## Bank of Ireland Group plc <br> Pillar 3 Disclosures 2017

# Bank of Ireland 

## Pillar 3 Disclosures

for the year ended 31 December 2017

## Forward-looking statement

This document contains forward-looking statements with respect to certain of the Bank of Ireland Group plc (the 'Company' or 'BOIG plc') and its subsidiaries' (collectively the 'Group' or 'BOIG plc Group') plans and its current goals and expectations relating to its future financial condition and performance, the markets in which it operates and its future capital requirements. These forward-looking statements often can be identified by the fact that they do not relate only to historical or current facts. Generally, but not always, words such as 'may,' 'could,' 'should,' 'will,' 'expect,' 'intend,' 'estimate,' 'anticipate,' 'assume,' 'believe,' 'plan,' 'seek,' 'continue,' 'target,' 'goal,' 'would,' or their negative variations or similar expressions identify forward-looking statements, but their absence does not mean that a statement is not forward-looking.

Examples of forward-looking statements include, among others: statements regarding the Group's near term and longer term future capital requirements and ratios, level of ownership by the Irish Government, loan to deposit ratios, expected impairment charges, the level of the Group's assets, the Group's financial position, future income, business strategy, projected costs, margins, future payment of dividends, the implementation of changes in respect of certain of the Group's pension schemes, estimates of capital expenditures, discussions with Irish, United Kingdom, European and other regulators and plans and objectives for future operations. Such forwardlooking statements are inherently subject to risks and uncertainties, and hence actual results may differ materially from those expressed or implied by such forward-looking statements.

Such risks and uncertainties include, but are not limited to, those as set out in the Risk Management Report. Investors should read 'Principal Risks and Uncertainties' in this document beginning on page 42 of the Group's Annual Report.

Nothing in this document should be considered to be a forecast of future profitability or financial position of the Group and none of the information in this document is or is intended to be a profit forecast or profit estimate. Any forward-looking statement speaks only as at the date it is made. The Group does not undertake to release publicly any revision to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date hereof.

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Key highlights


[^0]
## Key highlights (continued)

| Table 1.1-KM1: Key metrics - Regulatory basis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { December } \\ & 2017^{1} \end{aligned}$ | $\begin{array}{r} \text { September } \\ 2017 \end{array}$ | June $2017^{1}$ | $\begin{array}{r} \text { March } \\ 2017 \end{array}$ | $\begin{array}{r} \text { December } \\ 2016^{1,2} \end{array}$ |
| Available capital |  |  |  |  |  |
| 1. Common equity tier 1 (CET1) (€bn) | 7.1 | 6.8 | 7.0 | 6.8 | 7.2 |
| 2. Tier 1 (€bn) | 7.6 | 7.3 | 7.8 | 7.6 | 8.0 |
| 3. Total capital (€bn) | 9.1 | 8.8 | 8.9 | 9.0 | 9.4 |
| Risk weighted assets |  |  |  |  |  |
| 4. Total RWA (€bn) | 45.0 | 48.0 | 48.8 | 50.4 | 50.7 |
| Risk-based capital ratios as a \% of RWA |  |  |  |  |  |
| 5. Common equity tier 1 ratio (\%) | 15.8\% | 14.2\% | 14.4\% | 13.5\% | 14.2\% |
| 6. Tier 1 ratio ${ }^{3}$ (\%) | 17.0\% | 15.3\% | 15.9\% | 15.0\% | 15.7\% |
| 7. Total capital ratio ${ }^{3}$ (\%) | 20.2\% | 18.4\% | 18.3\% | 17.8\% | 18.5\% |
| Additional CET 1 buffer requirements as a \% of RWA |  |  |  |  |  |
| 8. Capital conservation buffer requirement (\%) | 1.25\% | 1.25\% | 1.25\% | 1.25\% | 0.625\% |
| 9. Countercyclical buffer requirement (\%) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 10. Bank G-SIB and / or D-SIB additional requirements (\%) | - | - | - | - | - |
| 11. Total of Bank CET 1 specific buffer requirements (\%) | 1.25\% | 1.25\% | 1.25\% | 1.25\% | 0.625\% |
| 12. CET 1 available after meeting the bank's minimum Pillar 1 capital requirements (4.5\%) (\%) | 11.3\% | 9.7\% | 9.9\% | 9.0\% | 9.8\% |
| Leverage ratio |  |  |  |  |  |
| 13. Total leverage ratio exposure measure ( $€ \mathrm{~m}$ ) | 108.3 | 108.0 | 108.0 | 111.3 | 109.8 |
| 14. Leverage ratio ${ }^{3}$ (\%) | 7.0\% | 6.8\% | 7.2\% | 6.8\% | 7.3\% |
| Liquidity Coverage Ratio |  |  |  |  |  |
| 15. Total HQLA (€bn) | 18.8 | 17.7 | 16.5 | 17.7 | 16.2 |
| 16. Total net cash outflow (€bn) | 13.9 | 13.4 | 13.8 | 13.4 | 14.3 |
| 17. LCR ratio (\%) | 136\% | 132\% | 120\% | 132\% | 113\% |

