a technique for mitigating credit risk whereby the credit risk associated with the bank is reduced by the commitment of a third party to pay an amount in the event of a default by the borrower or in the event that other predetermined events should occur.

They include for example:
- Guarantees: guarantees refer to personal guarantees, first demand guarantees, support commitments and "tri-partite agreements";
- Credit derivatives. The following types of credit derivatives are eligible for recognition:
  – *Credit default swaps* provide credit protection equivalent to guarantees. "Credit default swap" means a contract according to which one party to the contract undertakes to make a payment to the other party to the contract on the occurrence of a specified event or events relating to the creditworthiness of a third party. The making of such payment does not in itself give rise to a legal entitlement of the protection provider against the third party.
  – *Total return swaps* provide credit protection equivalent to guarantees. "Total return swap" means a contract according to which one party to the contract undertakes to make payments to the other party to the contract of all cash flows arising from a specified asset (or assets) plus any increase in the market value of the asset (or assets) since the last payment date or the commencement date of the contract, whichever is the most recent, and according to which the recipient of these amounts undertakes to pay to the first party an interest rate related flow plus any decrease in the market value of the asset (or assets) since the last payment date or the commencement date, whichever is the most recent.
  – *Credit derivatives treated as cash collateral*. A "Credit-linked note" is a cash-funded debt instrument which is redeemable by the issuer in accordance with the terms of the instrument, or the terms of redemption of which are altered, on the occurrence of a specified event or events related to the creditworthiness of a third party.
- Other credit commitments received from a third-party.

2.6.2. Policies and processes

Institutions should use robust procedures and processes to control risks arising from the use of collateral, including in particular strategy, consideration of the underlying credit, valuation, policies and procedures, systems, control of roll-off risks, and management of concentration risk arising from the institution's use of collateral and its interaction with the institution's overall credit risk profile.

Collateral and guarantees/credit derivatives

Within the Dexia Group, managing the CRMs involves the following tasks:
- Analysis of the eligibility of all CRMs under the standard and advanced approaches. To summarise, only financial collaterals, guarantees, credit derivatives, real estate assets and leased real estate assets are eligible under the standard approach (provided they respect the related requirements). The scope of eligible CRMs is significantly broader under the advanced approach than under the standard approach: in addition to CRMs eligible under the standard approach, receivables and other types of collaterals can also be considered as eligible provided they respect the related requirements;
- Collateral valuation in mark-to-market;
- Description of all CRM characteristics in Dexia risk systems, such as:
  – Financial collateral: valuation frequency and holding period;
  – Guarantee/credit derivative: identification of the guarantor, analysis of the legal mandatory conditions, check whether the credit derivative covers restructuring clauses;
  – Security portfolio: description of each security.
- Periodic review of the descriptive data of its CRM;
- Detailed procedures for collateral eligibility, valuation and management are documented in line with the regulatory standards.

On and off-balance-sheet netting

Dexia does not make use of on or off-balance-sheet netting for regulatory purposes, except for over-the-counter (OTC) derivative products. The following derivative products are eligible to netting agreements: swap, contracts forward, options, etc. covering the following underlying risks:
- Interest rate contracts;
- Exchange rate or gold contracts;
- Contracts on ownership titles;
- Contracts on precious metals except gold;
- Commodities other than precious metals;
- Credit derivative contracts.

For these products, internal policies document the eligibility criteria and minimum requirements that netting agreements must meet in order to be recognised for regulatory purposes. Eligibility criteria are different for on-balance-sheet netting agreements and off-balance-sheet netting agreements. Adequate documentation should also be put in place. Appropriate internal procedures and minimum requirements have been implemented in the internal risk management process.

Information about market or credit risk concentrations

Concentration risk is related to a concentration of collateral on one issuer, country, industry or market. As a result, credit deterioration might have a significant impact on the overall value of collateral held by Dexia to mitigate its credit exposure. Dexia is indirectly exposed to the quality of the signature of:
- Financial Guarantors, through insurance contracts to cover the timely end of certain types of bonds issued in the form of securities or loans. As at 31 December 2018, EUR 13.8 billion of the Dexia portfolio was insured by Financial Guarantors (cf. section 2.2.4.6 above and section 2.6.4 below).

- Several southern Europe local authorities (Italy, Spain) that are natural guarantee providers for local public satellites or smaller public sector entities (cf. section 2.6.4 below.

2.6.3. Basel treatment

For netting agreements (and subject to eligibility conditions), Dexia recognises their impact by applying the netting impact of these agreements on the calculation of its Exposure at Default (EAD) used for calculating its risk-weighted assets.

For guarantees and credit derivatives, Dexia recognises the impact by replacing, under the AIRB approach, the PD, LGD and risk weight formula of the borrower by those of the guarantor (i.e. the exposure is considered to be directly towards the guarantor) if the risk weight of the guarantor is lower than the risk weight of the borrower. The same process of substitution is applied only to the risk weight under the standard approach.

For collateral (both financial and physical), the Dexia methodology relating to eligible CRMs depends on the Basel approach:
- AIRB Approach exposures – two methodologies might be applied:
  – CRMs are incorporated into the calculation of LGD based on internal loss data and calculated by the AIRB approach models (the "so called" preliminary LGD).
  – CRMs are not incorporated into the LGD computed by the model. The impact of each individual CRM is taken into account in the LGD according to each transaction.
- Standard approach exposures: eligible CRMs (after regulatory haircuts) are directly taken into account in the EAD.

2.6.4. Exposure covered by credit risk mitigants per exposure class

The chart below shows the amount of exposure per class of original counterparty, for which the guarantee is eligible, i.e. the guaranteed exposure has a lower risk weight than the exposure with the original counterparty (substitution principle).

IRBA - Credit risk mitigation technique

	31/12/2017			
(in EUR million)	Total	Guarantees and credit derivatives	Collateral	Total guarantees and collateral
Corporate	5,125	606	18	624
Financial institutions	10,802	783	28,331	29,114
Project finance	10,740	0	645	645
Public sector entities	38,126	3,349	10	3,359
Central governments	27,991	670		670
ABS/MBS	47	47		47
TOTAL	**92,830**	**5,455**	**29,003**	**34,458**

	31/12/2018			
(in EUR million)	Total	Guarantees and credit derivatives	Collateral	Total guarantees and collateral
Corporate	5,313	614	1	615
Financial institutions	8,225	838	18,980	19,818
Project finance	9,614	0	10	10
Public sector entities	32,145	3,302	9	3,310
Central governments	9	9		9
ABS/MBS	27,020	506		506
TOTAL	**82,325**	**5,268**	**19,000**	**24,268**

STANDARD APPROACH - Credit risk mitigation technique

	31/12/2017			
(in EUR million)	Total exposure	Guarantees and credit derivatives	Collateral	Total guarantees and collateral
Corporate	977		2	2
Financial institutions	3,366	18	7,253	7,272
Project finance	676			0
Public sector entities	37,516	2,628	8	2,636
Central governments	1,864			0
Individuals, SME & self employed	2			0
ABS/MBS	6	6		6
Financial guarantors	1,500	1,500		1,500
TOTAL	**45,906**	**4,152**	**7,263**	**11,415**

(in EUR million)	Total exposure	31/12/2018 Guarantees and credit derivatives	Collateral	Total guarantees and collateral
Corporate	715		0	0
Financial institutions	3,130	13	4103	4,116
Project finance	685			0
Public sector entities	33,680	2,118	8	2,125
Central governments	289			0
Individuals, SME & self employed	1			0
ABS/MBS	5	5		5
Financial guarantors	1,488	1,488		1,488
TOTAL	**39,993**	**3,623**	**4,111**	**7,735**

2.7. Counterparty credit risk

2.7.1. Definition

Dexia enters into derivative contracts primarily to protect cash flows and the fair value of financial assets and liabilities from market fluctuations. Derivative transactions are mainly concluded to reduce risk exposure with regard to interest rate risk and foreign exchange risk.

Even though it is the objective of the bank to enter into risk reduction strategies, only some of the derivative transactions can be classified as hedge accounting. In the event that a strategy applied by the bank does not meet the stringent requirements defined under IAS 39, transactions are classified as derivatives "held for trading" notwithstanding their risk reducing character.

2.7.2. Counterparty credit risk – Basel III

Counterparty or replacement risk corresponds to the market value of transactions with counterparties. It represents the current cost of replacing transactions with a positive value should the counterparty default.

Calculation of exposure at default within the regulatory framework

The EAD relative to counterparty risk is determined by aggregating the positive market values of all transactions (replacement cost) and increasing the sum with a regulatory add-on. This add-on, which is calculated in line with the CRD (Capital Requirement Directive) guidelines, is a fixed percentage according to the type of transaction (complexity), the underlying and the residual maturity, which is applied to the transaction's nominal value. In both cases, the effects of netting agreements and collateral are factored in by applying the netting rules as defined by the mark-to-market method and subtracting guarantees or collateral.

Dexia is engaged in two types of transactions presenting counterparty credit risks:

- Derivatives: counterparty exposure arises as a result of positive market valuation of derivative contracts. A positive market value represents Dexia's claim on the counterparty. Since market values fluctuate during the term to maturity, the uncertainty of future market conditions is taken into account by means of an 'add-on' to the current market value reflecting potential market movements for the specific contract. The total credit exposure on the counterparty, the credit risk equivalent, is the sum of the market value of the contract and the add-on.
- Repurchase agreements and securities lending or borrowing: given Dexia is cash taker most repo transactions record a positive transactional haircut (difference between received cash and posted collateral). This difference represents a Dexia risk on the counterparty. Bond prices fluctuate during the term to maturity and with the uncertainty of future markets. This explains why, as for derivatives, add-ons are included to obtain an economic view of counterparty risk.

To reduce the counterparty risk, Dexia OTC derivatives and Dexia repos are in most cases concluded within the framework of a master agreement (i.e. the International Swap and Derivative Association – ISDA or Global Master Repurchase Agreement – GMRA) taking account of the general rules and procedures set out in the Dexia credit risk policies. These framework agreements reduce Dexia's credit exposure through:

- The use of close-out netting agreements where all positive and negative market values (haircut for repos) under the same agreement can be netted on a counterparty level;
- The netting agreement is supplemented with a collateral agreement where the net market value exposure (net positive variation in haircut for repos) is reduced further by the reception of margin calls. Margin calls are regulated by the terms and rules stipulated in the Credit Support Annex (CSA) for derivatives and GMRA negotiated with the counterparty.

Dexia complies with the EMIR regulation and has been admitted by a central counterparty (clearing house) to net the allowed derivative transactions. Dexia also uses general collateral pooling with a central counterparty for funding via repos.

Counterparty credit risk is taken into account in the calculation of credit risk on financial institutions.

Credit valuation adjustment

The credit valuation adjustment (CVA) corresponds to the difference between:
- A risk-free valuation; and
- The valuation that takes into account the possibility of a counterparty's default.

When applied to an OTC derivative portfolio, it corresponds to the market value of the counterparty credit risk. It is a "fair value" adjustment that reflects the expected losses due to counterparty's default.

Banks now consider this derivative fair value component as a standard market practice. The credit and liquidity crisis highlighted the need for a better measurement of this risk arising on derivative portfolios. The widening of credit spreads over past years has accentuated the significance of counterparty credit risk and CVA measurement.

From an accounting standard point of view, and since the release of IFRS 13, in spite of the changes in the fair value definition, calculation of CVA becomes a clear requirement.

The CVA is equal to expected exposure multiplied by the probability of default (PD) and the loss given default (LGD). Dexia computes the expected exposure by replicating a string of swaptions, or where not appropriate or too cumbersome, by applying the Basel exposure at default (net present value + add-on). Credit spreads are used for implying PDs.

For collateralised derivatives, Dexia uses a conservative 10-day margin period of risk.

CVA capital charge

Since the implementation of the Basel III framework, Dexia has been subject to a capital charge for potential mark-to-market losses associated with deterioration in the creditworthiness of its counterparties.

Basel III aims at applying to CVA risk an approach equivalent to that used for market risk capital charge measurement (based on Value at Risk): the CVA capital charge corresponds to a Value at Risk (VaR) applied to CVA.

Capital charge is computed in accordance with EBA guidelines.

As at 31 December 2018, Dexia had EUR 3,633 million of risk-weighted assets on counterparty credit risk, of which EUR 2,367 million related to CVA capital charge.

Downgrade of Dexia's own credit rating – impact

Taking into account the current level of credit rating, no additional amount of collateral would have to be provided should Dexia Crédit Local incur a downgrade.

2.7.3. Accounting treatment of derivatives

The accounting treatment of Dexia's derivative strategies is described in note 1.1.10. and note 1.1.11. to the consolidated financial statements in Dexia's Annual Report 2018.

2.7.4. Derivative portfolio

Detailed information is provided in note 4.1 and 7.8 to the consolidated financial statements in Dexia's Annual Report 2018. The notional value of credit derivatives is provided in table 4.1.b of the notes to the consolidated financial statements. All credit derivatives are used for Dexia's own credit portfolio (no intermediation activities) as protections bought (however not designated as IFRS hedges).

2.8. Focus on equity exposure

2.8.1. Accounting rules

Detailed information is provided in note 1.1 to the consolidated financial statements in Dexia's annual report 2018.

2.8.2. Equity exposure

The following tables show the amount of exposure to equities included in the banking book broken down by type of asset and by calculation process at year-end 2017 and 2018.

Financial equity instruments within the scope of IFRS 9 are classified in one of the following categories: mandatorily measured at Fair Value Through Profit or Loss (FVTPL) as non-SPPI financial instrument and Equity instruments designated at Fair Value through Other Comprehensive Income (FVOCI). Dexia does not have any equity securities held-for-trading.

(in EUR million)	2017		2018	
Type of asset	**Accounting value**	**Fair value**	**Accounting value**	**Fair value**
Financial assets designated at fair value	1	1	-	-
Available for sale financial assets	188	188	-	-
Financial assets at fair value through OCI	-	-	39	39
Non-trading financial assets mandatorily at fair value through P/L	-	-	117	117
TOTAL	**189**	**189**	**156**	**156**

2.9. Focus on securitisation activities

2.9.1. Objectives and roles of Dexia

Dexia is managing a portfolio of senior ABS bonds in run-off. Dexia also manages a synthetic securitisation (WISE) with public finance and utility assets as underlying.

Dexia has not originated any securitisation transactions since 2011. The same goes for new investments or acting as sponsor for providing liquidity facilities in Dexia securitisation transactions or to third parties.

