

2015 Risk Report

# Prepared for the future



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Introduction:  
Highlights in 2015  
and Disclosure  
Policy

KBC is an integrated bank-insurance group, whose main focus is on retail clients and small and medium-sized enterprises. We occupy leading positions on our home markets of Belgium and Central and Eastern Europe, where we specialise in retail bank-insurance and asset management activities. Elsewhere around the globe, the group has established a presence in selected countries and regions.

## Highlights in 2015

- Continued strong liquidity position at year-end (NSFR at 121% and LCR at 127%). Both ratios well above the minimum regulatory requirements and KBC's internal floors of 105%.
- KBC's CDO portfolio now fully scaled down.
- Successful implementation of the Basel III regulations and the Banking Act.
- Common equity ratio (Basel III fully loaded based on Danish compromise) of 14.9% at year-end.
- Fully loaded Basel III leverage ratio – based on current CRR legislation – of 6.3% at year-end.
- MREL of 13.9% at year-end.
- Solvency II ratio of 231% at group level, clearly ranking KBC Insurance among the better-capitalised companies in the insurance industry.

## Disclosure policy

In line with its general communication policy, KBC aims to be as open as possible when communicating to the market about its exposure to risk. Risk management information is therefore provided in a separate section of the 2015 Annual Report of KBC Group NV and – more extensively – in this publication.

The most important regulations governing risk and capital management are the Basel III capital requirements applying to banking entities, and the Solvency I capital framework applying to insurance entities. In 2014, the Basel II capital requirements were replaced by the Basel III framework, which will gradually enter into effect. Solvency I has been replaced by the fundamentally reformed Solvency II framework, which officially entered into force in January 2016.

The 2015 Risk Report is based on Basel III's third pillar and the resulting disclosure requirements of the Capital Requirements Regulation. Although the disclosures mostly refer to the Basel III first pillar

risk metrics and focus on banking entities, KBC – as a bank-insurance company – decided to extend the scope to the insurance activities in order to provide an overall view of the KBC group's risk exposure and risk management activities.

To ensure that a comprehensive view is provided, the credit risk inherent in KBC Insurance's activities has also been included in the section on credit risk management. Furthermore, as they are managed in an overarching group-wide fashion, the disclosures on structured credit products, market risks (non-trading-related, i.e. Asset and Liability Management) and non-financial risks have been drawn up to include detailed information at KBC group level (banking and insurance combined). Liquidity risk is managed at bank level. Detailed information on the technical insurance risk borne by KBC Insurance has also been included.

Disclosures required under pillar 3 are only incorporated if they are deemed relevant for KBC. Information is disclosed at the highest consolidated level. Additional information, specifically on the material entities, is confined to the capital information in the section on 'Capital adequacy'. For more detailed information, please refer to the local capital disclosures of the entity concerned (for instance, those provided on their websites).

KBC ensures that a representative picture is given at all times in its disclosures. The scope of the reported information – which can differ according to the matter being dealt with – is clearly indicated.

A comparison with the previous year is provided unless this is not possible due to differences in scope and/or methodology.

The information provided in this document has not been subject to an external audit. However, the disclosures have been checked for consistency with other existing risk reports and were subjected to a final screening by authorised risk management representatives to ensure quality.

In addition, the 2015 Risk Report was distributed to the Group Executive Committee, the Board of Directors, as well as to the Risk & Compliance Committee to ensure the appropriate approval of the management body as requested under Basel III.

Information disclosed under IFRS 7, which has been audited, is presented in KBC's annual report. Broadly speaking, the information in the annual report corresponds with the information in this risk report, but a one-on-one comparison cannot always be made due to the different risk concepts used under IFRS and Basel III. In order not to compromise on the readability of this document, relevant parts of the annual report have been reproduced here.



CRD III (since the end of 2011) and CRD IV (since 1 January 2014) have also required the disclosure of information on the remuneration policy of financial institutions. More information in this regard can be found in the 'Corporate governance' section of the 2015 Annual Report of KBC Group NV and in a separate disclosure 'KBC Group Compensation Report' which is published along with the Annual Report and the Risk Report at [www.kbc.com](http://www.kbc.com).

This risk report is available in English on the KBC website and is updated on a yearly basis. KBC's next update is scheduled for the beginning of April 2017. Depending on market requirements, KBC may however decide to provide more frequent updates.



# Risk Management Governance

Main elements in our risk governance model:

- The Board of Directors, assisted by the Group Risk & Compliance Committee (RCC), which decides on and supervises the risk appetite and risk strategy each year. It is also responsible for the development of a sound and consistent group-wide risk culture, based on a full understanding of the risks the group faces and how they are managed, taking into account the group risk appetite, i.e. the amount and type of risk that KBC is able and willing to accept in pursuit of its strategic objectives. Risk appetite aims to find the right balance of satisfaction for all stakeholders.
- Integrated architecture centred on the Executive Committee that links risk appetite, strategy and performance goal setting.
- The Risk Management Committee and activity-based risk committees mandated by the Group Executive Committee.
- Risk-aware business people, who act as the first line of defence for conducting sound risk management in the group.
- A single, independent risk function that comprises the Group Chief Risk Officer (CRO), local CROs, local risk functions and the group risk function. The risk function (together with the compliance function) acts as the second line of defence, while Internal Audit is the third line.

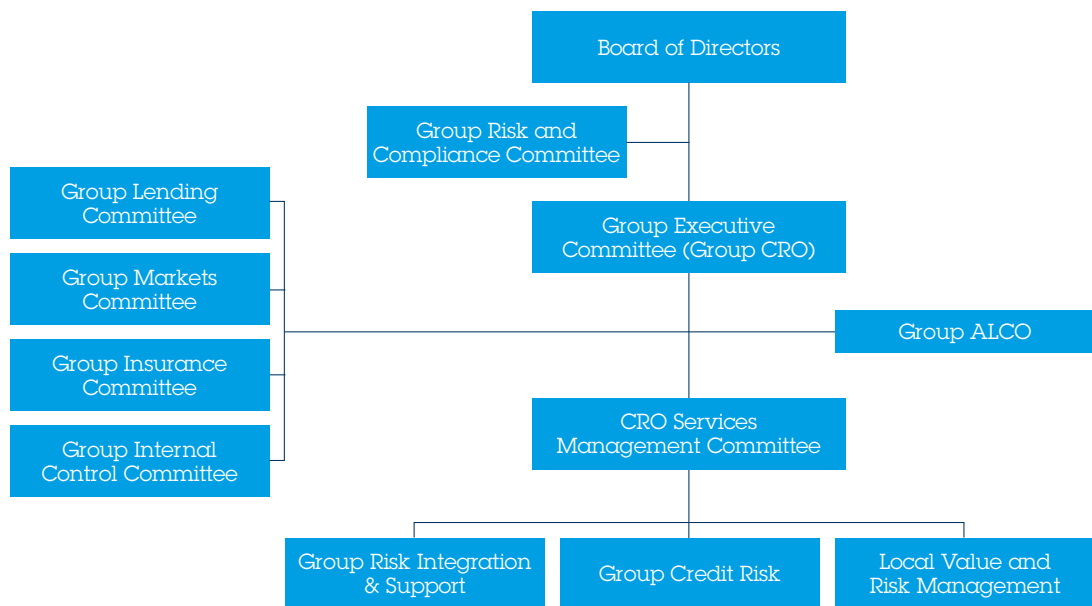
Relevant risk management bodies and control functions:

- Group Executive Committee:
  - Makes proposals to the Board of Directors about risk and capital strategy, risk appetite, and the general concept of the KBC Risk Management Framework.
  - Decides on the non-strategy-related building blocks of the KBC Risk Management Framework and monitors its implementation throughout the group.
  - Allocates capital to activities in order to maximise the risk-adjusted return.
  - Acts as the leading risk committee, covering material issues that are channelled via the specific risk committees or the Group Asset/Liability Management Committee (Group ALCO).
  - Monitors the group's major risk exposure to ensure conformity with the risk appetite.
- Group ALCO:
  - A business committee that assists the Group Executive Committee in the domain of (integrated) balance sheet management at group level. It handles matters related to ALM and liquidity risk.
- Risk committees:
  - The Risk Management Committee supports the Group Executive Committee in assessing the adequacy of, and compliance with, the KBC Risk Management Framework and defines and implements the vision, mission and strategy for the CRO Services of the KBC group.
  - The Group Lending Committee (GLC) supports the Group Executive Committee in setting, monitoring and following up limits for lending activities (funding, liquidity and ALM issues related to lending activities remain the responsibility of the Group Executive Committee/ Group ALCO).
  - The Group Markets Committee (GMC) supports the Group Executive Committee in setting, monitoring and following up limits for markets activities (trading activity, where there is not only market risk, but also operational and counterparty credit risks).

- The Group Insurance Committee (GIC) supports the Group Executive Committee in setting, monitoring and following up limits for insurance activities at group level.
- The Group Internal Control Committee (GICC) supports the Group Executive Committee in monitoring and strengthening the quality and effectiveness of KBC's internal control system.
- Local Chief Risk Officers (LCROs) are situated throughout the group according to a logical segmentation based on entity and/or business unit. Close collaboration with the business is assured since they take part in the local decision-making process. Independence of the LCROs is achieved through a direct reporting line to the Group CRO.
- Group Risk Integration & Support and Group Credit Risk (known collectively as 'the Group risk function') have a number of responsibilities, including monitoring risks at an overarching group-wide level, developing risk and capital models (while business models are developed by business), performing independent validations of all risk and capital models, developing risk frameworks and advising/reporting on issues handled by the Group Executive Committee and the risk committees.

Performance is assessed on a yearly basis as part of the Internal Control Statement.

A simplified schematic of our risk governance model is shown below.



## Risk culture

KBC seeks to promote a strong risk culture throughout its organisation. The Risk function's vision is to put risk in the hearts and minds of everyone, to help KBC create sustainable growth and earn its clients' trust. Its mission is to inspire, equip and challenge the business to excel in managing the risk/return balance of its activities, within the playing field defined in the risk appetite.

We consider risk culture as a powerful wheel of effective and efficient risk management. It cultivates a shared perception among employees of the priority given to risk management. This includes perceptions of risk-related practices and behaviours that are expected, valued and supported.



*Christine Van Rijseghem,  
KBC Group CRO*

As a basis for evaluating progress, we ask ourselves the following questions:

- Is risk management valued throughout the organisation?
- Are risk issues and events proactively identified and effectively addressed?
- Are risk issues and policy breaches ignored, downplayed or excused?
- Is the immediate manager an effective role model for desirable risk behaviour?

Across KBC, individual entities and departments made important strides in implementing risk culture throughout their respective organisations. Focusing on the questions above, several local initiatives were launched to enhance risk awareness. Furthermore, the topic has been at the top of the agenda of KBC's CRO Community, which enables insights, best practices and ideas to be shared.

We expect employees to demonstrate behaviours that support a strong risk culture. To reinforce these behaviours and to strengthen our risk culture, we work on all the relevant aspects through targeted enablers. Our Board members and senior management regularly communicate the importance of a strong risk culture to ensure that a consistent message comes from the top echelons.

During 2015, substantial action was taken on a number of other fronts to further improve the quality and effectiveness of the internal control environment. We revised and simplified our overarching Risk Management Frameworks (RMFs) in order to achieve better and more focused risk management. Most notably, we thoroughly reviewed the KBC Three Lines of Defence (3 LOD) model (see below).

## 3 Lines of Defence Model

KBC thoroughly reviewed its 3 LOD model where Business acts as the first line of defence, Risk as one of the second lines and Internal Audit as the third line. They all work together in order to prevent big impact losses for the KBC group. Important steps were taken in order to promote clear accountability for risk taking, oversight and independent assurance.

Another objective is to ensure that risk officers work more closely together across countries in order to deploy their skills to the benefit of the whole group. To enable this, we want to create an attractive environment for both risk specialists and integrators, allowing them to grow further in their domain.

This review of the 3 LOD model will ultimately reinforce the resilience of KBC's risk and control environment and safeguard the sustainability of our business model going forward.

Led by CRO Services, the 3 LOD programme is aiming to implement the reviewed model in 2016, which will further enhance:

- the quality and effectiveness of KBC's risk and control environment;
- the effectiveness of risk management;
- risk control.

The roles and responsibilities for the 3 LOD were defined as follows:

1st LOD: Business	2nd LOD: Risk	3rd LOD: Audit
<b>Owns the risk</b>	<b>Provides assurance that risks are under control</b>	<b>Checks quality and effectiveness of the process</b>
<ul style="list-style-type: none"><li>- Performs the right controls in the right manner</li><li>- Provides qualitative business self assessments</li><li>- Creates sufficient risk awareness</li><li>- Allocates priority / capacity to risk topics</li></ul>	<ul style="list-style-type: none"><li>- Formulates own, independent opinions on the risks KBC faces and on the way they are mitigated</li><li>- Identifies, measures and reports on risks</li><li>- Safeguards that the voice of risk is heard (veto right)</li><li>- Implements risk policies, frameworks, etc... in a consistent manner throughout the KBC Group</li></ul>	<ul style="list-style-type: none"><li>- Conducts risk-based and general audits to provide assurance to the board that the overall internal control system, including the risk governance, is effective and that policies and processes are in place and consistently applied within the Group</li></ul>

As regards the practical organisational structure for putting these responsibilities into practice, a number of decisions were taken in relation to several Competence Centres at the end of 2015. The aim is to consolidate these centres at group level and to integrate expertise across the organisation into Extended Competence Centres. Local risk officers and their teams remain fully embedded in the local organisation. The CRO Markets will also assume the role of CRO Treasury.

Apart from the practical organisational structure, the 3 LOD programme – under the auspices of the Group CRO – also aims to put in place a number of new tools and risk management building blocks that were under construction in 2015 as part of the drive to reduce complexity. These are the:

- Risk Management Framework (RMF) 2.0;
- Operational and ALM Risk Management Framework;
- Quantitative ICAAP approach.

RMF 2.0 is a group-wide project that is designed to make the Risk Management Frameworks and concepts easier to read, understand and implement.

- The project defines and clarifies KBC's risk strategy, specifying the objectives and ambition level of the KBC group with regard to risk management (Board of Directors' decision).
- It reviews the content, structure and governance of the current KBC Risk Management Framework.
- It lays down the standard regarding how risk management is (to be) performed in practice throughout the KBC group, while taking account of business reality.

Besides the overarching RMF, the Operational Risk Management Framework was the first to be adapted. It was reviewed in order to:

- simplify accountability rules;
- move from an annual scoring of KBC's internal control system to an expert opinion, supported by structured facts and figures;
- focus on the risks that matter through risk-based differentiation of the processes in each entity (i.e. less administration on low risk processes, enabling more focus on high and medium risks);
- integrate the group-wide requirements of Compliance, Risk (Group Key Control, Go! Take Control and risk self-assessments) and Audit into a single tool that makes sense to business and provides reasonable assurance that controls are executed.

A similar approach was adopted for the ALM Risk Management Framework (project ALM 2020).

Finally, the Quantitative ICAAP approach is also driven by complexity reduction in risk measurements. This track aims to:

- answer adapted regulatory expectations.
- deliver measures which are fit for use for decision-taking within KBC and which go beyond capital management.

Deliverables consist of a new Internal Capital Model (ICM) combined with a new approach towards earnings assessments and other uses, such as limit setting and risk adjusted performance management. Special focus goes to Credit Risk and Market Risk in Non-Trading Activities (ALM 2020), both striving towards models that are easier to understand and, therefore, easier to use for a wide variety of management decisions.



# Capital Adequacy



Capital adequacy (or solvency) risk is the risk that the capital base of the group, the bank or the insurer might fall below an acceptable level. In practice, this entails checking solvency against the minimum regulatory requirements and against in-house solvency targets. Hence, capital adequacy is approached from both a regulatory and an internal perspective.

## Solvency at KBC group level

We report the solvency of the group, the bank and the insurance company based on IFRS data and according to the rules imposed by the regulator. For the KBC group, this implies that we calculate our solvency ratios based on CRR/CRD IV. This regulation entered gradually into force on 1 January 2014, and will be fully implemented by 1 January 2022.

The general rule under CRR/CRD IV for insurance participations is that an insurance participation is deducted from common equity at group level, unless the competent authority grants permission to apply a risk weighting instead (Danish compromise). KBC received such permission from the supervisory authority and hence reports its solvency on the basis of a 370% risk weighting being applied to the holdings of own fund instruments of the insurance company, after having deconsolidated KBC Insurance from the group figures.

The minimum solvency ratios required under CRR/CRD IV are 4.5% for the common equity tier-1 (CET1) ratio, 6.0% for the tier-1 capital ratio and 8.0% for the total capital ratio (i.e. pillar 1 minimum ratios). As a result of its supervisory review and evaluation process (SREP), the competent supervisory authority (in KBC's case, the ECB) can require that higher minimum ratios be maintained (= pillar 2 requirements) because, for instance, not all risks are properly reflected in the regulatory pillar 1 calculations. On top of this, a number of additional buffers have to be put in place, including a capital conservation buffer of 2.5% (to be phased in between 2016 and 2019), a buffer for systemically important banks (to be determined by the supervisory authority) and a countercyclical buffer in times of credit growth (between 0% and 2.5%, likewise to be determined by the supervisory authority). These buffers need to be met using CET1 capital, the strongest form of capital.

The ECB required KBC to maintain a CET1 ratio of at least 9.75% (phased-in, Danish compromise) in 2016, which includes the CRR/CRD IV minimum requirement (4.5%), the conservation buffer (0.625%) and the pillar 2 add-on (4.625%). On top of this, the National Bank of Belgium (NBB) requires KBC – as a systemically important Belgian bank – to hold an additional buffer of 0.5% of CET1 (phased-in, Danish compromise) in 2016, 1.0% in 2017 and 1.5% in 2018.

KBC clearly exceeds the targets set by the ECB (9.75%) and the NBB (0.5% in 2016), i.e. an aggregate 10.25% for 2016. At year-end 2015, the phased-in CET1 ratio came to 15.2%, which represented a capital buffer of 4 289 million euros relative to the minimum requirement of 10.25%. The regulatory minimum solvency targets were also amply exceeded throughout the entire financial year.

In addition to the solvency ratios under CRD IV, KBC – as a financial conglomerate – also has to disclose its solvency position as calculated in accordance with the Financial Conglomerate Directive (FICOD; 2002/87/EC). This implies that available capital will be calculated on the basis of the consolidated position of the group and the eligible items recognised as such under the prevailing sectoral rules, which are CRD IV for the banking business and Solvency I for the insurance business (Solvency II as of 2016). The resulting available capital is to be compared with a capital requirement expressed as a risk weighted asset amount. For this latter figure, the capital requirements for the insurance business (based on Solvency I until the end of 2015 and on Solvency II as of 2016) are multiplied by 12.5 to obtain a risk weighted asset equivalent (instead of the 370% risk weighting applied to the participation under the Danish compromise). At year-end 2015, the phased common equity ratio (under FICOD) was 14.9%.

A detailed calculation of the KBC group's solvency ratios under the Danish compromise method is given below, and summary calculations are provided for the FICOD method.

Solvency at group level (consolidated; under CRD IV/CRR (Basel III), Danish compromise method) (in millions of EUR)	31-12-2014 Phased-in	31-12-2014 Fully loaded	31-12-2015 Phased-in	31-12-2015 Fully loaded
<b>Total regulatory capital, after profit appropriation</b>	<b>16 723</b>	<b>16 688</b>	<b>17 305</b>	<b>16 936</b>
<b>Tier-1 capital</b>	<b>14 136</b>	<b>14 476</b>	<b>14 691</b>	<b>14 647</b>
<b>Common equity<sup>1</sup></b>	<b>12 684</b>	<b>13 076</b>	<b>13 242</b>	<b>13 247</b>
Parent shareholders' equity (after deconsolidating KBC Insurance)	12 592	12 592	14 075	14 075
Non-voting core-capital securities	2 000	2 000	0	0
Intangible fixed assets, incl. deferred tax impact (-)	-334	-334	-366	-366
Goodwill on consolidation, incl. deferred tax impact (-)	-769	-769	-482	-482
Minority interests	-3	-3	0	0
Available-for-sale revaluation reserves (-) <sup>3</sup>	-679	-	-466	-
Hedging reserve, cashflow hedges (-)	1 391	1 391	1 163	1 163
Valuation differences in financial liabilities at fair value – own credit risk (-)	-21	-21	-20	-20
Value adjustment due to requirements for prudent valuation (-) <sup>2</sup>	-43	-92	-53	-94
Equalisation reserve (-)	0	0	0	0
Dividend payout (-)	-836	-836	0	0
Coupon on government securities (-)	-171	-171	0	0
Coupon on AT1 instruments (-)	-2	-2	-2	-2
Deduction with regard to financing provided to shareholders (-)	-159	-159	-91	-91
IRB provision shortfall (-)	-225	-225	-171	-171
Deferred tax assets on losses carried forward (-)	-59	-297	-345	-765
<b>Additional going concern capital<sup>2</sup></b>	<b>1 452</b>	<b>1 400</b>	<b>1 450</b>	<b>1 400</b>
Grandfathered innovative hybrid tier-1 instruments	52	0	50	0
Grandfathered non-innovative hybrid tier-1 instruments	0	0	0	0
CRR-compliant AT1 instruments	1 400	1 400	1 400	1 400
Minority interests to be included in additional going concern capital	0	0	0	0
<b>Tier-2 capital</b>	<b>2 587</b>	<b>2 212</b>	<b>2 614</b>	<b>2 289</b>
IRB provision excess (+)	357	375	359	369
Subordinated liabilities	2 230	1 837	2 255	1 920
Subordinated loans non-consolidated financial sector entities (-)	0	0	0	0
Minority interests to be included in tier-2 capital	0	0	0	0
<b>Total weighted risk volume</b>	<b>88 382</b>	<b>91 236</b>	<b>87 343</b>	<b>89 067</b>
Banking	77 379	80 232	78 034	79 758
Insurance	10 897	10 897	9 133	9 133
Holding-company activities	191	191	208	208
Elimination of intercompany transactions	-85	-85	-33	-33
<b>Solvency ratios</b>				
Common equity ratio	14.4%	14.3%	15.2%	14.9%
Tier-1 ratio	16.0%	15.9%	16.8%	16.4%
Total capital ratio	18.9%	18.3%	19.8%	19.0%

1 Audited figures (excluding 'IRB provision shortfall' and 'Value adjustment due to requirements for prudent valuation').

2 CRR ensures that prudent valuation is reflected in the calculation of available capital. This means that the fair value of all assets measured at fair value and impacting the available capital (by means of fair value changes in P&L or equity) need to be brought back to their prudent value. The difference between the fair value and the prudent value (also called the 'additional value adjustment' or AVA) must be deducted from the CET1 ratio.

3 Relates to the prudential filter for positive revaluation reserves from equity.

<b>Solvency at group level (consolidated; FICOD method)</b> (in millions of EUR or %)*	<b>31-12-2014</b> <b>Phased-in</b>	<b>31-12-2014</b> <b>Fully loaded</b>	<b>31-12-2015</b> <b>Phased-in</b>	<b>31-12-2015</b> <b>Fully loaded</b>
Common equity	13 136	13 528	13 503	13 508
Total weighted risk volume	89 742	92 596	90 841	92 565
Common equity ratio	14.6%	14.6%	14.9%	14.6%

\* For more details, please refer to KBC's Extended Quarterly Reports (available at [www.kbc.com](http://www.kbc.com)).

Additional information concerning the calculation of solvency according to Basel III (Danish compromise method, fully loaded):

- Parent shareholders' equity: see 'Consolidated statement of changes in equity' in the 'Consolidated financial statements' section in the Annual Report.
- CRR-compliant additional tier-1 instruments: includes a CRR-compliant additional tier-1 instrument issued in 2014 for 1.4 billion euros.
- Total weighted risk volume: since its implementation in 2008, the Internal Rating Based (IRB) approach has primarily been used by KBC to calculate its risk weighted assets. Based on a full application of all the CRR/CRD IV rules, it is used for approximately 84% of the weighted credit risks, approximately 78% of which are calculated according to the Advanced approach and roughly 6% according to the Foundation approach. The remaining weighted credit risks (about 16%) are calculated according to the Standardised approach. The decrease in weighted risks in 2015 was largely driven by the abolishment of regulatory add-ons for IRB Advanced models (-3.8 billion euros in risk weighted assets), the 500-million-euro capital decrease carried out at KBC Insurance (-1.85 billion euros in risk weighted assets) and a further reduction in volumes for companies in run-off, which more than offset the increase in risk weighted assets resulting from volume growth in our core markets and a number of model-related adjustments.

At year-end 2015, the fully loaded Basel III leverage ratio – based on current CRR legislation – stood at 6.3% for the KBC group at the consolidated level (see table). The changes compared to year-end 2014 were mainly limited, with a higher level of tier-1 capital being offset by higher total exposure.

<b>Leverage ratio (consolidated; under CRD IV/CRR (Basel III), Danish compromise method)</b> (in millions of EUR)	<b>31-12-2014</b> <b>Fully loaded</b>	<b>31-12-2015</b> <b>Fully loaded</b>
Tier-1 capital	14 476	14 647
Total exposure	226 669	233 675
Total assets	245 174	252 355
Deconsolidation of KBC Insurance	-27 708	-31 545
Adjustment for derivatives	-3 246	-3 282
Adjustment for regulatory corrections in determining Basel III tier-1 capital	-1 559	-806
Adjustment for securities financing transaction exposures	266	1 057
Off-balance sheet exposures	13 742	15 897
Leverage ratio	6.4%	6.3%

More details, including a description of the processes used to manage the risk of excessive leverage, can be found below.

Besides the ECB and NBB, which supervise KBC on a going concern basis, KBC will also be subject to requirements to be set by the Single Resolution Board (SRB). The SRB is developing resolution plans for the major banks in the euro area. Such a plan describes how the resolution authorities will approach the resolution of a bank that is failing (or likely to fail) in a way that protects its critical functions, government funds and financial stability. It takes account of the specific features of the bank and is tailor-made. A major resolution tool is the 'bail-in', which implies a recapitalisation and stabilisation of the bank by writing down certain unsecured liabilities and issuing new shares to former creditors as compensation. Depending on the size of the losses, the bail-in could be sufficient to bring the capital back to a level that is high enough to restore market confidence and to create a stable point from which additional actions could be implemented. The first focus is therefore on the availability of an adequate amount of liabilities that are eligible for bail in. This is measured by the minimum requirement for own funds and eligible liabilities (MREL), which will be set by the SRB. At year-end 2015, the MREL stood at 13.9% for the KBC group.

## Solvency of KBC Bank and KBC Insurance separately

As is the case for the KBC group, the solvency of KBC Bank is calculated based on CRR/CRD IV. The solvency of KBC Insurance was calculated on the basis of Solvency I rules until the end of 2015, but will be calculated on the basis of Solvency II rules when they become effective on 1 January 2016.

In the table, we have provided certain solvency information for KBC Bank and KBC Insurance, separately. More detailed information can be found in their consolidated financial statements.

<b>Solvency, KBC Bank and KBC Insurance separately</b> (in millions of EUR)		
	<b>31-12-2014</b>	<b>31-12-2015</b>
<b>KBC Bank (consolidated, CRR/CRD IV, fully loaded)</b>		
Total regulatory capital, after profit appropriation	14 154	16 045
Tier-1 capital	11 132	12 346
Of which common equity	9 727	10 941
Tier-2 capital	3 021	3 699
Total weighted risks	80 232	79 758
Common equity ratio	12.1%	13.7%
Tier-1 ratio	13.9%	15.5%
Total capital ratio	17.6%	20.1%
<b>KBC Insurance (consolidated, Solvency I)</b>		
Available capital	3 166	2 922
Required solvency margin	981	1 011
Solvency ratio (%)	323%	289%
Solvency surplus	2 185	1 911

Solvency II is the new regulatory framework for insurers in Europe. Whereas Solvency I requirements were volume-based, Solvency II pursues a risk-based approach. It aims to implement solvency requirements that better reflect the risks that companies face and to deliver a supervisory system that is consistent across all EU Member States. KBC is subject to the Solvency II regime as regards all

its insurance subsidiaries. KBC successfully participated in the preparatory regulatory reporting for Solvency II during 2015. As of 2016, the Solvency II results will be reported on a quarterly basis to the regulators and in the financial statements. The results are already being used in internal reports.

On 1 January 2016, the Solvency II ratio for KBC Insurance at group level came to 231% (see table below). This clearly ranks KBC Insurance among the better-capitalised companies in the insurance industry. This robust ratio is the result of a strong own funds base compared to the required capital. For the pillar 1 calculation of required capital, KBC has adopted the Standard Formula Model approach, which is regarded as more conservative, rather than using internal models. Given its solid level of capitalisation, KBC also decided not to use any transitional measures. To prevent excessive fluctuations in the Solvency II ratio, however, it uses volatility adjustment for all its subsidiaries.

<b>Solvency, KBC Insurance</b> (in millions of EUR)		<b>31-12-2015</b>
Own funds		3 683
Tier-1		3 180
IFRS parent shareholders' equity		2 815
Dividend payout		-71
Deduction of intangible assets and goodwill (after tax)		-123
Valuation differences (after tax)		416
Volatility adjustment		195
Other		-53
Tier-2		503
Subordinated liabilities		503
Solvency capital requirement (SCR)		1 592
Solvency II ratio		231%
Solvency surplus above SCR		2 091

## Managing the risk of excessive leverage

CRR/CRD IV requires credit institutions to calculate, report and monitor their leverage ratios. The leverage ratio is a new supplementary, non-risk based measure to contain the build-up of leverage (i.e. create a backstop on the degree to which a banking firm can leverage its capital base). It is calculated as a percentage of tier-1 capital relative to the total on and off balance sheet exposure (not risk weighted).

The risk of excessive leverage is one of the risks inherent in the banking business and as such is also covered by our overall risk management governance structure. What's more, the risk of excessive leverage is an explicit topic in the definition of risk appetite. The leverage ratio is also part of our second backbone process in risk and capital management, namely multi-dimensional three-year planning, in which strategy, finance, treasury and risk perspectives are taken into account simultaneously.

The leverage ratio is determined and monitored within the quarterly closing process and included in the periodic management reports of the Finance and Credit Risk departments. This monitoring covers both the position of KBC itself (taking into account the above-mentioned risk appetite and planning) as well as benchmarking in terms of relevant peers. If such monitoring triggers the need for certain actions (an increase in tier-1 capital and/or a reduction in exposure amounts), these decisions – including the time line – are prepared by a dedicated cross-functional team consisting of representatives from Finance, Risk, Treasury and Legal (this is the same process that is in place for all other capital requirements).

All of the above processes are part of KBC's ICAAP (see next section).