[^1]The purpose of this document is to disclose information in accordance with the scope of application of the Capital Requirements Directive IV（CRD IV） requirements for the Group，particularly covering capital，risk management，credit risk，market risk，operational risk，liquidity risk，leverage ratio and remuneration．

The CRD IV and the Capital Requirements Regulation（CRR）were published in the Official Journal of the EU on 27 June 2013．The CRR had direct effect in EU member states while the CRD IV was required to be implemented through national legislation in EU member states by 31 December 2013.

CRD IV in the context of this document describes the package CRR，CRD and regulatory and technical standards．

CRD IV is commonly referred to as containing the following three Pillars：

Pillar 1 contains mechanisms and requirements for the calculation by financial institutions of their minimum capital requirements for credit risk，market risk and operational risk．

Pillar 2 is intended to ensure that each financial institution has sound internal processes in place to assess the adequacy of its capital，based on a thorough evaluation of its risks． Supervisors are tasked with evaluating how well financial institutions are assessing their capital adequacy needs relative to their risks．Risks not considered under Pillar 1 are considered under this Pillar．

Pillar 3 is intended to complement Pillar 1 and Pillar 2．It requires that financial institutions disclose information on the scope of application of CRD IV requirements，particularly covering capital requirements／risk weighted assets（RWA） and resources，risk exposures and risk assessment processes．

The Group is required to comply with the CRD IV disclosure requirements at 31 December 2017．For ease of reference， the requirements are referred to as＇Pillar 3 ＇in this document．Pillar 3 contains both qualitative and quantitative disclosure requirements．

In December 2016，the European Banking Authority（EBA）published final guidelines on revised Pillar 3 disclosure requirements aimed to improve and enhance the consistency and comparability of institutions disclosures．These guidelines apply from 31 December 2017 and the Group＇s disclosures have been prepared in accordance with these guidelines．

The Group＇s Pillar 3 document should be read in conjunction with the Group＇s Annual Report 31 December 2017，which contains some Pillar 3 qualitative and quantitative information．Together，both documents comprehensively portray the Group＇s risk profile．

The qualitative disclosure requirements are largely met in the Operating and Financial Review and Risk Management Report sections on page 12 of the Group＇s Annual Report 31 December 2017.

A mapping table has been included in Appendix VI which details how the Group has complied with the Pillar 3 requirements under Part Eight of the CRR．

The Group＇s Pillar 3 disclosures have been prepared in accordance with CRD IV as implemented into Irish law and in accordance with the Group＇s Pillar 3 Disclosure Policy，the key elements of which are set out below．

## Frequency

CRD IV and EBA guidelines require the Group to disclose information at a minimum on an annual basis．To ensure the effective communication of the Group＇s business and risk profile，the Group also pays particular attention to the possible need to provide information more frequently than annually．

## Verification

Information which is sourced from the Group＇s Annual Report 31 December 2017 is subject to audit by the Group＇s external auditors and is subject to both internal and external review，along with appropriate governance．The Pillar 3 document is subject to a robust internal control and governance process in line with Group＇s Pillar 3 Disclosure Policy including final approval by the Group Audit Committee（GAC）．

## Media

Copies of the Group＇s Annual Report 31 December 2017 along with the Group＇s Pillar 3 Disclosures can be obtained from the Group＇s website at www．bankofireland．com or from the Group Secretary＇s Office，Bank of Ireland， 40 Mespil Road，Dublin 4，Ireland．

## Areas covered

In accordance with Pillar 3 requirements， the areas covered by the Group＇s Pillar 3 disclosures include the Group＇s CRD IV capital requirements and resources，credit risk，counterparty credit risk，information on securitisation activity，market risk， operational risk，liquidity risk，encumbered ／unencumbered assets，leverage ratio and the Group＇s remuneration disclosures．