2.9.2. Risk monitoring

The Credit Risk Management department monitors Dexia's ABS positions. The process in place to monitor the changes in the underlying credit or market risk is organised as follows:

- Depending on the level of risk of each position, an annual or half-yearly full review is carried out analysing both the market on which the underlying assets are based (real estate markets for RMBS, corporate markets for CDOs….) and also the underlying performance and credit or market risk features of each individual transaction. Based on this individual analysis (with cash-flow models for the RMBS and CDOs), an internal rating is attributed to each position.
- On a quarterly basis, the most sensitive exposures classified in the "Watch list" or "Quarterly review" lists are reviewed by a dedicated Watch-List Risk Committee, which also decides on impairments.

Analysis of rating migration related to external rating agencies is based on daily monitoring. As to the inherent liquidity risk in ABS positions:

- The vast majority of the ABS positions are characterised by static pools of assets, limiting the risk of cash-flow mismatches between assets and liabilities.
- Liquidity risk might be partially related to the difference between the interest rate paid by the pool of underlying assets and the rate paid on the notes issued, in case of a mismatch between the assets.

Securitisation exposures in the banking book

Exposure at year-end 2017

	Bank acts as originator	Bank acts as investor
(in EUR million)	**Synthetic**	**Traditional**
RETAIL (TOTAL)	**0**	**2,950**
of which residential mortgage		557
of which other retail exposures		2,372
of which re-securitization[1]		21
WHOLESALE (TOTAL)	**1,417**	**57**
of which loans to corporates		45
of which commercial mortgage		12
of which other wholesale	1,417	

(1) Re-securitisation exposure is purchased only.

Exposure at year-end 2018

(in EUR million)	Bank acts as originator Synthetic	Bank acts as investor Traditional
RETAIL (TOTAL)	**0**	**2,272**
of which residential mortgage		322
of which other retail exposures		930
of which[(1)] reverse mortgage		20
WHOLESALE (TOTAL)	**1,300**	**57**
of which loans to corporates		45
of which commercial mortgage		12
of which other wholesale	1,300	

(1) Reverse mortgage exposure is purchased only.

2.9.3. Basel III treatment and accounting rules

2.9.3.1. Basel III treatment

Dexia applies the rating-based approach (RBA – advanced approach) to calculate the risk-weighted assets corresponding to securitisation/re-securitisation exposures. This method determines the risk weight percentage applicable as a function of the external rating of the securitisation exposure (or the inferred rating if no external rating is available), their seniority and the granularity of the underlying pool of exposure. When no external or inferred rating is available, the amount of the securitisation position is deducted from capital.

For both securitisation originations and calculating risk-weighted assets in relation to its investments in securitisation positions, Dexia uses the services of the following rating agencies: Standard & Poor's, Moody's and Fitch.

2.9.3.2. Accounting rules

The recognition and de-recognition of financial assets and liabilities relating to securitisation transactions, their valuation and accounting treatment are pursuant to IFRS 9 relating to "Financial instrument recognition and measurement".

Securitisation positions where the bank acts as an investor are classified in the IFRS 9 category of "amortised cost", "fair value through OCI" and "fair value through profit or loss". See section 1.1.6.2 of Dexia's Annual Report. The valuation techniques for such assets are detailed in section 1.1.7.2 of Dexia's Annual Report. For consolidation purposes, a securitisation-structured entity is consolidated in accordance with IFRS 10 relating to consolidation as described in Note 1.1.3 to the consolidated financial statements in Dexia's Annual Report 2018. Dexia has no assets awaiting securitisation.

2.9.4. Securitisation activity as originator

All of Dexia's origination operations, except WISE, were carried out with a view to obtaining long-term funding or establishing a liquidity buffer. The risk was not transferred out of the Group. DCL has not initiated any new securitization transaction since 2010. Dexia has not securitised any revolving exposure or liquidity facilities that are shared between investors and Dexia as originator.

The following tables show the outstanding notional amounts of reference obligations in the securitised pool. Variations between 2017 and 2018 are due to the amortisation of the securitisation portfolios.

	EAD	
(in EUR million)	31/12/2017	31/12/2018
Synthetic securitisation (Wise)	1,417	1,300

Securitisation exposures in the banking book and associated regulatory capital requirements - Bank acting as originator or as sponsor

	2018							
	Exposure values (by RW bands)		Exposure values (by regulatory approach)		RWA (by regulatory approach)		Capital charge after cap	
	≤ 20% RW	1250% RW	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%
TOTAL EXPOSURE	**1,276**	**24**	**1,276**	**24**	**102**	**302**	**8**	**24**
Synthetic securitisation (*)	1,276	24	1,276	24	102	302	8	24

(*) 100% Wholesale.

2.9.5. Securitisation activity as investor

2.9.5.1. Dexia portfolios

(in EUR million)	2017 – EAD					
Securitisation type	**[0 - 8%]**	**]8% - 16%]**	**]16% - 106%]**	**]106% - 1250%[**	**1250%**	**Total**
ABS	2,248	74	59	0		**2,381**
CDO	1,394	37	0	0	24	**1,454**
MBS	134	287	147	0	21	**588**
TOTAL	**3,775**	**398**	**206**	**0**	**45**	**4,424**

(in EUR million)	2018 – EAD					
Securitisation type	**[0 - 8%]**	**]8% - 16%]**	**]16% - 106%]**	**]106% - 1250%[**	**1250%**	**Total**
ABS	973	116	0	0	0	**1,090**
CDO	1,276	0	0	0	24	**1,300**
MBS	93	299	28	0	20	**441**
TOTAL	**2,342**	**415**	**29**	**0**	**44**	**2,831**

Dexia invested almost exclusively in originally AAA externally rated transactions, explaining the current low risk-weighted assets associated to this portfolio. 96% of the portfolio is within the BBB or above rating range as at the end of 2018, against 99% as at year-end 2017.

The following table shows the exposure at default (EAD) of securitisation positions retained or purchased, broken down by seniority.

Seniority	**2017**	**2018**
Senior	4,372	2,779
Mezzanine	37	37
First loss	15	15
TOTAL	**4,424**	**2,831**

Securitisation exposures in the banking book and associated regulatory capital requirements - Bank acting as investor

	2017											
(in EUR million)	Exposure values (by RW bands)					Exposure values (by regulatory approach)		RWA (by regulatory approach)		Capital charge after cap	
	≤ 20% RW	> 20% to 50% RW	> 50% to 100% RW	>1 00% to < 1250% RW	1250% RW	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%
Traditional securitisation	2,868	101	16		21	2,986	21	304	210	24	17
of which securitisation	2,863	101	16			2,981	0	303		24	
of which retail underlying	2,806	101	16			2,924	0	297		24	
of which wholesale	57					57		6			
of which re-securitisation (*)	5				21	5	21	1	210		17
TOTAL EXPOSURE 2017	**2,868**	**101**	**16**		**21**	**2,986**	**21**	**304**	**210**	**24**	**17**

(*) Senior only

	2018											
(in EUR million)	Exposure values (by RW bands)					Exposure values (by regulatory approach)		RWA (by regulatory approach)		Capital charge after cap	
	≤ 20% RW	> 20% to 50% RW	> 50% to 100% RW	>1 00% to < 1250% RW	1250% RW	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%	IRB RBA (incl. IAA)	1250%
Traditional securitisation	1,509	1	-	-	20	1,511	20	141	200	11	16
of which securitisation	1,509	1	-	-	20	1,511	20	141	200	11	16
of which retail underlying	1,493	1	-	-	-	1,494	-	138	-	11	-
of which wholesale	12	-	-	-	-	12	-	2	-	0	-
of which re-securitisation (*)	4	-	-	-	20	4	20	1	199	0	
TOTAL EXPOSURE 2018	**1,509**	**1**	**-**	**-**	**20**	**1,511**	**20**	**141**	**200**	**11**	**16**

(*) Senior only

2.9.5.2. Gains or losses on sales

The tables below show the recognised gains or losses by type of exposure in 2017 and 2018 arising from the sale of securitisation positions in line with Dexia deleveraging strategy. Securitisation sales resulted in a gain of EUR 7 million in 2017 versus a loss of EUR 49 million in 2018. The loss recorded in 2018 is attributable to the sale of US Student Loans ABS as part of the Dexia deleveraging plan.

	US student loans	Residential mortgage loans	Commercial mortgage loans	Total
Gains or losses in 2018	(49)	0	0	**(49)**
Gains or losses in 2017	(8)	18	(3)	**7**

3. Market risk

3.1. Market risk measures

3.1.1. Risk measurement

The Dexia Group mainly assesses market risk using a combination of two measurement indicators, resulting in a limit-based risk management framework.

- Value at Risk (VaR) is a measure of the expected potential loss with a 99% confidence interval and for a holding period of ten days. Dexia relies on a VaR parametric to measure the market risk inherent in the various portfolios and activities. The method of this VaR is based on a normal distribution of yields relating to risk factors.
- Limits in terms of position, maturity, market and authorised products are put in place per type of activity, ensuring consistency between global risk limits and the operational thresholds used by front office.

The risk management system is completed by stress tests, which include events outside the probabilistic framework of VaR measurement techniques. The different assumptions of these degraded scenarios are regularly revised and updated. The consolidated stress-tests results and the corresponding analysis are presented to the Risk Committee on a quarterly basis.

3.1.2. Exposure to market risk

3.1.2.1. Value at risk

The Dexia trading portfolio is composed of two groups of activity:

- Transactions initiated by financial instrument trading activities until the date on which the Group was placed in orderly resolution, mostly covered back-to-back;
- Transactions intended to hedge risks arising from disinvestments or asset sales within the framework of the orderly resolution plan.

The main risk factors of the trading portfolio are:

- Interest rate risk, in particular on the euro zone and the dollar zone,
- Cross-currency basis swap risk,
- Basis risk BOR-OIS in the same currency.

Value adjustments (CVA, DVA, FVA) and their variation are not included in the VaR model but are included in stress scenarios.

Value at risk (VaR)

The detail of the VaR from the market activities of the trading portfolios is presented in the following table. At the end of December 2018, total consumption in VaR was EUR 1.7 million, against EUR 3.3 million at the end of 2017. This fall is mainly explained by the reclassification as at 1 January 2018 of residual positions of securities in the trading portfolio to the banking portfolio, setting the spread VaR to 0.

	2017				2018	
VaR (10 days, 99%)	IR	Spread	Other risks	Total	IR	Total
Average	2.5	3.8	0.1	6.5	1.5	1.5
End of period	1.5	1.8	0.1	3.3	1.7	1.7
Maximum	3.0	4.2	0.1	7.3	1.9	1.9
Minimum	1.5	1.8	0.1	3.3	1.2	1.2

3.1.2.2. Sensitivity of banking portfolios classified at fair value through equity to the evolution of credit spreads

With the entry into application of IFRS 9, the sensitivity to an increase of credit spreads in the income statement as well as the result directly recognized in equity evolved both in nature and in magnitude.

Under IAS 39, only the fair value of the portfolio of securities classified as "Assets available for sale" was sensitive to credit spreads, impacting the result directly recognised in equity. This was EUR -10 million as at 31 December 2017.

Under IFRS 9, the portfolio classified at fair value through equity consists of securities and loans and presents sharply reduced sensitivity to an increase of credit spreads. It was EUR -2.8 million as at 31 December 2018 (EUR -2.7 million excluding activities held for sale – DKD). Furthermore, the portfolio classified at fair value through profit and loss in view of its "non-SPPI" nature, also consisting of securities and loans, presents a sensitivity to an increase of credit spreads of EUR -2.3 million as at 31 December 2018 (EUR -1.9 million excluding activities held for sale – DKD).

3.1.3. Regulatory internal model and back-testing

3.1.3.1. Basel treatment

Internal model

The parametric Value at Risk (VaR) model is the one used for the regulatory capital requirement calculation of general interest rate risk within the trading scope.

The Stressed VaR (SVaR) is calculated on a weekly basis using parameters from the period September 2008-September 2009. Regulatory capital is calculated as the sum of both a multiple of VaR and a multiple of SVaR. Nevertheless, the National Bank of Belgium requires Dexia to apply a floor of 2.5 times the VaR capital charge while calculating the SVaR capital charge.

The portfolios covered by the internal model are located in Dexia Crédit Local, in Paris and New York, and are exclusively composed of derivatives. As part of the independent price verification, their valuation is checked against external sources to assess the performance of the valuation models used.

Standard approach

Dexia uses the standard approach for the foreign exchange and, specific interest Market Risk as well as Dexia Crediop's portfolio that were not covered by regulatory approval.

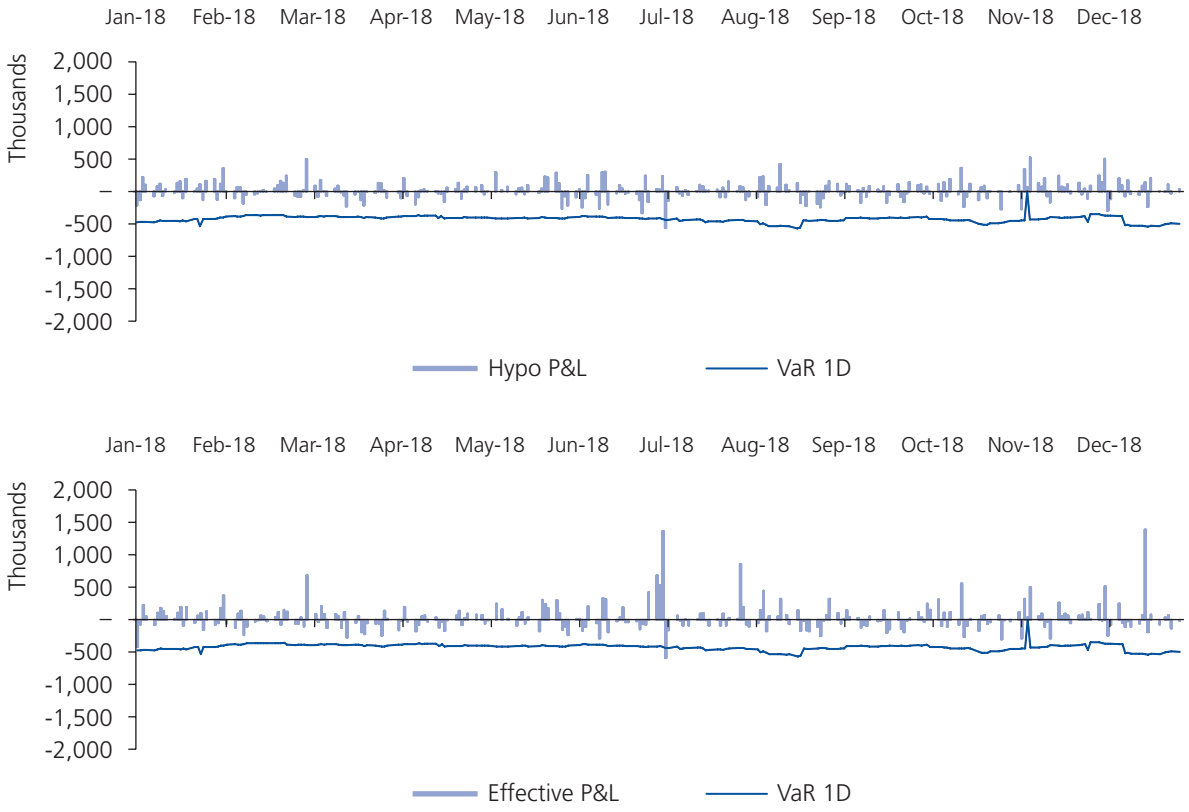
3.1.3.2. Back-testing

Back-testing is performed on a daily basis on the internal model perimeter. The result of the back-testing is the number of losses exceeding their corresponding VaR figures (i.e. "the number of exceptions"). For back-testing purposes, the VaR amounts need to be recalculated using a 1-day holding period. For VaR figures calculated under a parametric approach, rescaling is achieved through the application of a square root of 10 conversions. Risk reports are based on end-of-day positions meaning that risk figures refer to the maximum loss at the chosen confidence interval over the holding period of the portfolio that is held at the end of the business day. With a 1-day holding period, this figure is compared with the variation of the income statement of the following business day, restated to exclude accounting elements that are not captured by the Value at Risk such as fees, in order to challenge the robustness of the Dexia model better.