## ICAAP & ORSA

KBC's ICAAP (Internal Capital Adequacy Assessment Process) consists of numerous business and risk processes that together contribute to the objective of assessing and making sure at all times that KBC is adequately capitalised in view of its risk profile and the quality of its risk management and control environment. For this purpose, KBC has an internal capital model in place to complement the existing regulatory capital models. KBC replaced its former economic capital model with a new internal capital measurement model whose approach is not only more aligned with evolving regulatory requirements, but is also more fit for use as regards, for instance, measuring risk adjusted performance and underpinning risk limits, in addition to assessing capital adequacy. The new internal capital model is complemented by a framework for assessing earnings that aims to reveal vulnerabilities in terms of the longer term sustainability of KBC's business model.

Final responsibility for the ICAAP lies with the Board of Directors, advised by the RCC.

A backbone process in KBC's ICAAP is the Alignment of Planning Cycles (APC). This yearly process aims to create an integrated three-year plan in which the strategy, finance, treasury and risk perspectives are collectively taken into account. In this process, the risk appetite of the group is set and cascaded by setting risk limits at entity level.

The APC is not only about planning, it is also about closely monitoring the execution of the plan in all its aspects (P&L, risk weighted assets, liquidity). Such monitoring is reflected in dedicated reports drawn up by the various Group functions.

Since 2014, KBC Insurance and its insurance and reinsurance subsidiaries conduct an Own Risk and Solvency Assessment (ORSA) on a regular basis, in accordance with Solvency II requirements. Similar to ICAAP, the aim of the ORSA is to monitor and ensure that business is managed in a sound and prudent way and that the KBC Insurance group is adequately capitalised in view of its risk profile and the quality of its risk management and control environment. The ORSA process draws to a large extent on the same 'core processes' as the ICAAP and includes APC, risk appetite setting and ongoing business, risk and capital management processes. Where necessary, these processes are enhanced to take account of the specific nature of the (re)insurance activities and to comply with Solvency II requirements.

## Stress testing

Stress testing is an important risk management tool that adds value both to strategic processes and to day-to-day risk management (risk identification, risk appetite and limit setting, etc.). As such, stress testing is an integral part of KBC's Risk Management Framework and underlying risk-type specific frameworks, and is an important building block of KBC's ICAAP and ORSA (Own Risk and Solvency Assessment) process.

KBC defines stress testing as a management decision supporting process that encompasses various techniques which are used to evaluate the potential negative impact on KBC's (financial) condition, caused by specific event(s) and/or movement(s) in risk factors ranging from plausible to extreme, exceptional or implausible.

As such, it is an important tool in identifying sources of vulnerability and hence in assessing whether KBC's capital is adequate enough to cover the risks facing it. That is why the APC also includes views under stressed assumptions. These stress tests are designed to provide assurance that:

- the decisions regarding the financial plan and regarding risk appetite and limit setting are not only founded on a base case, but that they also take account of the impact of more severe macroeconomic and financial market assumptions;
- capital and liquidity at group level remain acceptable under severe conditions.

The resulting capital ratios are compared to internal and external capital targets. An assessment is made to see the extent to which potential shortfalls can be mitigated by taking risk management actions.

Even more severe scenarios and sensitivities are calculated in the context of the recovery plan. These scenarios focus on events that lead to a breach of the regulatory capital requirements and hence trigger the recovery plan. As such, the scenarios provide another insight into key vulnerabilities of the group. To prevent KBC from ending up in a recovery situation – should the defined stress scenario occur – management needs to consider mitigating action.

Numerous other stress tests are run within KBC that provide valuable information for assessing the capital adequacy of the group. They include regulatory imposed stress tests, ad hoc integrated and risk-type or portfolio-specific stress tests at group and local level. Relevant stress test impacts are valuable inputs for defining sensitivities in APC planning.





# Liquidity Risk Management

Liquidity risk is the risk that an organisation will be unable to meet its payment obligations as they come due, without incurring unacceptable losses.

The principal objective of our liquidity management is to be able to fund the group and to enable the core business activities of the group to continue to generate revenue, even under adverse circumstances. Since the financial crisis, there has been a greater focus on liquidity risk management throughout the industry, and this has been intensified by the minimum liquidity standards defined by the Basel Committee, which have been transposed into European law through CRD IV/CRR.

## Strategy and processes

A group-wide 'liquidity risk management framework' is in place to define the risk playing field.

Liquidity management itself is organised within the Group Treasury function, which acts as a first line of defence and is responsible for the overall liquidity and funding management of the KBC group. The Group Treasury function monitors and steers the liquidity profile on a daily basis and sets the policies and steering mechanisms for funding management (intra-group funding, funds transfer pricing). These policies ensure that local management has an incentive to work towards a sound funding profile. It also actively monitors its collateral on a group-wide basis and is responsible for drafting the liquidity contingency plan that sets out the strategies for addressing liquidity shortfalls in emergency situations.

Our liquidity risk management framework is based on the following pillars:

- **Contingency liquidity risk.** This risk is assessed on the basis of liquidity stress tests, which measure how the liquidity buffer of the group's bank entities changes under extreme stressed scenarios. This buffer is based on assumptions regarding liquidity outflows (retail customer behaviour, professional client behaviour, drawing of committed credit lines, etc.) and liquidity inflows resulting from actions to increase liquidity ('repoing' the bond portfolio, reducing unsecured interbank lending, etc.). The liquidity buffer has to be sufficient to cover liquidity needs (net cash and collateral outflows) over (i) a period that is required to restore market confidence in the group following a KBC-specific event, (ii) a period that is required for markets to stabilise after a general market event and (iii) a combined scenario, which takes a KBC-specific event and a general market event into account. The overall aim of the liquidity framework is to remain sufficiently liquid in stress situations, without resorting to liquidity-enhancing actions which would entail significant costs or which would interfere with the core banking business of the group.
- **Structural liquidity risk.** We manage our funding structure so as to maintain substantial diversification, to minimise funding concentrations in time buckets, and to limit the level of reliance on short-term wholesale funding. We manage the structural funding position as part of the integrated strategic planning process, where funding – in addition to capital, profits and risks – is one of the key elements. At present, our strategic aim for the next few years is to build up a

sufficient buffer in terms of LCR and NSFR via a funding management framework, which sets clear funding targets for the subsidiaries (own funding, reliance on intra-group funding) and provides further incentives via a system of intra-group pricing to the extent subsidiaries run a funding mismatch.

In the table below, we have illustrated the structural liquidity risk by grouping the assets and liabilities according to the remaining term to maturity (contractual maturity date). The difference between the cash inflows and outflows is referred to as the 'net funding gap'. At year-end 2015, KBC had attracted 28 billion euros' worth of funding on a gross basis from the professional interbank and repo markets.

- **Operational liquidity risk.** Operational liquidity management is conducted in the treasury departments, based on estimated funding requirements. Group-wide trends in funding liquidity and funding needs are monitored on a daily basis by the Group Treasury function, ensuring that a sufficient buffer is available at all times to deal with extreme liquidity events in which no wholesale funding can be rolled over.

## Scope of liquidity risk management

This liquidity risk report covers most material entities of the KBC group that carry out banking activities, i.e. KBC Bank NV, CBC Banque SA, KBC Lease, KBC Investments Limited (formerly KBC Financial Products), ČSOB Czech Republic, ČSOB Slovak Republic, KBC Bank Ireland, CIBANK, KBC Credit Investments, KBC Finance Ireland, KBC Commercial Finance, IFIMA and K&H Bank. KBC Insurance entities are not included, since they are generally liquidity providers and not liquidity users.

## Structural liquidity risk

The table below illustrates structural liquidity risk by grouping the assets and liabilities according to the remaining term to maturity (contractual maturity date). The difference between the cash inflows and outflows is referred to as the 'net funding gap'.

Liquidity risk (excluding intercompany deals)* (in billions of EUR)	<= 1 month	1-3 months	3-12 months	1-5 years	5-10 years	> 10 years	On de- mand	not de- fined	Total
<b>31-12-2014</b>									
Total inflows	16	8	16	55	45	33	3	35	211
Total outflows	35	9	15	31	8	1	84	27	211
Professional funding	15	3	1	5	0	0	0	0	26
Customer funding	17	5	9	11	4	0	84	0	130
Debt certificates	0	2	4	14	4	1	0	0	26
Other	2	–	–	–	–	–	–	27	30
Liquidity gap (excl. undrawn commitments)	-19	-1	2	24	37	32	-81	7	0
Undrawn commitments	–	–	–	–	–	–	–	-32	–
Financial guarantees	–	–	–	–	–	–	–	-10	–
Net funding gap (incl. undrawn commitments)	-19	-1	2	24	37	32	-81	-34	-42
<b>31-12-2015</b>									
Total inflows	17	11	15	56	48	34	4	34	218
Total outflows	34	14	10	28	12	1	93	26	218
Professional funding	15	4	1	6	1	0	0	0	28
Customer funding	17	10	6	9	3	0	93	0	138
Debt certificates	0	0	3	13	8	1	0	0	24
Other	2	–	–	–	–	–	–	26	28
Liquidity gap (excl. undrawn commitments)	-17	-3	6	28	36	33	-90	8	0
Undrawn commitments	–	–	–	–	–	–	–	-37	–
Financial guarantees	–	–	–	–	–	–	–	-9	–
Net funding gap (incl. undrawn commitments)	-17	-3	6	28	36	33	-90	-38	-46

\* Cashflows exclude interest rate flows consistent with internal and regulatory liquidity reporting. Inflows/outflows that arise from margin calls posted/received for MtM positions in derivatives are reported in the 'not defined' bucket. 'Professional funding' includes all deposits from credit institutions and investment firms, as well as all repos. Instruments are classified on the basis of their first callable date. Some instruments are reported at fair value (on a discounted basis), whereas others are reported on an undiscounted basis (in order to reconcile them with Note 18 of the 'Consolidated financial statements' section of the Annual Report of KBC Group NV). Due to the uncertain nature of the maturity profile of undrawn commitments and financial guarantees, these instruments are reported in the 'not defined' bucket. The category 'Other' under 'Total outflows' contains 'own equity, short positions, provisions for risks and charges, tax liabilities and other liabilities.

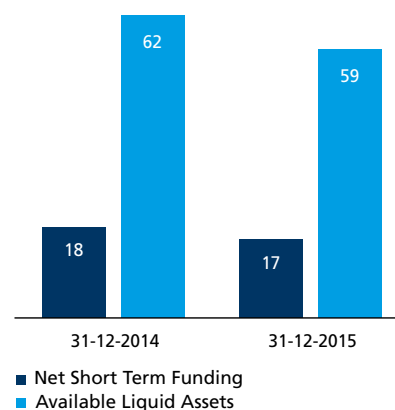
Typical for a banking group, funding sources generally have a shorter maturity than the assets that are funded, leading to a negative net liquidity gap in the shorter time buckets and positive net liquidity gap in the longer term buckets. This creates liquidity risk if KBC would be unable to renew maturing short-term funding. Our liquidity framework imposes a funding strategy to ensure that the liquidity risk remains within the group's risk appetite.

## Liquid asset buffer

The KBC group has a solid liquidity position. Historically, it has always had a substantial amount of liquid assets. At year-end 2015, the KBC group had 59 billion euros' worth of unencumbered central bank eligible assets, 43 billion euros of which in the form of liquid government bonds (74%). The remaining available liquid assets were mainly other ECB/FED eligible bonds (10%) and pledgeable credit claims (10%). Most of the liquid assets are expressed in euros, Czech koruna and Hungarian forint (all home market currencies).

Unencumbered liquid assets were more than three times the net recourse to short-term wholesale funding, while funding from non-wholesale markets was accounted for by stable funding from core customer segments in our core markets.

Short term unsecured funding KBC Group vs Liquid assets (bn EUR)



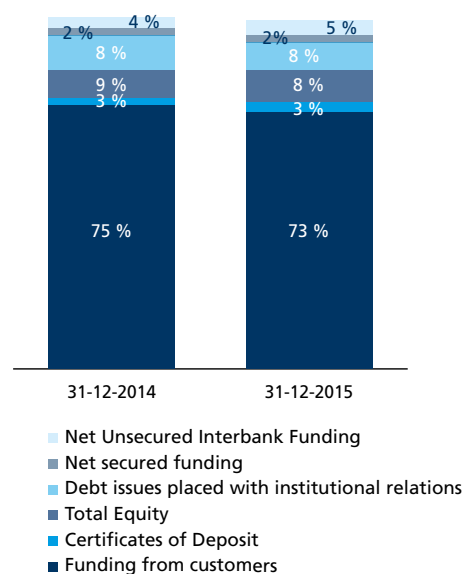
## Funding information

KBC continues to have a strong retail/mid-cap deposit base in its core markets, resulting in a stable funding mix. A significant portion of the funding is attracted from core customer segments and markets.

The KBC group's funding mix (31 December 2015) can be broken down as follows:

- Funding from customers (circa 140 billion euros, 73% of the total figure), consisting of demand deposits, time deposits, savings deposits, other deposits, savings certificates and debt issues placed in the network. Some 58% of the funding from customers relates to private individuals and SMEs.
- Debt issues placed with institutional investors (16 billion euros, 8% of the total figure), mainly comprising IFIMA debt issues (5 billion euros), covered bonds (7 billion euros), the contingent capital notes issued in January 2013 (0.75 billion euros) and tier-2 issues (1.65 billion euros).
- Net unsecured interbank funding (9 billion euros, 5% of the total figure).

Funding Mix - Breakdown by type



- Net secured funding (4 billion euros in repo funding, 2% of the total figure) and certificates of deposit (6 billion euros, 3% of the total figure).
- Total equity (16 billion euros, 8% of the total figure, including an additional tier-1 issue of 1.4 billion euros).

Please note that:

- In November 2012, we announced our 10-billion-euro Belgian residential mortgage covered bonds programme. This programme gives KBC access to the covered bond market, allowing it to diversify its funding structure and reduce the cost of long-term funding. At the start of December 2012, we launched a first covered bond issue in the amount of 1.25 billion euros. More issues followed in 2013 for a total of 2.7 billion euros, in 2014 for a total of 0.9 billion euros and in 2015 for a total of 2 billion euros.
- In 2014, we borrowed 2.8 billion euros from the ECB under the targeted long-term refinancing operations (TLTROs).

## LCR and NSFR

Both the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are defined in the Glossary at the end of this report. At year-end 2015, our NSFR stood at 121% and our LCR at 127%. The LCR for 2015 was calculated based on the Delegated Act definition of LCR, i.e. the binding European definition applying from October 2015 on. Our NSFR and LCR are both well above the minimum regulatory requirements and KBC's internal floors of 105%.

## Asset encumbrance

KBC is a retail-oriented bank that finances 76% of its assets by means of customer funding. A certain reliance on long-term wholesale funding is tolerated and even desired for bail-in purposes, funding diversification and cost optimisation purposes. By the end of 2012, KBC received approval to set up a covered bond programme, which has further diversified the investor base and offers the bank access to funding markets that remain open in times of market stress. The regulator imposed a limit on the programme corresponding to 8% of the balance sheet of KBC Bank NV (stand-alone), or 10 billion euros. When the programme reaches full capacity, it will account for about 50% of all long-term institutional wholesale funding raised by KBC. Covered bonds are not intended to increase the overall size of the balance sheet, as other sources of funding will merely be replaced by covered bonds. As a consequence, covered bonds do not negatively affect the solvency ratios or leveraging of KBC Bank. They improve solvency because the lower funding cost results in higher profit and hence improved solvency.

Besides covered bonds, KBC has also rendered part of its mortgage book liquid via the creation of RMBS notes that are almost fully retained on the balance sheet. Their prime purpose is therefore not to attract funding, but to enhance liquidity.

A relatively small part of the loan book is pledged directly as collateral for intraday liquidity and for TLTROs or other ECB funding. KBC prefers to record non-LCR collateral for these operations, thereby safeguarding the LCR-eligible liquidity buffer. Using this illiquid collateral increases encumbrance in relative terms due to the high haircut used.

KBC has imposed an internal limit of 25% on the share of secured funding in the total funding mix of KBC Bank (consolidated). In this regard, secured funding includes net repo exposure (both long term and short term), covered bonds and securitised exposure amounts issued by KBC and effectively sold on the market.

In addition to encumbered loans in the cover pool, KBC commits to maintain unencumbered cover assets (outside the cover pool) amounting to at least 5% of the total covered bond programme. This buffer can be used if there are breaches of cover asset tests, breaches of liquidity tests and breaches of committed overcollateralisation levels. The buffer should preferably be composed of mortgage loans, but can also consist of liquid ECB eligible assets. Given the regulatory imposed limit of 8% on cover assets, there should be more than sufficient mortgage assets available for the additional buffer.

The tables below show in more detail the asset encumbrance for KBC Bank (consolidated). The total volume of encumbered assets amounts to 34 billion euros, 43% of which debt securities (14.5 billion euros issued by general governments) and 57% loans and advances (11.6 billion euros of which in mortgage loans).

#### Template A-Assets

		Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
		010	040	060	090
010	Assets of the reporting institution	34 243 635 996		186 550 301 294	
030	Equity instruments	0	0	3 398 901 660	3 398 901 660
040	Debt securities	14 787 855 597	14 490 541 923	35 910 776 799	38 033 369 000
120	Other assets	19 455 780 399		147 240 622 835	

All the collateral received that is encumbered is debt securities issued by general governments for a total amount of 2 billion euros.

#### Template B-Collateral received

		Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
		010	040
130	Collateral received by the reporting institution	1 979 376 882	16 238 766 695
150	Equity instruments	0	0
160	Debt securities	1 979 376 882	16 238 766 695
230	Other collateral received	0	0
240	Own debt securities issued other than own covered bonds or ABSs	0	0

The sources of asset encumbrance (i.e. the matching financial liabilities in the table below) total 29.8 billion euros and consist mainly of:

- OTC derivatives (9.6 billion euros, 32% of the total figure)
- Repurchase agreements (9.6 billion euros, 33% of the total figure)
- TLTROs (2.8 billion euros, 9% of the total figure)
- Other secured financing, excl. retail (0.8 billion euros, 3% of the total figure)
- Own covered bonds issued (6.8 billion euros, 23%)

#### Template C-Encumbered assets/collateral received and associated liabilities

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030
010	Carrying amount of selected financial liabilities	29 821 820 905	36 223 012 878





# Credit Risk Management

Credit risk is the potential negative deviation from the expected value of a financial instrument arising from the non-payment or non-performance by a contracting party (for instance a borrower), due to that party's insolvency, inability or lack of willingness to pay or perform, or to events or measures taken by the political or monetary authorities of a particular country (country risk). Credit risk thus encompasses default risk and country risk, but also includes migration risk, which is the risk for adverse changes in credit ratings.

We manage credit risk at both transactional and portfolio level. Managing credit risk at the transactional level means that we have sound practices, processes and tools in place to identify and measure the risks before and after accepting individual credit exposures. Limits and delegations are set to determine the maximum credit exposure allowed and the level at which acceptance decisions are taken. Managing the risk at portfolio level encompasses, *inter alia*, periodic measuring and analysing of risk embedded in the consolidated loan and investment portfolios and reporting on it, monitoring limit discipline, conducting stress tests under different scenarios, taking risk mitigating measures and optimising the overall credit risk profile.

## Credit risk management at transactional level

We have sound acceptance policies and procedures in place for all kinds of credit risk exposure. We are limiting our description below to exposures related to traditional loans to businesses and to lending to individuals, as these account for the largest part of the group's credit risk exposure.

Lending to individuals (e.g., mortgages) is subject to a standardised process, during which the output of scoring models plays an important role in the acceptance procedure. Lending to businesses is subject to a more integrated acceptance process in which relationship management, credit acceptance committees and model-generated output are taken into account.

For most types of credit risk exposure, monitoring is determined primarily by the risk class, with a distinction being made based on the Probability of Default (PD) and the Loss Given Default (LGD). The latter reflects the estimated loss that would be incurred if an obligor defaults.

In order to determine the risk class, we have developed various rating models for measuring how creditworthy borrowers are and for estimating the expected loss of various types of transactions. We use a number of uniform models throughout the group (models for governments, banks, large companies, etc.), while others have been designed for specific geographic markets (SMEs, private individuals, etc.) or types of transaction. We use the same internal rating scale throughout the group.

We use the output generated by these models to split the non-defaulted loan portfolio into internal rating classes ranging from 1 (lowest risk) to 9 (highest risk) for the PD. We assign an internal rating ranging from PD 10 to PD 12 to a defaulted obligor. PD class 12 is assigned when either one of the obligor's credit facilities is terminated by the bank, or when a court order is passed instructing

repossession of the collateral. PD class 11 groups obligors that are more than 90 days past due (in arrears or overdrawn), but that do not meet PD 12 criteria. PD class 10 is assigned to obligors for which there is reason to believe that they are unlikely to pay (on time), but that do not meet the criteria for classification as PD 11 or PD 12. Defaulted status is fully aligned with the 'non-performing' and 'impaired' statuses. Obligors in PD classes 10, 11 and 12 are therefore referred to as 'defaulted' and 'impaired'. Likewise, 'performing' status is fully aligned with 'non-default' and 'non-impaired' status.

We review loans to large corporations at least once a year, with the internal rating being updated as a minimum. If ratings are not updated in time, a capital add-on is imposed. Loans to small and medium-sized enterprises and to private individuals are reviewed periodically, with account being taken of any new information that is available (such as arrears, financial data, a significant change in the risk class). This monthly exercise can trigger a more in-depth review or may result in action being taken towards the client.

For credit linked to defaulted borrowers in PD classes 10, 11 and 12, we record impairment losses based on an estimate of the net present value of the recoverable amount. This is done on a case-by-case basis, and on a statistical basis for smaller credit facilities. In addition, for non-defaulted credit in PD classes 1 to 9, we record impairment losses on a 'portfolio basis', using a formula based on the IRB Advanced models used internally, or an alternative method if a suitable IRB Advanced model is not yet available.

## Credit risk management at portfolio level

We also monitor credit risk on a portfolio basis, inter alia by means of monthly and/or quarterly reports on the consolidated credit portfolio in order to ensure that lending policy and limits are being respected. In addition, we monitor the largest risk concentrations via periodic and ad hoc reports. Limits are in place at borrower/guarantor, issuer or counterparty level, at sector level and for specific activities or geographic areas. Moreover, we perform stress tests on certain types of credit, as well as on the full scope of credit risk.

Whereas some limits are in notional terms, we also use concepts such as 'expected loss' and 'loss given default'. Together with 'probability of default' and 'exposure at default', these concepts form the building blocks for calculating the regulatory capital requirements for credit risk, as KBC has opted to use the Internal Rating Based (IRB) approach. By the end of 2015, the main group entities (apart from CIBANK in Bulgaria and ČSOB in Slovakia) and some smaller entities had adopted the IRB Advanced approach. Others are scheduled to shift to the IRB Advanced approach in the coming years, subject to regulatory approval. 'Non-material' entities will continue to adopt the Standardised approach.

## Forbearance measures

In order to avoid a situation where an obligor facing financial difficulties ends up defaulting, we can decide to renegotiate its loans and grant forbearance measures in accordance with internal policy guidelines.

Forbearance measures consist of concessions towards a borrower facing, or about to face, financial difficulties.

Forbearance measures may involve:

- lowering or postponing interest or fee payments;
- extending the term of the loan to ease the repayment schedule;
- capitalising arrears;
- declaring a moratorium (temporary principal and/or interest payment holidays);
- providing debt forgiveness.

After a forbearance measure has been decided upon, a forbearance tag is attached to the file in the credit systems for identification, monitoring and reporting purposes.

A client with a forborne loan will in principle be assigned a PD class that is higher than the one it had before the forbearance measure was granted, given the higher risk of the client.

If a client/facility has been assigned 'defaulted' status (before or at the moment forbearance measures are granted), the client/forborne facility (depending on whether 'defaulted' status is assigned at client or facility level) must remain defaulted for at least one year. Only upon strict conditions can the client/facility be reclassified as 'non-defaulted'. A forborne facility with a 'non-defaulted' status will be tagged as 'forborne' for at least two years after the forbearance measure has been granted, or after the client/facility becomes non-defaulted, and can only be removed when strict extra criteria have been met (non-defaulted, regular payments, etc.).

As forbearance measures constitute an objective indicator (i.e. impairment trigger) that requires assessing whether impairment is needed, all forbearance measures are subject to an impairment test.

At the end of 2015, the forborne loans accounted for some 5% of the total loan portfolio. The tables below provide details on the movement in forborne loan exposure, the relevant impairment recorded, and a breakdown of forborne loans by PD class, between year-end 2014 and year-end 2015.

Compared to the end of 2014, the forborne loan exposure decreased by 1.3%, as the slight increase due to the new EBA-based policy on forbearance measures (two-year tagging period) was more than offset by the reduction resulting from repayments, cures and write-offs and – specifically in Hungary following the Curia Act – the impact on mortgage loans of the settlement and conversion of foreign currency loans to forint.

On-balance-sheet exposures with forbearance measures (in millions of EUR) – Movements between opening and closing balance 2015							
Gross carrying amount	Movements						
	2015 opening balance	Loans which have become forborne	Loans which are no longer considered to be forborne	Repay-ments	Write-offs	Other <sup>1</sup>	2015 closing balance
Total	7 897	2 099	-1 443	-671	-105	16	7 794
Of which: KBC Bank Ireland	5 703	541	-377	-426	-75	17	5 383
K&H	197	91	-3	-138	-24	4	128

Impairments	Movements						
	2015 opening balance	Existing impairments on loans which have become forborne	Decrease in impairments because loans are no longer forborne	Increase in impairments on forborne loans	Decrease in impairments on forborne loans	Other <sup>2</sup>	2015 closing balance
Total	2 108	586	-304	209	-378	-19	2 203
Of which: KBC Bank Ireland	1 664	228	-160	176	-300	0	1 607
K&H	72	19	-1	5	-49	-1	46

1 Includes foreign-exchange effects for loans granted in currencies other than the local reporting currency, changes in the drawn/undrawn portion of facilities, and increases in the gross carrying value of existing forborne loans.

2 Includes the use of impairment in respect of write-offs.

Forborne loans						
	As a % of the outstanding portfolio	Breakdown by PD class (as a % of the entity's portfolio of forborne loans)				
		PD 1-8	PD 9	PD 10 (impaired, less than 90 days past due)	PD 11-12 (impaired, 90 days and more past due)	
<b>31-12-2014</b>						
Total	6%	6%	7%	58%	29%	
Of which: KBC Bank Ireland	39%	1%	6%	61%	32%	
K&H	4%	1%	5%	55%	39%	
By client segment						
Private individuals <sup>1</sup>	8%	6%	7%	62%	25%	
SMEs	1%	21%	16%	40%	23%	
Corporations <sup>2</sup>	5%	4%	5%	54%	37%	
<b>31-12-2015</b>						
Total	5%	8%	11%	53%	28%	
Of which: KBC Bank Ireland	38%	1%	11%	59%	29%	
K&H	3%	2%	8%	70%	21%	
By client segment						
Private individuals <sup>1</sup>	8%	9%	13%	59%	19%	
SMEs	1%	28%	12%	35%	25%	
Corporations <sup>2</sup>	5%	3%	6%	46%	45%	

1 99% of the forborne loans total relates to mortgage loans in 2015 (99% in 2014).

2 53% of the forborne loans total relates to commercial real estate loans in 2015 (55% in 2014).

## Scope of credit risk disclosures

The scope of the disclosures for credit risk is based on the implementation of Basel III at the KBC group ('KBC'), and can be inferred from the roll-out plan below.

With regard to the timing of and approach to implementing Basel III, KBC has opted for a phased roll-out of the IRB approach at all its material entities. A material entity in this respect is defined as any subsidiary that accounts for more than 1% of the risk-weighted assets for credit risk at KBC Group NV. Compliance with this criterion is checked at least yearly. The first set of material entities started adopting the IRB Foundation approach at the beginning of 2007. As already mentioned above, the main group entities received regulatory approval to switch to the IRB Advanced approach during 2012. The internal target dates for the other material entities to adopt the IRB Foundation or IRB Advanced approach are shown in the table below. Any switchover is of course subject to regulatory approval.

Material entities that had not yet adopted the IRB Foundation or Advanced approach in 2015 are following the Basel III Standardised approach for the time being. This approach will also be adhered to until further notice by the other (non-material) entities of the KBC group, in accordance with permanent partial use as per Article 150(d) of Regulation (EU) No. 575/2013 (CRR). Since 2014, KBC has ceased to apply permanent partial use for sovereign exposure as required by the Belgian regulator.

The scope of this report is limited to the material entities appearing in the roll-out table below. These entities accounted for 99% of the total credit risk weighted assets of the KBC group in 2015.

Because of this limitation in scope, and also because another definition of exposure<sup>1</sup> is used for the accounting figures, a one-to-one comparison cannot be made with similar disclosures in KBC Bank's 2015 annual report.

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<sup>1</sup> In this report, credit exposure – where possible – is expressed as EAD (Exposure At Default), while it is expressed as an amount granted or an amount outstanding in the KBC Group Annual Report. EAD is a typical measure for exposure within the context of Basel III, pillar I.

Roll-out of Basel III pillar 1 approach at end of	2014	2015	2016	2017
IRB Advanced Approach	KBC Bank CBC Banque ČSOB Czech Republic KBC Credit Investments KBC Finance Ireland KBC Lease Belgium KBC Commercial Finance KBC Immolease	KBC Bank CBC Banque ČSOB Czech Republic KBC Credit Investments KBC Finance Ireland KBC Lease Belgium KBC Commercial Finance KBC Immolease K&H Bank	KBC Bank CBC Banque ČSOB Czech Republic KBC Credit Investments KBC Finance Ireland KBC Lease Belgium KBC Commercial Finance KBC Immolease K&H Bank	KBC Bank CBC Banque ČSOB Czech Republic KBC Credit Investments KBC Finance Ireland KBC Lease Belgium KBC Commercial Finance KBC Immolease K&H Bank
IRB Foundation approach	KBC Bank Ireland KBC Financial Products KBC Bank Deutschland <sup>1</sup> Antwerp Diamond Bank K&H Bank ČSOB Slovak Republic	KBC Bank Ireland KBC Financial Products Antwerp Diamond Bank <sup>2</sup> ČSOB Slovak Republic	KBC Bank Ireland KBC Financial Products ČSOB Slovak Republic <sup>3</sup>	KBC Bank Ireland KBC Financial Products ČSOB Slovak Republic <sup>3</sup>
Standardised approach	Non-material entities	Non-material entities	Non-material entities	Non-material entities

<sup>1</sup> KBC Bank Deutschland was divested in the course of 2014 and is no longer included in the data for 2014.

<sup>2</sup> Antwerp Diamond Bank was merged with KBC Bank in 2015, but the former Antwerp Diamond Bank exposure remains under the IRB Foundation approach.

<sup>3</sup> Transition from IRB Foundation to IRB Advanced approach for ČSOB Slovak Republic (which was planned for the second quarter of 2018) has been put on hold until the announced regulatory changes (EBA RTS on the definition of default and the estimation of risk parameters) are finalised and the KBC group modelling guidelines are adjusted accordingly.