Some of the areas covered are also dealt with in the Group＇s Annual Report 31 December 2017．Where applicable，the relevant sections are cross－referenced throughout this document．In other areas more detail is provided in these Pillar 3 disclosures．For instance，the section on capital requirements includes additional information on the amount of capital held
against various risks and exposure classes，and the section on capital resources provides details on the composition of the Group＇s own funds as well as a reconciliation of accounting equity to regulatory capital．A full listing of Pillar 3 disclosures and their location is included in Appendix VI．

It should be noted that while some quantitative information in this document is based on financial data contained in the Group＇s Annual Report 31 December 2017，other quantitative data is sourced from the Group regulatory platform and is calculated according to regulatory requirements．

The difference between the accounting data and information sourced from the Group＇s regulatory reporting platform is most evident for credit risk disclosures where credit exposure under CRD IV unlike financial statement information， includes potential future drawings of committed credit lines as well as other technical differences．Pillar 3 quantitative data is thus not always directly comparable with the quantitative data contained in the Group＇s Annual Report．

Some details of the key differences between the Group＇s accounting and regulatory exposures are set out in Table 1.8.

## Supervision and regulation

The Single Supervisory Mechanism (SSM) is a system of financial supervision composed of the European Central Bank (ECB) and national competent authorities (NCAs). As part of the SSM, the ECB is responsible for the direct supervision of significant credit institutions, while the NCAs are responsible for the direct supervision of less significant credit institutions. The Group is a significant supervised entity in accordance with the SSM framework and as such is directly supervised by the ECB.

As at 31 December 2017, the Group held three separate banking licences, the Governor and Company of the Bank of Ireland (the 'Bank') and Bank of Ireland Mortgage Bank, which are regulated under the SSM, along with Bank of Ireland (UK) plc which is authorised by the UK Prudential Regulation Authority (PRA). By operating a branch in the United States, Bank of Ireland and its subsidiaries are subject to certain regulation by the Board of Governors of the Federal Reserve System under various laws, including the International Banking Act of 1978 and the Bank Holding Company Act of 1956. Each
individual licence holder and regulated entity is required to comply with its local regulatory requirements.

Following shareholder and High Court approvals and in line with our regulators' preferred resolution strategy, the Group implemented a corporate reorganisation resulting in Bank of Ireland Group plc ('BOIG plc') being introduced as the listed holding company of the Group in July 2017. BOIG plc became the parent company of the Group. The structure of the Group is otherwise unchanged

CRD IV

The CRD IV legislation commenced implementation on a phased basis from 1 January 2014. The CRD IV transition rules resulted in a number of deductions from Common equity tier 1 (CET 1) capital being introduced on a phased basis typically with a $20 \%$ impact in 2014, $40 \%$ in 2015 and so on until full implementation by 2018 , with the exception of the
deferred tax assets (DTA) (dependent on future profitability) deduction which in the case of the Group is phased to 2024. The ratios outlined in this section reflect the Group's interpretation of the CRD IV rules as published on 27 June 2013 and subsequent clarifications, including ECB regulation 2016/445 on the exercise of options and discretions.

Table 1.2 summarises the phase-in rates of CET 1 deductions over the transition periods.

Table 1.4 outlines the Group's capital ratios at 31 December 2017 on both a regulatory and fully loaded basis.

| Table 1.2-Transition period phase-in rates |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 |
| Retirement benefit obligations / defined benefit pensions | 20\% | 40\% | 60\% | 80\% | 100\% |
| Available for sale reserves |  |  |  |  |  |
| - Unrealised losses (\% to be included in CET 1 capital) | 20\% | 40\% | 60\% | 80\% | 100\% |
| - Unrealised gains (\% to be excluded from CET 1 capital) | 100\% | 60\% | 40\% | 20\% | 0\% |
| Expected loss deduction ${ }^{1}$ | 20\% | 40\% | 60\% | 80\% | 100\% |
| 10\% / 15\% Threshold deduction | 20\% | 40\% | 60\% | 80\% | 100\% |
| Deferred tax assets ${ }^{2}$ | 0\% | 10\% | 20\% | 30\% | 40\% ${ }^{3}$ |
| Other adjustments ${ }^{4}$ | 20\% | 40\% | 60\% | 80\% | 100\% |

The main items which have impacted Common equity tier 1 (CET 1) capital since the inception of the CRD IV transition rules are included below:

- pensions deficit add back;
- unrealised gains and losses on available for sale securities;
- significant investments in nonconsolidated financial sector entities;
- expected loss net of provisions; and
- deferred tax assets that rely on future profitability (excluding those arising from temporary differences).