Back-testing is performed both on actual and hypothetical changes in the portfolio's value. Hypothetical back-tests are run under the scenarios of change in interest rate alone. The back-testing process provides the Market Risk Management department with a view of the number of exceptions. This number is taken into account to adjust the multiplier used for calculating the bank's risk capital requirements for market risk under the regulatory internal model.

In 2018, 4 back-testing exceptions occurred on the IR perimeter on internal models (compared with 3 downward exceptions in 2017). Dexia is still waiting for the TRIMIX follow-up letter from the ECB and a feedback from the application dated 1 October to use the revamped Stressed VaR model. Dexia has been requested by the ECB to participate to the 2018 EBA Benchmarking exercise on the market risk model despite the narrow scope of the Dexia internal model.

Back-testing results for 2018



3.1.4. Validation

Validation is responsible for the overall assessment of the market risk models. The process set up to endorse the validation of models deployed within the Dexia Group is multi-layered, ensuring total compliance with regulations and local regulatory requirements through the work-out of proposals by the Validation department: an approval of these proposals by the Market Validation Committee and a final endorsement by the Dexia Management Board.

3.1.5. Systems and controls

On a daily basis, the Product Control department, which is part of the Finance activity line, calculates, analyses and reports the risks and results at an entity and a consolidated level. On a monthly basis, the Market Risk Committee (MRC) meets to analyse the risk and results, possibly to adjust market limits, to present procedures, guidelines and policies and to approve or amend new valuation methodologies.

All market activities are backed by specific guidelines describing the objectives, the authorised products, sensitivity, VaR and/or outstanding limits. The systems and controls established within the Dexia Group are described in various procedures to ensure a complete and formal framework established to support all the market risk responsibilities.

As an example, the New Product Approval Procedure (NPAP) describes the approval process for requests to trade new products from the Front Office until the formal approval of each new product by the Executive Operational Market Committee (EOMC). During this formal process, Market Risk analyses and proposes a valuation strategy for each product and presents its validation to the MRC prior to its formal validation by the EOMC.

Dexia has put forward twos ratios to conduct a self-assessment of its capacity to deliver correct valuations. The results are discussed in the Valuation & Collateral Monitoring Committee and if necessary, this committee puts in place an action plan to improve the valuation strategies.

4. Transformation risk

Dexia's asset and liability management (ALM) aims to reduce liquidity risk as far as possible and to limit exposure to interest rate and foreign exchange risk of positions in the banking book.

4.1. Management of interest and exchange rate risk

4.1.1. Measurement of interest rate risk

Interest rate risk is measured and monitored via two sets of indicators:
- Interest rates gaps between assets and liabilities;
- The sensitivity of the net present value of accrued interest positions to a 1% shift (upward / downward) of the interest rate curve.

The main indicator used to determine limits and to measure and monitor risk is the sensitivity of the net present value of accrued interest positions to interest rate fluctuations.

The overall and partial sensitivities by time bucket are the main risk indicators used by the ALM risk committee, organised within the ALCO, to manage risk. The Dexia Group's structural interest rate risk is mainly concentrated on European long-term interest rates, and arises from the imbalance between Dexia's assets and liabilities after hedging for interest rate risk. The interest rate risk related to behaviour on loan prepayment and non-maturity deposits is non material considering Dexia's portfolio.

The sensitivity of long-term ALM was EUR -14.1 million as at 31 December 2018 (EUR -15.2 million excluding activities held for sale – DKD), against EUR +13.9 million as at 31 December 2017. This is in line with the ALM strategy, which seeks to minimise net interest margin volatility.

(in EUR million)	2017	2018
Sensitivity	+13.9	(14.1)
Limit	+/-80	+/-80

4.1.2. Measurement of foreign exchange risk

The foreign exchange risk represents the potential decrease in the value of assets arising from fluctuations in exchange rates against the euro, which is the reference currency in which the Dexia Group prepares its financial statements.

With regard to foreign exchange, the ALCO decides on the policy to hedge foreign exchange risk generated by the existence of assets, liabilities, income and expenditure in currencies. The monitoring of the foreign exchange exposure stemming from highly likely income (notably accrued interest) is delegated to the local ALCOs, within strict limits defined per currency that are reviewed on a monthly basis.

Also subject to regular monitoring:
- The structural risks associated with the funding of holdings in foreign currencies;
- Elements liable to increase the volatility of the solvency ratios of the Group or its subsidiaries and branches.

4.2. Management of liquidity risk

4.2.1. Dexia's policy on the management of liquidity risk

Dexia's main objective is to manage the liquidity risk in euros and in foreign currencies for the Group, as well as to monitor the cost of funding so as to optimise the Group's results and to minimise volatility.

The liquidity management process aims to optimise the coverage of the Group's funding requirements taking into account the constraints to which it is exposed. Funding requirements are assessed prudently, taking existing transactions into account as well as planned on-and off-balance-sheet forecasts.

Dexia has a liquidity buffer, consisting of deposits with central banks and liquid assets on the repo market, enabling it to deal with stressed situations for at least one month without the need to take contingency measures.

To manage the Group's liquidity situation, the Management Board regularly monitors the conditions for funding transactions on the market segments on which Dexia operates. It also guarantees proper execution of the funding programmes put in place. To that end, a specific and regular mode of information has been introduced:

- Daily and weekly reports are provided to members of the Management Board, the State shareholders and guarantors and the supervisory authorities. This information is also used by all parties involved in managing the Dexia group's liquidity position, in particular the Finance and Risk teams in charge of these topics, and the Funding and Markets activity line;
- The twelve-month funding plan is sent monthly to the State shareholders and guarantors, central banks and supervisory authorities;
- Fortnightly conference calls are held with the supervisory authorities and (European, French and Belgian) central banks.

4.2.2. Liquidity risk measurement

In 2015, the European Central Bank (ECB) decided to apply a tailored, pragmatic and proportionate prudential supervisory approach to Dexia taking into consideration its specific and unique situation of being a bank in orderly resolution. This approach was applied until 2017.

In 2018, this approach was renewed, accompanied by a convergence towards the general supervisory framework, reflected by the strengthening of certain requirements, in particular regarding observance of the Liquidity Coverage Ratio (LCR).

The Dexia Group posted a consolidated LCR ratio of 202% as at 31 December 2018, against 111% as at 31 December 2017 in line with these requirements. This ratio is also respected at subsidiary level, each exceeding the required minimum of 100%.

Furthermore, the ECB informed the Dexia Group that as from 1 January 2019, the approach of specific supervision would not be renewed.

As for liquidity, Dexia must therefore meet all the regulatory requirements applicable to banking institutions supervised by the ECB, at every level of the Group consolidation.

Further information on liquidity is provided in the section "Information on capital and liquidity" in Dexia's Annual Report 2018.

4.2.3. Asset encumbrance

Assets

	31 December 2017			
	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
Assets	98,618		82,320	
Equity instruments	0	0	189	189
Debt securities	41,387	40,098	14,778	13,252
Other assets	57,231		67,353	

	31 December 2018			
	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
Assets	55,423		103,380	
Equity instruments	0		156	156
Debt securities	25,949	22,970	23,946	21,280
Other assets	29,474		79,278	

Collateral received

	31 December 2017		31 December 2018	
	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
Collateral received	2,225	173	1,290	105
Equity instruments	0	0	0	0
Debt securities	0	0	0	0
Other collateral received	2,225	173	1,290	105
Own debt securities issued (*)	0	0	0	0

(*) Other than own covered bonds or ABS.

Encumbered assets/collateral received and associated liabilities

	31 December 2017		31 December 2018	
	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued
Carrying amount of selected financial liabilities	97,901	99,643	57,722	80,316

5. Operational risk

Dexia's policy regarding operational risk management consists of regularly identifying and assessing the various risks and implementing corrective actions or improvements to reduce the most significant operational risks. This system is supplemented by a prevention policy in particular covering information security, business continuity and, when necessary, the transfer of certain risks via insurance.

5.1. Risk measurement and management

Operational risk management has been identified as one of the pillars of Dexia's strategy within the context of its orderly resolution.

This risk is monitored within the framework of the standard approach determined by the Basel regulatory methodology. Under this methodology, information relating to the operational risk must be transferred to the managers in charge of monitoring this risk, and the tasks identified as critical must be monitored.

The operational risk management system relies on the following components.

- Operational risk database: the systematic capture and monitoring of operational incidents is one of the most important requirements of the Basel Committee. Fulfilling its regulatory obligations, Dexia has put a system in place to list operational incidents and to gather specific data. The information gathered enables it to improve the quality of its internal control system. Over the last three years, almost 99% of losses under the Basel definition originated from the category "Execution, Deliveries and Process Management". The other categories ("Customers, Products and Business Practices", "Failure of Systems or IT Infrastructure" and "External Fraud") represent 45% of the total number of incidents but less than 1% of total losses. Most operating incidents are declared on a failure of a business line process, an incident the direct cause of which is often a failure in the correct operation of IT systems. The principal incidents are subject to corrective actions approved by the management bodies.
- Risk self-assessment and control: as well as building a history of losses, Dexia's exposure to key risks is determined via an annual risk mapping exercise. All Dexia Group entities conduct risk self-assessment exercises that take into account existing controls, thus providing an overall view of most areas of risk within the Group's various entities and businesses. The overall mapping is presented each year to the Management Board. Actions to limit risk may be defined where applicable.
- Definition and monitoring of action plans: remedial actions are defined to avoid major incidents recurring, to correct deficient controls or to reduce important risks identified. Regular monitoring is carried out by the operational risk management function. This process allows the internal control system to be constantly improved and risks to be reduced appropriately over time.
- Key Risk Indicators (KRI): KRI have been developed and enable the Operational Risk Committee to monitor the evolution of the principal risks identified in the operational risk mapping.
- Information security management: the information security policy and associated instructions, standards and practices are aimed at ensuring that Dexia's information assets are secure.
- Business continuity management: all activities take place in a secure environment. The business lines establish impact analyses for vital activities in the case of disaster or interruption. They define and then regularly update recovery plans. Dexia applies the Basel standard approach to calculate regulatory capital for operational risk management.

5.2. Management of operational risk during the resolution period

In 2018, the Dexia Group continued to adapt its structure and its operational processes to its mandate of orderly resolution. This resolution phase is by nature propitious to the development of operational risks, particularly from elements such as the departure of key individuals, or changes to treatment processes.

In particular, projects to outsource certain activities may represent a source of operational risk during phases of preparation and implementation but are aimed over the longer term at guaranteeing the bank's operational continuity and at limiting the operational risks associated with systems, processes and people.

During the phase of implementing the outsourcing agreement with the service provider Cognizant, outsourcing risks were monitored by the Dexia Risk Management to ensure the proper implementation of operations and risk governance via joint Dexia / Cognizant committees. A specific team was created to check the provision and quality of the services provided by Cognizant, whilst the effective supervision of outsourced activities was realised by the Internal Control of the Dexia and Cognizant entities. In particular, a specific projects programme was launched by Dexia and Cognizant to achieve the objectives defined in the outsourcing agreement regarding IT systems security.

Finally, at Dexia, psycho-social risks are carefully monitored, accompanied by prevention and assistance actions.

More detailed information on the actions taken by Human Resources to mitigate operational risk are provided in the Dexia's 2018 annual report chapter entitled "Non-financial declaration. Corporate, social responsibility".

6. Remuneration policies and practices

It has been decided since 12 March 2015, in order to take account of the transposition of the European banking directive, known as CRD IV, into Belgian law and French law, to split the Appointments and Remuneration Committee into an Appointments Committee, on the one hand, and a Remuneration Committee, on the other, both with powers relating to Dexia and Dexia Crédit Local.

Dexia's remuneration policy has been established by the Human Resources department in collaboration with the Audit, Risk and Compliance, Legal & Tax departments.

Dexia has adopted one overall remuneration policy for the whole of the Group. This policy has been submitted, after approval by the Board of Directors, to the entities for formal approval by their competent bodies, in accordance with the rules and procedures stated in the company's articles of association.

Dexia modified its remuneration policy in August 2017 in order to take into account the behavioural commitments made by the Belgian and French States to the European Commission regarding remuneration. In order to guarantee attractive and competitive remuneration, external remuneration consultancies may be used to obtain information about developments in pay on the employment market in the financial sector.

Taking the benchmarking analyses into account, the Remuneration Committee makes proposals to the Board of Directors regarding any adjustments in terms of the remuneration paid to the members of Dexia's Management Board. These adjustments would be justified by market developments, taking account of the company's situation.

6.1. Fixed and variable remuneration

The remuneration of staff whose professional activities have a significant impact on the risk profile is made up of a fixed part that may be accompanied by a variable part.

6.1.1. Fixed remuneration

Fixed remuneration may be made up of basic remuneration, determined considering the nature and importance of the responsibilities assumed by each staff member, plus a 'function bonus' or salary supplement that is not affected by performance, paid quarterly.