## Exposure to credit risk

The tables in this section provide an overview of the overall credit risk expressed in terms of Exposure At Default (EAD) and are based on the figures for the end of December 2015. Exposure to securities in the trading book and to structured credit products is excluded. Information on securities in the trading book is reported in the credit risk section of KBC's annual report and the related risks are taken up in the trading market risk VaR. For structured credit exposure, reference is made to the detailed information in the 'Structured credit products' section in this document.

Detailed information is given separately in the following sections: (i) a general aggregate overview of the total credit risk in scope, (ii) a general (IRB Advanced, IRB Foundation and Standardised) overview of the lending portfolio, (iii) overviews of concentration in the lending portfolio (including a quality analysis), (iv) overviews of impaired credit in the lending portfolio, (v) breakdowns of the counterparty credit risk, (vi) credit risk mitigation and exposure to repo-like transactions and (vii) information on internal modelling.

In the lending portfolio, EAD is the amount that KBC expects to be outstanding should an obligor default. For lending exposure treated under the IRB approach, EAD is composed of the amount outstanding at the time of the calculation (without taking provisions into account), plus a weighted part of the off-balance-sheet portion of the exposure. For non-retail exposures, this weight can be determined either on a regulatory basis according to the IRB Foundation approach or via internal models according to the IRB Advanced approach. For retail exposures, the weight is always determined via internal models, in line with the IRB Advanced approach for this asset class. For

lending exposures treated under the Standardised approach, EAD can be regarded as the amount outstanding at the time of the calculation minus the provisions set aside plus a weighted part of the off-balance-sheet portion of the exposure. EAD can be stated with or without application of eligible collateral, i.e. net or gross.

For the portfolio of derivatives, EAD (actually, pre-settlement counterparty credit risk) is calculated as the sum of the (positive) current replacement value (marked-to-market) of a transaction and the potential risk as captured by the applicable add-on (= current exposure method). Credit Default Swaps (CDS) in the banking book (protection bought or sold) are an exception to this calculation, since they are considered guarantees (obtained or given) and treated as such in this report.

For the portfolio of repo-like instruments, EAD is determined based on the lending leg in the transaction, which means that for reverse repos, including tri-party repos, this is based on the nominal amount of the cash that was provided by KBC, and that for repos it is based on the market value of the securities sold.

EAD is used as a basis to determine the Risk-Weighted Assets (RWA), which in turn are used to calculate the capital required for the exposure. RWA can be regarded as an exposure weighted according to its 'riskiness'. This 'riskiness' depends on such factors as the loss given default (LGD) which in turn is driven by such factors as the amount of collateral or guarantees), the maturity of the exposure and the probability of default (PD) of the obligor.

As regards the group-wide framework for dealing with model uncertainty – as referred to in the section on 'Internal modelling' later on in this report – KBC has taken (and reported under pillar 1) additional RWA for known deficiencies and avoidable uncertainties into account for its PD models since mid-2010, for its LGD models since mid-2012 and for its EAD models since 2013. At year-end 2015, this additional RWA amounted to 3.1 billion euros for PD models, to 2.3 billion euros for LGD models and to 0.9 billion euros for EAD models. Moreover, in 2013, KBC started to capitalise unavoidable uncertainties in the (EAD, PD and LGD) models, which had an impact on RWA, as almost all the unavoidable uncertainties had already been included in the percentages calculated for PD, LGD or EAD. The remaining portion of unavoidable uncertainties (not yet included in the rates) still resulted in an additional RWA add-on of 0.05 billion euros for 2015.

The table below provides an overview of how Basel III credit risk EADs and RWA, on a fully loaded basis<sup>2</sup>, for the KBC group changed over 2015. This table shows the overall EAD and RWA figures, including non-material entities, the structured credit portfolio, CVA capital charges, additional RWA for model deficiencies and uncertainties, and regulatory capital add-ons. Please note that, in all other tables in this report, the scope will be limited to the material entities (see table above) and exclude the structured credit portfolio and additional RWA for unavoidable uncertainties.

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<sup>2</sup> Implies full IRB treatment for home country sovereign risk.



Entity	B III approach (at 31-12-2015) <sup>1</sup>	Credit RWA (in millions of EUR)			Exposure [EAD] (in millions of EUR)		
		31-12-2014	31-12-2015	Δ 2015 vs 2014	31-12-2014	31-12-2015	Δ 2015 vs 2014
KBC Bank	IRB Advanced	30 843	29 908	-935	135 189	143 739	8 550
CBC Banque	IRB Advanced	2 060	1 960	-100	11 135	11 428	293
ČSOB Czech Republic	IRB Advanced	9 681	10 286	605	32 910	38 012	5 102
KBC Credit Investments	IRB Advanced	2 737	3 016	279	13 195	16 642	3 447
KBC Commercial Finance	IRB Advanced	844	939	95	2 428	2 553	125
KBC Lease Belgium	IRB Advanced	1 346	1 478	132	2 112	2 225	112
KBC Immolease	IRB Advanced	316	339	23	734	775	40
K&H Bank	IRB Advanced	-	6 048	6 048		9 045	9 045
KBC Finance Ireland	IRB Advanced	732	284	-448	991	763	-227
KBC Bank Ireland	IRB Foundation	6 519	7 040	521	16 289	16 595	306
K&H Bank <sup>3</sup>	IRB Foundation	6 192	-	-6 192	8 266	-	-8 266
Antwerp Diamond Bank	IRB Foundation	1 173	-	-1 173	1 600	34	-1 566
KBC Financial Products	IRB Foundation	149	89	-60	576	413	-163
ČSOB Slovak Republic	IRB Foundation	3 280	3 832	552	7 410	8 644	1 234
CIBANK	Standardised	572	649	77	1 038	1 371	333
KBC Insurance		10 897	9 133	-1 764	2 945	2 469	-477
Other entities	Mixed	857	687	-170	1 735	1 599	-136
<b>Total<sup>2</sup></b>		<b>78 199</b>	<b>75 688</b>	<b>-2 511</b>	<b>238 554</b>	<b>256 307</b>	<b>17 753</b>

1 Basel III is the main approach pursued by a legal entity. Some entities report under IRB, but still have sub-portfolios or subsidiaries that are reported under the Standardised approach.

2 The figures shown are for the overall scope of credit risk RWA, including structured credit products, counterparty risk, CVA capital charges and other non-credit obligation assets, but excluding bonds in trading books and KBC intra-group exposures.

3 Change in regulatory approach (from IRB Foundation method to IRB Advance method)

Overall, there was a substantial increase in EAD and a decline in RWA. At KBC group level, credit RWA decreased by 2.5 billion euros, down 3% year-on-year. This decrease can be broken down as follows:

- The main driver was the decision by the Belgian regulator to lift the additional levels of conservatism which had been imposed for IRB Advanced approval in 2012. The abolishment of the imposed LGD floors and a regulatory add-on for unavoidable uncertainty resulted in a decrease of 3.8 billion euros in RWA.
- A reduction of 1.8 billion euros in RWA for KBC Group's participation in KBC Insurance following a capital decrease at KBC Insurance. This participation was calculated under the Danish compromise method (risk weighting of 370% applied to the value of KBC Group's equity participation in KBC Insurance).
- The divestment and restructuring programme agreed with the European Union caused RWA to decrease by 1 billion euros (i.e. due to the divestment of Antwerp Diamond Bank, the further run-down of the legacy portfolio and reduced funding to divested entities).
- Higher RWA caused by the migration to the IRB Advanced method for KBC Group's equity exposure (+0.2 billion euros), using the simple risk weight approach, and for the K&H Bank portfolio (+0.3 billion euros).
- The upward effect of model changes (approximately 2 billion euros) mainly on the PD model for large corporates and the pooling models for Irish mortgages. The impact of these two changes

has been included in the RWA shown in the table above, but not in the tables below. The conservatism in the PD model for large corporates was recently approved by the ECB. The model changes in respect of the pooling models for Irish mortgages are still awaiting approval by the ECB.

- Changes in exposure at KBC Bank (+8.5 billion euros), ČSOB Czech Republic (+5.1 billion euros) and KBC Credit Investments (+3.4 billion euros) were caused mainly by new production or by additional investments in the existing portfolio (e.g., additional investments in Spanish, Italian and Portuguese government bonds by KBC Credit Investments).

## Total exposure to credit risk

In the table below, exposures are broken down according to types of credit exposure. These types are equal for exposures subject to the Standardised or the IRB Foundation approach.

- On-balance-sheet assets (On-balance): this category contains assets, including equities in the banking book, whose contract is booked on the balance sheet of the entities in scope excluding securities in the trading book, repo-like instruments and – in the case of this publication – securitisation-related assets. On-balance-sheet assets are dealt with in the 'lending portfolio' sections.
- Off-balance-sheet assets (Off-balance): this category contains assets whose contract is not booked on the balance sheet of the entities in scope. The category excludes most derivative instruments, repo-like instruments and – in the case of this publication – securitisation-related assets. Derivative instruments related to selling credit protection, i.e. CDS that have been sold are included as off-balance-sheet assets when they do not relate to trading activity. Off-balance-sheet assets are dealt with in the 'lending portfolio' sections.
- Derivatives: this category contains all credit exposure arising from derivative transactions, such as Interest Rate Swaps (IRS), Forex deals, etc. (excluding CDS in the banking book, which are treated as an off-balance-sheet assets). Derivatives are dealt with in the section on 'Counterparty credit risk' and not in the 'Lending portfolio' sections.
- Repo-like transactions (Repo-like): this category contains all credit exposure arising from repo-, reverse repo and tri-party repo transactions in scope. More information on these transactions can be found in the section on 'Credit risk mitigation'.

EAD is the Exposure At Default after application of the credit conversion factor (and substitution due to guarantees for IRB foundation entities). For IRB exposures, the EAD is before the application of eligible collateral (as this is included in the LGD), for Standardised exposures the EAD is after the application of eligible collateral.

Exposure 31-12-2014* (in billions of EUR)	Lending (on-balance-sheet)	Lending (off-balance-sheet)	Derivatives	Repo-like transactions	Total
Total EAD	190	17	9	19	235
Total RWA	61	5	3	0	69

Exposure 31-12-2015* (in billions of EUR)	Lending (on-balance-sheet)	Lending (off-balance-sheet)	Derivatives	Repo-like transactions	Total
Total EAD	199	19	7	27	252
Total RWA	58	5	2	0	65

\* The securitisation on banking books, the exposure and RWA of the non-material entities, additional RWA for model deficiencies and uncertainties, and regulatory capital add-ons are not included in this table and the tables below.

## Credit risk in the lending portfolio

The lending portfolio excludes all derivatives (except for CDS in the banking book) and any repo-like exposure, as these are dealt with in the 'Counterparty credit risk' and 'Credit risk mitigation' sections. As mentioned above, exposure to securities in the trading book is also excluded. In light of the capital calculations, the corresponding issuer risk is included in trading market risk.

Lending portfolio [EAD] 31-12-2014 (in millions of EUR)	EAD of main categories	'Other'*	Total EAD
Subject to IRB approach	193 063	4 100	197 162
Subject to Standardised approach	6 068	3 827	9 895
Total	199 130	7 927	207 057

Lending portfolio [EAD] 31-12-2015 (in millions of EUR)	EAD of main categories	'Other'*	Total EAD
Subject to IRB approach	201 857	7 008	208 865
Subject to Standardised approach	7 632	935	8 567
Total	209 489	7 943	217 432

\* Exposure to 'Other' is given separately and is not included in the disclosures on concentrations and impaired exposure, since the data required to create the breakdowns is often missing. This category contains mostly 'other assets' (e.g., property and equipment, non-assignable accruals, cash balances at central banks), deferred tax assets and participations.

Overall information on the lending portfolio is divided into two tables below. One for a total overview of the exposure subject to the IRB approach and one for the overview of the exposure treated via the Standardised approach. This is because each approach has its own (regulatory) breakdown by type of exposure/asset class.

In the tables relating to concentrations, both are aggregated to provide a total overview of concentrations in the lending portfolio. This is done at the expense of best-efforts mapping into the mainstream asset classes. As regards the quality analysis, however, both the IRB and Standardised approaches are presented separately again, since the manner for indicating quality is not equal.

### Credit exposure subject to the IRB approach

The table below shows the total exposure calculated via the IRB approach broken down per asset class. The asset classes are those defined for the purpose of regulatory reporting according to the IRB approach:

- Sovereign: this category includes claims on public sector entities, regional governments and local authorities as long as they are categorised as 'Sovereign' by the local regulator. Multilateral development banks attracting a 0% risk weighting are included.
- Institutions: this category relates mainly to bank exposure. Claims on public sector entities, regional governments and local authorities that do not qualify as 'Sovereign' are also included in this category.
- Corporates: besides ordinary corporate exposure, this category also includes specialised lending exposure (such as project finance and commercial real estate) and non-bank financials.
- SMEs (treated as) Corporates: these are exposures fulfilling the necessary conditions (total annual sales of under 50 million euros) for determining the minimum capital requirements according to the capital weighting formula for corporate SMEs.
- Retail: this includes all types of retail exposure, excluding residential mortgages, such as personal loans and commercial credit to retail SMEs, for which the total exposure of the counterparty (or related group of the counterparty) does not exceed a threshold of 1 million euros. It should be noted that the IRB Foundation approach for retail exposure does not exist and that IRB Advanced is the only approach for this asset class.
- Residential mortgages: this category includes home loans to individuals, secured or partly secured by residential mortgages.
- Other: besides 'other assets', this category includes the residual value of leasing transactions and the deferred tax assets (DTA).
- Equity: this category includes shares and mutual funds.

IRB exposure [EAD] 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	(sub)Total*	Other	Equity	Total
Exposure	48 016	9 473	39 852	20 979	19 593	55 150	193 062	4 100	0	197 162
RWA	6 104	2 361	17 866	8 101	3 604	10 014	48 050	4 246	0	52 297

IRB exposure [EAD] 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	(sub)Total*	Other	Equity	Total
Exposure	52 216	9 166	41 059	20 271	20 571	58 574	201 857	4 346	2 662	208 865
RWA	6 014	2 203	17 182	7 470	3 526	9 817	46 212	4 646	9 591	60 449

\* The (sub)total is accounted for in the section on concentrations in the lending portfolio.

A substantial increase in the IRB **exposure** can be linked to (i) a higher 'Sovereign' exposure due to extra investments in mainly Spanish, Italian and Portuguese government bonds by KBC Credit Investments, (ii) an increase in the 'Corporates' and 'Residential Mortgages' exposure caused by new production in KBC's home markets (Belgium and certain Central European countries), (iii) the switch from the standardised approach to the IRB simple risk weight approach for calculating equity exposure.

The change in **RWA** in the IRB asset classes was caused mainly by the change in the calculation of the equity portfolio. Disregarding the impact of the 'Other' and 'Equity' asset classes, RWA was reduced significantly due to the:

- abolishment of the additional levels of conservatism, especially the add-ons and LGD floors imposed by the regulator.

- run-off of Antwerp Diamond Bank (after merging with KBC Bank), which reduced the 'Corporate' RWA by 459 million euros and, to a lesser degree, the RWA for the remaining asset classes.

### Credit exposure subject to the Standardised approach

The table below shows the exposure calculated via the Standardised approach broken down per exposure type. The exposure types are those defined for the purpose of regulatory reporting according to the Standardised approach, viz.:

- **Sovereign:** claims on central authorities and governments and other assets weighted at 0% (such as Cash and Cash at central banks).
- **RGLA:** claims on Regional Governments and Local Authorities independently if these qualify as 'Sovereign' under the IRB approach.
- **PSE:** claims on Public Sector Entities.
- **MDB:** claims on Multilateral Development Banks independently if these qualify as 'Sovereign' under the IRB approach.
- **International organisations:** claims on a specific list of organisations (e.g., International Monetary Fund, European Central Bank).
- **Institutions:** claims on banks.
- **Corporates:** claims on all corporate exposure, including small and medium-sized enterprises that are treated as corporate clients.
- **Retail:** claims on retail clients (including SMEs not qualifying for treatment as corporate clients). Most of these claims are related to mortgages and categorised under 'secured by real estate'.
- **Secured by real estate:** claims that are (fully) covered by real estate collateral via mortgages and including real estate leasing. These are extracted from the above categories (mostly retail or corporate).
- **Past due:** all exposure which is past due, meaning that it is more than 90 days in arrears. All past due exposure is extracted from all the other categories.
- **CIU:** claims on Collective Investment Undertakings.
- **High risk:** exposure that is not collateralised and/or not rated, attracting a risk-weighting equal to or higher than 150% and therefore considered 'high risk'. Past due and equity exposure are excluded.
- **Covered bonds:** exposure for which the credit risk is mitigated by risk positions on very highly rated governments, authorities or institutions. Past due, equity and high-risk claims are excluded.
- **Short term:** exposure (to institutions or to corporates) which is rated and has a maturity of less than three months. Past due, equity and high-risk claims are excluded. This exposure has been assigned to its respective exposure type, namely 'Institutions' or 'Corporates'.
- **Equity:** Shares and Mutual Funds. Previously the equities were reported under the asset class of the issuing entity of the equity instrument. Now all equity exposure is grouped on this single asset class.
- **Other:** all other claims (e.g., other assets).

Exposures are reported gross, after application of (i) guarantees by substitution, (ii) the Credit Conversion Factor, and before collateral application.

<b>Standardised exposure [EAD] 31-12-2014</b> (in millions of EUR)	<b>Exposure</b>	<b>RWA</b>
Sovereign	3 531	37
RGLA	165	37
PSE	0	0
MDB	11	1
International organisations	0	0
Institutions	107	56
Corporates	803	810
Retail	1 064	755
Secured by real estate	270	156
Past due	117	129
CIU	0	0
(sub)Total <sup>1</sup>	6 068	1 982
High risk	0	0
Covered bonds	0	0
Short term	0	0
Equity <sup>2</sup>	3 144	11 356
Other	682	391
<b>Total</b>	<b>9 895</b>	<b>13 729</b>
<b>Standardised exposure [EAD] 31-12-2015</b> (in millions of EUR)	<b>Exposure</b>	<b>RWA</b>
Sovereign	4 644	2
RGLA	205	45
PSE	0	0
MDB	5	0
International organisations	0	0
Institutions	500	81
Corporates	698	684
Retail	1 164	828
Secured by real estate	282	153
Past due	132	154
CIU	0	0
(sub)Total <sup>1</sup>	7 632	1.945
High risk	0	0
Covered bonds	0	0
Short term	0	0
Equity	226	493
Other	709	250
<b>Total</b>	<b>8 567</b>	<b>2.688</b>

1 Accounted for in the section on concentrations in the lending portfolio.

2 Includes KBC Insurance participation (2.5-billion-euro exposure).

There was a decline in exposure and in RWA for the standardised 'Equity' asset class, linked to the new calculation approach, namely the IRB simple risk weight approach. Until the IRB calculation using own estimated percentages for PD and LGD is approved by the regulator, the equity of ČSOB Czech Republic will be calculated under the Standardised approach.

This decline was slightly offset by the rise in the 'Sovereign' exposure due to an increase in other asset classes weighted at 0% (such as Cash and Cash at central banks).

## Concentrations to credit risk in the lending portfolio

In order to portray an overall picture of the lending portfolio, the exposure (EAD) calculated according to the Standardised approach and the IRB approach is aggregated based on the most material asset classes from the IRB approach. KBC believes this leads to a more transparent and uniform presentation of the concentrations to credit risk in the lending portfolio.

The exposure types under the Standardised approach are therefore mapped to the most applicable types/asset classes under IRB Foundation, viz.:

- **Secured by real estate:** this type of exposure is mapped according to the asset class of the underlying client from which the exposure originated, mostly 'Residential mortgages', 'Retail', 'Corporate' or 'SME Corporates'.
- **Corporates:** this type of exposure is mapped to 'Corporates' or 'SME Corporates' depending on the internally used segmentation.
- **Past due:** this type of exposure is mapped according to the asset class of the underlying client from which the exposure originated.
- **RGLA, PSE, International organisations and MDB:** these exposure types are mapped mostly to the 'Institutions' asset class, or when distinguishable as eligible sovereign exposure to the 'Sovereigns' asset class.
- **CIU:** this exposure is mapped to the 'Institutions' asset class.

For reasons of relevancy/materiality/data availability, the 'Other' category is not included in the following tables.

Unless otherwise stated, all exposure under the standardised and IRB Foundation approach is attributed to the asset class after PD substitution. This implies that if PD substitution is applied to a certain exposure to a borrower guaranteed by another party, the exposure will shift to the region, sector and exposure class of the guaranteeing party in the breakdowns below. For example, when a corporate entity is guaranteed by a bank and PD substitution is applied, this exposure will be incorporated under 'Institutions' in the breakdowns provided. This PD substitution logic does not apply to the IRB Advanced approach, since under this approach the effect of a guarantee received is included in the LGD measurement.

## Total credit exposure in the lending portfolio per geographic region

Exposure [EAD] 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Africa	206	336	235	0	3	0	781
Asia	146	3 092	1 419	71	6	0	4 734
Central and Eastern Europe & Russia	14 406	1 860	8 393	6 175	3 293	11 852	45 979
Of which							
Bulgaria	231	10	266	170	144	128	949
Czech Republic	8 202	772	4 749	3 999	1 761	7 746	27 229
Hungary	3 327	16	1 544	1 167	174	1 635	7 863
Poland	288	255	227	15	11	0	796
Russia	0	581	15	2	1	0	599
Slovak Republic	2 331	88	1 320	817	1 195	2 409	8 159
Latin America	1	30	74	17	7	0	129
Middle East	2	972	396	4	4	0	1 378
North America	511	413	1 419	156	47	0	2 546
Oceania	0	388	353	1	2	0	744
Western Europe	36 276	2 490	28 414	14 945	17 188	43 527	142 839
Of which							
Belgium	22 447	367	18 715	13 093	16 915	31 307	102 845
Ireland	772	3	2 181	1 015	1	12 105	16 078
<b>Total</b>	<b>51 547</b>	<b>9 580</b>	<b>40 703</b>	<b>21 370</b>	<b>20 550</b>	<b>55 380</b>	<b>199 130</b>

Exposure [EAD] 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Africa	199	204	231	27	3	0	664
Asia	195	1 773	1 182	49	3	0	3 201
Central and Eastern Europe & Russia	17 688	1 597	10 658	6 112	3 524	13 194	52 775
Of which							
Bulgaria	495	7	184	154	137	0	1 188
Czech Republic	10 099	737	6 261	3 787	1 872	9 014	31 770
Hungary	3 809	13	1 790	1 499	25	1 591	8 727
Poland	761	21	150	1	8	0	941
Russia	1	373	33	1	1	0	410
Slovak Republic	2 476	365	1 886	600	1 459	2 443	9 229
Latin America	22	21	84	1	4	0	131
Middle East	1	1 131	289	5	4	0	1 430
North America	1 057	534	1 746	25	32	0	3 394
Oceania	0	575	233	0	2	0	811
Western Europe	37 698	4 030	27 505	14 350	17 865	45 636	147 084
Of which							
Belgium	20 896	292	19 169	12 912	17 667	33 642	104 577
Ireland	968	5	2 041	940	1	11 970	15 925
<b>Total</b>	<b>56 859</b>	<b>9 865</b>	<b>41 928</b>	<b>20 569</b>	<b>21 437</b>	<b>58 831</b>	<b>209 489</b>

The geographic regions in the above table are those where each borrower (or guarantor) is situated. The table shows that the KBC home markets comprise mainly Belgium (50%) and the four CEE countries (Bulgaria, Czech Republic, Hungary, Slovak Republic) (24%), which combined represented 74% of exposures in 2015. They even represented more than 80% of EAD for the 'Residential Mortgages' exposure class, almost 99% for 'Retail' and more than 92% for 'SME Corporates'.



For institutions, exposures outside the home markets were predominantly in Western Europe (mainly Germany, France and Spain) and in Asia (mainly China).

The material increase observed for West European sovereign exposures was linked to the fact that new investments were made in (mainly Spanish, Italian and Portuguese) government bonds. The rise in the 'Residential Mortgage' exposure class was caused by new production. Changes in the Czech Republic were mainly in the 'Sovereign' exposure class, due to an increase in transactions with the Czech central bank, and in the 'Corporates' exposure, caused primarily by new production.

### Total credit exposure in the lending portfolio per sector

Exposure [EAD] 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Agriculture, Farming & Fishing	0	0	370	1 290	2 256	0	3 915
Authorities	51 423	0	390	1	1	0	51 815
Automotive	0	0	1 707	1 056	509	0	3 272
Building & Construction	0	0	3 226	1 394	1 473	0	6 093
Chemicals	0	0	1 160	419	65	0	1 645
Commercial Real Estate	0	0	6 440	3 481	1 110	0	11 031
Distribution	0	0	5 172	4 063	2 599	0	11 833
Electricity	0	0	2 140	355	19	0	2 514
Finance & Insurance	124	9 580	3 605	227	275	0	13 811
Food Producers	0	0	1 277	409	191	0	1 877
Metals	0	0	1 218	693	251	0	2 161
Oil, Gas & Other Fuels	0	0	1 168	7	3	0	1 179
Private Persons	0	0	0	73	6 269	55 380	61 721
Services	0	0	6 319	4 494	3 904	0	14 718
Other*	0	0	6 512	3 406	1 625	0	11 542
<b>Total</b>	<b>51 547</b>	<b>9 580</b>	<b>40 703</b>	<b>21 370</b>	<b>20 550</b>	<b>55 380</b>	<b>199 130</b>

Exposure [EAD] 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Agriculture, Farming & Fishing	0	0	502	1 479	2 288	0	4 269
Authorities	56 053	204	461	1	1	0	56 720
Automotive	21	0	1 934	1 098	499	0	3 552
Building & Construction	0	0	3 018	1 388	1 523	0	5 929
Chemicals	0	0	1 171	449	55	0	1 675
Commercial Real Estate	0	0	6 933	3 033	1 190	0	11 157
Distribution	0	0	4 968	4 132	2 550	0	11 650
Electricity	0	0	2 354	181	19	0	2 555
Finance & Insurance	471	9 643	3 310	295	305	0	14 024
Food Producers	0	0	1 299	356	184	0	1 840
Metals	0	0	1 072	535	246	0	1 854
Oil, Gas & Other Fuels	0	0	1 170	25	3	0	1 198
Private Persons	0	0	187	89	6 964	58 831	66 070
Services	315	17	6 738	4 428	4 080	0	15 578
Other*	0	0	6 809	3 079	1 529	0	11 418
<b>Total</b>	<b>56 859</b>	<b>9 865</b>	<b>41 928</b>	<b>20 569</b>	<b>21 437</b>	<b>58 831</b>	<b>209 489</b>

\* All sectors with a concentration of less than 0.75% of the total EAD are aggregated into this category.

In view of KBC's substantial retail activities in most markets, 'Private persons' represents a large share of this sector distribution. The exposure to 'Private persons' rose significantly due to new production in residential mortgages. The other main changes in exposure were: (i) an increase in 'Authorities' due to the purchase of bonds, (ii) increased lending in the (diversified) 'Services' sector and (iii) a rise in 'Finance & Insurance' due to the purchase of bonds.

### Maturity analysis of the total credit exposure in the lending portfolio

Residual maturity 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
<1 year	10 375	5 923	17 717	7 846	3 331	731	45 923
=>1 to <5 years	14 729	1 616	8 237	4 112	5 986	1 832	36 513
=>5 to <10 years	18 334	1 380	4 784	3 189	4 533	26 908	59 129
=>10 years	7 725	77	4 433	4 255	4 344	25 786	46 620
Until Further Notice*	384	584	5 533	1 968	2 355	123	10 946
<b>Total</b>	<b>51 547</b>	<b>9 580</b>	<b>40 703</b>	<b>21 370</b>	<b>20 550</b>	<b>55 380</b>	<b>199 130</b>

Residual maturity 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
<1 year	12 646	4 199	19 842	7 092	3 137	795	47 710
=>1 to <5 years	15 579	2 275	7 989	4 289	6 494	2 260	38 886
=>5 to <10 years	20 139	2 162	4 872	3 294	5 007	16 120	51 593
=>10 years	8 175	17	4 765	4 434	4 357	39 434	61 180
Until Further Notice*	320	1 212	4 460	1 461	2 443	223	10 120
<b>Total</b>	<b>56 859</b>	<b>9 865</b>	<b>41 928</b>	<b>20 569</b>	<b>21 437</b>	<b>58 831</b>	<b>209 489</b>

\* Exposure without a concrete end-date is assigned to the 'Until Further Notice' category.

About 41% of the lending portfolio will mature within five years. Within the 'Institutions' and 'Corporates' exposure classes, this percentage even reached 66%. The longest maturity bucket is mainly concentrated in the 'Residential Mortgages' class.

The rise in credit exposure with a residual maturity of 10 years and longer, was caused primarily by new production in the 'Residential mortgages' category. The purchase of new bonds (with different residual maturities) and new production (mainly in KBC's home markets) were influential in increasing the 'Sovereign' and 'Corporates' exposures, respectively. This influence can be seen in the different maturity classes.

## Total credit exposure in the lending portfolio per product type

Exposure [EAD] 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Guarantee	213	398	4 170	1 410	698	0	6 889
Debt instrument	41 364	2 215	1 429	2	0	0	45 010
Equity	0	21	102	14	0	0	137
Leasing	30	0	1 043	901	1 214	0	3 189
Home loans <sup>1</sup>	0	0	0	0	<sup>1 0441</sup>	55 380	56 424
Other lending	9 939	6 946	33 959	19 043	17 594	0	87 482
<b>Total</b>	<b>51 547</b>	<b>9 580</b>	<b>40 703</b>	<b>21 370</b>	<b>20 550</b>	<b>55 380</b>	<b>199 130</b>

Exposure [EAD] 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total
Guarantee	301	417	2 356	1 211	768	0	5 053
Debt instrument	42 389	3 357	629	2	0	0	46 377
Equity	0	0	0	0	0	0	0
Leasing	26	4	1 046	980	1 499	0	3 554
Home loans <sup>1</sup>	0	0	0	0	<sup>1 1201</sup>	55 430	56 550
Other lending	14 143	6 086	37 897	18 377	18 051	3 400	97 954
<b>Total</b>	<b>56 859</b>	<b>9 865</b>	<b>41 928</b>	<b>20 569</b>	<b>21 437</b>	<b>58 831</b>	<b>209 489</b>

<sup>1</sup> Home loans to individuals which are not (partly) secured by residential mortgages.