## CRD IV Developments

CRD IV includes requirements for regulatory and technical standards to be published by the EBA. CRD IV continues to evolve through amendments to current regulations and the adoption of new
technical standards. On 23 November 2016, the European Commission (EC) published a set of legislative proposals, including amendments of the existing CRD and the CRR, as well as the related EU Bank Recovery and Resolution Directive (BRRD) and the Single Resolution Mechanism (SRM) Regulation.

[^2]
## CRD IV (continued)

The proposed amendments are expected to start entering into force in 2019 at the earliest.

In December 2017, the Basel Committee announced revisions of the Basel Framework. The revisions focus on Standardised and internal ratings based (IRB) approaches to measuring credit risk and the introduction of an aggregate output floor to ensure Banks' RWA calculated via internal models are no lower than $72.5 \%$ of RWA calculated under the Standardised approach. The revised standards are proposed to take effect from 1 January 2022 with a phase-in
period of five years for the aggregate output floor. The Group is currently assessing the impact of these revisions although any impact will depend on implementation at EU level.
The Group actively monitors these developments and seeks to effectively comply with the new requirements when finalised.

## IFRS 9 capital impact

The Group has estimated that the quantitative impact from initial adoption of IFRS 9 on 1 January 2018 will reduce the Group's fully loaded CET 1 ratio by c. 20 basis points.

The Group has elected to apply the transitional arrangement which, on a regulatory CET 1 basis, will result in minimal impact from initial adoption and partially mitigate future impacts in the period to 2022. This will involve a capital addback of a portion of the increase in the impairment loss allowance on transition to IFRS 9 and also any subsequent increase in the stage 1 and 2 loss allowances at future reporting dates. The transition period is for five years, with a 95\% addback allowed in 2018, decreasing to $85 \%$, $70 \%, 50 \%$ and $25 \%$ in subsequent years.

Key capital ratios and key risk weighted assets movements

| Table 1.3 - Risk weighted assets (RWA) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | Regulatory € $b$ n |  | Regulatory € bn |  |
| Credit risk ${ }^{1}$ | 38.7 | 38.5 | 44.0 | 43.8 |
| Counterparty credit risk | 0.7 | 0.7 | 1.4 | 1.4 |
| Securitisation | 0.5 | 0.5 | 0.3 | 0.3 |
| Market risk | 0.5 | 0.5 | 0.4 | 0.4 |
| Operational risk | 4.6 | 4.6 | 4.6 | 4.6 |
| Total RWA | 45.0 | 44.8 | 50.7 | 50.5 |

The following tables outline the components of the Group's risk weighted assets, capital and capital ratios under CRD IV on a regulatory and fully loaded basis.

| Table 1.4-Capital and capital ratios |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2017$ <br> Regulatory |  | $2017$ <br> Fully loaded |  | $2016$ <br> Regulatory |  | 2016 <br> Fully loaded |  |
|  | €bn | \% of RWA | €bn | \% of RWA | €bn | \% of RWA | €bn | \% of RWA |
| CET 1 | 7.1 | 15.8\% | 6.2 | 13.8\% | 7.2 | 14.2\% | 6.2 | 12.3\% |
| Tier $1^{2}$ | 7.6 | 17.0\% | 6.7 | 14.9\% | 8.0 | 15.7\% | 7.0 | 13.7\% |
| Total capital ${ }^{2}$ | 9.1 | 20.2\% | 8.0 | 17.9\% | 9.4 | 18.5\% | 8.3 | 16.4\% |