This supplement was introduced correlatively to the decision by the Board of Directors to reduce variable remuneration based on performance in order to reduce the potential incentive to take excessive risks. In this way the Board, in accordance with the statutory and regulatory provisions in the matter, has increased remuneration not linked to performance, which must represent a significant proportion of the whole of the remuneration.

Remuneration for Management Board members is based exclusively on a fixed element, with no performance conditions, and constitutes a whole from which, unless the Board of Directors decides otherwise on a proposal from the Remuneration Committee, a deduction is made of any director's fees or percentage paid to a Management Board member by a Dexia Group company or by a third party company in which an office is held in the name and on behalf of Dexia.

6.1.2. Variable remuneration

Members of the Management Board have no contractual right to receive variable remuneration.

As a rule, in order to discourage excessive risk-taking and to allow a sufficiently flexible policy of granting variable compensation, the maximum ratios observed between fixed and variable compensation is 1 (fixed compensation) for 0.3 (variable compensation). Exceptionally, this ratio may reach 0,5 in case of premium having the goal to keep the necessary competencies to maintain the operational continuity. In any case, variable remuneration will not exceed EUR 75,000.

Given the ratios set out above, the variable remuneration paid to a staff member will not be deferred over time, except where there is an exception such as keeping key competencies (cf. paragraph above). Nevertheless, the company reserves the right to apply a retrospective clawback adjustment in certain cases (cf. below).

6.1.3. Retrospective clawback adjustment of variable remuneration

Payment of variable remuneration is based on the premise that, as long as the staff member is working within the Group, he or she fully observes the law and the rules that apply to the company, as well as its values. Variable remuneration may be the subject of retrospective clawback adjustments.

In the event of fraud being observed after the allocation of variable remuneration, and in cases where variable remuneration might have been granted on the basis of intentionally erroneous information, the Board of Directors of Dexia reserves the right to bring civil action with a view to recovering the part of the variable remuneration which might already have been paid, or at least damages to remedy the consequences of those actions.

6.2. Link between performance and remuneration

Performance may influence movements in fixed remuneration and the amount of any variable remuneration.

All variable remuneration is influenced by the company's situation and may fluctuate based on the results of the Group, of the entity and the individual performance. In compliance with statutory constraints and obligations, any variable remuneration that may have been granted may therefore be reduced to zero, by decision of the Board of Directors, if the Group's collective results are negative.

The link between the variable remuneration and staff member's performance is assessed with regard to former targets and results expected in the future, linked to past activity.

When being determined, the directors' targets, set by the Board of Directors, include the risk criteria. Subsequently, the targets streamed down to lower levels of the organisation will also take account of the risk factors specific to the business line in question.

When monitoring performance, targets that are specifically risk-oriented will be subject to the same monitoring as other performance targets. Performance is assessed on the basis of quantitative and qualitative, financial and non-financial criteria. Professional performance is therefore an element taken into account when determining variable remuneration, but is just one element among others.

6.3. Quantitative information

The information regarding the remuneration of the Management Board is disclosed in the chapter entitled "Terms of office and remuneration of directors and officers" of Dexia Crédit Local's registration document 2018, as well as in the chapter entitled "Declaration of corporate governance" published in Dexia's Annual Report 2018.

	2017							
		Compensation			Severance payments			A posteriori adjustment of variable compensation
	Number of staff[1]	Fixed	Variable[2]	Retention premium	Number of beneficiaries	Paid amounts	Highest paid amount	
Management Board members	6	2.95	0	0	0	0	0	0
Other staff[1]	37	7.87	1.12	0.03	5	1.90	0.95	0

(1) This table is related to executives and staff members whose activity has a significant material impact on the Group risk's profile.

(2) In the light of the applicable ratios between fixed and variable pay, the payment of the variable remuneration will not be deferred.

	2018							
		Compensation			Severance payments			
	Number of staff[1]	Fixed	Variable[2]	Retention premium	Number of beneficiaries	Paid amounts	Highest paid amount	A posteriori adjustment of variable compensation
Management Board members	7	2.82	0	-	1	0.11	0.11	-
Other staff[1]	29	6.67	0.82	-	6	2.56	1.05	-

(1) This table is related to executives and staff members whose activity has a significant material impact on the Group risk's profile.

(2) In the light of the applicable ratios between fixed and variable pay, the payment of the variable remuneration will not be deferred.

Appendix 1
Glossary

Concept	Definition
ABS Asset-Backed Security	Securities issued by a vehicle created for the purpose of buying assets from a bank, a company or a state, like trade receivables or inventories, and to provide the seller with cash and the buyer with a financial product characterised by a certain risk profile and a rate of return.
AFS Available For Sale	Non-derivative financial assets designated on initial recognition as available for sale or any other instruments that are not classified as (a) loans and receivables, (b) held-to-maturity investments or (c) financial assets at fair value through profit or loss.
AIRBA Advanced Internal Rating-Based Approach	Institutions using the Advanced IRB approach are allowed to determine borrowers' probabilities of default and to rely on own estimates of loss given default and exposure at default on an exposure-by-exposure basis. These risk measures are converted into risk weights and regulatory capital requirements by means of risk weight formulas specified by the Basel Committee.
ALM Asset and Liability Management	Action, for instance in a financial institution or a corporate, of managing the net risk position between assets and liabilities, particularly with respect to imbalances generated by the evolution of interest rates, currencies and inflation, but also maturity mismatch, liquidity mismatch, market risk and credit risk.
AVC Asset Value Correlation	The AVC parameter is a means by which the framework captures the extent to which defaults across firms will cluster together. A multiplier of 1.25 is applied to the correlation parameter of all exposures to financial institutions meeting defined criteria (see LFI/UFI)
BIS Bank for International Settlements	"Bank for International Settlements" ("BIS") designates the international financial institution which acts as the central bank of the national central banks and of some supranational organisations, such as the European Central Bank (ECB). The BIS receives deposits from, and makes loans to, these entities. The BIS is also a forum to discuss co-ordination of macroeconomic policies in general, with a focus on monetary policies, such as the evolution of interest rates and currency exchange rates. The institution's prime objective is the overall stability of the world's financial system. In that context, capital adequacy ratios applicable to banks are set up by the Basel Committee which is part of the BIS.
CCF Credit Conversion Factor	The ratio of the currently undrawn amount of a commitment that will be drawn and outstanding at default to the currently undrawn amount of the commitment. The extent of the commitment will be determined by the advised limit, unless the unadvised limit is higher.
CRD Capital Requirement Directive	The Capital Requirement Directive (CRD) for the financial services industry introduces a supervisory framework in the EU which reflects the Basel III rules on capital measurement and capital standards.
CRM Credit Risk Mitigant	Range of techniques whereby a bank can, partially, protect itself against counterparty default (for example by taking guarantees or collateral, or buying a hedging instrument).
CVA Credit Valuation Adjustment	The Credit Valuation Adjustment (CVA) is one of the components of the fair value (FV) of derivatives. CVA adjusts FV in order to take counterparty risk into account.
CVA capital charge	Under Basel III, banks are subject to a "CVA" capital charge for potential mark-to-market losses associated with any deterioration in the creditworthiness of a counterparty. The CVA capital charge corresponds to a Value At Risk (VaR) applied to CVA.
DVA Debit Valuation Adjustment	The Debit Valuation Adjustment (DVA) is the measure of a bank's possibility of not fulfilling its own obligations based on its probability of default.
EAD Exposure at Default	Exposure at Default (EAD) is one of the parameters used to calculate the regulatory capital requirement under the Basel III framework. EAD is a Dexia best estimate of its credit risk exposure value in case of default of a counterparty. Definition of EAD depends on the approach taken into account by Dexia: both Standard and IRB approaches (Basel III regulation) are used by Dexia.

Concept	Definition
ECAI External Credit Assessment Institutions	Under the agreement of the Basel Committee on Banking Supervision, banking regulators can allow banks to use credit ratings from certain approved Credit Rating Agencies when calculating the risk weight of an exposure. Competent authorities will recognise an ECAI as eligible only if they are satisfied that its assessment methodology complies with the requirements of objectivity, independence, ongoing review and transparency, and that the resulting credit assessments meet the requirements of credibility and transparency.
EL Expected Loss	The amount expected to be lost on an exposure from a potential default of a counterparty or dilution over a one-year period.
Forbearance	Forborne exposures are restructured contracts in respect of which forbearance measures have been extended. Forbearance measures consist of concessions towards a debtor facing or about to face difficulties in meeting its financial commitments (in other words, forbearance bears upon counterparties which are in "financial difficulties"). Restructured contracts are transactions renegotiated (modification of the previous terms and conditions) or refinanced (use of debt contracts to ensure the total or partial payment of other debt). Concession refers to either of the following actions: (a) a modification of the previous terms and conditions of a contract with which the debtor is considered unable to comply due to its financial difficulties ("troubled debt") to allow for sufficient debt service ability, that would not have been granted had the debtor not been in financial difficulties; (b) a total or partial refinancing of a troubled debt contract, that would not have been granted had the debtor not been in financial difficulties. The concept of forbearance applies to all loans and debt securities on balance sheet. "Debt" includes loans, debt securities and revocable and irrevocable loan commitments given, but excludes exposures held for trading.
FX Foreign eXchange	Transaction of international monetary business, as between governments or businesses of different countries.
IAS International Accounting Standards	IAS stands for International Accounting Standards. IAS are used outside the US, predominantly in continental Europe.
ICAAP Internal Capital Adequacy Assessment Process	The main objective of the Pillar 2 requirements is to implement procedures that will be more sensitive to an institution's individual risk profile. This is to be achieved by introducing internal Capital Adequacy Assessment processes (ICAAP).
IFRS International Financial Reporting Standards	International Financial Reporting Standards published by the IASB and adopted by most countries but the USA. They have been designed to ensure globally transparent and comparable accounting and disclosure.
IR Interest Rate	Interest expressed as an annual percentage rate.
IRB Approach	Internal Rating-Based Approach. Institutions using the IRB approach are allowed to determine borrowers' probabilities of default. Two IRB approaches exist: the Advanced Approach (AIRBA) and the Foundation Approach.
ISDA International Swap and Derivative Association	Trade organisation of participants in the market for over-the-counter derivatives. It has created a standard contract (the ISDA Master Agreement) to enter into derivative transactions.
IT Information Technology	Study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware. IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information.
L&R Loans & Receivables	Non-derivative financial assets with fixed or determinable payments that are not quoted on an active market, other than held for trading or designated on initial recognition as assets at fair value through profit or loss or as available for sale.
LCR Liquidity Coverage Ratio	A 30-day liquidity coverage ratio set up by the new Capital Requirement Regulation (CRR) designed to ensure short-term resilience to liquidity disruption. The stock of high liquid assets in stressed conditions is compared to the total expected cash inflows minus outflows.
Leverage Ratio	The leverage ratio is defined as the "capital measure" (the numerator) divided by the "exposure measure" (the denominator) and is expressed as a percentage. The capital measure is currently defined as Tier 1 capital and the minimum leverage ratio is 3%. The leverage ratio is intended to (i) restrict the build-up of leverage in the banking sector to avoid destabilising deleveraging processes that can damage the broader financial system and the economy and (ii) reinforce the risk-based requirements with a simple, non-risk based "backstop" measure.

Concept	Definition
LFI Large Financial Institution	A Large Financial Institution is a regulated financial institution (defined as an institution that provides financial services to its clients or acts as an intermediary in providing such services) the total assets of which, on the level of that individual firm or on the consolidated level of the Group, are greater than or equal to EUR 70 billion.
LGD Loss Given Default	The ratio of the loss on an exposure due to the default of a counterparty to the amount outstanding at default.
Master scale	For reporting purposes, a "master scale" has been set up. This master scale is structured in grades ranging from AAA to CCC and the modifiers plus, flat and minus (except for both extremes of the scale). The two default classes D1 and D2 are also reported. Each rating corresponds to a bucket of PD set up according to the one-year average default rate of rating agencies. This rating is obtained by mapping its probability of default as estimated by the relevant IRS (Internal Rating System) into the master scale bucket. Rating classes provided in the present document stem from the master scale.
MBS Mortgage-Backed Securities	Asset-backed securities or debt obligations representing claims on the cash flows from mortgage loans.
NBB National Bank of Belgium	The National Bank of Belgium is the Belgian Financial Institutions regulator.
NPE Non-Performing Exposure	Non-performing exposures satisfy at least one of the following criteria: (i) material exposures which are more than 90 days past-due (quantitative criterion); (ii) the debtor is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past-due amount or of the number of past-due days (qualitative criterion). The concept of non-performing exposure applies to all debt instruments (loans and advances as well as debt securities) and off-balance sheet exposures (loan commitments given, financial guarantees given, and other commitments given). This definition does not include equities, derivatives, repos and exposures held for trading.
NSFR Net Stable Funding Ratio	Long-term structural liquidity ratio set up by the new Capital Requirement Regulation (CRR) designed to address liquidity mismatches and to promote the use of stable funding (the amount of available stable funding is compared to the amount of required stable funding).
P/L Profit and Loss	The income statement is a document showing all wealth-creating revenues and wealth-destroying charges. There are two major income statement formats: the by-nature income statement format and the by-function income statement format. Also called profit and loss account (or P/L).
PD Probability of Default	The probability of default of a counterparty over a one-year period.
RCSA Risk & Control Self-Assessment	Annual self-assessment exercise that consists of identifying and evaluating the most significant risk areas in a coherent way across entities and activities. RSCA also includes the identification, challenging and description of key controls and indicators and eventually defines action plans that will allow for an improvement of risk mitigation.
RWA Risk-Weighted Assets	Used in the calculation of risk-based capital ratios. They are the total assets calculated by applying risk-weights to the amount of exposure.
UFI Unregulated Financial Institution	From a regulatory standpoint, unregulated financial institutions are defined as non-regulated financial entities that perform, as their main business, one or more of the activities performed by regulated financial entities. The following entities can be included in the UFI list: unregulated non-equity funds (may include funds involved in credit intermediation and operating with some degree of maturity and/or liquidity transformation) and unregulated structured finance vehicles (securitisation vehicles created for the purpose of warehousing assets and issuing ABS).
VaR Value at Risk	(VaR) represents an investor's maximum potential loss on the value of an asset or a portfolio of financial assets and liabilities, based on the investment timeframe and a confidence interval. This potential loss is calculated on the basis of historical data or deduced from normal statistical laws.
Asset Encumbrance	An asset will be treated as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn.

Appendix 2
Internal rating systems

1. Structure of internal rating systems

The internal rating systems developed by Dexia are set up to evaluate the three Basel risk parameters: Probability of Default (PD), Loss Given Default (LGD) and Credit Conversion Factor (CCF). For each counterparty type in the advanced method, a set of three models, one for each parameter, has been developed.