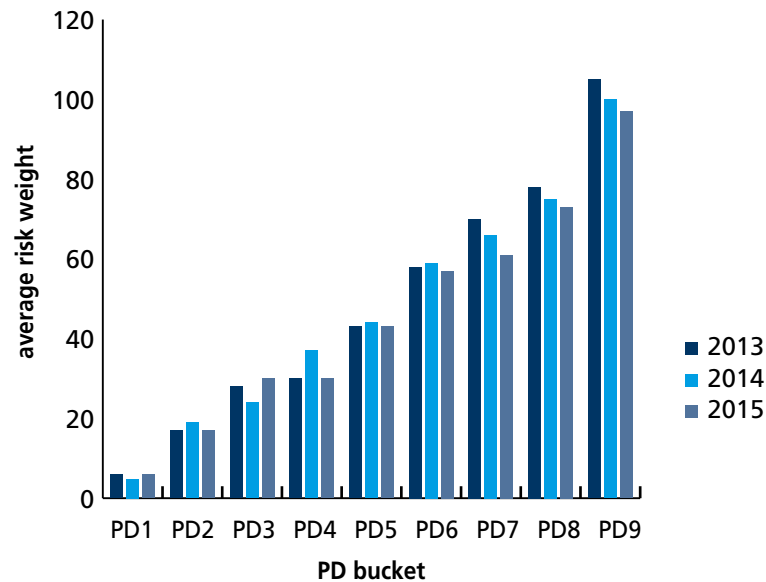
The distribution over the different product types remained unchanged. The 'Other lending' category continued to account for the majority of the lending portfolio, which implies that all the significant changes (due to new production) took place in this category. The change in the 'Debt instruments' category was due to the purchase of (mainly sovereign and covered) bonds.

## Quality analysis of the total credit exposure in the lending portfolio – IRB

The graph and table below show credit risk exposure per Probability of Default (PD) class in terms of average risk weight or EAD at year-end. Only the lending exposure subject to the IRB approach is captured in this table. A similar overview of the exposure subject to the Standardised approach appears in a subsequent table. The exposure (EAD) is presented together with the relevant RWA per PD rating.

Unlike the previous tables, the table below shows exposure before the application of guarantees. This means that there is no shift in asset class due to PD substitution (for the IRB foundation exposure). The RWA for the exposure, however, is presented after all collateral and guarantees have been applied. This allows an indication to be given of the mean RWA for a certain original exposure.

### IRB exposure - credit quality analysis



The latter is also reflected in the ‘weighted average’ percentage.

Generally, the average weighting percentage increases as PD ratings worsen, which is in line with the principle that higher risks attract greater amounts of capital.

The PD scale presented is KBC’s Master Scale for Probability of Default. For more information in this regard, please refer to the ‘Internal modelling’ section.

The average risk weight decreased slightly in 2015, falling from 25% to 23%, due to new production in lower risk weight classes (mainly the purchase of new bonds in the ‘Sovereign’ class and new production in the ‘Residential Mortgages’ and ‘Corporate’ classes)

**In millions of EUR – 31-12-2014**

PD Master scale	Exposure [EAD] RWA Average in %	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total*
1 [0.00% - 0.10%]	Sum of EAD	42 441	4 667	5 879	596	3 460	24 612	81 655
	Sum of RWA	2 677	656	698	73	118	1 563	5 785
	weighted average	6%	14%	12%	12%	3%	6%	7%
2 [0.10% - 0.20%]	Sum of EAD	1 789	1 879	4 559	1 595	3 215	4 075	17 112
	Sum of RWA	622	661	1 222	277	179	366	3 327
	weighted average	35%	35%	27%	17%	6%	9%	19%
3 [0.20% - 0.40%]	Sum of EAD	124	537	7 068	3 577	2 545	4 344	18 195
	Sum of RWA	53	122	2 673	891	273	509	4 520
	weighted average	43%	23%	38%	25%	11%	12%	25%
4 [0.40% - 0.80%]	Sum of EAD	3 310	1 594	6 887	3 919	3 001	5 984	24 695
	Sum of RWA	2 602	555	3 352	1 488	549	959	9 505
	weighted average	79%	35%	49%	38%	18%	16%	38%
5 [0.80% - 1.60%]	Sum of EAD	61	161	5 176	3 671	2 143	4 633	15 846
	Sum of RWA	50	55	3 532	1 778	606	1 406	7 427
	weighted average	82%	34%	68%	48%	28%	30%	47%
6 [1.60% - 3.20%]	Sum of EAD	157	328	3 445	3 025	2 319	2 050	11 323
	Sum of RWA	11	125	2 986	1 652	862	1 050	6 685
	weighted average	7%	38%	87%	55%	37%	51%	59%
7 <sup>1</sup> [3.20% - 6.40%]	Sum of EAD	109	214	1 944	1 353	989	960	5 570
	Sum of RWA	67	122	1 854	840	335	524	3 742
	weighted average	61%	57%	95%	62%	34%	55%	67%
8 [6.40% - 12.80%]	Sum of EAD	9	23	628	441	521	345	1 966
	Sum of RWA	18	14	652	333	202	255	1 474
	weighted average	196%	63%	104%	76%	39%	74%	75%
9 [12.80% - 100.00%]	Sum of EAD	3	52	492	444	620	1 279	2 889
	Sum of RWA	5	14	593	399	315	1 589	2 914
	weighted average	188%	28%	120%	90%	51%	124%	101%
Total exposure		48 002	9 455	36 078	18 620	18 814	48 281	179 251
Total risk-weighted assets		6 104	2 324	17 562	7 732	3 437	8 221	45 379
Total weighted average		13%	25%	49%	42%	18%	17%	25%

\* Unrated exposure has been assigned a PD of 4.53% and been allocated to PD bucket 7.

In millions of EUR – 31-12-2015

PD Master scale	Exposure [EAD] RWA Average in %	Sovereign	Institutions	Corporates	SME Corporates	Retail	Residential Mortgages	Total*
1 [0.00% - 0.10%]	Sum of EAD	47 278	3 922	6 759	672	3 969	27 104	89 704
	Sum of RWA	3 274	662	802	74	132	1 754	6 697
	weighted average	7%	17%	12%	11%	3%	6%	7%
2 [0.10% - 0.20%]	Sum of EAD	421	2 729	4 580	1 844	3 485	4 217	17 276
	Sum of RWA	99	614	1 422	314	179	413	3 040
	weighted average	23%	23%	31%	17%	5%	10%	18%
3 [0.20% - 0.40%]	Sum of EAD	4 118	458	7 160	3 558	2 979	5 092	23 365
	Sum of RWA	2 478	174	2 544	896	332	594	7 017
	weighted average	60%	38%	36%	25%	11%	12%	30%
4 [0.40% - 0.80%]	Sum of EAD	48	1 378	7 592	3 813	3 088	6 783	22 704
	Sum of RWA	72	454	3 448	1 385	524	1 067	6 950
	weighted average	148%	33%	45%	36%	17%	16%	31%
5 [0.80% - 1.60%]	Sum of EAD	86	194	5 673	3 500	2 250	4 399	16 102
	Sum of RWA	33	79	3 694	1 674	655	1 308	7 443
	weighted average	38%	40%	65%	48%	29%	30%	46%
6 [1.60% - 3.20%]	Sum of EAD	189	81	3 091	2 759	2 079	2 280	10 479
	Sum of RWA	28	22	2 626	1 422	714	1 179	5 990
	weighted average	15%	27%	85%	52%	34%	52%	57%
7* [3.20% - 6.40%]	Sum of EAD	52	286	1 585	1 209	933	802	4 867
	Sum of RWA	10	145	1 258	773	348	479	3 013
	weighted average	18%	51%	79%	64%	37%	60%	62%
8 [6.40% - 12.80%]	Sum of EAD	10	34	733	419	481	318	1 995
	Sum of RWA	25	9	598	345	189	253	1 420
	weighted average	257%	26%	82%	82%	39%	80%	71%
9 [12.80% - 100.00%]	Sum of EAD	0	42	313	339	573	1 461	2 730
	Sum of RWA	1	14	357	307	276	1 657	2 612
	weighted average	164%	34%	114%	91%	48%	113%	96%
Total exposure		52 202	9 125	37 486	18 113	19 838	52 457	189 221
Total risk-weighted assets		6 018	2 172	16 750	7 188	3 349	8 704	44 182
Total weighted average		12%	24%	45%	40%	17%	17%	23%

\* Unrated exposure has been assigned a PD of 4.53% and been allocated to PD bucket 7.

With reference to EAD and LGD, key data are shown in the table below (i.e. EAD, the outstanding amount, the undrawn amount, the EAD-weighted mean Credit Conversion Factor (CCF %) applicable to the undrawn amount and the EAD-weighted mean LGD percentages). Only exposures where KBC uses own CCF and LGD estimates are shown (IRB Advanced approach).

Further detailed quality information on IRB Advanced exposure, 31-12-2014

(in millions of EUR)

Asset class	PD	1	2	3	4	5	6	7	8	9	Total
Sovereign	EAD	39 872	1 789	62	14	46	156	108	9	2	42 059
	Outstanding amount	39 285	1 777	59	12	45	155	107	9	1	41 452
	Undrawn amount	794	104	8	6	13	24	22	2	5	978
	Average CCF %	74%	11%	40%	41%	6%	5%	4%	6%	5%	62%
	LGD %	18%	25%	10%	76%	34%	2%	17%	42%	49%	19%
Institutions	EAD	4 409	1 804	536	1 572	161	328	194	20	52	9 076
	Outstanding amount	3 257	1 232	415	1 074	90	214	104	14	37	6 435
	Undrawn amount	1 226	577	125	1 061	72	114	95	10	15	3 295
	Average CCF %	93%	99%	96%	47%	98%	99%	95%	60%	99%	79%
	LGD %	20%	32%	20%	20%	15%	16%	13%	12%	5%	22%
Corporates	EAD	5 798	4 461	6 333	6 331	4 445	2 537	1 636	446	455	32 443
	Outstanding amount	3 825	3 228	4 719	4 747	3 569	2 093	1 376	375	397	24 329
	Undrawn amount	7 383	3 742	5 414	3 805	2 466	1 105	583	183	72	24 753
	Average CCF %	27%	27%	26%	37%	31%	37%	44%	38%	70%	30%
	LGD %	18%	28%	29%	27%	29%	27%	25%	18%	21%	26%
SMEs	EAD	592	1 570	3 339	3 511	3 181	2 560	1 100	369	395	16 617
	Outstanding amount	537	1 419	3 005	3 062	2 697	2 243	991	315	364	14 631
	Undrawn amount	180	442	905	936	941	779	271	107	64	4 626
	Average CCF %	30%	31%	32%	40%	43%	35%	34%	48%	45%	37%
	LGD %	21%	22%	21%	23%	23%	23%	20%	19%	18%	22%
Retail	EAD	3 461	3 215	2 545	3 001	2 143	2 319	990	521	620	18 814
	Outstanding amount	2 789	2 962	2 291	2 645	1 964	2 063	914	475	593	16 696
	Undrawn amount	810	515	494	755	418	1 811	165	252	42	5 260
	Average CCF %	77%	46%	49%	33%	41%	13%	44%	16%	59%	36%
	LGD %	27%	22%	25%	28%	31%	34%	26%	31%	28%	27%
Residential mortgages	EAD	24 612	4 075	4 344	5 984	4 633	2 050	960	345	1 279	48 281
	Outstanding amount	24 567	4 075	4 288	5 913	4 538	1 845	959	344	1 273	47 802
	Undrawn amount	45	0	55	71	94	204	0	1	6	478
	Average CCF - %	69%	-	99%	98%	100%	97%	90%	52%	99%	96%
	Average LGD - %	13%	14%	36%	20%	20%	28%	22%	19%	22%	17%

Further detailed quality information on IRB Advanced exposure, 31-12-2015

(in millions of EUR)

Asset class	PD	1	2	3	4	5	6	7	8	9	Total
Sovereign	EAD	44 560	418	4 040	48	76	189	52	10	0	49 393
	Outstanding amount	43 966	403	3 948	43	73	188	52	10	0	48 684
	Undrawn amount	858	86	102	5	13	41	14	0	0	1 120
	Average CCF %	69%	16%	90%	73%	20%	2%	2%	0%	85%	63%
	LGD %	22%	22%	42%	32%	17%	5%	5%	49%	28%	23%
Institutions	EAD	3 752	2 550	454	1 376	194	80	263	32	41	8 743
	Outstanding amount	2 592	1 972	326	975	94	54	107	20	10	6 152
	Undrawn amount	1 284	586	133	926	100	27	156	12	31	3 255
	Average CCF %	90%	98%	95%	43%	100%	93%	100%	96%	100%	78%
	LGD %	25%	21%	28%	20%	16%	9%	12%	4%	5%	22%
Corporates	EAD	6 664	4 431	6 726	7 278	5 162	2 684	1 427	612	275	35 257
	Outstanding amount	4 425	3 127	5 234	5 380	4 125	2 162	926	487	218	26 083
	Undrawn amount	9 124	4 996	5 583	4 671	3 055	1 400	788	248	80	29 946
	Average CCF %	24%	21%	22%	35%	30%	35%	60%	48%	67%	27%
	LGD %	19%	32%	26%	25%	28%	29%	22%	15%	20%	25%
SMEs	EAD	668	1 792	3 481	3 659	3 273	2 588	1 093	383	314	17 250
	Outstanding amount	614	1 582	3 115	3 101	2 773	2 185	933	347	283	14 932
	Undrawn amount	215	546	1 013	1 119	951	756	263	72	54	4 991
	Average CCF %	25%	33%	31%	42%	45%	45%	52%	41%	53%	40%
	LGD %	19%	21%	22%	24%	25%	23%	24%	25%	20%	19%
Retail	EAD	3 969	3 485	2 979	3 088	2 250	2 079	933	481	573	19 838
	Outstanding amount	3 154	3 160	2 613	2 605	2 020	1 848	777	450	538	17 165
	Undrawn amount	892	582	599	704	384	317	196	46	47	3 767
	Average CCF %	90%	52%	59%	60%	58%	67%	78%	62%	73%	67%
	LGD %	26%	20%	25%	25%	28%	29%	28%	28%	25%	25%
Residential mortgages	EAD	27 104	4 217	5 092	6 783	4 399	2 280	802	318	1 461	52 457
	Outstanding amount	26 010	4 055	4 945	6 678	4 209	1 963	780	312	1 451	50 403
	Undrawn amount	1 094	162	147	106	190	317	23	7	10	2 054
	Average CCF - %	100%	0%	99%	87%	78%	95%	100%	100%	100%	100%
	Average LGD - %	14%	14%	19%	17%	20%	23%	18%	17%	19%	16%



The table shows that LGDs are the lowest for 'Residential mortgages', which by definition have a partly or fully secured nature. Furthermore, LGDs are on average higher for 'Corporates' than for 'SMEs'. The relationship between PDs and LGDs is not a strong one. LGDs are driven by risk mitigators, such as collateral or guarantees, and through a product- or country-specific calibration.

Strictly pursuant to Basel III pillar 3 rules, KBC should disclose a comparison of 'expected losses' with 'actual losses' over a longer period in time and broken down by asset class. Unfortunately, historical loan loss information is not available at Basel III asset class level but only at own segmentation level. Therefore, KBC has chosen to disclose this comparison only for the total portfolio that is subject to the IRB Advanced approach.

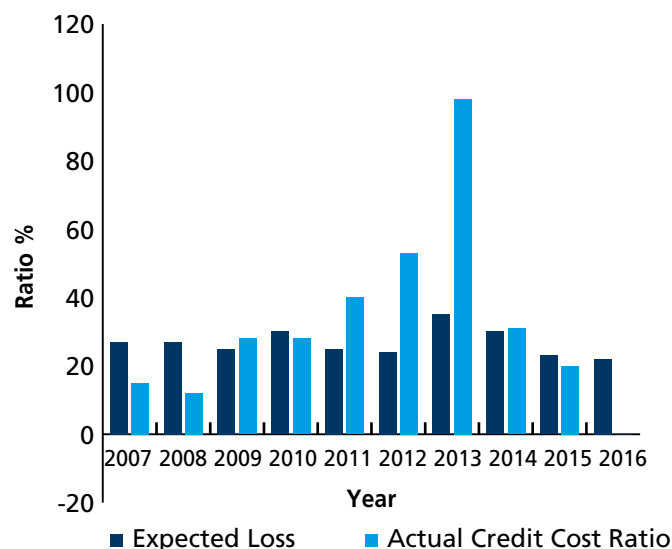
The graph compares KBC's EL ratio (EL related to the EAD) with the actual average credit cost percentage. As EL expresses the modelled expectations with a one-year time horizon, there is a time lag compared to the credit cost ratio. The credit cost ratio shown for 2015 incorporates the actual losses over 2015, whereas the EL for 2015 is calculated on the basis of the portfolio at year-end 2014 and is thus a modelled expectation for 2015. This also explains why only the EL (modelled expectations) is given for 2016. Please note that only the normal (i.e. non-default) portfolio is taken into account for the EL calculation. Exposures to the low-default 'Sovereigns' and 'Institutions' classes have been excluded from this comparison, which means that the focus lies with the corporate, SME and retail credit portfolio.

Given the focus on the IRB Advanced portfolio, the scope of the graph changes over time. Up to 2009, it had been limited to the Belgian retail portfolio. KBC Homeloans (the retail portfolio of KBC Bank Ireland) only switched from the Standardised to the IRB approach halfway through 2008 and was thus only incorporated into the graph below from 2009 on. As of 2013, the graph includes both the retail and corporate/SME portfolio of those entities that have adopted the IRB Advanced approach, as well as the retail portfolio of KBC Bank Ireland and K&H Bank (both IRB Foundation entities). In 2016, the

corporate and SME portfolios of K&H will be added to the scope, reflecting the adoption of the IRB Advanced approach at K&H.

Due to the regulatory methodology used (the PD is through the cycle combined with a downturn LGD), the EL remains rather stable over time. The credit cost ratio is a point-in-

**Comparison historic credit cost and expected loss ratio  
Exposure subject to IRB Advanced**



time calculation. In a booming economy (until 2009), actual losses are lower than modelled losses, whereas in a recession (from 2010 to 2013), actual losses are higher than modelled losses.

In 2013, actual losses went up mainly on account of KBC Ireland. From 2014 on, actual losses fell and became more in line with – and even lower than – the modelled losses.

### Quality analysis of the total credit exposure in the lending portfolio – Standardised

As mentioned above, only the lending exposure subject to the Standardised approach is dealt with in this section.

KBC uses the regulatory defined risk buckets to assess the quality and linked risk weight for all exposure calculated according to the Standardised approach. It uses external ratings from S&P's, Fitch and Moody's to define the risk bucket of exposures. If there are three external ratings with different risk weights attached to them, the risk weight corresponding with the second best external rating is applied.

The table below shows credit risk exposure calculated according to the Standardised approach and broken down by type of exposure and risk bucket.

Much of the exposure is assigned to the unrated bucket. This includes the 'Secured by real estate' exposure, which does not require a rating. Obviously, the 'Retail' exposure is assigned to the unrated bucket. Due to the absence of external ratings, the RWA of the KBC standardised portfolio is primarily volume-driven over time.

Standardised exposure [EAD] 31-12-2014 (in millions of EUR)	Quality steps						Unrated	Total
	1	2	3	4	5	6		
Sovereign	3 238	235	0	58	0	0	0	3 531
RGLA	0	0	0	0	0	0	165	165
PSE	0	0	0	0	0	0	0	0
MDB	10	0	0	0	0	0	1	11
International organisations	0	0	0	0	0	0	0	0
Institutions	33	10	40	0	0	0	24	107
Corporates	0	3	0	36	0	0	764	803
Retail	0	0	0	0	0	0	1 064	1 064
Secured by real estate	0	0	0	47	0	0	223	270
Past due	0	0	0	0	0	0	117	117
High risk	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0
CIU	0	0	0	0	0	0	0	0
Short term	0	0	0	0	0	0	0	0
Equity*	0	2 945	0	0	0	0	199	3 144
Other	0	0	0	0	0	0	682	682
<b>Total</b>	<b>3 282</b>	<b>3 193</b>	<b>40</b>	<b>140</b>	<b>0</b>	<b>0</b>	<b>3 240</b>	<b>9 895</b>

Standardised exposure [EAD] 31-12-2015 (in millions of EUR)	Quality steps							Unrated	Total
	1	2	3	4	5	6			
Sovereign	4 148	496	0	0	0	0	0	0	4 644
RGLA	0	0	0	0	0	0	0	205	205
PSE	0	0	0	0	0	0	0	0	0
MDB	5	0	0	0	0	0	0	0	5
International organisations	0	0	0	0	0	0	0	0	0
Institutions	204	15	56	0	0	0	0	224	500
Corporates	0	0	0	180	0	0	0	518	698
Retail	0	0	0	0	0	0	0	1 164	1 164
Secured by real estate	0	0	0	35	0	0	0	247	282
Past due	0	0	0	0	0	0	0	132	132
High risk	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0	0
CIU	0	0	0	0	0	0	0	0	0
Short term	0	0	0	0	0	0	0	0	0
Equity*	0	0	0	0	0	0	0	226	226
Other	0	0	0	0	0	0	0	709	709
<b>Total</b>	<b>4 358</b>	<b>511</b>	<b>56</b>	<b>215</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3 427</b>	<b>8 567</b>

\* New asset class also containing the participation of KBC Group NV in KBC Insurance (2.9-billion-euro exposure).

The total Standardised exposure declined mainly because of the transition from the Standardised approach to the IRB simple risk weight approach for the 'Equity' class, but was slightly offset by the increase in the 'Sovereign' exposure due to a rise in 'other assets weighted at 0%' (such as Cash and Cash at central banks).

## Impaired credit exposure in the lending portfolio

The tables show impaired credit risk exposure per geographic region and per sector.

They include all exposure in the lending portfolio, independently of the regulatory approach or the assigned exposure type or asset class. If exposure is treated according to the IRB approach, impairment is determined in the same way as for accounting purposes, i.e. the PD assigned to the obligor of the exposure is PD 10, 11 or 12. If exposure is treated according to the Standardised approach, impairment is determined by the fact that provisions were set for the exposure and/or as 'past due' in this section. It is worth mentioning that the EAD reported here and originated via the Standardised approach, is net of provisions. For exposure calculated according to the IRB approach, this is not the case.

<b>Impaired exposure per geographic region [EAD]</b> (in millions of EUR)	<b>31-12-2014</b>	<b>31-12-2015</b>
Africa	0	1
Asia	74	88
Central and Eastern Europe & Russia	2 035	1 795
Latin America	3	1
Middle East	5	6
North America	290	302
Oceania	132	134
Western Europe	11 420	10 439
Of which Belgium	2 721	2 739
Of which Ireland	7 761	6 924
<b>Total</b>	<b>13 959</b>	<b>12 766</b>
<b>Impaired exposure per sector [EAD]</b> (in millions of EUR)	<b>31-12-2014</b>	<b>31-12-2015</b>
Agriculture, Farming & Fishing	125	120
Automotive	72	79
Building & Construction	547	508
Chemicals	69	44
Commercial Real Estate	2 500	2 336
Distribution	1 049	1 095
Electrotechnics	35	34
Finance & Insurance	76	79
Hospitality	415	380
IT	100	115
Machinery & Heavy Equipment	59	41
Metals	137	174
Private Persons	7 092	5 974
Services	895	764
Shipping	109	61
Textile & Apparel	60	56
Other*	617	6
<b>Total</b>	<b>13 959</b>	<b>12 766</b>

\* All sectors with a concentration of less than 1% of the total EAD are aggregated into the 'Other' category.

Overall, there was a decrease in the impaired portfolio especially in KBC's home markets and in the 'Private Persons' sector. This decrease was situated mainly at KBC Bank Ireland, where certain counterparties were 'cured' and others 'settled', with the latter generating significant amounts of cash from the sale of collateral.

Provisioning for impaired exposures in 2015:

Provision per geographic region [EAD] (in millions of EUR)	31-12-2015
Africa	0
Asia	33
Central and Eastern Europe & Russia	886
Latin America	1
Middle East	1
North America	73
Oceania	63
Western Europe	6 649
<i>Of which Belgium</i>	1 189
<i>Of which Ireland</i>	5 118
Total	7 706

For all data on impairment, provisions and value adjustments, reference is made to the 'Consolidated financial statements' section of the 2015 Annual Report for KBC Group NV.

## Counterparty credit risk

KBC defines counterparty credit risk as the credit risk resulting from over-the-counter transactions (i.e. where there is no formal exchange), which are in the main Credit Default Swaps (CDS), interest-related transactions (e.g., Interest Rate Swaps), currency-related transactions (e.g., FX swap), equity-related transactions or commodity transactions. In principle, it includes repo-like transactions, which are measured in-house and managed like other over-the-counter transactions. However, repo-like transactions are not covered in this part of the report, but instead are dealt with in the section on 'Credit risk mitigation'.

No distinction is made between counterparty credit risk arising from exposures subject to the IRB approach or to the Standardised approach, nor from the banking or trading book.

The tables show the counterparty credit risk for the entities referred to in the scope description of credit risk disclosures.

Counterparty limits are set for each individual counterparty, taking into account the general rules and procedures set out in a group-wide policy. Sub-limits can be put in place for each product type. The risk is monitored by a real-time limit control system, allowing dealers to check limit availability at any time. A pre-deal check occurs before the conclusion of each transaction using 'heavy' add-ons which are higher than the regulatory add-ons.

Close-out netting and collateral techniques are used wherever possible (subject to legal certainty about applicability). These techniques are discussed in the next section. The netting benefits and risk mitigation through collateral for OTC-derivative transactions are however already shown in the bottom part of the table below.

Transaction type 31-12-2014 (in millions of EUR)	Marked-to-market	Add-on	Counterparty risk [EAD]	Notional value of contracts	RWA*
CDS bought - Trading	5	242	247	4 201	32
CDS sold - Trading	18	24	42	4 100	3
Other	0	0	0	0	0
Total credit derivatives	23	266	289	8 301	36
Interest Rate Swaps (IRS)	6 486	1 218	7 971	191 005	1 513
Caps/Floors	592	179	774	23 235	157
Other	640	333	982	30 498	245
Total interest-related transactions	7 718	1 729	9 727	244 737	1 915
FX forward	239	185	441	13 356	118
FX swap	1 239	828	2 081	76 309	178
Cross Currency IRS	666	1 110	1 803	27 107	269
Other	133	163	299	14 461	43
Total currency-related transactions	2 277	2 286	4 624	131 234	608
Equity swaps	2 115	1 523	3 638	39 960	434
Equity options	185	117	302	2 041	19
Total equity-related transactions	2 300	1 640	3 941	42 001	453
Total commodity transactions	50	58	109	573	18
Gross counterparty risk	12 367	5 980	18 691	426 846	
Netting benefit (-)			-9 751		
Total counterparty risk after netting			8 940		
Collateral benefit (-)			-2 612		
Total net Counterparty risk			6 328		3 030

\* Based on the net counterparty risk of the transaction type.

Transaction type 31-12-2015 (in millions of EUR)	Marked-to-market	Add-on	Counterparty risk [EAD]	Notional value of contracts	RWA*
CDS bought - Trading	3	28	31	399	4
CDS sold - Trading	0	3	3	331	1
Other	0	0	0	0	0
Total credit derivatives	3	31	35	730	5
Interest Rate Swaps (IRS)	5 496	1 421	7 142	208 767	1 033
Caps/Floors	486	119	606	18 259	73
Other	483	190	678	29 913	73
Total interest-related transactions	6 465	1 731	8 426	256 939	1 179
FX forward	146	200	361	14 057	86
FX swap	786	912	1 709	85 212	130
Cross Currency IRS	664	547	1 227	29 557	181
Other	104	156	262	12 866	44
Total currency-related transactions	1 700	1 814	3 558	141 693	441
Equity swaps	1 803	1 365	3 169	36 858	358
Equity options	159	138	297	2 427	26
Total equity-related transactions	1 962	1 502	3 465	39 285	384
Total commodity transactions	128	110	240	1 094	22
Gross counterparty risk	10 259	5 188	15 725	439 740	
Netting benefit (-)			-8 259		
Total counterparty risk after netting			7 466		
Collateral benefit (-)			-2 432		
Total net Counterparty risk			5 034		2 030

\* Based on the net counterparty risk of the transaction type.

In 2015, the exposure to counterparty risk decreased. More specifically, gross counterparty risk went down by 16% and the net counterparty risk (after netting and collateral) by 20% on a year-to-year basis. The change was mainly situated in the marked-to-market exposure and to a lesser extent in the add-on exposure. This implies that this decrease in the counterparty risk was primarily marked-to-market driven and not volume driven.

A breakdown of the net counterparty risk is provided below, both by geographic region (i.e. where the counterparty is located) and by rating band (based on external ratings). This reveals that around 79% of the total counterparty credit risk was in the form of exposure to investment-grade counterparties.

<b>Net derivative exposure per geographic region [EAD]<sup>1</sup></b> (in millions of EUR)	<b>31-12-2014</b>	<b>31-12-2015</b>
Africa	2	3
Asia	169	130
Central and Eastern Europe & Russia	755	453
Latin America	0	0
Middle East	40	29
North America	109	106
Oceania	36	26
Western Europe	5 217	4 286
<b>Total</b>	<b>6 328</b>	<b>5 034</b>

<b>Net derivative exposure per rating band<sup>2</sup> [EAD]<sup>1</sup></b> (in millions of EUR)	<b>31-12-2014</b>	<b>31-12-2015</b>
AAA	24	22
AA	1 070	932
A	2 658	1 944
BBB	1 321	1 086
BB	788	513
B and below	174	129
No rating	292	409
<b>Total</b>	<b>6 328</b>	<b>5 034</b>

<sup>1</sup> After collateral and netting benefits have been taken into consideration.

<sup>2</sup> For instance, rating band AA incorporates ratings AA+, AA and AA-. If multiple ratings are available, the second best is used. If no external rating is available, the internal rating is mapped to the corresponding external rating.

As mentioned earlier, the EAD is calculated as the sum of the (positive) current replacement value (marked-to-market) of a transaction and the applicable add-on (= current exposure method).

## Credit value adjustment

The Credit Valuation Adjustment (CVA) is a regulatory capital charge to cover the volatility of expected losses due to counterparty credit risk exposure related to over-the-counter (OTC) derivatives.

The CVA capital charge is calculated according to the regulatory standardised formula.

Credit value adjustment (in millions of EUR)	31/12/2014	31/12/2015
Exposure value	2.395	2.302
of which OTC derivatives	2.273	2.236
SFT* derivatives	123	66
Risk weighted assets	977	904
Number of counterparties	827	745

\* Securities financing transaction.

## Credit risk mitigation

Credit risk mitigation entails the use of techniques to lower credit risk and hence capital needs, e.g., regulatory capital.

### Netting

To date, KBC has not engaged in on-balance-sheet netting (i.e. the offsetting of balance-sheet products such as loans and deposits). Close-out netting, on the other hand, is applied in order to manage the counterparty risk arising from derivative transactions. For netting to apply, such transactions need to be documented under ISDA-92 or ISDA-2002 Master Agreements. In addition, 'suitable for netting' rules have been established for all relevant jurisdictions and all relevant products, based on legal opinions published by the ISDA. Accordingly, close-out netting is only applied if legal effectiveness and enforceability is assured.