[^3]Key capital ratios and key risk weighted assets movements (continued)

| Table 1.5 - Movement of RWA by key driver |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit risk €bn | of which; IRB €bn | $\begin{aligned} & \text { STD } \\ & € b n \end{aligned}$ | Counterparty credit risk €bn | Securitisation €bn | Market risk €bn | Operational risk €bn | Total € $\quad$ n | Capital requirements €bn |
| RWA as at the 31 December 2016 | 44.0 | 33.3 | 10.7 | 1.4 | 0.3 | 0.4 | 4.6 | 50.7 | 4.1 |
| Asset size ${ }^{1}$ | (0.1) | (0.1) | - | (0.4) | - | 0.1 | - | (0.4) | - |
| Asset quality ${ }^{2}$ | (1.3) | (1.4) | 0.1 | (0.1) | - | - | - | (1.4) | (0.1) |
| Model updates ${ }^{3}$ | - | - | - | - | - | - | - | - | - |
| Methodology and policy ${ }^{4}$ | (1.2) | (1.2) | - | - | - | - | - | (1.2) | (0.1) |
| Acquisitions and disposals | - | - | - | - | - | - | - | - | - |
| Foreign exchange movements | (1.0) | (0.8) | (0.2) | - | - | - | - | (1.0) | (0.1) |
| Credit risk transfer | (1.8) | (1.8) | - | - | 0.2 | - | - | (1.6) | (0.2) |
| Other | 0.1 | - | 0.1 | (0.2) | - | - | - | (0.1) | - |
| RWA as at the 31 December 2017 | 38.7 | 28.0 | 10.7 | 0.7 | 0.5 | 0.5 | 4.6 | 45.0 | 3.6 |

[^4]
## Key capital ratios and key risk weighted assets movements (continued)

## Risk weighted assets

Risk weighted assets (RWA), on a regulatory basis, were $€ 45.0$ billion at 31 December 2017 (2016: €50.7 billion). The decrease of $€ 5.7$ billion in Credit RWA is primarily due to the impact of FX movements ( $€ 1.0$ billion), changes in book size and quality ( $€ 1.8$ billion), changes in methodology and policy ( $€ 1.2$ billion), the execution of a credit risk transfer (CRT) transaction ( $€ 1.6$ billion) and other movements ( $€ 0.1$ billion).

## Regulatory ratio

The CET 1 ratio was $15.8 \%$ at 31 December 2017 (2016: 14.2\%). The increase of $c .160$ basis points is primarily due to organic capital generation (c.+160 basis points), the impact of the CRT transaction (c. +55 basis points) and RWA methodology changes (c.+30 basis points) partially offset by an increase in CRD IV phasing for 2017 (c.-20 basis points), investment in the Group's Core Banking Platforms (c. -40 basis points) and an
accrual for a potential dividend (c.-25 basis points) in line with regulatory guidance.

## Fully loaded ratio

The Group's fully loaded CET 1 ratio is estimated at 13.8\% at 31 December 2017 (2016: 12.3\%). The increase of $c .150$ basis points is primarily due to organic capital generation (c. +140 basis points), the impact of the CRT transaction (c.+50 basis points) and RWA methodology changes (c. +25 basis points) partially offset by investment in the Group's Core Banking Platforms (c.-40 basis points), and an accrual for a potential dividend (c.-25 basis points) in line with regulatory guidance.

## Leverage ratio

The leverage ratio at 31 December 2017 is $7.0 \%$ on a CRD IV regulatory basis (2016: 7.3\%), 6.2\% on a pro-forma fully loaded basis (2016: 6.4\%).

The EC have proposed the introduction of a binding leverage requirement of $3 \%$ as part of the revised CRD IV developments. It is anticipated that the binding leverage requirement will be applicable from 2019 at the earliest pending final agreement of the proposals at EU level. The Group expects to remain well in excess of the proposed $3 \%$ requirement.

Individual Consolidation
The regulatory CET 1 ratio of The Governor and Company of the Bank of Ireland (the 'Bank') calculated on an individual consolidated basis as referred to in Article 9 of the CRR is $15.3 \%$ at 31 December 2017 (2016: 16.2\%). Further details relating to the Bank are contained in Appendix IV of this document.

## Preparation and basis of consolidation

The Group's Pillar 3 disclosures are published on a consolidated basis for the year ended 31 December 2017.

Not all legal entities are within the scope of Pillar 3. A summarised diagrammatical representation (as at 31 December 2017) of the regulatory consolidation group is
illustrated below. The disclosures within this document are based on the regulatory consolidated group. Table 1.6 highlights the main differences between the basis of consolidation for accounting purposes and the CRD IV regulatory treatment.

The Governor and Company of the Bank
of Ireland is availing of the discretion provided for in Article 9 of the CRR to report on an 'individual consolidation' basis which allows for the treatment of certain subsidiaries as if they were, in effect, branches of the parent in their own right.