The PD models estimate the one-year probability of default. Each model has its own rating scale and each rating on the scale corresponds to a probability of default used for regulatory and reporting purposes. The correspondence between rating and PD for each scale is set during the calibration process, as part of the model development, and is reviewed and adjusted during the yearly back-testing when applicable. The number of ratings on each scale depends on the characteristics of the underlying portfolio (the number of counterparties, their homogeneity, whether it is a low default portfolio or not) and varies between 7 and 17 non-default classes. In addition each scale has been attributed two default classes (named D1 and D2).

For reporting purposes, a "master scale" has been set up. This master scale is structured in grades ranging from AAA to CCC and the modifiers plus, flat and minus (except for both extremes of the scale). The two default classes D1 and D2 are also reported. Each rating corresponds to a bucket of PD set up according to the one-year average default rate of rating agencies. This rating is obtained by mapping its probability of default as estimated by the relevant IRS (Internal Rating System) into the master scale bucket. Rating classes provided in the present document stem from the master scale.

LGD models estimate the ultimate loss incurred on a defaulting counterparty before taking the credit risk mitigants into account. The unsecured LGD depends on different factors such as the product type, the level of subordination or the rating of the counterparty. The granularity of the estimate is a function of the quantity and quality of data available.

CCF models estimate the part of off-balance-sheet commitments that would be drawn should a counterparty go into default. The regulation authorises the use of CCF models only when CCF under the foundation approach is not equal to 100% (as it is for credit substitutes for instance). CCF granularity also depends on the availability of data.

The relation between the outcomes of internal rating systems and external agency ratings is at two levels:
- While designing the models: some internal rating systems have been designed and calibrated on the basis of external ratings. This is typically the case when internal default data are scarce;
- While establishing reporting: information on the portfolio is reported using the master scale which is representative for the external agency probability of default.

2. Description of the internal rating process

General Organisation of the Internal Rating Process

The internal rating process is organised in three stages: the model development, the maintenance and the control of the internal rating. The Risk Models, Quantification & Defaults division is responsible for the entire process of developing and maintaining a model whereas the control of the internal rating is dispatched through several control functions within the Dexia Group (validation, audit, credit internal rating systems control…).

Model Development and/or Review

The different steps of models development are:
- Defining the scope of the model application;
- Identifying and gathering the most pertinent available data like financial data, data on defaults and recoveries (internal and/or external data), instutional and legal framework…;

- Building a database for the purpose of modelling, calibration of risk parameters (internal and/or external default, financial and qualitative information, internal data on recovery process, etc.); the database source depends on the case at hand, with a preference for objective above subjective data and a long data history. The data source varies by model. The data quality is checked by RMQD analysts before launching the testing phase;
- Defining the methodology: expert, statistical or mixed statistical and expert approaches, definition of a broad list of financial ratios or / and qualitative criteria, definition of material risk drivers for discrimination, computation of quantitative and qualitative criteria according to the type of model chosen;
- Model construction
  – Testing ratios methods and/or material risk driver for discrimination in an interactive way between quantitative analysts from RMQD and qualitative analysts from CEC teams when necessary. Testing ratios, methods and/or material risk driver for discrimination in an interactive way between quantitative analysts from RMQD and qualitative analysts from CEC teams when necessary.
  – Segmentation (per homogeneous group or segment) and calibration (through-the-cycle average and conservative margin) steps:
- Model Evaluation: Expert evaluation, Formal backtest, Statistical performance, Criteria to rank models;
- Documentation writing: Model documentation and documentation to be disclosed to the Supervisor;
- Validation: Internal validation (validation team and internal audit, ad hoc committees (COTEC), Validation Committee, Risk Eexecutive Committee);
- Information to the Supervisor;
- Model Implementation in IT systems;
- Adapting risk policies and tools to take IRS into account.

Nevertheless, some steps in the development process detailed above may not be applied.

Models based on a derivation approach stem from an existing model and those based on an assimilation approach have specific development processes. Counterparties treated by assimilation inherit the rating of their "master" counterparty. Assimilations and derivations are applied when it is neither financially intuitive nor statistically relevant to develop, adapt or use an existing model. Such cases occur typically for low default portfolios with a low number of observations, limited data availability (both for design and for model use) and for portfolios where strong relations exist between the "master" counterparty and the "assimilated" or "derived" counterparty. These relations can be legally bound or based upon long-term past experience and practice.

Maintenance of the models

As mentioned above, the Risk Models, Quantification & Defaults division is responsible for the entire process linked to the model review, including the maintenance of the model. The main model maintenance steps encompass:
- Centralising, analysing and storing of default data;
- Coordinating the various quantitative and qualitative analyses required throughout the model life cycle;
- Gathering information and feed-back from the credit analysis and rating teams to update risk analysis techniques, and identify models' weaknesses;
- Conducting developments, reviews and back tests of models;
- Validating business requirements for IT developments (rating tools);
- Updating model documentation and user guides;
- Preparing model certification documents.

Internal rating process by broad exposure class

Type of exposure included in each exposure class

Dexia has developed a wide range of models to estimate PD, LGD and CCF of the following types of counterparties.

Sovereigns & assimilated

Sovereigns

The scope of the model encompasses sovereign counterparties, defined as central governments, central banks and embassies (which are an offshoot of the central state), and all debtors of which liabilities are guaranteed irrevocably and unconditionally by central governments or central banks.

Assimilations to sovereigns

The in-depth analysis of some public sector counterparties (such as public hospitals in France or communities in Germany) shows that they share the same credit risk as the "master" counterparties to which they are assimilated (usually local authorities or sovereigns). They are consequently assimilated to these "master" counterparties and benefit from the same PD and LGD as their "master" counterparties.

Project finance (specialised lending)

This model encompasses the project financing activity of Dexia on all segments of activity in which Dexia intervenes (which at present are mainly Energy and Infrastructure). The specialised lending portfolio is a subgroup of the corporate portfolio which has the following characteristics: the economic objective is to finance or acquire an asset; the flows generated by this asset are the sole or practically the sole source of repayment; this financing represents a significant debt in respect of the liabilities of the borrower; the main distinguishing criterion of risk is essentially the variability in flows generated by the financed asset, much more than the borrower's ability to repay.

Banks

The scope of the model encompasses worldwide bank counterparties, defined as legal entities which have banking activities as their usual profession. Banking activities consist of the receipt of funds from the public, credit operations and putting those funds at customers' disposal, or managing means of payment. Bank status is gained by the delivery of a banking license given by the supervisory authority.

Corporates

The scope of the model encompasses worldwide corporate counterparties. Dexia defines a corporate as a private company or a listed publicly owned company with total annual revenues higher than EUR 50 million or belonging to a Group with total annual revenues higher than EUR 50 million which is not a bank, a financial institution, an insurer or a satellite.

Public sector entities: Western Europe, US, assimilations to local authorities

Public sector entities represent a large part of the Dexia portfolio. Some differences between counterparties have been noticed inside this portfolio, and this explains the number of models.

Western European local authorities

This model encompasses local authorities in France, Spain, Italy and Portugal[8]. From this model, the models applicable for German Länder and French "Groupements à fiscalité propre" have been inferred.

Dexia defines local authorities as sub-sovereign governmental elected bodies empowered by the legislation of the country in which they are located with specific responsibilities in providing public services and with certain resources and capacity to decide their own practical organisation in terms of administrative procedures, personnel, buildings, equipment, etc.

US States

The scope of application of the US State model encompasses the 50 States of the United States of America and the Commonwealth of Puerto Rico. The model only rates US State general funds or general obligations. Every US State or local government has a general fund and generally issues general obligation or general fund debt. The general fund of a public entity is the main revenue from direct or indirect taxes and is used for common and general purposes. For instance, a general fund usually backs general obligation bonds, lease or certificate of participation bonds.

US local governments

The scope of the US local government model encompasses cities, counties and school districts. The internal rating system only rates US local government general funds or general obligations.

Other counterparties from the US municipal sector (expert models)

The scope of application of these expert models covers only the counterparties related to the special revenue funds, i.e. the following categories for Dexia: special tax, utilities (including water and sewer, gas and electricity), higher education, general airport, toll facilities, mass transportation, housing, healthcare, and public facility lease. Every local government or public authority generally has one or more special revenue funds, the financial characteristics of which differ from one sector to another. The special revenue funds of a public entity are usually used for a special purpose and they receive either utility revenues (water, public power, toll...) or special taxes (sales tax, allocation tax, excise tax…).

Social housing

This model encompasses social housing companies in France and the United Kingdom. The social housing sector encompasses dedicated entities with public, private or non-profit entity status which have a social lessor's mission within the regulated field of social housing activity in France and in the United Kingdom. In particular, this field is strongly regulated by the "Code de la Construction et de l'Habitat" in France and by the Housing Corporation in the United Kingdom.

Assimilations to public sector entities

The in-depth analysis of some public sector counterparties shows that they share the same credit risk as the "master" counterparties to which they are assimilated (usually local authorities or sovereigns). They are consequently assimilated to these "master" counterparties and benefit from the same PD/LGD as their "master" counterparties.

(8) Portuguese Autonomous Regions. In 2018 Dexia obtained the supervisor's approval to revert to the standard approach on Portuguese municipalities' exposures.

Equity and securitisation transactions

No internal models have been developed specifically for equity or securitisation transactions that follow a different regulatory approach under the Basel framework: securitisation risk weighting is based on external and not internal ratings; equities do not require the development of specific models.

Default definition used in the models

The "default" notion is uniform throughout the entire Dexia Group covering all business segments with some minor exceptions due to special characteristics.

The notion of default has been harmonised from the beginning of the Basel project with the impairment notion used in IFRS. All credits in default and only those flagged as in default give rise to an impairment test (that may or may not ultimately lead to a provision). (Cf. above in section 3.5).

The notion of default is not automatically related to that of potential loss (for instance, a loan may present unpaid terms but may be totally collateralised and consequently present a nil expected loss) or to the notion of denunciation (which is decided on the basis of the interest Dexia may have in doing so).

Definition, methods and data for estimating PD, LGD and CCF

Main principles used for estimating the PD

Types of counterparties	Through The Cycle (TTC) models	Default definition	Time series used	Internal/ external data
Sovereigns	Models are forward looking and Through The Cycle (TTC). They are designated to be optimally discriminative over the long term. The TTC aspect of the rating is also addressed in a conservative calibration of the PD	Default at 90 days	> 10 years	External
Banks		Default at 90 days	> 10 years	External and internal
Local public sector		Default at 90 days (except for French: 180 days until Dec 31, 2016)	Cf. following table	Internal and/or external
Corporates		Default at 90 days	> 10 years	External
Specialised lending		Default at 90 days	> 10 years	Internal
Equity	Specific approach: PD/LGD	N/A	N/A	N/A
Securitisation	Rating-based approach	Default if related ABS is classified as impairment 1 (loss probability > 50%) or impairment 2 (loss probability = 100%)	N/A	N/A

Main principles used for estimating the LGD

Types of counterparties	Main hypotheses	Time series used	Internal/ external Data
Sovereigns	Expert score function based upon Fitch country loss risk methodology and internal expert knowledge to discriminate between high and low risk	> 10 years	**Internal + External**
Banks	Statistical model based on external rating agencies and internal loss data	> 10 years	**Internal + External**
Corporates	Statistical model based on external rating agencies loss data	> 10 years	**External**
Local public sector	Cf. next table		
Specialised lending	Statistical model based on internal loss data	> 10 years	**Internal**
Equity	Specific approach: PD/LGD	N/A	**N/A**
Securitisation	Rating-based approach	N/A	**N/A**

Overview of the local public sector

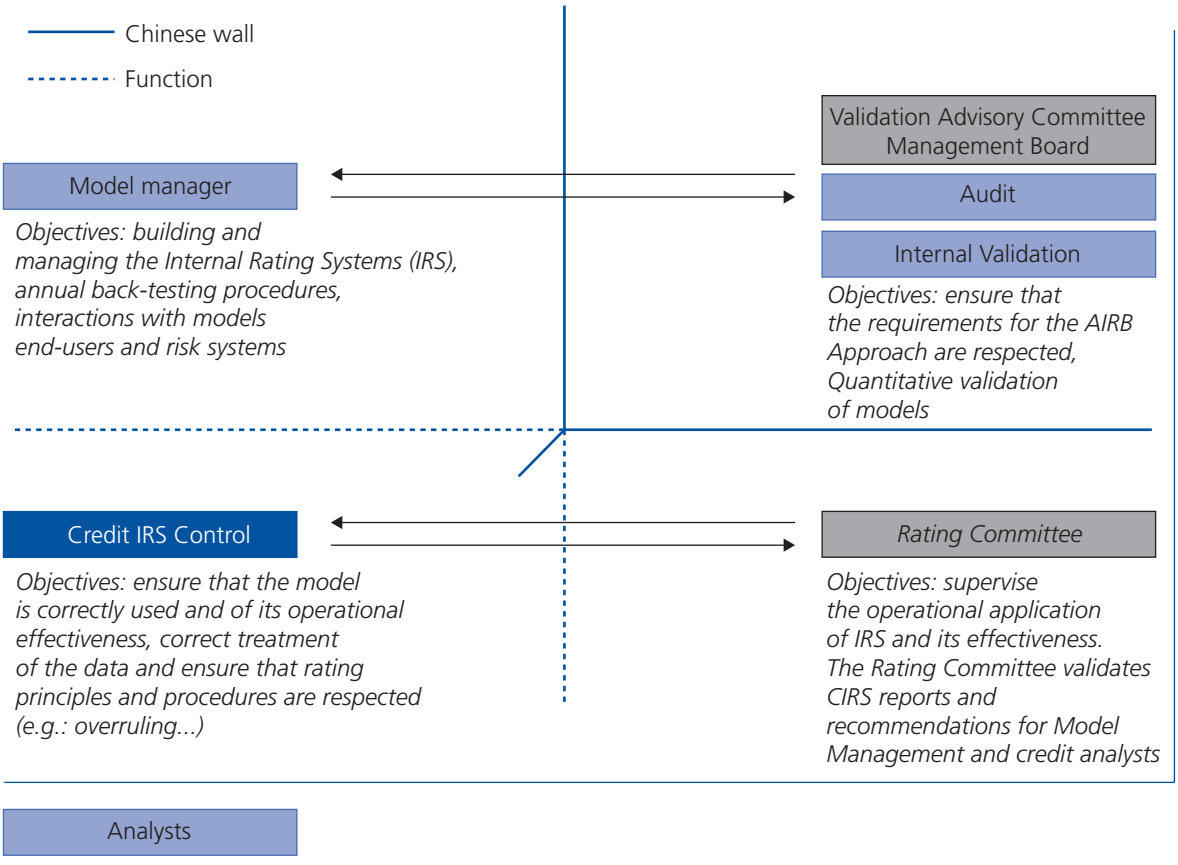
Types of counterparties	Main hypotheses	Time series used	Internal/ external data
Western Europe local authorities	Statistical model based on the internal existing default cases observed on our portfolio. Final LGD are segmented on both socio-economic criteria and indicator reflecting the financial flexibility	> 10 years	**Internal**
US municipalities	The Muni US LGD model is an expert model guided by external recovery rate factors and estimates. The final segmentation is based on business sectors	N/A	**External**
Groupements à fiscalité propre	A mixed analytical - expert model was chosen and constructed based on available observations to determine LGD and quantify potential loss related to a default in this sector	4 years	**Internal**
Social housing	Expert model based on a global evaluation of security/credit risk mitigant. Segmentation is based on the number of houses and on a performance ratio	9 years	**Internal + External**

Main principles used for estimating CCF

At present Dexia does not use CCF models for regulatory purposes except for specialised lending CCF model. Otherwise, the foundation approach is applied.