Based on figures for the end of December 2015, the netting impact on derivative exposure amounted to 8 billion euros. Intra-group netting is not included in this figure.

### Collateral in repo transactions

KBC engages in the following types of repo transaction:

- **Reverse repos and 'buy and sell-back' transactions:** These transactions are considered deposits made by KBC, with KBC lending cash against securities until the cash is repaid. The difference between reverse repos and buy and sell-backs is technical and relates to the way coupon payments are handled during the transaction.

The securities underlying the reverse repo transactions are almost entirely government securities, with the underlying issuers of the remaining securities being mainly banks and corporate entities. In order to conclude such transactions, a standard General Master Repurchase Agreement (GMRA) needs to be concluded with the counterparty, and legal certainty must exist for all



relevant jurisdictions. Transactions also need to be compliant with KBC's repo policies for all relevant entities.

- **Repos and 'sell and buy-back' transactions:** These transactions are considered funding, as KBC receives cash in exchange for securities provided as collateral until the cash is repaid. Here too, the difference between repos and sell and buy-backs is a technical one.

31-12-2014 (in millions of EUR)	Exposure [EAD]	Covered exposure [EAD]	Covered exposure [%]
Reverse repos/'buy and sell-back' <sup>1</sup>	8 209	8 043	98%
Repos/'sell and buy-back' <sup>2</sup>	10 744	10 666	99%
Total	18 953	18 710	99%

31-12-2014 (in millions of EUR)	Exposure [EAD]	Covered exposure [EAD]	Covered exposure [%]
Reverse repos/'buy and sell-back' <sup>1</sup>	12 218	11 621	95%
Repos/'sell and buy-back' <sup>2</sup>	14 946	14 444	97%
Total	27 164	26 065	96%

1 The covered exposure is lower than the exposure, as the security amount is corrected for regulatory haircuts and mismatches.

2 The exposure of repo transactions, which is based on the market value of the securities in the transaction, is higher than the cash received (covered exposure). These haircuts are added to the securities leg of the transaction.

## Other collateral

This section covers credit risk mitigation by means of collateral provided to cover the counterparty risk arising from derivative transactions and the lending portfolio. The tables show the EAD covered, broken down into different portfolios and different types of credit risk mitigation.

Counterparty risk arising from derivative transactions (excluding repo-like transactions)

With regard to collateral for counterparty risk arising from derivative transactions (other than repos which are covered above), a collateral management policy is in place. Financial collateral is only taken into account if the assets concerned are considered eligible risk-mitigants for regulatory capital calculations. This implies, among other things, that legal comfort must have been obtained regarding the ownership of the collateral for all relevant jurisdictions.

Of the total counterparty risk exposure, after netting and before collateral, 32.6% (2.4 billion euros of 7.5 billion euros) was classified as collateralised at the end of 2015. A breakdown of covered exposure values by exposure classes and type of collateral is provided in the table below. Both debt securities and cash collateral were taken into account for credit risk mitigation of counterparty risk exposure. In this respect, it should be noted that, according to the applicable policy, equity collateral is not eligible.

Covered exposure <sup>1,2</sup> [EAD] 31-12-2014 (in millions of EUR)	LGD % applied under IRB Foundation	Sovereigns	Institutions	Corporates	SME Corporates	Total
Cash	3	1 723	43	0	1 769	1 318
Debt securities	0	115	728	0	844	513
Total	3	1 838	771	0	2 612	1 830

Covered exposure <sup>1,2</sup> [EAD] 31-12-2015 (in millions of EUR)	LGD % applied under IRB Foundation	Sovereigns	Institutions	Corporates	SME Corporates	Total
Cash	0	1 530	225	0	1 755	1 769
Debt securities	0	102	575	0	677	844
Total	0	1 632	801	0	2 432	2 612

1 Covered EAD is the EAD amount (after netting) on which a reduced LGD percentage is applied due to collateralisation.

2 The exposure only relates to the covered counterparty risk arising from derivative transactions.

### **Lending portfolio**

Exposures and collateral subject to the **Standardised approach** are excluded from the table below. Collateral applying to lending exposure subject to the Standardised approach has a direct effect by lowering the EAD, which in turn has a direct effect on RWA and on capital. Since LGD is irrelevant for these exposures, the collateral is not included in the table.

Of the lending EAD subject to the **IRB Foundation approach**, 3.2 billion euros was classified as collateralised at the end of 2015, implying that a lower LGD percentage is applied to this portion of exposure in the capital calculations. The impacted exposure is to be interpreted as the total collateralised<sup>3</sup> EAD to which an LGD percentage of 0%, 35% or 40% has been applied in the capital requirement calculations (compared to an LGD of 45% as used for un-collateralised amounts). The exact percentages depend on the type of collateral concerned as indicated in the table below. Additional information on the extent to which collateral was taken into account in the internal LGD estimation under this approach is provided in the 'Internal modelling' section.

It is clear that credit risk mitigation is only applied when the necessary policies and procedures are in place. Under the IRB Foundation approach, only the collateral meeting the eligibility criteria and minimum requirements (as imposed by the CRD) to qualify for credit risk mitigation has been included in the figures. Hence, bearing in mind that the figures refer to collateralised EAD as described in the previous paragraph, the effective amount of collateral obtained in KBC is much higher than the figure taken into account for risk mitigation purposes. Real estate collateral obtained for KBC's commercial real estate financing activities is not taken into account for credit risk mitigation purposes, for instance.

The table below gives the total EAD covered by eligible financial and physical collateral for each exposure class (limited to exposures treated under the IRB Foundation approach).

<sup>3</sup> After the application of haircuts, mismatch corrections and collateralisation floors.

Covered IRB Foundation lending exposure [EAD] <sup>1</sup> 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Total
Cash	5	0	31	73	109
Debt securities	0	13	0	0	13
Equity collateral	0	0	0	0	0
Total financial collateral	5	13	31	73	122
Real estate <sup>2</sup>	9	0	41	379	429
Receivables	0	0	0	0	0
Lease collateral	0	0	0	0	0
Other physical collateral	0	0	0	0	0
Total physical collateral	9	0	41	379	429
General total	15	13	72	451	551

Covered IRB Foundation lending exposure [EAD] <sup>1</sup> 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Total
Cash	0	2	60	42	104
Debt securities	0	0	32	105	137
Equity collateral	0	0	36	0	36
Total financial collateral	0	2	128	147	277
Real estate <sup>2</sup>	9	0	1 110	1 045	2 165
Receivables	0	0	10	8	18
Lease collateral	0	0	0	0	0
Other physical collateral	0	0	449	327	775
Total physical collateral	9	0	1 568	1 380	2 958
General total	9	2	1 696	1 527	3 234

1 Covered EAD is the EAD amount subject to a reduced LGD percentage due to collateralisation.

2 Including real estate leasing.

There was a significant increase in collateral caused by a restatement of the IRB Foundation figures by ČSOB Czech Republic, slightly offset by the change in the method of calculating the figures for K&H Bank (switch from the IRB Foundation approach to the IRB Advanced approach) and the run-off of Antwerp Diamond Bank.

The table shows that the bulk of the collateralised amount relates to physical collateral (3.0 billion euros), while financial collateral, which has a bigger impact on capital as it attracts a LGD of 0%, was limited to 0.3 billion euros. Furthermore, as financial collateral comprises cash collateral and non-cash financial collateral (with the latter being amply diversified), issuer concentration risk in respect of financial collateral is negligible.

Where physical collateral is concerned, the concentrations shown in the table are in line with expectations, as most collateral is held for the 'Corporates' and 'SME Corporates' asset classes (and not 'Sovereign' and 'Institutions'). The focus on real estate collateral in these asset classes reflects the preference for this type of asset when collateral is called for.

For the lending EAD subject to the **IRB Advanced approach**, the collateral applying to these exposures affects RWA because collateral is included in LGD modelling.

Covered IRB Advance lending exposure [EAD] <sup>1</sup> 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Total
Financial collateral	2 913	3 272	6 910	456	13 551
Total financial collateral	2 913	3 272	6 910	456	13 551
Real estate <sup>2</sup>	5	0	2 598	3 742	6 345
Receivables	0	-	178	68	246
Lease collateral	5	0	2 742	4 672	7 419
Other physical collateral	10	1	5 517	8 482	14 009
Total physical collateral	20	1	11 034	16 963	28 018
General total	2 933	3 273	17 945	17 419	41 570

1 Covered EAD is the EAD amount subject to a reduced LGD percentage due to collateralisation.

2 Including real estate leasing.

### Unfunded credit protection

Unfunded credit protection is provided entirely through guarantees. For guarantees, the impacted exposure (i.e. amounts receiving a better rating through PD substitution, resulting in lower capital requirements) significantly increased to 1.5 billion euros at the end of 2015 due to a restatement of the IRB Foundation figures by ČSOB Czech Republic. This relates solely to exposures treated under the Standardised and IRB Foundation approaches.

Unfunded credit protection applying to lending exposure under the IRB Advanced approach affects RWA only indirectly as guarantees are included in LGD modelling. Additional information on how unfunded credit protection was taken into account in the internal LGD estimation under this approach can be found in the 'Internal modelling' section.

Covered exposure [EAD] <sup>1, 2, 3</sup> 31-12-2014 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Total
Credit derivatives	0	0	0	0	0
Guarantees	1	0	69	77	147
Total	1	0	69	77	147
Covered exposure [EAD] <sup>1, 2, 3</sup> 31-12-2015 (in millions of EUR)	Sovereign	Institutions	Corporates	SME Corporates	Total
Credit derivatives	0	0	0	0	0
Guarantees	30	125	1,024	315	1,494
Total	30	125	1,024	315	1,494

1 Covered exposure is the EAD amount after netting covered by guarantees or credit derivatives and thus subject to substitution.

2 The breakdown refers to the exposure classes before substitution is applied.

3 The scope of the table includes the Standardised and IRB Foundation approaches.

The main types of guarantors are government entities and large financial institutions, such as banks, investment banks and insurance companies.

## Internal modelling

The credit risk models developed by KBC over the years to support decisions in the credit process include Probability of Default models (PD), Loss Given Default models (LGD) and Exposure At Default models (EAD) models, plus application and behavioural scorecards for specific portfolios (retail and SME).

These models are used in the credit process for:

- defining the delegation level for credit approval (e.g., PD models, LGD models, EAD models);
- accepting credit transactions (e.g., application scorecards);
- setting limits (e.g., EL limits);
- pricing credit transactions (predominantly through the use of the RAROC concept);
- monitoring the risk of a (client) portfolio (Risk Signals Databases);
- calculating the internal economic capital;
- calculating the regulatory capital;
- generating input for other credit risk models (e.g., behavioural scores as pooling criteria for the retail portfolio).

### Probability of Default models

Probability of Default (PD) is the likelihood that an obligor will default on its obligations within a one-year time horizon, with default being defined in accordance with European regulations. The PD is calculated for each client or for a portfolio of transactions with similar attributes (pools in retail portfolios).

There are several approaches to estimating PDs (from purely objective to more subjective methods); however, all have four steps in common:

**Step 1:** The segment for which a model will be built is defined (segmentation of the portfolio). It is important that a good balance be struck between the homogeneity of the segment, the exposure, the number of clients and the number of default events. Having too many models will lead to additional operational risks in the credit process, smaller and less reliable data samples and high maintenance costs. On the other hand, the predictability of the models will go down if the segments are less homogeneous. Once the segment has been defined, the data sample on which the model development will be based can be created. This usually requires some 'cleansing' of the available data (for instance, handling missing values and outliers). KBC has built its rating models mainly on internal data.

**Step 2:** This entails ranking the clients in the targeted segment according to their creditworthiness. Depending on the amount of data available and its characteristics (subjective or objective), specific techniques are used in order to create a ranking model.

- Statistical default/non-default models based on objective inputs: Rankings are derived purely

mechanically with no subjective input, using regression techniques. At KBC, this method is only used in the retail segment where objective data is plentiful (e.g., behavioural information).

- Statistical default/non-default models based on objective and subjective input: These are very similar to the purely objective models, but also use subjective input entered by a credit adviser (for instance, management quality). At KBC, this method is used to rank large corporate customers, for example.
- Statistical expert-based models: Rankings are based on quantitative and qualitative input, but due to the small number of observed default events, regression is applied to predict expert assessments of the creditworthiness of the clients, rather than their default/non-default behaviour. At KBC, this method is used to rank borrowers in the 'Commercial real estate and site financing' segment, for example.
- Generic flexible rating tool: This is a template that is used by 'graders' to justify and document the given rating class. In this template, the most relevant risk indicators are given a score and ranked in order of importance as a basis for a final rating.

**Step 3:** The ranking score is calibrated to a probability of default.

**Step 4:** The probability of default is mapped to a rating class. There is a unique rating scale at KBC for all segments, the so-called KBC Master Scale.

Once all the steps have been taken and the model built and implemented, the quality of the PD models developed is measured by:

- Statistical analysis: variable distributions (means, standard deviations), rating distributions, statistical powers of variables and (sub)models.
- The number of overrulings: if users frequently overrule the output of a model, this indicates that the model could be improved.
- The soundness of model implementation and policies, more specifically as regards system access, system security, integrity of data input, etc.
- The available documentation (user manual, technical reports, etc.).

### Loss Given Default models

Loss Given Default (LGD) is a measure of the loss that a bank would suffer if an obligor defaults. It can be expressed as an amount or as a percentage of the expected amount outstanding at the time of default (EAD).

In general, there are many ways of modelling the LGD, such as:

- Market LGD: this is observed from market prices of defaulted bonds or marketable loans soon after the actual default event.
- Workout LGD: this is determined by the sum of cashflows resulting from the workout and/or collections process, discounted to the time of default and expressed as a percentage of the estimated exposure at default.

The LGD models currently used at KBC are all workout LGDs. The models developed are (methodologically) based on historical recovery rates and cure rates<sup>4</sup> per collateral type or per pool (segmentation-based approach).

A major challenge posed by the Basel regulations is the 'downturn requirement'. The underlying principle is that the LGD is correlated to the PD, and loss rates will be higher in a year with many defaults. This effect has been demonstrated in a number of studies. However, as these studies almost exclusively used market LGD, they are not necessarily relevant for workout LGD.

One explanation for the difference in cyclicity between market LGD and workout LGD is the fact that workout LGD is based on a recovery process that can take several years. In most cases, the workout period will thus include periods of both upturn and downturn economic conditions. Market LGD is based entirely on information one month after default. In downturn economic conditions, the market will be hit by a large supply of defaulted bonds, depressing prices. The classic market mechanism based on supply and demand may prove to be a stronger driver for 'downturn' recovery rates than the macroeconomic conditions that led to the higher number of defaults.

Data collected from the credit crisis helps KBC to model downturn LGD based on its own portfolios and workout processes.

### **Exposure At Default (EAD) models**

KBC uses historical information that is available on exposures of defaulted counterparties to model EAD. The EAD model is used to estimate the amount that is expected to be outstanding when a counterparty defaults in the course of the next year.

Measuring EAD tends to be less complicated and generally boils down to clearly defining certain components (discount rate, moment of default and moment of reference) and gathering the appropriate data. In most cases, EAD equals the nominal amount of the facility, but for certain facilities (e.g., those with undrawn commitments) it includes an estimate of future drawings prior to default.

### **Pooling models**

A pool is a set of exposures that share the same attributes (characteristics).

Pooling can be based on continuous estimates of PD, LGD and EAD or on other relevant characteristics.

- If pooling is based on continuous estimates of PD, LGD and EAD the pooling merely consists of aggregating the continuous estimates into PD, LGD and EAD bands. The added value of pooling is that exposure can be processed on an aggregate basis, which enhances calculation performance.
- If pooling is based on other criteria, loans are aggregated into pools based on these criteria. Since criteria need not be continuous (for example, whether or not there is a current account,

<sup>4</sup> The cure rate is the percentage of defaulted clients returning to a non-defaulted state.

which only has two categories) the resulting PD, LGD and EAD estimates are not necessarily on a continuous scale.

### Group-wide framework for dealing with model uncertainty

While KBC makes extensive use of modelling to steer its business processes, it aims to do so in a cautious manner. In particular, it recognises that no value or risk model provides a perfect prediction of future outcomes. Explicit measures for dealing with model risk are therefore imposed. The potential shortcomings of credit risk models are grouped into three categories, each of which is evaluated using a fixed group-wide assessment.

- Known deficiencies are shortcomings for which the size of the error is known in some way. An example is a model implementation where the average model PD differs from the calibration target. For known deficiencies, a correction is applied to the outcome of the model in order to arrive at a best estimate.
- Avoidable uncertainties concern measurements that are known to be uncertain and rectifiable, but for which the size and even the sign of the error is not known. Examples are an uncertainty triggered by a late model review or not timely reassessed PDs. For avoidable uncertainties, capital penalties are imposed as incentive for corrective actions.
- Unavoidable uncertainties are similar to avoidable uncertainties, except that in this case the uncertainty is inherent and hence not rectifiable. An example is a new credit portfolio for which no relevant historical data can be found. To raise awareness, estimates of potential errors are made for unavoidable uncertainties. For PD, EAD and LGD models, a penalisation for these uncertainties is included in transactional model ratings, and hence also results in a capital add-on.

The estimated overall level of uncertainty (avoidable + unavoidable) is clearly communicated to any stakeholder that uses the model outputs.

This framework was adopted in the last quarter of 2013.



## Overview of credit risk models

The table below shows information on some of the most relevant PD models used for capital calculations under the IRB approach. The scope of the tables excludes all pooled exposure.

PD models used under the IRB approach, 31-12-2015 <sup>1</sup> (in billions of EUR)	Exposure granted [EAD]	Central tendency <sup>2</sup>	Historical default rate <sup>3</sup>	Average model PD (excl. overrulings) <sup>4</sup>
PD models for government and public sector segments				
(Worldwide) model for central governments	47.16	0.50%	0.50%	0.63%
(Worldwide) model for sub-national governments				
<i>Belgium, US and UK</i>	3.01	0.06%	0.00%	0.08%
<i>Czech Republic<sup>7</sup></i>		0.30%	0.21%	0.30%
<i>Slovakia<sup>7</sup></i>		0.50%	4.20%	0.22%
<i>Hungary &amp; Bulgaria<sup>7</sup></i>	0.04	1.31%	1.01%	1.54%
Czech municipalities	0.35	0.30%	0.22%	0.21%
PD models for corporate and institutional segments				
Large corporates <sup>8</sup>				
<i>of which non-Irish</i>	17.20	1.64%	1.65%	1.63%
<i>of which Irish</i>	0.06	6.08%	7.50%	3.59%
Czech corporates	5.13	1.20%	1.17%	1.20%
Hungarian corporates	1.65	2.08%	2.08%	1.88%
(Worldwide) model for banks				
<i>of which Developed</i>		0.35%	0.14%	0.50%
<i>of which Others</i>		1.25%	0.48%	1.47%
(Worldwide) model for project finance	2.64	1.42%	1.78%	1.35%
(Worldwide) model for commercial real estate				
<i>of which non-Irish</i>	3.91	2.27%	2.27%	1.99%
<i>of which Irish</i>	0.19	9.73%	4.07%	9.60%
(Worldwide) model for management buyouts	1.17	2.66%	2.66%	3.35%
Slovak corporates <sup>6</sup>	1.71	2.42%	2.42%	2.30%
PD models for SME segments				
Models for Belgian professionals				
<i>of which liberal professions<sup>9</sup></i>	0.22	0.44%	0.48%	0.43%
<i>of which self-employed professionals<sup>9</sup></i>	0.98	1.84%	1.87%	1.63%
<i>of which private persons<sup>9</sup></i>	0.43	1.56%	1.55%	1.53%
<i>of which self-employed farmers<sup>9</sup></i>	0.98	0.61%	0.61%	0.51%
Belgian farmers <sup>9</sup>	1.26	1.58%	1.48%	1.49%
Belgian SMEs <sup>6</sup>				
<i>of which small businesses<sup>9</sup></i>		2.01%	2.01%	1.61%
<i>of which micro businesses<sup>9</sup></i>		2.73%	2.73%	2.19%
Belgian legal entities & SPOS				
<i>of which legal entities<sup>9</sup></i>	1.13	2.30%	2.30%	2.05%
<i>of which hospitals</i>	2.08	0.19%	0.18%	0.27%
<i>of which schools</i>	0.38	0.25%	0.19%	0.20%
<i>of which homes for elderly</i>	0.84	0.67%	0.61%	0.67%
Belgian starters <sup>9</sup>	0.54	3.58%	3.58%	3.03%
Czech large and mid SMEs	0.41	3.30%	3.40%	3.71%
Hungarian upper SMEs	0.37	2.86%	2.86%	2.50%

1 Non-exhaustive list of models used under the IRB approach, and excluding all retail pooling models.

- 2 The central tendency (CT) is the long term (through-the-cycle) expected average default probability of a portfolio. The historical average observed default rate is a good starting point for determining the CT, but does not necessarily equal it, as forward looking information and expert judgement also need to be taken into account.
- 3 The default rate is the observed number of defaulted obligors during a certain time period as a percentage of total non-defaulted obligors at the beginning of the period (this result is scaled to a one-year period).
- 4 The observation period for which the historical default rate was calculated.
- 5 The average model PD is the mean PD of all obligors according to the model. The value at the time of the latest review is shown.
- 6 The reported CTs are those proposed in the latest model review. These reviews have already been internally approved, but they contain material changes. Hence, in line with the new Commission Delegated Regulation (EU) No 529/2014 on this topic, these changes were submitted to the regulators for their approval. Until regulatory approval is received, these new models will not be implemented.
- 7 The worldwide model for sub-national governments is not yet being used for regulatory reporting in the Czech Republic (the local Czech municipalities model is currently being used), Slovakia (currently the Standardised model for municipalities) and Bulgaria (currently the Standardised model).
- 8 The reported CTs are those proposed in the latest model review. Regulatory approval for the corresponding material change was only received in December 2015. Hence, this new model will only be implemented in 1Q16.
- 9 Central tendency, default rate and average model PD values can differ from entity to entity. The values shown here are those for KBC Bank NV.

The table below shows information on some of the most relevant LGD models used for capital calculations under the IRB Advanced approach. The scope of the tables is limited to the lending portfolio and does not include derivatives or repo-like transactions.

LGD models used under the IRB-Advanced approach 31-12-2015 (In billions of EUR)	Exposure granted [EAD]	Average LGD non-defaulted exposures (PD 1-9)	Average LGD defaulted exposures (uncertain, PD 10-11)	Average LGD defaulted exposures (irrecoverable, PD 12)
LGD models for government and public sector segments				
(Worldwide) model for central governments	47.1	22%	18%	
LGD model for Czech municipalities	0.3	20%	0%	0%
LGD model for Hungarian municipalities	0.0	36%	0%	0%
LGD models for corporate and financial segments <sup>1</sup>				
(Worldwide) financial institutions	13.7	26%	27%	12%
(Worldwide) corporates	17.5	30%	26%	60%
LGD model for Czech corporates	6.6	25%	20%	67%
LGD model for Hungarian corporates	1.8	46%	46%	93%
(Worldwide) commercial real estate project finance	3.6	22%	39%	14%
(Worldwide) model for management buy outs	1.1	37%	26%	0%
LGD models for SME segments				
LGD model for Belgian SMEs	27.8	18%	18%	31%
LGD model for Czech SMEs	0.4	35%	0%	83%
LGD model for Hungarian SMEs	0.4	49%	59%	94%
LGD pooling models for retail <sup>4</sup>				
LGD pooling model for Belgian regulated retail	38.0	16%	20%	51%
LGD pooling model for Irish mortgage loans	12.0	16%	34%	82%
LGD pooling models for Czech retail	0.6	24%	0%	65%
LGD leasing pooling model	9.6	27%	0%	33%
LGD pooling model for Hungarian retail	1.8	28%	44%	65%
LGD pooling model for Slovak mortgage loans	2.3	12%	12%	67%

- 1 No specific LGD model exists for irrecoverable (PD 12) exposure to financials, commercial real estate or project finance. Instead, the generic irrecoverable LGD model for worldwide corporates is used.
- 2 The LGD model for financial institutions is also used for non-bank financials that are treated as corporates under Basel II. Hence, the scope should not be confused with 'Institutions' in this report.
- 3 No collateral or guarantee information available for the worldwide project finance model.
- 4 No collateral or guarantee information provided for retail pooling models, as LGDs are determined based on the allocation of transactions to predefined pools and not on the level of risk mitigation at a transactional level.

## Credit risk related to KBC Insurance

KBC Insurance is not subject to Basel III capital requirements. As such, exposures on the balance sheet of KBC Insurance are excluded from all regulatory reporting, both in terms of exposures and RWA. Instead KBC Group's participation in KBC Insurance is included as an equity exposure and accorded a 370% risk weighting (Danish compromise approach) in the tables above.

Nevertheless, KBC Insurance holds financial instruments that attract a credit risk. This risk stems primarily from the investment portfolio (i.e. issuers of debt instruments). Credit risk also arises due to insurance or reinsurance contracts. Furthermore, KBC Insurance has some exposure to OTC derivatives, with KBC Bank being the sole counterparty. As previously stated, these credit risk exposures are not presented in the tables above (cf. Danish compromise approach) and, therefore, a separate breakdown is shown below.

### Credit risk in the investment portfolio of KBC Insurance

For the insurance activities, credit exposure exists primarily in the investment portfolio (towards issuers of debt instruments) and towards reinsurance companies. We have guidelines in place for the purpose of controlling credit risk within the investment portfolio with regard to, for instance, portfolio composition and ratings.

Investment portfolio of KBC group insurance entities (in millions of EUR, market value) <sup>1</sup>	31-12-2014	31-12-2015
<b>Per balance sheet item</b>		
Securities	21 282	22 048
Bonds and other fixed-income securities	19 935	20 490
Held to maturity	6 982	6 629
Available for sale	12 952	13 813
At fair value through profit or loss and held for trading	1	1
As loans and receivables	0	46
Shares and other variable-yield securities	1 345	1 555
Available for sale	1 340	1 551
At fair value through profit or loss and held for trading	5	3
Other	3	3
Property and equipment and investment property	373	341
Investment contracts, unit-linked <sup>2</sup>	13 425	13 330
Other	1 074	1 485
<b>Total</b>	<b>36 155</b>	<b>37 204</b>
<b>Details for bonds and other fixed-income securities</b>		
By external rating <sup>3</sup>		
Investment grade	96%	95%
Non-investment grade	2%	3%
Unrated	2%	2%
By sector <sup>3</sup>		
Governments	65%	59%
Financial <sup>4</sup>	13%	26%
Other	22%	15%
By remaining term to maturity <sup>3</sup>		
Not more than 1 year	12%	12%
Between 1 and 3 years	18%	21%
Between 3 and 5 years	20%	18%
Between 5 and 10 years	30%	26%
More than 10 years	20%	22%

<sup>1</sup> The total carrying value amounted to 35 847 million euros at year-end 2015 and to 34 716 million euros at year-end 2014.

<sup>2</sup> Representing the assets side of unit-linked (class 23) products and completely balanced on the liabilities side. No credit risk involved for KBC Insurance.

<sup>3</sup> Excluding investments for unit-linked life insurance. In certain cases, based on extrapolations and estimates.

<sup>4</sup> Including covered bonds and non-bank financial companies.

We are also exposed to a credit risk in respect of (re)insurance companies, since they could default on their commitments under (re)insurance contracts concluded with us. We measure this particular type of credit risk by means of a nominal approach (the maximum loss) and expected loss, among other techniques. Name concentration limits apply. PD – and by extension – expected loss is calculated using internal or external ratings. We determine the exposure at default by adding up the net loss reserves and the premiums, and the loss given default percentage is fixed at 50%.

Credit exposure to (re)insurance companies by risk class <sup>1</sup> : Exposure at Default (EAD) and Expected Loss (EL) <sup>2</sup> (in millions of EUR)	EAD 2014	EL 2014	EAD 2015	EL 2015
AAA up to and including A-	190	0.06	236	0.10
BBB+ up to and including BB-	123	0.12	27	0.03
Below BB-	0	0	0	0
Unrated	28	0.65	4	0.09
<b>Total</b>	<b>341</b>	<b>0.83</b>	<b>267</b>	<b>0.22</b>

1 Based on internal ratings.

2 EAD figures are audited, whereas EL figures are unaudited.

## Credit risk related to sovereign bond exposures

We hold a significant portfolio of government bonds, primarily as a result of our considerable excess liquidity position and for the reinvestment of insurance reserves into fixed instruments. A breakdown per country is provided in the table below.

Overview of exposure to sovereign bonds at year-end 2015, carrying value <sup>1</sup> (in millions of EUR)								
Total (by portfolio)	Available for sale	Held to maturity	Designated at fair value through profit or loss	Loans and receivables	Held for trading	Total	For comparison purposes: total at year-end 2014	Economic impact of +100 basis points <sup>3</sup>
<b>Southern Europe and Ireland</b>								
Greece	0	0	0	0	0	0	0	0
Portugal	348	36	0	0	1	385	83	-27
Spain	2 685	263	0	0	3	2 951	1 609	-195
Italy	2 615	116	0	0	8	2 739	2 123	-175
Ireland	489	546	0	0	3	1 038	775	-52
<b>KBC core countries</b>								
Belgium	5 845	15 844	77	0	510	22 276	24 545	-1 206
Czech Rep.	1 841	5 147	0	18	491	7 496	7 587	-438
Hungary	578	1 450	0	5	128	2 161	2 073	-77
Slovakia	1 533	1 380	0	0	2	2 915	2 792	-181
Bulgaria	375	15	0	0	0	390	279	-25
<b>Other countries</b>								
France	2 248	3 147	0	0	117	5 512	4 214	-471
Poland	902	148	12	0	6	1 068	624	-52
Germany	317	482	0	0	4	803	861	-47
Austria	312	473	21	0	11	817	1 182	-56
Netherlands	102	410	1	0	3	516	905	-32
Rest <sup>2</sup>	1 703	1 894	10	0	121	3 727	3 643	-233
<b>Total carrying value</b>	<b>21 892</b>	<b>31 353</b>	<b>120</b>	<b>22</b>	<b>1 408</b>	<b>54 796</b>	<b>53 298</b>	<b>–</b>
<b>Total nominal value</b>	<b>19 070</b>	<b>29 566</b>	<b>110</b>	<b>22</b>	<b>1 187</b>	<b>49 956</b>	<b>48 646</b>	<b>–</b>

1 Excluding exposure to supranational entities of selected countries. No material impairment on the government bonds in portfolio.

2 Sum of countries whose individual exposure is less than 0.5 billion euros at year-end 2015.

3 Theoretical economic impact in fair value terms of a parallel 100-basis-point upward shift in the spread over the entire maturity structure (in millions of euros). Only a portion of this impact is reflected in profit or loss and/or equity. Figures relate to banking book exposure only (impact on trading book exposure was very limited and amounted to -27 million euros at year-end 2015).