Preparation and basis of consolidation (continued)

| Table 1.6 - Basis of consolidation |
| :--- | :--- | :--- |
| Statutory |
| accounting treatment |$\quad$ CRD IV regulatory treatment | Entity type | Fully consolidated |
| :--- | :--- |
| Insurance <br> undertakings | Unconsolidated significant investments in financial sector entities are subject to the 10\% / <br> $15 \%$ threshold which determines the extent to which these investments are deducted <br> from capital or included in RWA. |
| Joint Ventures / <br> associates | Equity method of accounting <br> or Fair value through the P\&L | | The Group's non-qualifying holdings outside the financial sector in joint ventures and |
| :--- |
| associates are included in RWA. |

Further information relating to differences in scope of consolidation on an entity by entity basis is contained in Appendix $V$ of this document.

[^5]| Table 1.7-EU LI1 - Differences between accounting and regulatory scopes of consolidation |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2017$ <br> Balance sheet category | Carrying values as reported in published financial statements € m | Difference in the basis of consolidation for accounting and prudential purposes $\epsilon$ € | Carrying values under scope of regulatory consolidation € | Subject to the credit risk framework € | Subject to the CCR framework € | Subject to the securitisation framework €m | Subject to the market risk framework € | Not subject to capital requirements or subject to deduction from capital |
| Assets |  |  |  |  |  |  |  |  |
| Cash and balances at central banks | 7,379 | - | 7,379 | 7,379 | - | - | - | - |
| Items in the course of collection from other banks | 307 | - | 307 | 307 | - | - | - | - |
| Trading securities | 68 | - | 68 | - | - | - | - | 68 |
| Derivative financial instruments | 2,348 | - | 2,348 | - | 2,348 | - | 1,524 | - |
| Other financial assets at fair value through profit or loss | 14,421 | 14,376 | 45 | 45 | - | - | - | - |
| Available for sale financial assets | 13,223 | - | 13,223 | 13,076 | - | 133 | - | 14 |
| Loans and advances to customers and banks | 79,189 | 197 | 78,992 | 75,023 | - | 3,924 | - | 45 |
| Assets classified as held for sale | 28 | 28 | - | - | - | - | - | - |
| Interest in joint ventures \& associates | 128 | (848) | 976 | 69 | - | - | - | 907 |
| Intangible assets and goodwill | 779 | 56 | 723 | - | - | - | - | 723 |
| Investment properties | 912 | 912 | - | - | - | - | - | - |
| Property, plant and equipment | 434 | 94 | 340 | 340 | - | - | - | - |
| Current tax assets | 50 | 5 | 45 | 45 | - | - | - | - |
| Deferred tax assets | 1,237 | 5 | 1,232 | 948 | - | - | - | 284 |
| Other assets | 1,993 | 1,444 | 549 | 549 | - | - | - | - |
| Retirement benefit assets | 58 | - | 58 | - | - | - | - | 58 |
| Total assets | 122,554 | 16,269 | 106,285 | 97,781 | 2,348 | 4,057 | 1,524 | 2,099 |

Distinctions between Pillar 3 and IFRS disclosures (continued)

| Table 1.7-EU LI1 - Differences between accounting and regulatory scopes of consolidation (continued) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Carrying value of | items |  |
| 2017 <br> Balance sheet category | Carrying values as reported in published financial statements € m | Difference in the basis of consolidation for accounting and prudential purposes € | Carrying values under scope of regulatory consolidation € | Subject to the credit risk framework € | Subject to the CCR framework €m | Subject to the securitisation framework € | Subject to the market risk framework € | Not subject to capital requirements or subject to deduction from capital € |
| Equity and Liabilities |  |  |  |  |  |  |  |  |
| Deposits from banks | 4,339 | - | 4,339 | - | - | - | - | 4,339 |
| Customer accounts | 75,869 | (868) | 76,737 | - | - | - | - | 76,737 |
| Items in the course of transmission to other banks | 263 | - | 263 | - | - | - | - | 263 |
| Derivative financial instruments | 1,987 | - | 1,987 | - | 1,987 | - | 1,705 | - |
| Debt securities in issue | 8,390 | - | 8,390 | - | - | - | - | 8,390 |
| Liabilities to customers under investment contracts | 5,766 | 5,766 | - | - | - | - | - | - |
| Insurance contract liabilities | 10,878 | 10,878 | - | - | - | - | - | - |
| Other liabilities | 2,482 | 413 | 2,069 | - | - | - | - | 2,069 |
| Current tax liabilities | 12 | 1 | 11 | - | - | - | - | 11 |
| Provisions | 205 | - | 205 | - | - | - | - | 205 |
| Deferred tax liabilities | 53 | 52 | 1 | - | - | - | - | 1 |
| Retirement benefit obligations | 536 | 60 | 476 | - | - | - | - | 476 |
| Subordinated liabilities | 2,107 | - | 2,107 | - | - | - | - | 2,107 |
| Total liabilities | 112,887 | 16,302 | 96,585 | - | 1,987 | - | 1,705 | 94,598 |
| Equity |  |  |  |  |  |  |  |  |
| Capital stock | 1,079 | - | 1,079 | - | - | - | - | 1,079 |
| Share premium account | 456 | - | 456 | - | - | - | - | 456 |
| Retained earnings | 7,333 | - | 7,333 | - | - | - | - | 7,333 |
| Other Reserves | 24 | - | 24 | - | - | - | - | 24 |
| Own stock held for the benefit of life assurance policyholders | (33) | (33) | - | - | - | - | - | - |
| Other equity instruments | 808 | - | 808 | - | - | - | - | 808 |
| Total equity | 9,667 | (33) | 9,700 | - | - | - | - | 9,700 |
| Total equity and liabilities | 122,554 | 16,269 | 106,285 | - | 1,987 | - | 1,705 | 104,298 |