3. Control mechanisms for rating systems

The BCBS regulation requires internal control of the internal rating systems and processes. The following chart provides an overview of the different control functions.



The control mechanisms for Internal Rating Systems (IRS) are organised in 3 levels:

- Credit Internal Rating Systems Control (CIRS) is responsible for the monitoring of the models' use and environment review, pertaining to the second level controls of IRS (model scope, model input quality, overruling, audit trail);
- Market and Credit Validation are responsible for the overall assessment of the IRS (model set-up, model reviews, back-testing and stress-testing);
- Audit is responsible for auditing the general consistency and compliance with the regulation of the IRS, operational validation being carried out by the CIRS department.

CIRS is integrated in the Risk Governance, Reporting & Risks Systems department. Chinese walls are built between Model manager and Validation,

Risk Models, Quantification & Defaults (RMQD) and Rating Committee (RC) and CIRS and Audit ensure control system independence.

Credit Internal Risk Systems control

Purpose

Credit Internal Rating Systems control is defined, in accordance with the regulatory directives, as an internal and independent control unit aimed at ensuring that the IRS are used properly and in an operationally effective manner and that an audit trail of the rating process is maintained.

In practice, the controls and the organisation are established to meet a number of requirements:
- Ensuring that the assumptions on which the models are founded are respected;
- Ensuring the reactivity of IRS supervision procedures and the maintenance of the audit trail in the rating process;
- Facilitating the IRS containment procedures. When malfunctions or anomalies in the use of or in the results produced by the model are evidenced, swift and effective remedial action should follow. To this end, controls should not only concentrate on anomalies but also help to explain their cause. Moreover, a regular and constructive relationship with the back-testing functions is in place.

Global and specific key controls are applied for the monitoring of the models' use and environment review. Global controls are applied without distinction of the model reviewed and the specific ones (i.e. dependent on the model) reflect the monitoring of existing issues related to the model in question. These controls encompass:
- Monitoring the models' use and environment changes;
- Monitoring the models' scope (in/out, grey zones);
- Overruling (when human judgment overrides model outputs);
- Verifying the correct application of the rating guidelines and procedures (mother support/Branch Equivalency, country ceilings, re-rating, piercing of LCCC & FCCC, country/mother company downgrade impacts, rating inheritances on counterparties etc.);
- Correcting the data input of the internal IT system (ratings, LGD, CCF) and data recording;
- Consistency tests on past-due files and the exhaustiveness of the default files on the period under review
- Additional tests on the default qualification process based on documentation.
- Sample controls on counterparties under review to check the exhaustiveness of the defaults
- Maintaining the audit trail of the rating process;
- Reporting malfunctions and monitoring remedial actions.
- Having up to date documentation of the rating system controls processes

Scope

The scope of the quality control process covers:
- All advanced rating models;
- All entities within Dexia;
- All geographical locations.

Process: parties Involved

Key stakeholders and functions

The organisation follows that of the Credit Risk teams: the principle is that IRS specific to an entity are used and controlled with the help of local correspondents while "transversal" IRS are treated at Dexia Group level. Annual visits are carried out to ensure the coordination and steering of the global quality control process.

Rating Committee

The key role of the Rating Committee is to monitor the appropriate use of internal rating systems within the Group as a whole and to ensure that these IRS are effective. For these reasons, the Rating Committee:
- Validates overrides above tolerance threshold, proposed by analysts;
- Reviews CIRS reports on the use and performance of IRS;
- Monitors the homogeneous application within the Group of the rating and derogation principles;
- Validates operational establishment of the models once these are validated by the Validation Committee

In case of disagreement between the Credit IRS Control and the Credit Analysis Centres (CEC) or Risk Models, Quantification & Defaults divisions (on a recommendation or a rating reviewed), the Committee has a veto right and the possibility to escalate to the Risk Management Executive Committee and/or to the Internal Control Committee.

Processes and guarantee of independence

Fully aware of the importance of preserving the neutrality of the control process, a Chinese wall has been set between the development departments, Risk Models, Quantification & Defaults, sales functions, analysis functions and the CIRS function. These walls ensure a high credibility of the final control outcomes.

This way any potential conflict of interest is fully avoided, as the CIRS control function:
- Is independent from the credit analysis function (model users);
- Submits their proposals to the Rating Committee;
- Informs the Validation function on any subject concerning IRS or modes of applying the IRS within the Group.

Model validation department

Dexia monitors its solvency using rules and ratios established by the Basel Committee on Banking Supervision and the European Capital Requirements Directive. The application of this approach requires a validation process to ensure that the internal models are conceptually sound while adequately capturing all material risks.

Formally a model is defined as a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into quantitative estimates:
- Models based on observations of historical data and some statistical assumptions. This kind of model is fully statistics-driven.
- Models based on some assumptions of behaviour of agents in the market. These models try to use a system of equations to simulate the market and thus to calculate the risks.
- Models that share the characteristics of the two previous categories.

Model validation department

All the models used within Dexia, either market risk models, pricing models, Basel Pillar 1 credit rating models, IFRS 9 models, ALM models and economic capital models have to be validated by an independent entity.

The Validation department ensures that the models used within the Bank:
- Provide reliable outcomes in line with the objectives assigned by the management;
- Are correctly implemented and adequately used;
- Meet the regulatory requirements.

The main objectives of the Validation department are:
- To define the procedures, methodology and requirements of model validation;
- To identify all models waiting for validation;
- On this basis to elaborate a validation schedule, taking account of a firewall between Validation and Modelling;
- To exercise the validation work on the models, using appropriate information sources, reviewing the consistency of control processes, performing sufficient testing (including stressed scenarios), evaluating the documentation and model risks;
- To assess input relevance and reliability (frequency and availability of data, consistency with corroborative data information, transparency of data, timeliness, maturity and liquidity);
- To bring and defend their works before the Validation Committee (VAC) in order to obtain an approval;
- To Inform the Management Board and the Audit Committee frequently of the model validation status

Validation approval process

The process set up to approve the validation of models deployed within Dexia Group is multi-layered, ensuring total compliance with regulations and local regulatory requirements through the work-out of proposals by the Validation department, an approval of those proposals by the VAC. The validation approval process is formalised in a set of policies. The output of the validation is formalised in a validation report also including an executive summary, strengths and weaknesses and a list of recommendations. These reports are presented to the VAC and are sent to the Regulators upon request. The Management Board has ultimate authority at Dexia Group level on all risk related decisions. In terms of sequence, all elements presented in Management Board are previously discussed within the VAC. The Management Board can either confirm or modify the initial VAC decision.

The Validation Committee

As mentioned above, in order to develop an efficient and transparent validation process, the Validation Committee has been set up. The VAC is responsible for:
- Establishing and following up the overall validation framework including procedures and subcommittees terms of reference;
- Defining priorities in the validation of the various risk models;
- Reviewing each validation step of the guidelines and model life cycle validations;
- Preparing proposals for decisional committees to facilitate the decision-making process;
- Following-up the recommendations issued.

Sub Committees have been processing the Validation outcomes:
- The Market covering market risk and pricing models;
- The Credit covering credit rating models and IFRS 9 models;
- Transversal covering transversal models as well as Pillar II models.

The VAC is composed by the Head of department of the stakeholders in the model development process and by the Head of department of the users. Audit and Compliance also attend the VAC. In terms of decision-making, The VAC approves the validation status proposed by the model validation team. An escalation procedure via the Management Board and information to the Audit Committee has been put in place.

Validation scope

The global scope of the generic validation process within Dexia Group applies to:

- All models requested by regulators (e.g. Basel and IFRS) or for business purposes;
- All risks deployed in the company, such as credit, market, operational and ALM related risk…;
- All Dexia Group entities (cross-entity dimensions);
- All geographical locations (cross-border dimensions).

The validation scope includes a review of conceptual framework or mathematical monetisation or theoretical approach related to calculations:

- Model validation is not limited to back-testing, but also includes tests demonstrating that assumptions made within the internal model are appropriate and do not underestimate risks;
- Testing for model validation uses additional assessments including for example testing carried out over long time periods (improving the power of back-testing) or using hypothetical changes in portfolio value that would occur were end-of-day positions remain unchanged;
- Validation covers tests of assumptions ensuring that the model testing captures concentration risk in an undiversified portfolio;
- Assessment of potential linkages to counterparty credit risk.

Audit

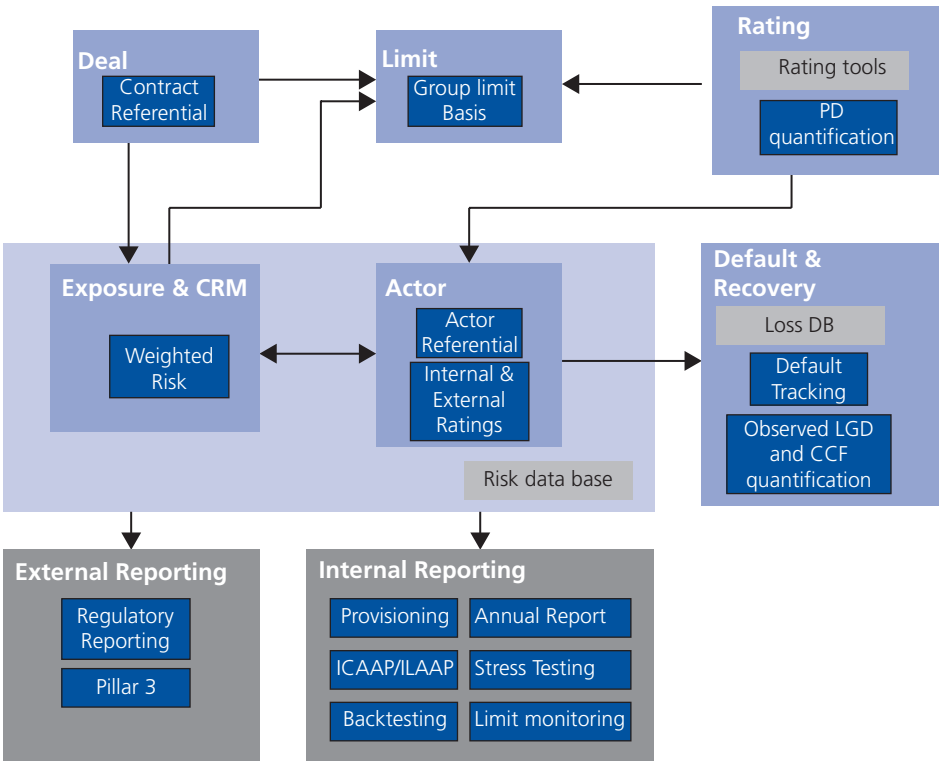
According to Article 191 of the CRR, "Internal audit or another comparable independent auditing unit shall review at least annually the institution's rating systems and its operations, including the operations of the credit function and the estimation of PDs, LGDs, ELs and conversion factors. Areas at review shall include adherence to all applicable requirements".

At Dexia the CIRS Control division performs this annual verification. Internal Audit operates as an additional control layer and periodically verifies that the overall credit model processes are followed in accordance with the applicable regulation and internal guidelines and procedures.

4. Credit risk IT system

Dexia Credit Risk IT Systems is centralised with all Group exposure and counterparties for all Dexia entities. Since March 2014, Credit Risk Systems has been adapted to Basel III requirements.

The following chart provides a global view of the functional architecture of the credit risk information system within Dexia Group:



The core of credit risk IT systems is built around actor and exposure information. Both concepts are united in the central risk data base system which gathers information on all Dexia credit counterparties (identified by a unique internal identification number) and their corresponding exposures and credit risk mitigants.

The actor universe consists of referential information and rating information:
- Type of counterpart (bank, corporate, local authority, and so on);
- Descriptive data;
- External ratings from rating agencies (S&P, Moody's and Fitch);
- The internal rating before and after the Sovereign ceiling impact;
- The internal rating system;
- Available internal credit analyses;
- Relations between different counterparties such as capital or commercial ties.

The individual rating analysis is made within different rating tools, either individually or in batches, by the credit risk expertise centres. This internal rating data together with the external ratings are collected and linked in the actors' database.

The second component of the central risk database is the exposure and CRM universe. A precise view of the exposure with significant amount valuations (nominal, outstanding, mark-to-market, accrued interests, and so on) is combined with the credit risk mitigants (collateral and guarantees) to provide an integrated risk view of the positions taken by the Group.

Around central risk, three other data sets are situated for different purposes.
- The contract referential databases containing (product type, seniority level, maturity...).
- In limit databases current limits on any credit counterpart (limit database) are defined using the counterpart rating information.
- Comparisons are made of current exposure towards the limits in order to take appropriate actions when needed.
- Dexia's default database is used to collect the default and recovery information. This serves to calibrate and back-test Dexia internal rating systems.

Dexia's centralised IT system is linked to a reporting infrastructure allowing credit risk reports to be produced on the basis of the information gathered at different levels. All these IT and reporting systems support general risk monitoring for both internal and external purposes as there are:
- External reporting: regulatory reporting (COREP, Large Exposures, Leverage Ratio, STE, EBA Benchmarking), Pillar 3 Risk Report;
- Internal risk reporting: cost of risk calculations and provisioning, reporting in relation to the risk appetite framework, the ICAAP (Internal Capital Adequacy Assessment Process) and ILAAP (Internal Liquidity Assessment Process), AIRB model back-testing and stress-testing, limit monitoring, annual report.