Main changes in 2015:

- The carrying value of the total sovereign bond exposure increased by 1.5 billion euros, due primarily to the higher exposure to Spanish, French, Italian, Polish and Portuguese government bonds (+1.3 billion euros, +1.3 billion euros, +0.6 billion euros, +0.4 billion euros and +0.3 billion euros, respectively), but partly offset by a decrease in exposure to Belgian government bonds (-2.3 billion euros).



# Structured Credit Products

This section deals with KBC's structured credit activities at year-end 2015. These activities relate to Asset-Backed Securities (ABS) and Collateralised Debt Obligations (CDOs), which are defined as follows:

- **ABS** are bonds or notes backed by loans or accounts receivables originated by providers of credit, such as banks and credit card companies. Typically, the originator of the loans or accounts receivables transfers the credit risk to a trust, which pools these assets and repackages them as securities. These securities are then underwritten by brokerage firms, which offer them to the public. The securities from certain ABS issues can also be held/retained by KBC to create collateral for funding transactions.
- **CDOs** are a type of asset-backed security and a structured finance product in which a distinct legal entity, a Special Purpose Vehicle (SPV), issues bonds or notes against an investment in an underlying asset pool. Pools may differ with regard to the nature of their underlying assets and can be collateralised either by a portfolio of bonds, loans and other debt obligations, or be backed by synthetic credit exposures through use of credit derivatives and credit-linked notes.

The claims issued against the collateral pool of assets are prioritised in order of seniority by creating different tranches of debt securities, including one or more investment grade classes and an equity/first loss tranche. Senior claims are insulated from default risk to the extent that the more junior tranches absorb credit losses first. As a result, each tranche has a different priority of payment of interest and/or principal and may thus have a different rating.

KBC was active in the field of structured credits both as an originator and an investor. Since mid-2007, KBC has tightened its strategy in this regard (see 'Strategy and processes' below). As an originator, KBC also takes on other roles such as sponsor, when it provides liquidity support to the related SPVs. KBC also invested in structured credit products. These investments appear on KBC's balance sheet.

Apart from briefly describing the procedures and defining the scope, this disclosure provides more insight into:

- structured credit programmes where KBC acts as the originator;
- KBC's investments in structured credit products at year-end 2015, together with information on the credit quality of the securities, a view on the quality of the underlying collateral, a discussion on valuation and accounting principles;
- the capital charges corresponding to the structured credit exposures.



## Strategy and processes

Since 2007, KBC has had a tight strategy in place related to structured credit products and had gradually imposed a moratorium on originating and investing in CDOs and ABS. Before then, KBC had acted as an originator and investor in structured credit transactions ('legacy exposure' in the tables).

In 2013, KBC decided to lift the strict moratorium on investments in ABS and to allow treasury investments in relatively liquid senior European cash ABS ('treasury ABS exposure' in the tables), part of which are accepted as eligible collateral by the ECB. This allows for further diversification in the investment portfolios. It should be noted that the moratorium on CDOs is still in place.

A credit review is performed each quarter on ABS, in which both the front office and the credit risk department are involved.

In 2014, KBC turned the page on KBC Financial Products' legacy CDO exposure when the remaining transactions were de-risked. For the record, KBC wishes to point out that it is the counterparty to and issuer of a further 0.2 billion euros' worth of KBC Financial Products CDO notes held by investors that will remain outstanding until year-end 2017. This effectively means that KBC is now a net buyer of credit risk protection, which is valued at fair value. Consequently, negligible movements may yet be recorded in KBC's income statement in the coming quarters based on changes in the value of these notes (due primarily to credit spread movements on the underlying portfolio and reducing time value).

## Scope of structured credit activities

All KBC group banking and insurance entities that engage in structured credit activities (both legacy and treasury activities) are covered in this disclosure.

## Structured credit programmes for which KBC acts as originator

The structured credit transactions in which KBC entities have an originating role are summarised under this heading. These operations are now limited to structured credit with underlying assets arising directly from KBC's credit-granting activities.

The main objective of such structured credit is to optimise the balance sheet and to provide additional sources of bank funding. The following structured credit transactions fall under this heading:

**Structured credit transactions whose underlying assets arise directly from KBC's credit-granting activities,  
31-12-2015**  
(in millions of EUR)

Programme	Role	Type of underlying exposure	Notional amount of the underlying	Notes outstanding
Home Loan Invest 2007	Originator	Mortgage loans	1 485	1 176
Home Loan Invest 2011	Originator	Mortgage loans	-	0
Phoenix Funding 2 (2008)	Originator	Mortgage loans	5 336	5 388
Phoenix Funding 3 (2008)	Originator	Mortgage loans	2 191	2 231
Phoenix Funding 4 (2009)	Originator	Mortgage loans	579	593
Phoenix Funding 5 (2012)	Originator	Mortgage loans	713	712

All Phoenix Funding notes are being retained by KBC Bank Ireland plc. Phoenix note balances were last reduced in December 2015 by virtue of capital repayments based on the closing balances in November 2015.

### Home Loan Invest 2007

Home Loan Invest 2007 is a 'Residential Mortgage-Backed Securities' (RMBS) issue where KBC Bank acts as the originator. An SPV acquired a pool of Belgian residential mortgages granted by KBC and raised funds through the issuance of notes (Class A and Class B Notes, rated 'AAA' and 'Aaa' by Fitch and Moody's, respectively) and KBC's subscription to a subordinated loan of 376 million euros. The notes are eligible as collateral for the European Central Bank (ECB), and thus provide KBC Bank with a liquidity buffer. The portfolio of mortgages is a revolving facility where the number of loans and total amount can vary. In July 2012, the portfolio started to amortise and as such comprised loans totalling 1 485 million euros, with 1 176 million euros in notes outstanding at year-end 2015. Since KBC holds the first loss piece in the form of the subordinated loan and all notes, after the successful tender of the outstanding notes in July 2012, the Basel III securitisation framework does not apply to this structured credit programme, as an insufficient amount of the risk incurred has been transferred. Assets are held as regular assets on the balance sheet of KBC Bank and treated accordingly for capital adequacy calculation purposes.

### Home Loan Invest 2011

In October 2011, KBC Bank set up its fourth securitisation transaction in the HLI series. Home Loan Invest 2011 securitised a portfolio comprising 4 351 million euros' worth of Belgian mortgage loans and set aside a reserve of 50 million euros on account. The SPV issued notes in the amount of 3 500 million euros. At issuance, approximately 175 million euros' worth of notes was placed with external investors, while the rest was retained by KBC Bank. The transaction was called on 15 January 2015 and, therefore, the amount outstanding is zero.

### Phoenix Funding 2

On 16 June 2008, a residential mortgage backed securitisation (RMBS) transaction called Phoenix Funding 2 was set up as a source of contingent funding. The SPV has a remaining underlying pool of residential mortgages originated by KBC Bank Ireland plc (a fully owned subsidiary of KBC Bank NV), with corresponding note balances amounting to 5 388 million euros. KBC Bank Ireland plc has retained all of the notes, which implies that the Basel III securitisation framework does not apply, as an insufficient amount of the risk incurred has been transferred. The outstanding notes are divided into two classes, i.e. 59.7% in class A (Moody's 'Aa1 / Fitch 'A+' ratings / DBRS 'A(H)' ratings) and

40.3% in class B (these notes are not rated), maturing in 2050. The Class A notes are eligible for placement with the ECB.

### **Phoenix Funding 3**

Phoenix Funding 3, which is similar to Phoenix Funding 2, was set up in November 2008. The SPV has a remaining underlying pool of residential mortgages originated by KBC Bank Ireland plc, with corresponding note balances amounting to 2 231 million euros. KBC Bank Ireland plc has retained all of the notes, which implies that the Basel III securitisation framework does not apply, as an insufficient amount of the risk incurred has been transferred. The outstanding notes are split into two classes, i.e. 67.8% in class A (Moody's 'Aa1' / Fitch 'A+' ratings) and 32.2% in class B (the class B notes are not rated), maturing in 2050. The class A notes are eligible for placement with the ECB.

### **Phoenix Funding 4**

Phoenix Funding 4 was set up in August 2009. The SPV has a remaining underlying pool of residential mortgages originated by KBC Bank Ireland plc with corresponding note balances amounting to 593 million euros. KBC Bank Ireland plc has retained all of the notes. The outstanding notes are split into two classes, i.e. 66.1% in class A (Moody's 'Aa1' / Fitch 'A+' ratings) and 33.9% in class B (these notes are not rated), maturing in 2046. The class A notes of Phoenix Funding 4 are eligible for placement with the ECB.

### **Phoenix Funding 5**

Phoenix Funding 5 was set up in June 2012. The SPV has a remaining underlying pool of residential mortgages originated by KBC Bank Ireland plc with corresponding note balances amounting to 712 million euros. KBC Bank Ireland plc has retained all of the notes. The outstanding assets are split into three classes of A notes totalling 65% (Fitch 'A+' and DBRS 'AA(H)' ratings) and an unrated class Z loan of 35%. The class A notes of Phoenix Funding 5 are eligible for placement with the ECB. The class A1 notes were redeemed in April 2015.

## **KBC's structured credit position (where KBC acts as investor)**

(Figures exclude all expired, unwound or terminated CDO positions)

Under this heading, information is provided on KBC group structured credit investments booked in both the banking and trading portfolios and covering investments in CDOs and other ABS (both legacy and treasury).

In the following paragraphs, an overview is given of the overall exposure and of the credit quality of the securities. Further on, the valuation principles and the accounting principles are examined.

## Overall net exposure

Since mid-2013, KBC has presented the net exposure instead of original notional amounts of its remaining investment in CDOs or other ABS.

KBC investments in structured credit products (CDOs and ABS) (in millions of EUR)	31-12-2015
Total net exposure	1 617
of which other legacy CDO exposure	65
of which legacy ABS exposure	64
of which treasury ABS exposure	1 488
Cumulative value markdowns (mid-2007 to date)*	-90
Value markdowns	-90
for other legacy CDO exposure	-19
for other legacy ABS exposure	-6
for treasury ABS exposure	-65

\* Mainly includes AFS reserves and specific/collective impairments on ABS or other (non-KBC Financial Products) CDOs which have been reclassified to L&R.

In January 2015, the European legacy ABS portfolio ceased to exist following the transfer of all assets to the treasury ABS portfolio. Over 2015, KBC's CDO and ABS exposure decreased slightly as a result of:

- 114 million euros of new investments in high quality European RMBS in the treasury ABS portfolio;
- redemptions to the tune of 264 million euros;
- the USD appreciation of the legacy CDO and ABS assets (up by 17 million euros).

## Detailed overview of the securities held (31-12-2015)

The next table provides more detailed information on KBC's structured credit exposure.

## Structured credit exposure

ABS exposure broken down by type and quality, based on Moody's rating class, 31-12-2015, amounts at notional value (in millions of EUR)										
Moody's rating class*		Aaa	Aa	A	Baa	Ba	B	Caa	<Caa3	Total
<b>Legacy CDO exposure</b>		-	-	58	6	-	-	-	-	64
<b>Legacy ABS exposure</b>										
RMBS		12	5	254	221	75	-	-	-	567
Region	United States	4	4	3	-	-	-	-	-	11
	of which Prime (<2005 vintage)	-	-	3	-	-	-	-	-	3
	of which Subprime (<2005 vintage)	4	4	-	-	-	-	-	-	8
	Spain	-	-	191	82	26	-	-	-	299
	Belgium	-	1	-	-	-	-	-	-	1
<b>Other ABS</b>		97	-	12	8	-	-	-	-	117
Type	CLO	92	-	-	-	-	-	-	-	92
	Student loans	5	-	-	4	-	-	-	-	9
<b>Total legacy ABS</b>		109	5	267	229	75	-	-	-	684
<b>Treasury ABS exposure</b>										
RMBS		484	112	205	82	-	-	-	-	883
Region	Netherlands	434	-	-	-	-	-	-	-	434
	Italy	-	88	144	-	-	-	-	-	232
	Spain	-	24	60	82	-	-	-	-	166
	France	50	-	-	-	-	-	-	-	50
Included in the above:	Total RMBS not rated by Moody's	125	112	17	-	-	-	-	-	255
Moody's equivalent rating class for RMBS not rated by Moody's	Netherlands	125	-	-	-	-	-	-	-	125
	Italy	-	88	-	-	-	-	-	-	88
	Spain	-	24	17	-	-	-	-	-	42
Other ABS	CLO (multiple countries for all assets)	119	-	-	-	-	-	-	-	119
<b>Total treasury ABS</b>		603	112	205	82	-	-	-	-	1 002
<b>Grand total</b>		712	117	529	316	75	-	-	-	1 750

\* Moody's rating class: if a security is not rated by Moody's, the Bloomberg composite rating (average of all ratings) is used to determine the equivalent Moody's rating class.

<b>ABS exposure broken down by type and quality, based on Moody's rating class, 31-12-2015, amounts at notional value (in millions of EUR)</b>										
<b>Moody's rating class*</b>		<b>Aaa</b>	<b>Aa</b>	<b>A</b>	<b>Baa</b>	<b>Ba</b>	<b>B</b>	<b>Caa</b>	<b>&lt;Caa3</b>	<b>Total</b>
<b>Legacy CDO exposure</b>		-	37	28	-	-	-	-	-	65
<b>Legacy ABS exposure</b>										
<b>RMBS</b>		4	9	3	-	-	-	-	-	17
Region	United States	4	3	3	-	-	-	-	-	10
	<i>of which Prime (&lt;2005 vintage)</i>	-	-	3	-	-	-	-	-	3
	<i>of which Subprime (&lt;2005 vintage)</i>	4	3	-	-	-	-	-	-	7
	Spain	-	6	-	-	-	-	-	-	6
	Belgium (EUR 0.3 million)	-	0	-	-	-	-	-	-	0
<b>Other ABS</b>		44	-	-	4	-	-	-	-	48
Type	CLO	44	-	-	-	-	-	-	-	44
	Student loans	-	-	-	4	-	-	-	-	4
<b>Total legacy ABS</b>		48	9	3	4	-	-	-	-	64
<b>Treasury ABS exposure</b>										
<b>RMBS</b>		479	489	290	79	10	-	-	-	1 347
Region	Spain	-	264	146	33	10	-	-	-	453
	Netherlands	429	-	-	-	-	-	-	-	429
	Italy	-	225	11	7	-	-	-	-	243
	Portugal	-	-	134	39	-	-	-	-	173
	France	50	-	-	-	-	-	-	-	50
Included in the above:	<i>Total RMBS not rated by Moody's</i>	119	86	26	-	-	-	-	-	231
Moody's equivalent rating class for RMBS not rated by Moody's	<i>Netherlands</i>	119	-	-	-	-	-	-	-	119
	<i>Italy</i>	-	76	-	-	-	-	-	-	76
	<i>Spain</i>	-	10	26	-	-	-	-	-	37
<b>Other ABS</b>		132	6	3	-	-	-	-	-	141
Type	CLO (multiple countries for all assets)	129	-	-	-	-	-	-	-	129
	SME loans	-	6	-	-	-	-	-	-	6
	Student loans	3	-	-	-	-	-	-	-	3
	Lease	-	-	3	-	-	-	-	-	3
<b>Total treasury ABS</b>		611	495	293	79	10	-	-	-	1 488
<b>Grand total</b>		660	542	324	83	10	-	-	-	1 617

\* Moody's rating class: if a security is not rated by Moody's, the Bloomberg composite rating (average of all ratings) is used to determine the equivalent Moody's rating class.

## Structured credit exposure – capital charges under the CRD III (re)securitisation framework

Regulatory capital requirements for structured credit positions are held against credit and market risks related to such products and positions. Market risk (trading) regulatory capital requirements are determined through the new CRD III requirements. Under Basel III, there are different approaches available to determine the required capital for credit risk. The treatment used for the different structured credit programmes is described throughout this report. The investment positions are dealt with under the Rating-Based Approach (RBA).

As regards the investments in structured credit products (i.e. this section of the report), the risk weightings applied for regulatory capital calculations are linked directly to the rating of the structured credit products invested in. A further distinction is made depending on their classification as securitisation or re-securitisation (see CRD III, implemented at year-end 2011) and whether they are senior or non-senior positions. Since these risk weightings rise sharply when ratings fall, downgrades of the structured credit invested in have a serious impact on the capital charge. The exposure amount to which the risk weights are applied, depends on the IFRS classification.

Regulatory capital only has to be held by banking entities. Insurance entities are not required to hold this capital, but this situation will change when the Solvency II regulations are implemented. The following table refers to the regulatory capital charges for the ABS and retained CDO exposure held by the KBC group under the CRD III (re)securitisation framework.

**Structured credit products – details of capital charges under the CRD III (re)securitisation framework, 31-12-2015**  
(in millions of EUR)

	Notional amount for securitisation	Not. amount for re-securitisation	Total not. amount for CRD III	Of which 6 – 18%	Of which 20 – 35%	Of which 50 – 100%	Of which 250 – 850%	Of which 1250%	RWA 31-12-2015
<b>Banking entities</b>									
Trading book	-	224	224	-	-	-	-	224	182
CDO exposure	-	224	224	-	-	-	-	224	182
<i>of which senior positions</i>	-	-	-	-	-	-	-	-	-
<i>of which non-senior positions<sup>1</sup></i>	-	224	224	-	-	-	-	224	182
Banking book	1 607	-	1 607	1 315	158	80	44	10	689
CDO exposure	65	-	65	50	6	10	-	-	14
<i>of which senior positions</i>	65	-	65	50	6	10	-	-	14
<i>of which non-senior positions</i>	-	-	-	-	-	-	-	-	-
Other legacy ABS exposure	54	-	54	54	-	-	-	-	4
<i>of which senior positions</i>	54	-	54	54	-	-	-	-	4
Other treasury ABS positions	1 488	-	1 488	1 211	152	70	44	10	506
<i>of which senior positions</i>	1 463	-	1 463	1 186	152	70	44	10	501
<i>of which non-senior positions</i>	25	-	25	25	-	-	-	-	5
<b>Total for banking entities</b>	<b>1 607</b>	<b>224</b>	<b>1 831</b>	<b>1 315</b>	<b>158</b>	<b>80</b>	<b>44</b>	<b>234</b>	<b>706</b>
<b>Insurance entities</b>									
CDO exposure	-	-	-	-	-	-	-	-	-
Other ABS exposure	10	-	-	-	-	-	-	-	-
<b>Total for insurance entities</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total net exposure for KBC Group</b>	<b>1 617</b>	<b>224</b>	<b>1 831</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Client credit facility <sup>2</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	33
ABS protection at KBC Financial Products <sup>3</sup>	-	0.0	0.0	-	-	-	-	0.0	0.1
<b>Total RWA</b>									<b>739</b>

1 Including the capital charge for the de-risked deals as the structures themselves still attract capital as long as they have not been fully terminated. The trading book RWA is calculated on the net MtM value of 14.6 million euros.

2 For historical reasons, this credit facility (with receivables as collateral) is provided to a single client in the form of commercial paper, all of which is held by KBC. It is therefore subject to the Supervisory Formula Approach for the purpose of capital adequacy calculations and is included in this table for the sake of completeness.

3 This protection is retained at KBC Financial Products to facilitate the de-risking process, but does attract Regulatory Capital.





Market Risk  
Management  
(non-trading)

The process of managing structural exposure to market risks (including interest rate risk, equity risk, real estate risk, foreign exchange risk and inflation risk) is also known as Asset/Liability Management (ALM).

‘Structural exposure’ encompasses all exposure inherent in our commercial activity or in our long-term positions (banking and insurance). Trading activities are consequently not included. Structural exposure can also be described as a combination of:

- mismatches in the banking activities linked to the branch network’s acquisition of working funds and the use of those funds (via lending, among other things);
- mismatches in the insurance activities between liabilities in the non-life and life businesses and the cover for these liabilities present in the investment portfolios held for this purpose;
- the risks associated with holding an investment portfolio for the purpose of reinvesting shareholders’ equity;
- the structural currency exposure stemming from the activities abroad (investments in foreign currency, results posted at branches or subsidiaries abroad, foreign exchange risk linked to the currency mismatch between the insurer’s liabilities and its investments).

## Strategy and processes

The main building blocks of KBC’s ALM Risk Management Framework are:

- a broad range of risk measurement methods such as Basis-Point-Value (BPV), gap analysis and economic sensitivities.
- net interest income simulations under a variety of market scenarios. Simulations over a multi-year period are used within budgeting and risk processes.
- capital sensitivities arising from banking book positions that have an impact on available regulatory capital (e.g., AFS bonds).
- Value-at-Risk (VaR), which measures the maximum loss that might be sustained over a one-year time horizon with a certain confidence level, as a result of movements in interest rates and other fluctuations in market risk factors.

KBC group non-trading market risk (VaR 99.93%, 1-year time horizon) (in billions of EUR)*	31-12-2014	31-12-2015
Total	4.89	5.46

\* Excluding a number of small group companies. Cyclical prepayment options embedded in mortgage loans have not been captured. The increase in 2015 was driven primarily by spread risk following a volume increase in bonds.

## Scope of non-trading market risk disclosures

The ALM framework is applicable to all material KBC group entities that are subject to non-trading market risks. In practice, this means all entities of the KBC group with the exception of entities that only conduct trading activities. In banking entities with both trading and other activities, the balance sheet is split into a trading book and a banking book, with ALM only dealing with the risks incurred in the banking book.

Equity risk and interest rate risk account for the lion's share of the total risk and will thus be discussed in more detail. However, credit spread risk, real estate risk, inflation risk and foreign exchange risk are also briefly addressed below.

## Interest rate risk

### Interest rate risk for the banking activities

The main technique used to measure interest rate risks is the 10 BPV method, which measures the extent to which the value of the portfolio would change if interest rates were to go up by ten basis points across the entire curve (negative figures indicate a decrease in the value of the portfolio). We also use other techniques such as gap analysis, the duration approach, scenario analysis and stress testing (both from a regulatory capital perspective and from a net income perspective).

Impact of a parallel 10-basis-point increase in the yield curve for the KBC group (in millions of EUR)	Impact on value*	
	31-12-2014	31-12-2015
Banking	-57	-25
Insurance	16	17
Total	-41	-8

\* Full market value, regardless of accounting classification or impairment rules.

We manage the ALM interest rate positions of the banking entities via a system of market-oriented internal pricing for products with a fixed maturity date, and via a replicating portfolio technique for products without a fixed maturity date (e.g., current and savings accounts).

The bank takes interest rate positions mainly through government bonds, with a view to acquiring interest income, both in a bond portfolio used for reinvesting equity and in a bond portfolio financed with short-term funds. The table shows the bank's exposure to interest rate risk in terms of 10 BPV.

BPV of the ALM book, banking activities (in millions of EUR)	31-12-2014	31-12-2015
Average for 1Q	-55	-60
Average for 2Q	-61	-40
Average for 3Q	-71	-28
Average for 4Q	-57	-25
As at 31 December	-57	-25
Maximum in year	-71	-60
Minimum in year	-55	-25

In line with the Basel guidelines, we conduct a 200-basis-point stress test at regular intervals. It sets off the total interest rate risk in the banking book (given a 2% parallel shift in interest rates) against total capital and reserves. For the banking book at KBC group level, this risk came to 9.5% of total capital and reserves at year-end 2015. This is well below the 20% threshold which is monitored by the National Bank of Belgium.

The following table shows the interest sensitivity gap of the ALM banking book. In order to determine the sensitivity gap, we break down the carrying value of assets (positive amount) and liabilities (negative amount) according to either the contractual repricing date or the maturity date, whichever is earlier, in order to obtain the length of time for which interest rates are fixed. We include derivative financial instruments, mainly to reduce exposure to interest rate movements, on the basis of their notional amount and repricing date.

<b>Interest sensitivity gap of the ALM book (including derivatives), banking activities</b> (in millions of EUR)								
	≤ 1 month	1–3 months	3–12 months	1–5 years	5–10 years	> 10 years	Non-interest-bearing instruments	Total
31-12-2014	-13 126	-2 961	5 099	20 560	9 205	-2 172	-16 606	0
31-12-2015	-20 413	300	13 132	15 847	8 163	-4 006	-13 024	0

The interest sensitivity gap shows our overall long position in interest rate risk. Generally, assets reprice over a longer term than liabilities, which means that KBC's net interest income benefits from a normal yield curve. The economic value of the KBC group is predominantly sensitive to movements at the long-term end of the yield curve.

### Interest rate risk for the insurance activities

Where the group's insurance activities are concerned, the fixed-income investments for the non-life reserves are invested with the aim of matching the projected pay-out patterns for claims, based on extensive actuarial analysis.

The non-unit-linked life activities (class 21) combine a guaranteed interest rate with a discretionary participation feature (DPF) fixed by the insurer. The main risks to which the insurer is exposed as a result of such activities are a low-interest-rate risk (the risk that return on investments will drop below the guaranteed level) and a risk that the investment return will not be sufficient to give clients a competitive profit-sharing rate. The risk of low interest rates is managed via a cashflow-matching policy, which is applied to that portion of the life insurance portfolios covered by fixed-income securities. Unit-linked life insurance investments (class 23) are not dealt with here, since this activity does not entail any market risk for KBC.

In the table below, we have summarised the exposure to interest rate risk in our life insurance activities. The life insurance assets and liabilities relating to business offering guaranteed rates are grouped according to the expected timing of cashflows.

<b>Expected cashflows (not discounted), life insurance activities</b> (in millions of EUR)						
	0–5 years	5–10 years	10–15 years	15–20 years	> 20 years	Total
<b>31-12-2014</b>						
Fixed-income assets backing liabilities, guaranteed component	10 466	4 639	2 332	865	1 050	19 351
Liabilities, guaranteed component	10 282	3 303	1 994	1 402	1 986	18 967
Difference in expected cashflows	184	1 336	338	-537	-936	384
Mean duration of assets						5.85 years
Mean duration of liabilities						6.72 years
<b>31-12-2015</b>						
Fixed-income assets backing liabilities, guaranteed component	10 309	4 368	2 469	1 259	1 264	19 671
Liabilities, guaranteed component	9 860	3 371	2 292	1 769	2 802	20 094
Difference in expected cashflows	449	997	177	-509	-1 538	-423
Mean duration of assets						5.94 years
Mean duration of liabilities						7.29 years

As mentioned above, the main interest rate risk for the insurer is a downside one. We adopt a liability driven ALM approach focused on mitigating the interest rate risk in accordance with KBC's risk appetite. For the remaining interest rate risk, we adhere to a policy that takes into account the possible negative consequences of a sustained decline in interest rates, and have built up adequate supplementary reserves.

<b>Breakdown of the reserves for non-unit-linked life insurance by guaranteed interest rate, insurance activities</b>	<b>31-12-2014</b>	<b>31-12-2015</b>
5.00% and higher*	3%	3%
More than 4.25% up to and including 4.99%	11%	10%
More than 3.50% up to and including 4.25%	5%	5%
More than 3.00% up to and including 3.50%	22%	21%
More than 2.50% up to and including 3.00%	22%	20%
2.50% and lower	35%	40%
0.00%	2%	2%
Total	100%	100%

\* Contracts in Central and Eastern Europe.

### Aggregate interest rate risk for the KBC group

The figures below show the impact on the KBC group of a 10-basis-point parallel upward shift of yield curves, broken down by currency.

Interest Rate Risk – Economic BPV in thousands of EUR – 31-12-2014									
	Overall	EUR	CHF	USD	GBP	CZK	HUF	PLN	Other
Banking activities	-56 727	-57 843	-52	2 286	52	1 769	-3 208	-3	273
Insurance activities	15 946	13 945	-31	-17	0	2 201	-155	1	2
Total	-40 781	-43 898	-83	2 269	52	3 971	-3 363	-2	274

Interest Rate Risk –Economic BPV in thousands of EUR – 31-12-2015									
	Overall	EUR	CHF	USD	GBP	CZK	HUF	PLN	Other
Banking activities	-24.925	-25.205	11	4.426	-17	-1.732	-2.422	-4	19
Insurance activities	17.067	16.472	-45	-14	0	927	-69	0	-204
Total*	-7.862	-8.741	-34	4.412	-17	-804	-2.492	0	-185

\* KBC Asset Management is only included in the total exposure, not in the banking activities.

## Credit spread risk

We manage the credit spread risk for the sovereign portfolio by monitoring the extent to which the value of the sovereign bonds would change if credit spreads were to go up by 100 basis points across the entire curve. The economic sensitivity of the main sovereign positions to changes in spreads is dealt with in the 'Credit risk' section.

## Equity risk

The main exposure to equity is within our insurance business, where the ALM strategies are based on a risk-return evaluation, account taken of the market risk attached to open equity positions. Please note that a large part of the equity portfolio is held for the DPF of insurance liabilities (especially profit-sharing in the Belgian market). Apart from the insurance entities, smaller equity portfolios are also held by other group entities, e.g., KBC Bank and KBC Asset Management. We have provided more information on total non-trading equity exposures at KBC in the tables below.

Equity portfolio of the KBC group (breakdown by sector, in %)	Banking activities		Insurance activities		Group	
	31-12-2014	31-12-2015	31-12-2014	31-12-2015	31-12-2014	31-12-2015
Financial	68%	71%	18%	19%	23%	24%
Consumer non-cyclical	1%	0%	10%	14%	9%	12%
Communication	0%	1%	2%	3%	2%	3%
Energy	0%	0%	5%	5%	4%	5%
Industrial	17%	25%	40%	36%	37%	35%
Utilities	0%	0%	2%	4%	2%	3%
Consumer cyclical	0%	1%	12%	13%	11%	12%
Basic materials	0%	0%	8%	5%	7%	5%
Other and not specified	13%	2%	4%	1%	5%	2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
In billions of EUR	0.2	0.25	1.3	1.6	1.5	1.8*
of which unlisted	0.1	0.10	0.0	0.0	0.1	0.1

\* The main differences between the 1.8 billion euros in this table and the 2.5 billion euros for 'Equity instruments' in the table appearing in Note 18 of the 'Consolidated financial statements' section of the KBC Group Annual Report – besides a number of minor differences in the scope of consolidation – are that:

(a) Shares in the trading book (0.4 billion euros) are excluded above, but are included in the table in Note 18.

(b) Real estate participations that are not consolidated are classified as 'investments in building' in this table, but classified as 'shares' in the table in Note 18 (as they are not consolidated).

(c) Most 'investments in funds' are treated on a 'look-through' basis (according to the underlying asset mix of the fund and therefore also partially classified as 'fixed-income instruments'), whereas they are classified as 'shares' in the table in Note 18.

The table below provides an overview of the sensitivity of income and economic value to fluctuations in the equity markets.

Impact of a 12.5% drop in equity prices (in millions of EUR)	Impact on value	
	31-12-2014	31-12-2015
Banking activities	-20	-30
Insurance activities	-166	-199
<b>Total</b>	<b>-186</b>	<b>-229</b>

The table provides an overview of the realised and unrealised gains on the equity portfolio.

Non-trading equity exposure (in millions of EUR)	Net realised gains (in income statement)		Net unrealised gains on year-end exposure (in equity)	
	31-12-2014	31-12-2015	31-12-2014	31-12-2015
Banking activities	2	31	108	238
Insurance activities	84	105	261	320
<b>Total*</b>	<b>86</b>	<b>136</b>	<b>385</b>	<b>573</b>

\* The total figure includes gains from some equity positions directly attributable to the KBC group. Gains from joint participations involving the banking and insurance entities of the KBC group have been eliminated, since these participations are consolidated at group level.

## Real estate risk

The groups' real estate businesses hold a limited real estate investment portfolio. KBC Insurance also holds a diversified real estate portfolio, which is held as an investment for non-life reserves and long-term life activities. The real estate exposure is viewed as a long-term hedge against inflation risks and as a way of optimising the risk/return profile of these portfolios. The table provides an overview of the sensitivity of economic value to fluctuations in the property markets.

Impact of a 12.5% drop in real estate prices* (in millions of EUR)	Impact on value	
	31-12-2014	31-12-2015
Bank portfolios	-51	-48
Insurance portfolios	-30	-30
Total	-81	-77

## Inflation risk

KBC's exposure to inflation is secondary in nature, i.e. via changes in interest rates. We monitor and hedge this risk in line with the policy for managing interest rate risk (see above). The direct exposure of KBC to the inflation risk is limited and mainly arises from contractual payments that are linked to wage inflation, e.g., in the non-life insurance business in Central Europe and in the pension fund for own employees. This direct inflation risk is monitored using the ALM VaR technique (see above), with a limit being set on the total exposure to 'other risks' for the KBC group.

## Foreign exchange risk

We pursue a prudent policy as regards our structural currency exposure, essentially seeking to avoid currency risk. Foreign exchange exposures in the ALM books of banking entities with a trading book are transferred to the trading book where they are managed within the allocated trading limits. The foreign exchange exposure of banking entities without a trading book, of the insurance entities and of other entities has to be hedged, if material. Equity holdings in non-euro currencies that are part of the investment portfolio do not need to be hedged. Participating interests in foreign currency are in principle funded by borrowing an amount in the relevant currency equal to the value of the net assets excluding goodwill.





Market Risk  
Management  
(trading)

Market risk is defined as the potential negative deviation from the expected value of a financial instrument (or portfolio of such instruments) due to changes in the level or in the volatility of market prices, e.g., interest rates, exchange rates and equity or commodity prices. The interest rate, foreign exchange and equity risks of the non-trading positions in the banking book and of the insurer's positions are all included in ALM exposure.

## Strategy and processes

The objective of market risk management (trading) is to measure, report and advise on the market risk of the aggregate trading position at group level, taking into account the main risk factors and specific risk in order to ensure that activities are consistent with the Group Risk Appetite. The Group Risk Appetite, including the strategic objectives with regard to (trading) market risk tolerance, is determined by the Board of Directors by means of an annual review. The Group Markets Committee (GMC) decides upon and periodically reviews a framework of limits and policies on trading activities that is consistent with this Group Risk Appetite. This framework is submitted to the Board of Directors for approval.

This risk framework consists of a hierarchy of limits. Whereas HVaR calculations serve as a primary risk measurement tool, risk concentrations are monitored via a series of secondary limits including equity concentration limits, FX concentration limits and basis-point-value limits for interest rate risk and basis risk. The specific risk associated with a particular issuer or country is also subject to concentration limits. There are also scenario analysis limits, and, where deemed appropriate, stress scenario limits, involving multiple shifts of underlying risk factors. In addition, secondary limits are in place to monitor the risks inherent in options (the so-called 'greeks'). Complex and/or illiquid instruments, which cannot be modelled in an HVaR context, are subject to nominal and/or scenario limits.

The centralisation of trading risk management implies close co-operation between all value and risk management units at both group and local level. This close co-operation allows consistent reporting to group senior management through the GMC, which is chaired by the Group CRO and includes senior representatives from line management, risk management and other top management. It manages market risk and addresses the operational and counterparty risks of the dealing rooms. It keeps track of structural trends, monitors group-wide and local risk limits and may decide to impose corrective actions. The GMC, which receives relevant reports on an ad hoc and biweekly basis, meets formally every four weeks in order to enable the KBC group to take decisions regarding trading risk on the basis of accurate and up-to-date information.

## Scope of market risk management

We are exposed to market risk via the trading books of our dealing rooms in Belgium, the Czech Republic, Slovakia and Hungary, as well as via a minor presence in the UK and Asia. The traditional dealing rooms, with the dealing room in Belgium accounting for the lion's share of the limits and risks, focus on trading in interest rate instruments, while activity on the forex markets has traditionally been limited. All dealing rooms focus on providing customer service in money and capital market products and on funding the bank activities.

Compared to previous years, the market risk and also the regulatory capital in the four legacy business lines of KBC Investments Limited (formerly KBC Financial Products), namely the CDO, fund derivatives, reverse mortgages and insurance derivatives businesses are now almost equal to zero. This is especially the case for the fund derivatives, reverse mortgages and insurance derivatives businesses (please note that the reverse mortgages and insurance derivatives businesses were transferred to KBC Bank NV in December 2015 due to the closure of some subsidiaries) where the market risk regulatory capital charges represent just approximately 1% of the total. These legacy business lines continue to be monitored and wound down by dedicated teams.

Regarding the CDO business – and as mentioned in other parts of this report – KBC has now fully scaled down its CDO portfolio. However, the position pertaining to the remaining 0.2 billion euros of CDO notes held by investors is located in the trading books of KBC Investments Limited. Consequently, the market risk regulatory capital for this position is recorded under the re-securitisation column (15 million euros) in the 'Trading regulatory capital requirements' table.

## The VaR model

The VaR method is the principal tool for managing and monitoring market risk exposures in the trading book. Accordingly, VaR is the primary building block of KBC's market risk management framework and regulatory capital calculations.

VaR is defined as an estimate of the amount of economic value that might be lost on a given portfolio due to market risk over a defined holding period, with a given confidence level. The measurement only takes account of the market risk of the current portfolio and does not attempt to capture possible losses due to counterparty default or operational losses nor does it capture the effects of further trading or hedging.

The risk factors used in the VaR calculations cover all the main market risk drivers for the trading books, namely interest rates, interest rate volatility, basis risk, credit spreads, exchange rates, exchange rate volatility, equity, equity volatility and inflation rates. To compute shifts in the risk factors, the historical method is used (HVaR). This means that the actual market performance is used in order to simulate how the market could develop going forward, i.e. this method does not rely on

assumptions regarding the distribution of price fluctuations or correlations, but is based on patterns of experience in the past.

KBC's current HVaR methodology is based on a 10-day holding period and a 99% confidence level, with historical data going back 500 working days i.e. it equals the fifth worst outcome (1% of 500 scenarios). The 500 day historical data set is updated once a week by omitting the five oldest scenarios and adding the five most recent ones. The most recent scenario in the new data set corresponds to the historical change observed one week earlier (this lag serves as a data cleaning buffer). The outcome for a 10-day holding period is calculated in two steps. The historical daily movements in the risk factors used in the VaR calculations are first multiplied by the square root of 10, then these shifts in the risk factors are applied to the current market situation and the corresponding P&Ls computed to produce the outcome for that scenario.

The management HVaR and the HVaR calculated for regulatory capital requirements use the same holding period and confidence level (i.e. 10-day holding period and 99% confidence level). An HVaR is calculated at consolidated Group level and at trading entity level as well as at desk level for all trading entities worldwide on a daily basis.

As with any model, there are a certain number of uncertainties/deficiencies. However, the model is subject to regular review and improvements. During 2015, the most important development involved adjusting the model to appropriately capture the risk attached to interest rate derivatives in negative rate environments.

The table below shows the KBC Group Historical Value-at-Risk (HVaR; 99% confidence interval, ten-day holding period, historical simulation) i.e. for the linear and non-linear exposure of all the dealing rooms of the KBC group.

Market risk (VaR) (in millions of EUR)	10-day HVaR for KBC group	
	2014	2015
Holding period: 10 days		
Average for 1Q	24	14
Average for 2Q	19	15
Average for 3Q	15	15
Average for 4Q	15	16
As at 31 December	15	18
Maximum in year	29	21
Minimum in year	11	12

A breakdown of the risk factors (averaged) in KBC group's HVaR model is shown in the table below. Please note that the equity risk stems from the European Equity Derivatives business, and also from KBC Securities.

Breakdown by risk factor of trading HVaR for KBC group (in millions of EUR)	Average for 2014	Average for 2015
Interest rate risk	18.7	14.7
FX risk	2.3	2.6
FX option risk	1.8	2.2
Equity risk	1.4	1.8
Diversification effect	-6.2	-6.1
Total HVaR	18.1	15.1

## Regulatory capital

Both KBC Bank and KBC Investments Limited have been authorised by the Belgian regulator to use their respective HVaR models to calculate regulatory capital requirements for part of their trading activities (Approved Internal Models or AIM). ČSOB (Czech Republic) has also received approval from the local regulator to use its HVaR model for capital requirement purposes. These models are also used for the calculation of Stressed VaR (SVaR), which is one of the CRD III Regulatory Capital charges that entered into effect at year-end 2011. The SVaR, like the HVaR, measures the maximum loss from an adverse market movement within a given confidence level (99%) and for a given holding period (10 days). However, the 500 scenarios which are used for calculating the SVaR are not based on the most recent past, but consist of 250 'regular' historical scenarios from the period which resulted in the most negative VaR figure for that entity (the 'stressed' period), and 250 antithetic ('mirror') scenarios, obtained by reversing these 250 regular scenarios. The stressed period which is used for calculating the SVaR has to be calibrated at least on a yearly basis. As at the date of preparation of this report, the period relevant to the measurement of SVaR during 2015 and the period that will be used from 2016 are shown in the table below:

Approved Internal Model	2015	2016
KBC Bank NV AIM	Jul 2008 – Jun 2009	Jul 2008 – Jun 2009
KBC Investments Limited AIM	Dec 2010 – Dec 2011*	Jul 2008 – Jun 2009
ČSOB (Czech Republic) AIM	Feb 2009 – Jan 2010	Jul 2008 – Jun 2009

\* This is not the same date as in the 2014 Risk Report because the stressed period was recalibrated due to the fact that the position became less sensitive to the originally calibrated stressed period.

The resulting capital requirements for trading risk at year-end 2014 and year-end 2015 are shown in the table below. The regulatory capital requirements for the trading risk of local KBC entities that did not receive approval from their respective regulator to use an internal model for capital calculations, as well as the business lines not included in the HVaR calculations, are measured according to the Standardised approach. This approach sets out general and specific risk weightings per type of market risk (interest risk, equity risk, foreign exchange risk and commodity risk). Note that, as mentioned earlier in this section, the re-securitisation regulatory capital for 2015 (15 million

euros) emanates from the counterposition for the 0.2 billion euros of CDO notes held by investors (the counterposition is located in the trading books of KBC Investments Limited).

It can be seen that the total capital requirement for year-end 2015 was 248 million euros. However, due to the outliers referred to in the back-testing sub-section later in this section, the multipliers (of average HVaR and SVaR) used for the KBC Bank and ČSOB (Czech Republic) AIMS increase from 3 (the minimum multiplier if there have been no outliers) to 3.65 and 3.85, respectively. If the multiplier had remained at 3 (i.e. allowing a more direct comparison with the year-end 2014 capital requirement), the total capital requirement for year-end 2015 would have been 214 million euros, a slight increase compared to year-end 2014. Please also refer to the first table in this section, where it can be seen that average consolidated HVaR usage between the fourth quarter of 2014 and the fourth quarter of 2015 did not increase significantly despite the fact that the less volatile scenarios in 2013 (in the 500-day scenario window for calculating HVaR in the fourth quarter of 2014) were substituted by the more volatile scenarios in 2015.

Trading regulatory capital requirements, by risk type (in millions of EUR)		Interest rate risk	Equity risk	FX risk	Commodity risk	Re-securitisation	Total
31-12-2014							
Market risks assessed by internal model	HVaR	38	2	11	-	-	126
	SVaR	56	3	17	-	-	
Market risks assessed by the Standardised approach		27	4	14	3	19	68
Total		120	9	43	3	19	194
31-12-2015							
Market risks assessed by internal model	HVaR	68	3	9	-	-	192
	SVaR	84	2	26	-	-	
Market risks assessed by the Standardised approach		18	5	16	2	15	56
Total		171	10	50	2	15	248

## Stress testing

As the VaR model cannot encompass all potential extreme events, the VaR calculations are supplemented by stress tests which reflect the impact of exceptional circumstances and events with a low degree of probability. Stress tests help to verify the adequacy of established limits and assigned capital and are used as an additional input for informed decisions about how much risk senior management is willing to take (acting as a tool that helps to evaluate risk tolerance).

For the Financial Markets activities (including European equity derivatives), both hypothetical and historical stress tests are performed on a weekly basis, whereby risk factors relating to interest rates (IR), exchange rates (FX) and equity prices (EQ) are shifted. These scenarios model inter alia parallel interest rate shifts, steepening/flattening of interest rate curves, changes in basis swap spreads, FX rate (volatility) movements and equity price shifts (=hypothetical stress tests).

Besides hypothetical stress tests, historical stress tests are carried out that use a number of historical scenarios, going back as far as 1987, as shown in the table below.

Events	Period (start to end)
Financial crisis after collapse of Lehman Brothers	01-07-2007 to 01-07-2009
2nd Gulf War	01-09-2002 to 30-04-2003
11 September 2001	10-09-2001 to 12-12-2001
Increase in long-term interest rates	18-01-1999 to 14-10-1999
Brazilian crisis	18-01-1999 to 14-10-1999
LTCM fund collapse	25-09-1998 to 17-11-1998
Large swing in exchange rates	17-08-1998 to 17-11-1998
Russia crisis	15-06-1998 to 17-11-1998
Southeast-Asian crisis	01-01-1997 to 01-08-1998
Kobe earthquake (Japan)	16-01-1995 to 16-04-1995
Mexico crisis	15-12-1994 to 30-04-1995
Increase in long-term interest rates	31-12-1993 to 05-10-1994
ERM crisis	28-12-1992 to 31-08-1993
1st Gulf War	02-08-1990 to 31-03-1991
Stock market decline	25-08-1987 to 31-03-1988

During 2015, a complete and thorough review of all the scenarios and calculation methodologies for the historical and hypothetical stress tests was initiated. Although the positions held by Financial Markets at KBC are predominantly simple, non-option products, it was decided to implement full revaluation (as opposed to sensitivity-based calculations) wherever data availability and data quality allowed. As a direct result of this exercise, newly calibrated hypothetical interest rate stress tests (using full revaluation of the portfolio) were approved by the Group Markets Committee (GMC) and will be implemented in the first quarter of 2016, with newly calibrated stress tests for the other risk drivers to follow later in the year.

The validity of the calibrated shifts are checked by comparing them with the most relevant regulatory stress tests. However, unlike the case with regulatory stress tests – which typically only use market shifts in one direction – KBC also calculates the result for a given shift in the opposite direction, which better reflects the dynamic nature of trading book positions. The worst case scenarios, together with the respective losses, are then reported at the GMC meetings. These results are accompanied by an analysis of the positions that are sensitive to these worst case scenarios, giving the GMC an insight into potential vulnerabilities in the portfolio. In addition, a more in-depth report on stress test results is submitted to the GMC on a quarterly basis. In all the stress tests conducted during the year, it turned out that both regulatory and economic capital would provide a sufficient buffer were such scenarios to materialise.

## Back-testing

Back-testing plays a crucial role in assessing the quality and accuracy of the HVaR model, as it compares model-generated risk measures to daily P&L figures. There are two types of back-testing, namely theoretical back-testing and real back-testing. Theoretical back-testing involves comparing the theoretical P&L to the one-day HVaR, whereby the theoretical P&L is calculated by applying the next day's market movements on the end-of day trading positions. If the theoretical P&L is more negative than the one-day HVaR, a negative theoretical outlier occurs. On the other hand, when the real (or actual) P&L of the next day's market movements is compared to the one-day HVaR of the end-of-day trading position, we refer to real back-testing. The real P&L is the daily economic P&L of the Middle Office, less fees, commissions and net interest, as well as new, cancelled, late and amended trades of that day. Both theoretical and real back-testing are conducted on a daily basis.

Negative exceptions are reported to the relevant risk committees (both on an ad-hoc and a quarterly basis), i.e. when the negative P&L result exceeds the one-day VaR. These negative exceptions are also referred to as outliers. For entities with an Approved Internal HVaR Model (AIM), the number of negative outliers over the last 250 days directly impacts the market risk pillar I capital requirements. For ČSOB Czech Republic AIM and, from the third quarter of 2015, KBC Bank AIM and KBC Investments Limited AIM, the maximum for both the theoretical and real outliers is taken into account.

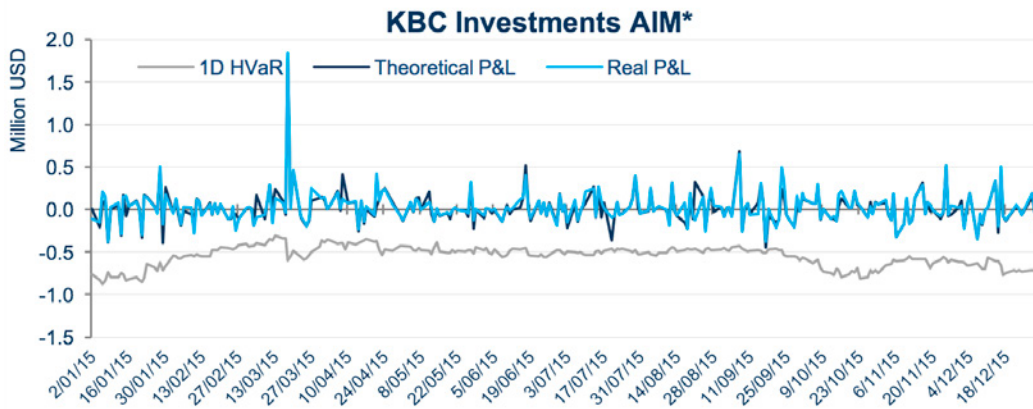
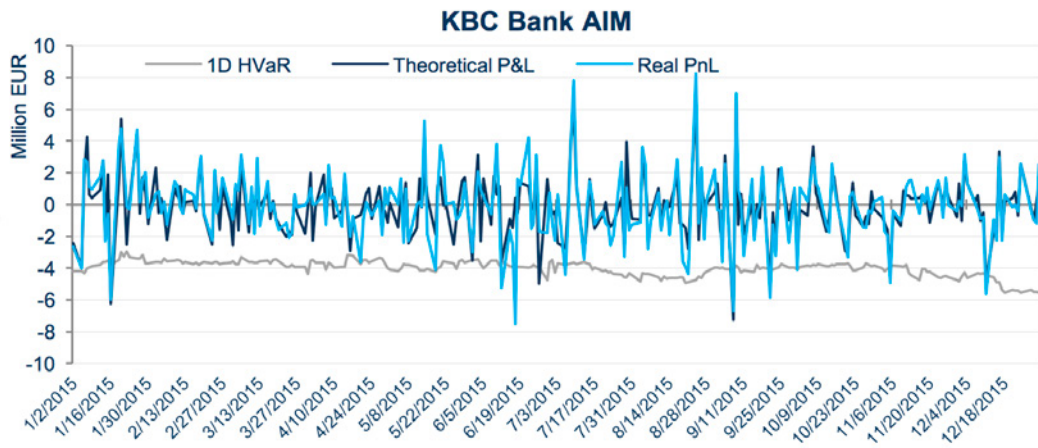
The number of outliers for the three Approved Internal Models in 2015 and, for comparative purposes, 2014 are shown in the table below. The theoretical and real back tests in 2014 did not produce any outliers for all three of the market risk HVaR Approved Internal Models of the KBC group. However, although there were no outliers for KBC Investments Limited AIM, the more volatile markets in 2015 produced a number of theoretical and real outliers for the other two AIMS (see table below).

The outliers for KBC Bank AIM were due mainly to global market reactions to US economic figures and to changing expectations of action by central banks. The outliers at ČSOB Czech Republic AIM were due primarily to interventions in the markets by the Czech National Bank (CNB), causing large movements in short-term interest rates. It should be mentioned that the losses recorded in the back-tests at the beginning of September were largely reversed in the following days, reflecting normalisation of the markets after the CNB's action.

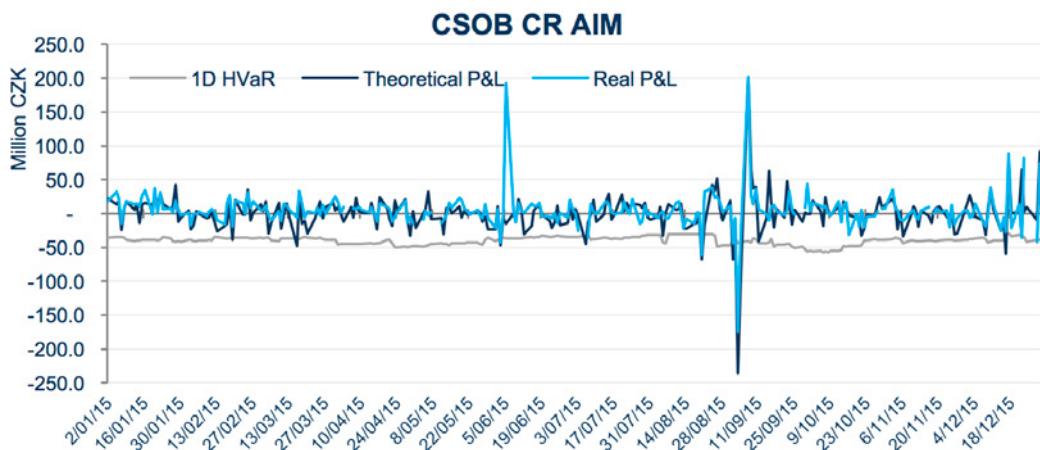
Number of outliers of the Approved Internal Models of KBC group	KBC Bank AIM		KBC Investments Limited AIM		ČSOB CR AIM	
	Real	Theoretical	Real	Theoretical	Real	Theoretical
2014	0	0	0	0	0	0
2015	7	7	0	0	5	9



Graphs comparing the one-day HVaR with the daily theoretical P&L results during 2015 at AIM level:



\* The figures for two dates have been removed because the P&L results for those days cannot be considered to be a test of the performance of the HVaR model as they were due to bookings that relate to multi-day movements.



Please note that theoretical and real back-testing is performed on a wide variety of portfolios for which an HVaR limit is defined. This provides a good indication of the HVaR model performance for a specific (product) portfolio. In general, the number of outliers on a more granular (product)

portfolio level increases as there is less diversification. However, allowing for this, the number of outliers for all entity levels underpinned the quality of the HVaR model.

## Validation and reconciliation

VaR implementation is validated by an independent validation entity. In order to guarantee the quality of transaction data used in the risk calculation engine, a daily reconciliation process has been set up. The transaction data generated by the source system are reconciled with the data used in the risk calculation engine.

Furthermore, the VaR method is reviewed and subjected to a validation exercise by the KBC Risk Validation Unit at least once a year. In addition, the VaR model is audited on a regular basis.

## Valuation

One of the building blocks of sound risk management is prudent valuation. A daily independent middle-office valuation of front-office positions is performed. Whenever the independent nature or the reliability of the valuation process is not guaranteed, we perform a monthly parameter review. Where applicable, adjustments to the fair value are made to reflect close-out costs, adjustments for less liquid positions or markets, mark-to-model-related valuation adjustments, counterparty risk, liquidity risk and operations-related costs.

KBC applies the IFRS fair value hierarchy which gives priority to the use of quoted prices in an active market whenever they are available. If there are no price quotes available, KBC determines the fair value by using a model based on observable or unobservable inputs. In line with the IFRS principles, the use of observable inputs is maximised, whereas the use of unobservable inputs is minimised.

Examples of observable inputs are the risk-free rate, exchange rates, stock prices and implied volatility. Valuation techniques based on observable inputs can include discounted cash flow analysis, reference to the current or recent fair value of a similar instrument, or third-party pricing, provided that the third-party price is in line with alternative observable market data. Unobservable inputs reflect KBC's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions regarding the risks involved). Unobservable inputs reflect a market that is not active. For example, proxies and correlation factors can be considered to be unobservable in the market.

The KBC valuation methodology of the most commonly used financial instruments is summarised in Note 24 of the 2015 Annual Report of KBC Group NV.

Within KBC, valuation models are validated by an independent Risk Validation Unit. In addition, the Group Executive Committee of KBC established a Group Valuation Committee (GVC) to ensure that

KBC Group NV and its entities are compliant with all the relevant regulatory requirements concerning the valuation of financial instruments that are measured at fair value. For this purpose, the GVC monitors the consistent implementation of the KBC Valuation Framework, which consists of several policies including the Group Market Value Adjustments Policy and the Group Parameter Review Policy. Furthermore, the GVC meets twice per quarter to approve significant changes in valuation methodologies (including but not limited to models, market data and input parameters) or deviations from group policies for financial instruments measured at fair value. The GVC consists of members of Group Finance, Market Risk Management, and Middle Office units.



Operational Risk  
Management  
and other  
Non-Financial  
Risks

Operational risk is the risk of loss resulting from inadequate or failed internal processes and systems, human error or sudden external events, whether man-made or natural. Operational risks exclude business, strategic and reputational risks.

This definition is in line with the one given in the Basel II Capital Accord and the Capital Requirements Directive.

The impact of incidents on the group's reputation is taken into consideration when establishing vulnerability to operational risk incidents.

For a description of business risk, reputation risk and business continuity management, see 'Other non-financial risks' at the end of this section.

Information on legal disputes is provided in Note 36 of the 'Consolidated financial statements' section of the 2015 Annual Report of KBC Group NV.

## Strategy and processes

We have a single, global framework for managing operational risk across the entire group.

## Scope of operational risk management

KBC's operational risk management framework covers all entities in which it, directly or indirectly, holds at least 50% of the shares or in respect of which it has the power de jure or de facto to exercise a decisive influence on the appointment of the majority of its directors or managers.

Information is presented below on operational risk governance, the tools used to manage operational and other non-financial risks and the capital charges for them.

## Operational risk governance

The main precept of operational risk management is that ultimate responsibility for managing operational risk lies with business' line management, which receives support from local operational risk managers, and is supervised by local independent risk functions.

The Group risk function is primarily responsible for defining the operational risk management framework for the entire group. The development and implementation of this framework is supported by an extensive operational risk governance model covering all entities of the group.

The Group risk function creates an environment where risk specialists (in various areas, including information risk management, business continuity and disaster recovery, compliance, anti-fraud,

legal, tax and accounting matters) can work together (setting priorities, using the same language and tools, uniform reporting, etc.). It is assisted by the local risk management units, which are likewise independent of the business.

## The building blocks for managing operational risks

We use a number of building blocks for managing operational risks, which cover all aspects of operational risk management.

Between 2011 and 2015, specific attention was given to the structured set-up of process-based Group Key Controls, which gradually replaced the former Group Standards. These Controls are policies containing top-down basic control objectives and are used to mitigate key and killer risks inherent in the processes of KBC entities. As such, they are an essential building block of both the operational risk management framework and the internal control system. Our Group Key Controls now cover the complete process universe of the KBC group (45 KBC Group Processes). Structural risk-based review cycles are installed to manage the process universe, close gaps, eliminate overlap and optimise group-wide risks and controls.

The business and (local) control functions assess these Group Key Controls. The risk self-assessments are consolidated at the Group risk function and ensure that there is a consistent relationship between (i) processes, (ii) risks, (iii) control activities and (iv) assessment scores. KBC created an objective management tool to evaluate its internal control environment and to benchmark the approach across its entities. Each year, we report the assessment results to the National Bank of Belgium and the European Central Bank in our Internal Control Statement.

Besides these Group Key Controls, there are a number of other building blocks:

- **The Loss Event Database.** All operational losses of 1 000 euros or more have been recorded in a central database since 2004. This database also includes all legal claims filed against group companies. Consolidated loss reports are regularly submitted to the Group Internal Control Committee, the Group Executive Committee and the RCC.
- **Risk Scans** (bottom-up and top-down). These self-assessments focus on the identification of key operational risks at critical points in the process/organisation that are not properly mitigated, and on new or emerging operational risks that are relevant at (sub)group level.
- **Risk Signals and Case-Study Assessments.** These are used to test the effectiveness of the protection afforded by existing controls against major operational risks that have actually occurred elsewhere in the financial sector.
- **Key Risk Indicators.** A limited set of KRIs are used to monitor the exposure to certain operational risks and track the existence and effectiveness of the internal controls.
- **Maturity Model.** In 2014, the group operational risk function developed a maturity model to support KBC entities in building a mature control environment in which process improvements, control monitoring and remedial actions are embedded even more deeply into day-to-day business practices.

The quality of the internal control environment and related risk exposure as identified, assessed and managed by means of these building blocks is reported to KBC's senior management via a management dashboard and to the National Bank of Belgium and the FSMA via the annual Internal Control Statement. Information on the internal control and risk management systems can be found in the 'Corporate governance statement' section of the 2015 Annual Report of KBC Group NV.

## Information technology and information security risk

The Group Competence Center for Information Risk Management (IRM) focuses on Information Security and IT-related risks, especially risks caused by cybercrime.

The core activities are:

- **Policy Management.** Manage the Policy & Control framework at group level. Build a set of controls for establishing, performing, monitoring and reviewing sound practices to control risk on a day-to-day basis. Include metrics for evidence-based Risk Management.
- **Driving Risk Governance.** Govern risks that exceed local responsibility at the appropriate level (which could be group, business unit or cross border). Establish risk governance at group level. Report regularly to the key stakeholders (Group CRO, RCC, GICC, Global IT Risk Committee, etc.) via a structural information feed from the community. Evaluate the risks and report back on direction-setting for further actions.
- **Community Support.** Turn the community into an active and strong alliance via several initiatives (e.g., annual event, monthly interactive conference calls, work groups, task forces, Sharepoint). Expand on-site support to enhance the capabilities of local teams and help bridge knowledge, expertise and capacity gaps.
- **Ambassadorship.** Act as a human 'risk' radar, facilitator and stealth observer via an on-site presence, coaching local teams about the Information Security framework, best practices, maturity assessments, etc.
- **Independent Investigations.** Plan and perform independent 'in-depth' investigations of internal controls on behalf of the Group CRO, local CRO or senior general management, to provide a second level overview and reasonable assurances. Investigations encompass all operational risks and vary in intensity, ranging from in-depth, cross-entity challenges, entity or thematic deep dives to continuous observations.

## New and Active Products Process (NAPP)

Through the Group Key Control New and Active Products Process (NAPP), business has to consider the main risks related to all new, modified or reviewed products and services. In addition, the advice from support functions (Risk, Compliance, Legal, Tax, Finance, Credit, Business Architecture) has to be sought. If the risks related to a product or service are deemed too great, the business proposal will be rejected or subjected to conditions.