Appendix 3
Basics of securitisation

Securitisation is the financial practice of pooling various types of contractual debt such as residential mortgages, commercial mortgages, auto loans or credit card debt obligations and selling that debt as bonds to various investors. The principal and interest on the debt, underlying the security, is paid to the various investors on a regular basis. Securities backed by mortgage receivables are called mortgage-backed securities, while those backed by other types of receivables are called asset-backed securities. A variant is the collateralised debt obligation, which uses the same structuring technology as an ABS but includes a wider and more diverse range of assets.

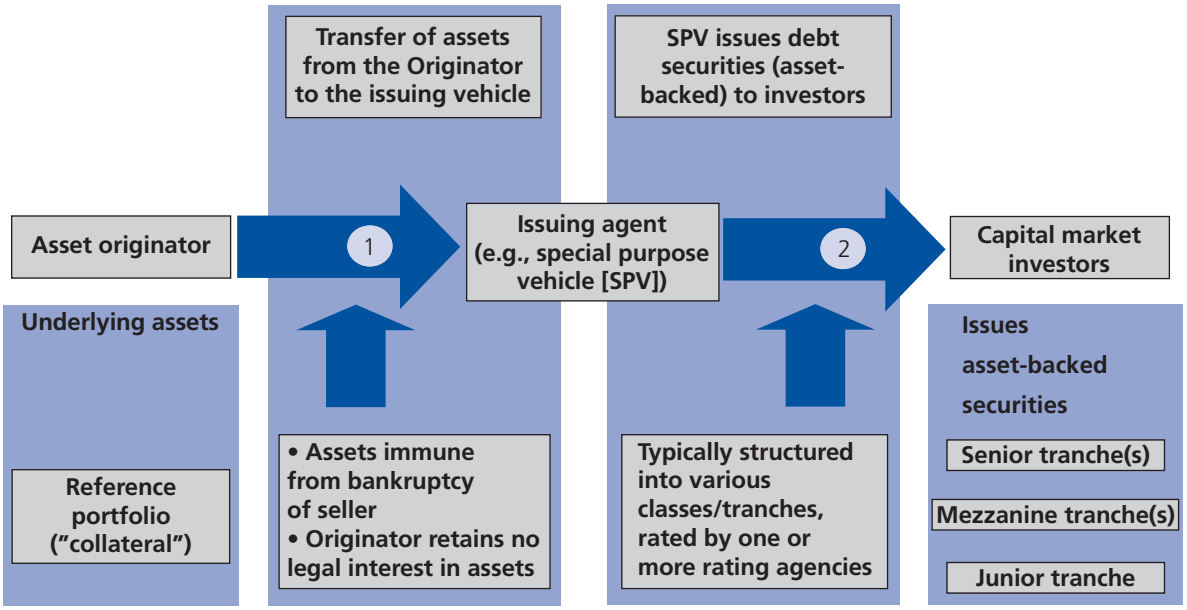
The originator initially owns the assets engaged in the deal. This is typically a company looking to seek financing or to raise capital.

A suitably large portfolio of assets is "pooled" and transferred to a "special purpose vehicle" or "SPV" (the issuer), a company or trust formed for the specific purpose of purchasing or funding the assets. Once the assets are transferred to the issuer, there is normally no recourse to the originator. The issuer is "bankruptcy remote," meaning that the assets of the issuer are legally separated from the creditors of the originator. Additionally, the governing documents of the issuer will restrict its activities only to those necessary to complete the issuance of securities.

Tranching

Securities issued are often split into tranches, or categorised into varying degrees of subordination. Each tranche has a different level of credit protection or risk exposure to another: there is generally a senior ("A") class of securities and one or more junior subordinated ("B", "C", etc.) classes that function as protective layers for the "A" class. The senior classes have first claim on the cash or proceeds that the SPV receives, and the more junior classes generally only start receiving repayment after the more senior classes have been repaid. Because of the cascading effect between classes, this arrangement is often referred to as a cash flow waterfall. In the event that the underlying asset pool becomes insufficient to make payments on the securities (e.g. when loans default within a portfolio of loan receivables), the loss is absorbed first by the subordinated tranches, and the upper-level tranches remain unaffected until the losses exceed the entire amount of the subordinated tranches. The most junior class is often called the equity class and is the most exposed to re-payment or default risk.

The table below describes the way a securitisation process is performed:



Credit enhancement

Tranching in a securitisation deal will create some securities which are "credit enhanced," meaning the credit quality is increased above that of the originator's unsecured debt or underlying asset pool. This increases the likelihood that the investors will receive cash flows to which they are entitled, and thus causes the securities to have a higher credit rating than the originator. Some securitisations use external credit enhancement provided by third parties, such as financial guarantors or parental guarantees. Credit enhancements affect credit risk by providing more or less protection to promised cash flows for a security. Additional protection can help a security achieve a higher rating, lower protection can help create new securities with differently desired risks, and these differential protections can help place a security on more attractive terms.

Servicing

Most collateral requires the performance of ongoing servicing activities. With credit card receivables, monthly bills must be sent out to credit card holders; payments must be deposited, and account balances must be updated. Similar servicing must be performed with auto loans, mortgages, accounts receivable, etc. Usually, the originator is already performing the servicing at the time of a securitisation, and it continues to do so after the assets have been securitised. It receives a small, ongoing servicing fee for doing so. Whoever actually performs servicing is called the servicing agent.

Appendix 4
Dexia originations

Traditional securitisations of Dexia as originator

In the past Dexia Group entities Dexia Crédit Local and Dexia Crediop issued securitisation transactions to obtain long-term funding or constitute a liquidity buffer. The risk was not transferred outside the Group. DCL has not initiated any new securitisation transaction since 2010. All traditional securitisations of Dexia as originator have been sold/unwound (2017: TEVERE and TRIPLUS 2010).

Synthetic securitisations of Dexia as originator

Wise transaction

WISE 2006-1 is a partially funded synthetic securitisation pursuant to which Dexia Crédit Local Dublin Branch bought credit protection on a portfolio of GBP 1.5 billion wrapped bonds related to PPP/PFI or regulated utilities in the water, electricity or gas sectors. The transaction was closed on 21 December 2006.

Dexia is transferring the credit risk related to the wrapped infrastructure portfolio to external parties by means of two credit default swaps: a non-funded super senior credit default swap with an OECD Bank and a junior credit default swap with WISE 2006-1 Plc, a special purpose company registered in Ireland.

The vehicle WISE 2006-1 has issued 3 tranches of credit linked notes (CLNs) to transfer the risk to the market, ranging from AAA/Aaa to AA-/Aa3 (S&P and Moody's respectively) at inception.

As at 31 December 2017 the rating of the Class A notes was BB-/B2, the rating of Class B notes was B-/Caa1 and the rating of the Class C notes was CCC/Caa3 (S&P and Moody's respectively).

The tranches were placed with several investors.

The bonds (underlying assets) remain on the Dexia Crédit Local Dublin Branch balance sheet and will continue to be administered by the company.

The portfolio amounted to an outstanding notional of GBP 844 million (EUR 944 million) as at 31 December 2018.

DCL credit risk teams are responsible for the credit risk follow-up of the underlying portfolio; a monthly and quarterly report is sent to the investors in the CLN notes and the super senior CDS counterparty.

Appendix 5 – Complement on subsidiaries

Appendix 5
Complement on subsidiaries

1. Dexia Kommunalbank Deutschland (DKD)

1.1. Accounting and regulatory equity figures

(in EUR million)	31/12/2017			31/12/2018		
	Financial statements	Regulatory purposes	Diffe-rences	Financial statements	Regulatory purposes	Diffe-rences
Equity, DKD solo	**665**	**663**	**2**	**696**	**565**	**132**
of which share capital and related reserves	*433*	*433*	*0*	*433*	*433*	*0*
of which reserves	*349*	*349*	*0*	*264*	*132*	*132*
of which gains and losses directly recognised in equity	*(116)*	*(118)*	*2*	*0*	*0*	*0*
of which net result of the period	*0*	*0*	*0*	*0*	*0*	*0*
Other intangible assets	**0**	**0**	**0**	**0**	**0**	**0**
Minority interests	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL EQUITY			**0**			
Common Equity Tier 1	**665**	**662**	**2**	**696**	**557**	**140**
Tier 2	**34**	**19**	**15**	**0**	**0**	**0**
TOTAL CAPITAL	**699**	**681**	**17**	**696**	**557**	**140**

1.2. Capital requirements by type of risk

(in EUR million)			31/12/2017		31/12/2018	
Type of risk	**Basel III treatment**	**Exposure class**	**Weighted risks**	**Capital requirements**	**Weighted risks**	**Capital requirements**
Credit risk	Advanced	Central gov. or central banks	1,429	114	353	28
		Corporates - Specialised lending	8	1	7	1
		Corporates – Other	5	0	0	0
		Institutions	269	22	179	14
		Other non credit-obligation assets	8	1	0	0
		Total	***1,719***	***137***	***538***	***43***
	Risk exposure amount - default fund CCP		***2***	***0***	***2***	***0***
	Standard	Central gov. or central banks	45	4	0	0
		Corporate	116	9	96	8
		Institutions	229	18	196	16
		of which CVA	*203*	*16*	*179*	*14*
		Public sector entities	158	13	130	10
		Regional gov. or local authorities	11	1	0	0
		Other items	191	15	12	1
		Total	***750***	***60***	***256***	***20***
Market risk	Standard	Foreign exchange risk	33	3	16	1
		Total	***33***	***3***	***16***	***1***
Operational risk	Standard		**62**	**3**	**56**	**4**
TOTAL			**2,566**	**205**	**1,046**	**84**

1.3. Capital adequacy

(in EUR million)	31/12/2017	31/12/2018
Total Capital	681	557
Common Equity Tier 1	662	557
Total risk-weighted assets	2 566	1 046
Total Capital Ratio	26.6%	53.2%
Common Equity Tier 1 ratio	25.8%	53.2%

1.4. Exposure at default by geographic distribution

	31/12/2018									31/12/2017
(in EUR million)	Central governments or central banks	Corporate	Exposures in default	Institutions	Multilateral development banks	Other items	Public sector entities	Regional governments or local authorities	Total	Total
Austria	981	-	-	19	0	-	-	-	1,000	1,034
Belgium	185	246	-	20	0	-	796	-	1,247	1,250
Finland	21	-	-	-	0	-	-	-	21	21
France	-	-	-	359	15	-	-	-	374	1,838
Germany	10,733	597	-	1,074	-	19	141	-	12,564	14,075
Italy	686	-	-	-	-	-	-	-	686	3,622
Japan	-	-	-	-	-	-	-	-	0	224
Luxembourg	-	-	-	0	75	-	-	-	75	85
Netherlands	-	-	-	25	-	-	-	-	25	25
Portugal	57	50	-	-	-	-	125	-	232	814
Spain	19	-	-	-	-	-	-	-	19	19
Sweden	-	-	-	-	-	-	-	-	0	36
United Kingdom	-	-	-	283	49	0	0	-	332	319
United States	-	-	-	124	51	0	0	-	175	358
TOTAL	**12,682**	**893**	**0**	**1,904**	**190**	**19**	**1,062**	**-**	**16,750**	**23,720**

1.5. Exposure at default by economic sector

		31/12/2018								31/12/2017
		Exposure value pre adjustments								
(in EUR million)	Economic sector	Central governments or central banks	Corporate	Institutions	Multilateral development banks	Other items	Public sector entities	Regional gov. or local authorities	Total	Total
Trade tourism		0	0	0	0	0	15	0	15	20
Services	Transportation and storage	0	13	0	0	0	5	0	18	28
	Information and communication	61	6	0	0	0	0	0	67	8
	Financial and insurance activities	387	1	1,768	190	0	0	0	2,346	4,511
	Real estate activities	19	92	0	0	0	2	0	113	334
	Professional, scientific and technical activities	6	2	0	0	0	0	0	8	20
	Administrative and support service activities	2	3	0	0	0	0	0	5	16
	Public admin. and defense-compulsory social security	10,623	563	136	0	7	865	0	12,194	16,207
	Electricity, gas, steam and air conditioning supply	23	116	0	0	0	12	0	151	247
	Water supply, sewerage, waste management and remediation activities	601	17	0	0	0	145	0	763	899
	Human health and social work activities	5	38	0	0	0	15	0	58	118
	Arts, entertainment and recreation	2	36	0	0	0	2	0	40	46
	Education	0	1	0	0	0	0	0	1	2
	Other service activities	42	5	0	0	0	0	0	47	56
	Other services	911	0	0	0	12	1	0	924	1,207
TOTAL		**12,682**	**893**	**1,904**	**190**	**19**	**1,062**	**0**	**16,750**	**23,720**

1.6. Exposure covered by credit risk mitigants by exposure class

	31/12/2017		31/12/2018	
(in EUR million)	Financial and physical collateral	Guarantees and credit derivatives	Financial and physical collateral	Guarantees and credit derivatives
Corporates	300	668	270	506
Institutions	3,035	341	1,068	226
Public sector entities	-	860	-	821
Retail	-	946	-	911
TOTAL	**3,335**	**2,815**	**1,338**	**2,464**

1.7. Overview of impairments

(in EUR million)	As at 1 January 2017	Additions	Reversals	Other adjustments	As at 31 December 2017
General credit risk adjustments	20	14			34
Specific credit risk adjustments	11			(5)	6
TOTAL	**31**	**14**	**0**	**(5)**	**40**

(in EUR million)	As at 1 January 2018	Additions	Reversals	Other adjustments	As at 31 December 2018
General credit risk adjustments	34			(34)	0
Specific credit risk adjustments	6			(6)	0
TOTAL	**40**	**0**	**0**	**0**	**0**

1.8. Overview of impaired and defaulted financial assets

Nil

1.9. Remuneration

	MB Supervisory function	MB Management function	Commercial Banking	of which: independent control functions
Members (Headcount) 2017	6	2		
Members (Headcount) 2018	6	3		
Total number of staff in FTE (*) 2017			71.39	14.00
Total number of staff in FTE (*) 2018			67.92	15.00
Total remuneration (EUR) 2017	24,000	686,458	5,193,085	1,177,398
Total remuneration (EUR) 2018	24,000	980,765	5,419,445	1,175,120
O/w variable remuneration (EUR) 2017	0	50,000	322,000	72,027
O/w variable remuneration (EUR) 2018	0	140,000	413,517	65,523

(*) Full Time Equivalents

	MB Supervisory function	MB Management function	Commercial Banking	of which: independent control functions
Members (Headcount) 2017	3	2		
Members (Headcount) 2018	6	3		
Number of identified staff (*) in FTE 2017			17,00	5,00
Number of identified staff (*) in FTE 2018			14,68	5,00
Total fixed compensation (EUR) 2017	24,000	636,458	1,389,142	459,340
Of which: fixed in cash 2017	*24,000*	*636,458*	*1,389,142*	*459,340*
Total fixed compensation (EUR) 2018	24,000	840,765	1,460,663	467,089
Of which: fixed in cash 2018	24,000	840,765	1,460,663	467,089
Total variable compensation (EUR) 2017	0	50,000	145,418	36,858
Of which: variable in cash 2017	*0*	*50,000*	*145,418*	*36,858*
Total variable compensation (EUR) 2018	0	140,000	126,490	34,108
Of which: variable in cash 2018	*0*	*140,000*	*126,490*	*34,108*
Amount of deferred variable rem. (EUR) 2017	0	0	0	0
Amount of deferred variable rem. (EUR) 2018	0	0	0	0

(*) Staff whose professional activities have a material impact on the institutions risk profile according to Article 92(2) of Directive 2013/36/EU; year-end numbers.