## Operational risk capital charge

KBC uses the Standard approach to calculate operational risk capital under Basel II. Operational risk capital for KBC Bank at the consolidated level totalled 822 million euros at the end of 2015, compared with 849 million euros at the end of 2014.

For divested entities, KBC keeps operational risk capital (under pillar 2) in line with the outstanding contractual liabilities.

## Other non-financial risks

### Business risk

KBC defines business risk as the risk arising from changes in external factors (the macroeconomic environment, regulations, client behaviour, competitive landscape, socio-demographic environment, etc.) that impact the demand for and/or profitability of our products and services.

Business risk is assessed using structured risk scans, but also on an ongoing basis by reporting 'risk signals' to top management.

KBC reserves a pillar 2 capital charge specifically for business risk. Business risk capital is based on the operating expenses for the various KBC group entities. The portion of operating expenses to be set aside as economic capital for business risk depends on the level of risk attached to the activities of each entity, as determined on the basis of quantitative and qualitative assessments of activities across KBC group entities.

### Reputation risk

Reputation risk is the risk arising from the negative perception on the part of clients, counterparties, shareholders, investors, debt-holders, market analysts, other relevant parties or regulators that can adversely affect a financial institution's ability to maintain existing, or establish new business relationships and to have continued access to sources of funding (for instance, through the interbank or securitisation markets). Reputation risk is mostly a secondary or derivative risk since it is usually connected to and will materialise together with another risk.

We refined the Reputation Risk Management Framework in 2015 to bring it into line with the KBC Risk Management Framework. The pro-active and re-active management of reputation risk is the responsibility of the business, supported by many specialist units (e.g., Group Communication and Group Compliance).

Under the pillar 2 approach to capital adequacy, the impact of reputation risk on the current business is covered in the first place by the capital charge for primary risks (such as credit or operational risk, etc.). It is also covered by the capital reserved for business risk.



### **Business Continuity Management (BCM)**

The Group risk function is responsible for developing a group-wide framework to ensure the continuity of operations, following operational risk governance.



# Insurance Risk Management

Technical insurance risks stem from uncertainty regarding how often insured losses will occur and how extensive they will be. All these risks are kept under control through appropriate underwriting, pricing, claims reserving, reinsurance and claims handling policies of line management and through independent insurance risk management.

## Strategy and processes

The Group risk function develops and rolls out a group-wide framework for managing insurance risks. It is responsible for providing support for local implementation and for the functional direction of the insurance risk management process of the insurance subsidiaries.

The insurance risk management framework is designed primarily around the following building blocks:

- Adequate identification and analysis of material insurance risks by, inter alia, analysing new emerging risks, concentration or accumulation risks, and developing early warning signals.
- Appropriate risk measurements and use of these measurements to develop applications aimed at guiding the company towards creating maximum shareholder value. Examples include best estimate valuations of insurance liabilities, ex post economic profitability analyses, natural catastrophe and other life, non-life and health exposure modelling, stress testing and required economic capital calculations.
- Determination of insurance risk limits and conducting compliance checks, as well as providing advice on reinsurance programmes.

## Scope of insurance risk management

The following entities are in scope, viz. KBC Insurance (Belgium), Maatschappij voor Brandverzekering, Sepia, KBC Group Re, K&H Insurance, ČSOB Pojišť'ovna (Czech Republic), ČSOB Poist'ovňa (Slovak Republic) and DZI Insurance.

## Insurance risk classification

Part of the risk identification process consists of reliably classifying all insurance risks that may be triggered by (re)insurance contracts.

Under the Solvency II directive, insurance activities are split up into three main categories, namely Life, Non-life and Health.

- **Life insurance risks** are further split up into catastrophe risks and non-catastrophe risks. Life non-catastrophe risks cover the biometric risks (longevity, mortality and disability-morbidity risk), revision risk, expense risk and lapse risk related to life insurance contracts.
- **Non-life insurance risks** are further split up into catastrophe and non-catastrophe risks. Non-life non-catastrophe risks cover the premium risk, reserve risk and lapse risk related to

non-life insurance contracts.

- **Health risks** are also split up into catastrophe risks and non-catastrophe risks. The latter are then further subdivided into Health Similar to Life Techniques (includes longevity, mortality, disability-morbidity, expense risk and lapse risk) and Health Non-Similar to Life Techniques (premium and reserve risk, lapse risk). In other words, all subtypes included under 'Life' and 'Non-life' also appear in the 'Health' category.

The various subtypes of insurance risk, linked to the different insurance categories (Life, Non-life and Health) are defined as follows:

- **Catastrophe risk:** the risk that a single damaging event, or series of correlated events, of major magnitude, usually over a well-defined, short time period leads to a significant deviation in actual claims from the total expected claims. A distinction is made between natural catastrophes (e.g., wind storms, floods, earthquakes) and man-made catastrophes (e.g., terrorist attacks like 9/11). Not only the non-life, but also the life insurance business can be exposed to catastrophes, such as the pandemic threat of bird flu or accidental events.
- **Lapse risk:** the risk that the actual rate of policy lapses (i.e. premature full or partial termination of the contract by the policyholder) differs from those used in pricing.
- **Expense risk:** the risk that the cost assumptions used in pricing or valuing insurance liabilities in terms of acquisition costs, administration costs or internal settlement costs, turn out to be too optimistic.
- **Revision risk:** the potential negative deviation from the expected value of an insurance contract or a portfolio thereof due to unexpected revisions of claims. Only to be applied to annuities where the amount of the annuity may be revised during the next year.
- **Biometric risk:** the potential negative deviation from the expected value of an insurance contract or a portfolio thereof due to unexpected changes related to human life conditions.
  - **Longevity risk:** the risk that the mortality rates used in pricing annuity products (or other products with negative capital at risk) turn out to be too high, i.e. people live longer than expected.
  - **Mortality risk:** the risk that the mortality rates used in pricing will turn out to be too low, i.e. people die earlier than expected.
  - **Disability-morbidity risk:** the risk that the part of the premium charged to cover hospitalisation or disability claims is not sufficient, due to a higher number of claims or more expensive claims than expected.
- **Premium risk:** the risk that the premium that will be earned next year will not be enough to cover all liabilities resulting from claims in this portfolio, due for instance to the fact that the number of claims will be higher than expected (frequency problem) or the severity of the claims will be higher than expected (severity problem)
- **Reserve risk:** the risk that the liabilities stemming from claims, which have occurred in the past, but have still to be finally settled, will turn out to be more expensive than expected.

## Insurance risk measurement

We develop models from the bottom up for all material group-wide insurance liabilities, i.e. (i) future claims that will occur over a predefined time horizon, as well as the claims settlement pattern, (ii) the future settlement of claims (whether already reported to the insurer or not) that have occurred in the past but have not yet been fully settled, and (iii) the impact of the reinsurance programme on these claims. We use these models to steer the group's insurance entities towards creating more shareholder value, by means of applications to calculate economic capital, support decisions on reinsurance, calculate the ex post profitability of specific sub-portfolios and set off economic capital requirements against the relevant return in pricing insurance policies.

Insurance risk management has developed an internal model for the group-wide exposure to all non-life insurance risks, including natural hazards. This model measures the most material non-life insurance risks (catastrophe and premium & reserve risk) for all group insurance and reinsurance companies, with account being taken of outward reinsurance (external and intra group). Work is currently being carried out to develop other internal models for measuring insurance risks. The internally developed models and frameworks follow the Risk Measurement Framework and are validated within this scope by the independent validation unit.

## Best estimate valuations of insurance liabilities

As part of its mission to independently monitor insurance risks, the Group risk function regularly carries out in-depth studies. These confirm that there is a high degree of probability that the non-life technical provisions at subsidiary level are adequate. Adequacy is checked per business line at subsidiary level and the overall adequacy is assessed at subsidiary level for all business lines combined.

In addition, various group companies conduct Liability Adequacy Tests (LAT) that meet local and IFRS requirements for the life technical provisions. We make calculations using prospective methods (cashflow projections that take account of lapse rates and a discount rate that is set for each insurance entity based on local macroeconomic conditions and regulations), and build in extra market-value margins to deal with the factor of uncertainty in a number of parameters. Since no deficiencies were identified by year-end 2015, there was no need for a deficiency reserve to be set aside within the KBC group.

The techniques used to perform these best estimate valuations will become the foundation of future group-wide insurance liabilities' valuation frameworks to be used within Solvency II and IFRS 4/2.

## Technical provisions and loss triangles, non-life business

The table shows claims settlement figures in the non-life business over the past few years and includes KBC Insurance NV, ČSOB Pojišť'ovna (Czech Republic), ČSOB Poist'ovňa (Slovak Republic), DZI Insurance (from financial year 2008), K&H Insurance, and KBC Group Re. All provisions for claims to be paid at the close of 2015 have been included. The claims-settlement figures incorporate all amounts that can be allocated to individual claims, including the Incurred But Not Reported (IBNR) and Incurred But Not Enough Reserved (IBNER) provisions, and the external handling expenses for settling claims, but do not include internal claims settlement expenses and provisions for amounts expected to be recovered. The provisions included are before reinsurance and have not been adjusted to eliminate intercompany amounts.

The first row in the table shows the total claims burden (claims paid plus provisions) for the claims that occurred during a particular year, as estimated at the end of the year of occurrence. The following rows indicate the situation at the end of the subsequent calendar years. We restated the amounts to reflect exchange rates at year-end 2015.

Loss triangles, KBC Insurance (in millions of EUR)	Year of occurrence 2006	Year of occurrence 2007	Year of occurrence 2008*	Year of occurrence 2009	Year of occurrence 2010	Year of occurrence 2011	Year of occurrence 2012	Year of occurrence 2013	Year of occurrence 2014	Year of occurrence 2015
Estimate at the end of the year of occurrence	631	687	794	825	868	805	845	906	996	949
1 year later	537	620	756	723	769	710	738	760	885	–
2 years later	510	587	726	668	719	654	702	694	–	–
3 years later	499	565	714	651	716	635	677	–	–	–
4 years later	485	561	709	634	710	623	–	–	–	–
5 years later	478	556	701	626	701	–	–	–	–	–
6 years later	463	549	676	619	–	–	–	–	–	–
7 years later	457	549	672	–	–	–	–	–	–	–
8 years later	455	548	–	–	–	–	–	–	–	–
9 years later	453	–	–	–	–	–	–	–	–	–
Current estimate	453	548	672	619	701	623	677	694	885	949
Cumulative payments	405	475	600	530	602	518	521	526	591	349
Current provisions	48	73	72	89	99	105	156	167	293	601

\* From financial year 2008, the figures for DZI Insurance (Bulgaria) have been included. If these figures had not been taken into account, the following amounts would have been arrived at for financial year 2008 (amount and year of occurrence): 500 for 2006; and 586 for 2007.

## Insurance risk mitigation by reinsurance

The insurance portfolios are protected against the impact of serious claims or the accumulation of losses (due, for instance, to a concentration of insured risks) by means of reinsurance. We divide these reinsurance programmes into three main groups, i.e. property insurance, liability insurance and personal insurance, and re-evaluate and renegotiate them every year.

Most of our reinsurance contracts are concluded on a non-proportional basis, which provides cover against the impact of serious claims or loss events. The independent insurance risk management function is also responsible for advising on the restructuring of the reinsurance programmes, especially with a view to creating shareholder value. This approach has resulted in optimising the retention of the KBC group particularly in respect of its exposure to natural catastrophe risk. In view of reducing P&L volatility, KBC Insurance Belgium has concluded a multi-line multi-year reinsurance agreement covering the most important non-life business lines for three years.

More information on the insurance activities of the group can be found under Notes 9, 10, 11 and 35 of the 'Consolidated financial statements' section of the 2015 Annual Report of KBC Group NV. A breakdown by business unit of earned premiums and technical charges is provided in the notes dealing with segment reporting.



# Glossary



### **3 LOD (3 Lines of Defence)**

The 3 LOD model ensures the resilience of KBC's risk and control environment and safeguards the sustainability of our business model going forward. In this model, Business acts as the first line of defence, Risk as one of the second lines and Internal Audit as the third line. They all work together in order to prevent big impact losses for the KBC group.

### **ABS (Asset Backed Securities)**

ABS are bonds or notes backed by loans or accounts receivables originated by providers of credit such as banks and credit card companies. Typically, the originator of the loans or accounts receivables transfers the credit risk to a trust, which pools these assets and repackages them as securities. These securities are then underwritten by brokerage firms, which offer them to the public.

### **Add-On**

Basel-II-defined factor to reflect the potential future increase in exposure stemming from derivatives transactions.

### **ALM (Asset and Liability Management)**

The ongoing process of formulating, implementing, monitoring and revising strategies for both on-balance-sheet and off-balance-sheet items, in order to achieve an organisation's financial objectives, given the organisation's risk tolerance and other constraints.

### **Alt-A**

A classification of mortgages considered riskier than prime, but less risky than subprime. As a result of the subprime crisis, Alt-A mortgages came under particular scrutiny.

### **Asset class**

A classification of credit exposures according to the Capital Requirements Directive – IRB approach. The main classes are Sovereigns, Institutions, Corporates, SME Corporates and Retail. Classification depends on the type of obligor, the total annual sales of the obligor, the type of product and the exposure value.

### **Asset quality review (AQR)**

The asset quality review is part of the ECB's comprehensive assessment, an exercise to deliver greater transparency on bank's balance sheets, to prompt the repair of impaired balance sheets and to rebuild confidence in banks. It took place for the first time in 2014. The asset quality review was based on balance sheets at year-end 2013, the assessment covered credit and market, on- and off-balance-sheet, domestic and non-domestic exposures.

### **Banking book**

KBC's banking book is defined as all positions in the KBC Bank group that are not in the trading book. A trading book consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any covenants restricting their tradability or be able to be hedged completely. In addition, positions should be frequently and accurately valued, and the portfolio actively managed.

### **Basel III**

Basel III is a global regulatory standard on bank capital adequacy, stress testing and market liquidity risk agreed upon by the members of the Basel Committee on Banking Supervision in 2010. Basel III was developed in response to the deficiencies in financial regulation revealed by the late-2000s financial crisis.

### **BIS (Bank for International Settlements)**

The Bank for International Settlements (BIS) is an international organisation that fosters cooperation towards monetary and financial stability and serves as a bank for central banks. It is the world's oldest international financial institution and remains to this day the principal centre for international central bank cooperation. (BIS website: [www.bis.org](http://www.bis.org)).

### **BPV (Basis Point Value)**

The measure that reflects the change in the net present value of interest rate positions, due to an upward parallel shift of 10 basis points (i.e. 0.10%) in the zero coupon curve.

### **Business risk**

Business risk is the risk arising from changes in external factors that impact the demand for and/or profitability of our products and services. Risk factors that are taken into consideration include the macroeconomic environment, the regulatory framework, client behaviour, the competitive landscape and the socio-demographic environment. Business risk is assessed on the basis of structured risk scans.

### **CAD ratio**

Total eligible capital / Risk-weighted assets (the result must be at least 8% according to the Basel regulations).

### **CDO (Collateralised Debt Obligation)**

CDOs are a type of asset-backed security and a structured finance product in which a distinct legal entity, a special purpose vehicle (SPV), issues bonds or notes against an investment in an underlying asset pool. Pools may differ with regard to the nature of their underlying assets and can be collateralised either by a portfolio of bonds, loans and other debt obligations, or be backed by synthetic credit exposures through use of credit derivatives and credit-linked notes.

The claims issued against the collateral pool of assets are prioritised in order of seniority by creating different tranches of debt securities, including one or more investment grade classes and an equity/first loss tranche. Senior claims are insulated from default risk to the extent that the more junior tranches absorb credit losses first. As a result, each tranche has a different priority of payment of interest and/or principal and may thus have a different rating.

### **CDS (Credit Default Swap)**

A privately negotiated bilateral agreement where one party (the protection-buyer or risk-shedder) pays a premium to another party (the protection-seller or risk-taker) in order to secure protection against any losses that may be incurred through exposure to a reference entity or investment as a result of an unforeseen development (or 'credit event').

### **Central Tendency**

Average through-the-cycle default probability of a segment.

### **CLO (Collateralised Loan Obligation)**

CDO holding only loans as underlying assets.

### **CP (Commercial Paper)**

Unsecured short-term promissory notes which generally have maturities of less than 270 days.

### **CRD (Capital Requirements Directive)**

European-Union-specific interpretation of the general Basel II regulations. The CRD is in turn transposed into the national legislation and regulations of the EU Member States.

### **Credit risk**

Credit risk is the potential negative deviation from the expected value of a financial instrument arising from the non-payment or non-performance by a contracting party (for instance, a borrower, guarantor, insurer or re-insurer, counterparty in a professional transaction or issuer of a debt instrument), due to that party's insolvency, inability or lack of willingness to pay or perform, or to events or measures taken by the political or monetary authorities of a particular country (country risk). Credit risk thus encompasses default risk and country risk, but also includes migration risk, which is the risk for adverse changes in credit ratings.

### **Cure rate**

Rate of clients who default and revert subsequently to 'non-defaulted' status.

### **Downturn LGD**

LGD in an economic downturn. The underlying idea in the Basel regulation is that LGD is correlated to PD and loss rates will be higher in a year with many defaults.

### **DPF (Discretionary Participation Feature)**

Part of the annual profit that is attributed to the policyholders of an insurance contract.

### **EAD (Exposure At Default)**

The amount expected to be outstanding if an obligor defaults. At the time of default, it is equal to the actual amount outstanding, and therefore is no longer an expectation.

### **EBA (European Banking Authority)**

The successor to the CEBS (Committee of European Banking Supervisors).

A committee comprised of high level representatives from the banking supervisory authorities and central banks of the European Union. It gives advice to the European Commission on banking policy issues and promotes co-operation and convergence of supervisory practice across the European Union. The committee also fosters and reviews common implementation and consistent application of Community legislation.

### **ECAP (Economic Capital)**

Economic capital is the amount of capital needed to absorb very severe losses, expressed in terms of the potential reduction in the economic value of the group (= difference between the current economic value and the worst case economic value over a one-year time horizon and measured at a certain confidence level). It represents the minimum amount of capital which is required in order to protect KBC group debt holders against economic insolvency under extreme circumstances.

### **EIOPA (European Insurance and Occupational Pensions Authority)**

The successor to the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS), EIOPA is part of the European System of Financial Supervision consisting of three European Supervisory Authorities and the European Systemic Risk Board. It is an independent advisory body to the European Parliament and the Council of the European Union. EIOPA's core responsibilities are to support the stability of the financial system, transparency of markets and financial products, as well as the protection of insurance policyholders, pension scheme members and beneficiaries.

### **EL (Expected Loss)**

The expected value of losses due to default over a specified horizon. EL is typically calculated by multiplying the Probability of Default (a percentage) by the Exposure At Default (an amount) and Loss Given Default (a percentage). It is always considered 'an expectation' due to the 'Probability of Default' factor.

### **Fair value**

The amount for which an asset could be exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction. Market-consistent value or fair value is based on relative pricing or the 'no arbitrage' argument.

### **Forbearance measures**

Forbearance measures consist of concessions (the loan's terms/conditions are renegotiated) towards a borrower facing, or about to face, financial difficulties. Forbearance measures can be taken only if the borrower and the bank both agree to them. Forbearance measures are applied at facility level.

### **Forborne loans**

Forborne loans – formerly known as distressed restructured loans – are exposures on debt contracts for which forbearance measures have been taken and for which the exit criteria have not been fulfilled.

### **FSMA (Financial Services and Markets Authority)**

The FSMA is the successor to the former Banking, Financial and Insurance Commission (CBFA). It is responsible for supervising the financial markets and listed companies, authorising and supervising certain categories of financial institutions, overseeing compliance by financial intermediaries with codes of conduct and supervising the marketing of investment products to the general public, as well as for the 'social supervision' of supplementary pensions. The Belgian government has also tasked the FSMA with contributing to the financial education of savers and investors.

### **GRIS (Group Risk Integration & Support)**

The Group Risk Integration & Support (GRIS) division supports the CRO of KBC Group NV, KBC Bank and KBC Insurance and business entities at group level. GRIS designs the KBC Risk Management Framework (RMF) and most of its underlying building blocks.

### **GMRA (General Master Repurchase Agreement)**

Standardised contract used when entering into (reverse) repo-like transactions.

### **Haircuts**

The difference between the market value of a security and its collateral value. Haircuts are taken in order to account for a possible decline in the market value of a collateralising security upon liquidation.

### **HVaR (Historical Value at Risk)**

Historical Value-at-Risk estimates the maximum amount of money that can be lost on a given portfolio due to adverse market movements over a defined holding period, with a given confidence level and using real historical market performance data.

### **IBNR (Incurred but not Reported) impairments**

IBNR impairments are impairment losses recognised on unimpaired loans and advances, as well as on unimpaired debt securities in a Loans & Receivables book, Available-for-Sale (AFS) book or Held-to-Maturity (HTM) book. They are estimated on a portfolio basis using a model-based (statistical) method. Loans and advances, as well as debt securities in a Loans & Receivables book, Available-for-Sale (AFS) book or Held-to-Maturity (HTM) book, are grouped together based on a default expectation rating that takes several indicators of impairment into account. IBNR impairments are an estimate of the specific provisions to be booked for a credit event (also known as the 'impairment trigger') that has already occurred, but is still unknown, and will only emerge at a later date.

### **ICAAP (Internal Capital Adequacy Assessment Process)**

The internal process a bank should have in place for assessing its overall capital adequacy in relation to its risk profile, as well as its strategy for maintaining adequate capital levels in the future.

### **Impairment on financial assets**

A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cashflows of the financial asset or group of financial assets that can be reliably estimated. If any such evidence exists, the entity applies the appropriate impairment methodology to the financial asset concerned. Losses expected as a result of future events, no matter how likely, are not recognised.

### **Insurance risk**

The potential negative deviation from the expected value of an insurance contract or pension claim (or a portfolio thereof).

### **Interest rate risk**

The potential negative deviation from the expected value of a financial instrument or portfolio thereof due to changes in the level or in the volatility of interest rates.

### **IRB (Internal Ratings-Based)**

An approach defined in the Capital Requirements Directive to calculate the credit-risk-related capital requirements, where a financial institution uses its own models to perform the calculation. There are two possibilities: the IRB Foundation or the IRB Advanced approach. When applying the IRB Foundation approach, internal estimates of the Probability of Default are used to calculate minimum requirements, while the IRB Advanced method also takes into account the internal estimates of Exposure At Default and Loss Given Default.

### **ISDA Master Agreements**

Standardised contracts developed by the International Swaps and Derivatives Association and used to document bilateral professional transactions. The presence of such contracts also allows professional exposures between the contracting parties to be netted.

### **Lapse risk**

The potential negative deviation from the expected value of an insurance contract or a portfolio thereof due to unexpected changes in policy lapses. Note that the term surrender risk refers specifically to contracts with surrender value.

### **LCR (Liquidity Coverage Ratio)**

'Stock of high-quality liquid assets minus Total net cash outflows over the next 30 calendar days'. A result of 100% (or more) indicates that a bank is maintaining a sufficient stock of 'high-quality liquid assets' to cover net cash outflows for a 30-day period under a stress scenario. The parameters of the stress scenario are defined under Basel III.

### **Leverage ratio**

The leverage ratio is a new supplementary non-risk based measure to contain the build-up of leverage (i.e. a backstop as regards the degree to which a bank can leverage its capital base). It is calculated as a percentage of tier-1 capital relative to the total on and off balance sheet exposure (non-risk weighted).

### **LGD (Loss Given Default)**

The loss a bank expects to experience if an obligor defaults, taking into account the eligible collateral and guarantees provided for the exposure. It can be expressed as an amount or as a percentage of the EAD (Exposure At Default). At the time of default, the loss experienced is a loss of the actual amount outstanding, thus no longer an expectation.

### **Liquidity risk**

Liquidity risk is the risk that an organisation will be unable to meet its payment obligations as they come due because of the inability to liquidate assets or obtain adequate funding (liability liquidity risk) or the risk that it cannot easily unwind or offset specific exposures without significantly lowering market prices because of inadequate market depth or market disruptions (asset liquidity risk).

### **Market risk**

The potential negative deviation from the expected value of a financial instrument (or portfolio thereof) due to changes in the level or volatility of market prices.

### **Market value**

The cost that would be incurred or the gain that would be realised if an outstanding contract was replaced at current market prices (also called replacement value).

### **Mark-to-Market**

The act of assigning a market value to an asset

### **MREL**

The minimum requirement for own funds and eligible liabilities. It is set on a case-by-case basis by the SRB.

### **MVA (Market Value Adjustment)**

IFRS-inspired adjustments or reserves recognised on positions at fair value. MVAs cover close-out costs, adjustments for less liquid positions or markets, counterparty exposure resulting from OTC derivatives, model-linked valuation adjustments, operation-related costs, as well as transaction-specific adjustments.

### **NBB (National Bank of Belgium)**

One of the tasks of the NBB is financial supervision, which is the instrument for ensuring financial stability, and the second key function of a central bank, alongside monetary stability. Financial supervision covers the:

1. prudential supervision of financial institutions from both the micro-prudential and macro-prudential angle, and the prompt detection of systemic risk;
2. supervision of information, the functioning of the financial markets and respect for the appropriate code of conduct, together with consumer protection.

### **Netting**

An agreed offsetting of positions or obligations by trading partners or participants to an agreement. Netting reduces the number of individual positions or obligations subject to an agreement to a single obligation or position.



### **NSFR (Net Stable Funding Ratio)**

'Available Stable Funding/Required Stable Funding', where available stable funding is derived from different components on the liabilities side of the balance sheet (required funding = assets side). Basel III defined weightings for determining stability are assigned to the different components (both assets and liabilities). An NSRF of 100% means that the funding situation is stable.

### **Operational risk**

The potential negative deviation from the expected value of the organisation resulting from inadequate or failed internal processes and systems, human error or sudden external events, whether man-made or natural. Operational risk excludes business, strategic and reputational risk.

### **ORSA (Own Risk and Solvency Assessment)**

The Own Risk and Solvency Assessment covers the entirety of the processes and procedures employed for identifying, assessing, monitoring, managing, and reporting on the short- and long-term risks a (re)insurance undertaking faces or may face, and for determining the own funds necessary to ensure that the undertaking's overall solvency needs are met at all times.

### **OTC (Over The Counter)**

An over-the-counter contract is a bilateral contract where two parties agree on how a particular trade or agreement is to be settled in the future. It is usually a direct contract between a bank (or an investment bank) and its clients. It contrasts with exchange trading.

### **PD (Probability of Default)**

The probability that an obligor will default within a one-year horizon.

### **PIT PD (Point-In-Time PD)**

PD reflecting the expected default rate in the next year, based on current economic conditions (contrast with Through-the-Cycle PD).

### **RAPM (Risk-Adjusted Performance Measurement)**

The risk-adjusted performance measurement policy defines a set of risk-adjusted performance metrics to be used for (i) allocating capital and (ii) setting variable remuneration.

### **RAROC**

A measure, expressed as a percentage, used to reflect the profitability of transactions and/or financial instruments, account taken of the risk involved in these transactions and/or financial instruments. Generally speaking, it equals the 'expected profits minus the expected losses' divided by the capital invested.

### **RBA (Ratings-Based Approach)**

Basel II approach for calculating the risk-weighted assets applied to securitisation exposures that are externally rated, or where a rating can be inferred.

### **Risk appetite**

Risk appetite, as defined by the Board of Directors, is the amount and type of risk that KBC is able and willing to accept in pursuit of its strategic objectives. While the ability to accept risk is limited by financial (e.g., available capital) and non-financial regulatory and legal constraints, the willingness to accept risk depends on the interests of various stakeholders (shareholders, creditors, employees, management, regulators, clients, etc.). Risk appetite aims to find the right balance of satisfaction for all stakeholders.

### **RMBS (Residential Mortgage-Backed Security)**

A type of structured credit product whose underlying assets are residential debt such as mortgages, home-equity loans and subprime mortgages.

### **RWA (Risk-Weighted Asset)**

An exposure weighted according to the 'riskiness' of the asset concerned. 'Riskiness' depends on factors such as the probability of default by the obligor, the amount of collateral or guarantees and the maturity of the exposure.

### **SFA (Supervisory Formula Approach)**

Basel II approach used to calculate the risk-weighted assets of a structured credit product based on a formula defined in the Basel II securitisation framework.

### **Solvency II**

Solvency II is a project, initiated by the European Commission in 2001, which establishes capital requirements and risk management standards that will apply across the EU and will affect all areas of an insurer's operations. Solvency II aims to move away from the idea that 'one approach fits all' and thus encourages companies to manage risk in a way which is appropriate to the size and nature of their business in order to provide protection to policyholders by reducing the risk of insolvency to insurers.

### **SPV (Special Purpose Vehicle)**

A Special Purpose Vehicle in the context of this document is any distinct entity created to achieve (a) narrow and well-defined objective(s). SPVs may be created by the KBC group, managed by the KBC group, created by third parties for the account of the KBC group or managed by third parties for the account of the KBC group.

### **SRB (Single Resolution Board)**

The Single Resolution Board (SRB), which became operational on 1 January 2015 (fully responsible for resolution on 1 January 2016), is the resolution authority for significant banking groups and for any cross-border banking group established within participating member states. Resolution is the restructuring of a bank by a resolution authority through the use of resolution tools in order to safeguard public interests, including the continuity of the bank's critical functions and financial stability, at minimal costs to taxpayers.

### **SSS (Super Senior Swap)**

In the so-called unfunded portion of a synthetic CDO, the risk embedded in a portfolio of assets (as opposed to the assets themselves) is transferred directly to a 'super-senior counterparty' via a super-senior CDS. In this instance, the CDO acts as the protection-buyer, by agreeing to pay a premium to the counterparty (the protection-seller) in return for a commitment from the counterparty to pay compensation to the CDO in the event of any defaults in the reference portfolio. It is the best part in terms of subordination.

### **SVaR (Stressed Value At Risk)**

Stressed Value-At-Risk is analogous to the Historical VaR, but it is calculated for the time series of a maximum stressed period in recent history.

### **(Core) Tier-1 ratio**

$[\text{tier-1 capital}] / [\text{total weighted risks}]$ . The calculation of the core tier-1 ratio does not include hybrid instruments (but does include the core-capital securities sold to the Belgian and Flemish governments).

### **Trading book**

The trading book consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. Positions held for trading intent are those held intentionally for resale in the short term and/or with the intent of benefiting from actual or expected price movements in the short term or to lock in arbitrage profits.

### **TTC PD (Through-The-Cycle PD)**

PD reflecting the one-year expected default rate averaged out over a longer period (contrast with Point-in-Time PD).

### **VaR (Value At Risk)**

The unexpected loss in the fair value (= difference between the expected and worst case fair value), at a certain confidence level and with a certain time horizon.