1.10. Leverage ratio

As at 31 December 2018, the leverage ratio calculated at DKD level reached 3.56% (against 3.18% as at 31 December 2017).

Summary comparison of accounting assets against leverage ratio exposure measure

LEVERAGE EXPOSURE: RECONCILIATION WITH TOTAL BALANCE SHEET (in EUR million)	2017	2018
TOTAL BALANCE SHEET	**24,625**	**18,418**
Neutralisation of the balance sheet value of items whose leverage exposure is different from that of the balance sheet	-	-
Trading derivatives (assets)		
Hedging derivatives (assets)		
SFT (assets)		
Cash collateral (paid)		
Adjustments for derivative financial instruments	**(3,898)**	**(2,814)**
Adjustment for securities financing transactions (SFTs)	**33**	**14**
Adjustment for off-balance sheet items	**16**	**12**
Other adjustments	**32**	**(7)**
TOTAL LEVERAGE EXPOSURE	**20,809**	**15,809**

Leverage ratio common disclosure template

(in EUR million)		2017	2018
On-balance-sheet exposures			
1	On-balance-sheet items (excl. derivatives and SFTs, but including collateral)	24,473	18,419
2	(Asset amounts deducted in determining CRR Tier 1 capital)	(0)	(8)
3	Total on-balance sheet exposures (excl. derivatives and SFTs) (sum of lines 1 and 2)	24,472	18,411
Derivative exposures			
4	Replacement cost associated with all derivatives transactions (where applicable net of eligible cash variation margin and/or with bilateral netting)	2	27
5	Add-on amounts for PFE associated with all derivatives transactions	247	189
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	0	0
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(4,147)	(3,030)
8	(Exempted CCP leg of client-cleared trade exposures)	0	0
9	Adjusted effective notional amount of written credit derivatives	0	0
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	0	0
11	Total derivative exposures (sum of lines 4 to 10)	(3,898)	(2,814)
Securities financing transaction (SFT) exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	185	0
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	0	0
14	CCR exposure for SFT assets	33	14
15	Agent transaction exposures	0	0
16	Total SFT exposures (sum of lines 12 to 15)	218	14
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	16	12
18	(Adjustments for conversion to credit equivalent amounts)	0	0
19	Off-balance sheet items (sum of lines 17 and 18)	16	12
Capital and total exposures			
20	Tier 1 capital	662	557
21	Total exposures (sum of lines 3, 11, 16 and 19)	20,809	15,623
Leverage ratio			
22	CRR leverage ratio according to Delegated Act	3.18%	3.56%

2. Dexia Crediop

2.1. Accounting and regulatory equity figures

(in EUR million)	31/12/2017			31/12/2018		
	Financial statements	Regulatory purposes	Difference	Financial statements	Regulatory purposes	Difference
Equity, Crediop solo	942	942	0	827	827	0
o/w share capital and related reserves	*969*	*969*	*0*	*900*	*900*	*0*
o/w gains & losses directly recognised in equity	*(29)*	*(29)*	*0*	*4*	*4*	*0*
o/w net result of the period	*2*	*2*	*0*	*(78)*	*(78)*	*0*
Minority interests	0.00	0.00	0			
TOTAL EQUITY	**942**	**942**	**0**	**827**	**827**	**0**
Prudential filters	0	(16)	(16)	0	(21)	(21)
Common Equity Tier I	942	926	(16)	827	805	(21)
Tier II	0	19	19	0	7	7
TOTAL CAPITAL	**942**	**945**	**3**	**827**	**812**	**(15)**

2.2. Capital requirements by type of risk

(in EUR million)			31/12/2017		31/12/2018	
Type of risk	Basel III treatment	Exposure class	Weighted risks	Capital requirements	Weighted risks	Capital requirements
Credit risk	Advanced	Corporate	72	6	60	5
		Financial Institutions	880	70	762	61
		Project Finance	46	4	31	2
		Equities	49	4	53	4
		Securitisation	-	-	-	-
		Sovereign	2,123	170	2,429	194
		Total	***3,170***	***254***	***3,334***	***267***
	Standard	Corporate	173	14	127	10
		Equities	-	-	-	-
		Financial Institutions	336	27	253	20
		Public sector entities	93	7	162	13
		Total	***602***	***48***	***542***	***43***
Market risk	Standard	Interest rate risk	175	14	130	10
		Total	***175***	***14***	***130***	***10***
Operational risk	Basic		113	**9**	78	**6**
TOTAL			**4,060**	**325**	**4,084**	**327**

2.3. Capital adequacy

(in EUR million)	Basel III 31/12/2017	Basel III 31/12/2018
Total Capital	945	812
Common Equity Tier 1	926	805
Total risk-weighted assets	4,060	4,084
Total Capital Ratio	23.28%	19.89%
Common Equity Tier 1 Ratio	22.81%	19.72%

2.4. Exposure at default by geographic distribution

	31/12/2018							31/12/2017
(in EUR million)	Sovereign	Local Public Sector	Corporate	Project Finance	Financial Institutions	ABS / MBS	Total	Total
Italy	5,762	8,263	234	134	244	0	14,637	16,460
France	0	26	0	0	538	0	564	377
United Kingdom	0	0	0	0	36	0	36	157
Germany	0	0	0	0	8	0	8	44
United States	0	0	0	0	14	0	14	10
Others	0	0	0	0	40	0	40	50
TOTAL 31/12/18	**5,762**	**8,289**	**234**	**134**	**879**	**0**	**15,299**	
TOTAL 31/12/17	**6,323**	**8,967**	**405**	**170**	**1,232**	**0**		**17,098**

2.5. Exposure at default by exposure class and economic sector

		31/12/2018								31/12/2017
(in EUR million) Economic sector		Corporate	Financial Institutions	Financial guarantors	Project finance	Public sector entities	Securitisation	Sovereign	Total	Total
Industry		71	-	-	50	-	-	-	122	158
Construction		-	-	-	24	-	-	-	24	26
Services	Transp. and storage	-	-	-	2	15	-	-	17	19
	Financial & insurance activities	-	1,020	-	-	-	-	5	1,025	1,447
	Real estate activities	64	-	-	58	-	-	-	122	139
	Public admin. and defense-compulsory social security	-	-	-	-	8,073	-	5,614	13,686	14,891
	Human health and social work activities	-	-	-	-	164	-	-	164	224
	Other services	99	2	-	-	37	-	-	139	193
TOTAL		**234**	**1,023**	**-**	**134**	**8,289**	**-**	**5,619**	**15,299**	
TOTAL (31/12/2017)		**306**	**1,344**	**99**	**170**	**8,967**	**-**	**6,212**		17,098

2.6. Overview of past-due exposure and impairments

	31/12/2018					
(in EUR million)	As at 1 January	Additions	Reversals	As at 31 December	Recoveries directly recognised in profit or loss	Charge-offs directly recognised in profit or loss
Specific impairments	**23**	**3**	**0**	**26**	**0**	**0**
Customer loans and advances	17	0	0	17	0	0
Other accounts and receivables [1]	6	3	0	9	0	0
Collective impairments [2]	**21**	**0**	**11**	**10**	**0**	**0**
Customer loans and advances	21	0	11	10	0	0
TOTAL	**44**	**3**	**11**	**36**	**0**	**0**

(1) The amount represents the sum of the unpaid nettings as of 31.12.2018 related to a derivative transaction with the Municipality of Messina and Province of Crotone (in litigation). This sum was allocated to the fund for risks and charges and does NOT represent a credit value adjustment (i.e. specific impairment) not allowed on derivatives transactions by the Italian accounting rules.

(2) 31/12/2017: IAS 39; 31/12/20018: IFRS 9

	31/12/2017					
(in EUR million)	As at 1 January	Additions	Reversals	As at 31 December	Recoveries directly recognised in profit or loss	Charge-offs directly recognised in profit or loss
Specific impairments	**6**	**17**	**0**	**23**	**0**	**0**
Customer loans and advances	1	16	0	17	0	0
Other accounts and receivables [1]	5	1		6	0	0
Collective impairments [2]	**27**	**0**	**6**	**21**	**0**	**0**
Customer loans and advances	27	0	6	21	0	0
TOTAL	**33**	**17**	**6**	**44**	**0**	**0**

(1) The amount represents the sum of the unpaid nettings as of 31.12.2018 related to a derivative transaction with the Municipality of Messina and Province of Crotone (in litigation). This sum was allocated to the fund for risks and charges and does NOT represent a credit value adjustment (i.e. specific impairment) not allowed on derivatives transactions by the Italian accounting rules.

(2) 31/12/2017: IAS 39; 31/12/20018: IFRS 9

(in EUR million)	31/12/2018			
	Past-due but not impaired financial assets			Carrying amount of individually impaired financial assets, before deducting any impairment loss
	Less than 90 days	91 days to 180 days	Over 180 days	
Loans and advances (at amortized cost) (*)	7		5	17
Financial assets held to maturity	0	0	0	0
Other financial instruments (**)	1	0	8	0
TOTAL	**7**	**0**	**13**	**17**

(*) Of which EUR 7 million are technical past-dues.

(**) Unpaid nettings on derivatives affected by litigations.

(in EUR million)	31/12/2017			
	Past-due but not impaired financial assets			Carrying amount of individually impaired financial assets, before deducting any impairment loss
	Less than 90 days	91 days to 180 days	Over 180 days	
Loans and advances (at amortized cost) (*) (1)	272	0	4	17
Financial assets held to maturity	0	0	0	0
Other financial instruments (**) (2)	1	0	12	0
TOTAL	**273**	**0**	**16**	**17**

(*) Of which EUR 7 million are technical past-dues.

(**) Unpaid nettings on derivatives affected by litigations.

(1) 31/12/2017: of which EUR 271.83 million are technical past-dues ("Less than 90 days") and EUR 1.16 million (out of EUR 17.32 million) are also past-dues.

(2) 31/12/2017: of which EUR 12.33 million unpaid nettings on derivatives affected by litigations (operational default).

2.7. Exposure covered by credit risk mitigants by exposure class

(in EUR million)	31/12/2018	
	Financial and physical collateral	Guarantees and credit derivatives
Central governments or central banks		5
Institutions	5,388	100
Regional governments or local authorities		919
TOTAL	**5,388**	**1,024**
TOTAL 31/12/2017	**4,984**	**1,178**

(in EUR million)	31/12/2017	
	Financial and physical collateral	Guarantees and credit derivatives
Central governments or central banks		7
Institutions	4,984	199
Regional governments or local authorities		972
TOTAL	**4,984**	**1,178**
TOTAL 31/12/2016	**3,732**	**1,344**

2.8. Leverage ratio

As at 31 December 2018, the leverage ratio calculated at Dexia Crediop level reached 5.30%, against. 5.53% as at 31 December 2017. This decrease is due to the capital decrease, partially compensated by the exposures' decrease as well.

Summary comparison of accounting assets against leverage ratio exposure measures

LEVERAGE EXPOSURE: RECONCILIATION WITH TOTAL BALANCE SHEET (in EUR million)	31/12/2017	31/12/2018
TOTAL BALANCE SHEET	**20,531**	**18,280**
Neutralisation of the balance sheet value of items whose leverage exposure is different from that of the balance sheet	**5,266**	**4,320**
Trading derivatives (assets)	1,305	1,071
Hedging derivatives (assets)	222	141
SFT (assets)	0	0
Cash collateral (paid)	3,737	3,107
Leverage Exposure of derivatives	**1,065**	**824**
Leverage exposure of reverse repo	**0**	**0**
Leverage exposure of repo (liabilities) counterparty credit risk	**371**	**359**
Leverage exposure of off-balance sheet items	**63**	**75**
Leverage exposure adjustment on assets deducted from capital CET1	**(22)**	**(10)**
Intangible assets	*(3)*	*(2)*
Breach of threshold on deduction on CET1 of instruments from financial institutions	*(10)*	*(8)*
Breach of threshold on deductions on AT1 of instruments from financial institutions	*(10)*	*0*
Additional Value Adjustments	*0*	*0*
TOTAL LEVERAGE EXPOSURE	**16,743**	**15,208**
TIER 1 Capital, transitional provisions	926	805
Leverage ratio	5.53%	5.30%

Leverage ratio common disclosure template

(in EUR million)		31/12/2017	31/12/2018
On-balance sheet exposures			
1	On-balance sheet items (excluding derivatives and SFTs, but including collateral)	19,003	17,067
2	(Asset amounts deducted in determining Basel III Tier 1 capital transitional definition)	(22)	(10)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)	18,981	17,057
Derivative exposures			
4	Replacement cost associated with all derivatives transactions (where applicable net of eligible cash variation margin and/or with bilateral netting)	848	631
5	Add-on amounts for PFE associated with all derivatives transactions	218	193
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework		
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)		
8	(Exempted CCP leg of client-cleared trade exposures)		
9	Adjusted effective notional amount of written credit derivatives		
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)		
11	Total derivative exposures	1,066	824
Securities financing transaction exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	5,120	5,539
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(4,749)	(5,180)
14	CCR exposure for SFT assets		
15	Agent transaction exposures		
16	Total SFT exposures (sum of lines 12 to 15)	371	359
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	100	90
18	(Adjustments for conversion to credit equivalent amounts)	(38)	(14)
19	Off-balance sheet items (sum of lines 17 and 18)	63	75
Capital and total exposures			
20	Tier 1 capital	926	805
21	Total exposures (sum of lines 3, 6, 11, 16 and 19)	20,481	18,315
Leverage ratio			
22	Basel III leverage ratio	4.52%	4.40%