Distinctions between Pillar 3 and IFRS disclosures (continued)

| Table $\mathbf{1 . 8} \mathbf{- E U}$ LI2 - Reconciliation between regulatory exposure amounts and carrying value in financial statements |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

Table 1.8 provides a reconciliation of the consolidated regulatory balance sheet to Exposure At Default (EAD) for items subject to the credit risk, CCR and securitisation frameworks.

It should be noted that there are fundamental technical differences in the basis of calculation between financial statement information based on International Financial Reporting Standards (IFRS) accounting standards and regulatory information based on CRD IV capital adequacy concepts and rules. This is most evident for credit risk disclosures. Credit EAD under the CRD IV,
is defined as the expected amount of EAD and is estimated under specified regulatory rules.

There are two different types of tables included in this document, those compiled based on accounting standards (sourced from the Group's Annual Report 31 December 2017) and those compiled using CRD IV methodologies. Unless specified otherwise, both sets of data reflect the position as at 31 December 2017. The specific methodology used is indicated before each table where applicable.

Many tables throughout the Group's Pillar 3 disclosures are based on net value under the regulatory scope of consolidation.

At 31 December 2017, the difference between EAD $€ 108.3$ billion and net value $€ 118.3$ billion is the inclusion of IRB provisions ( $€ 1.8$ billion), the add-back of credit risk mitigation on Standardised exposures ( $€ 1.0$ billion) and the inclusion of credit conversion factors on off-balance sheet exposures ( $€ 10.8$ billion).

## Capital

Table 2.1 outlines regulatory ratios and risk weighted assets under both CRD IV regulatory and fully loaded positions.

## Capital management objectives and

 policiesThe objectives of the Group's capital management policy are to ensure that the Group has sufficient capital to cover the risks of its business and support its strategy and at all times to comply with regulatory capital requirements. It seeks to minimise refinancing risk by managing the maturity profile of non-equity capital whilst the currency mix of capital is managed to ensure that the sensitivity of capital ratios to currency movements is minimised.

The capital adequacy requirements set by the SSM / ECB and economic capital based on internal models, are used by the Group as the basis for its capital management. The Group seeks to maintain sufficient capital to ensure that these requirements are met.

For additional information on the Group's capital management policies please refer to the Capital Management section of the Group's Annual Report 31 December 2017.

## ICAAP

The Internal Capital Adequacy
Assessment Process (ICAAP) is carried out by the Group on an annual basis in line with Pillar 2 requirements. This process facilitates the Board and senior management in adequately identifying, measuring and monitoring the Group's risk profile. The ICAAP builds on the Pillar 1 process by (i) using internal measures to assess the capital requirements for risks not fully captured under Pillar 1 and (ii) assessing the impact of the Group's risks on capital resources under a base case scenario and a severe but plausible stress scenario. Underpinning the ICAAP
process, the Group prepares detailed financial projections. Base case projections are prepared using consensus macroeconomic forecasts together with Group-specific assumptions, and the stress case is prepared based on a severe but plausible stress economic scenario.

The ICAAP is a key process embedded in the Group's planning cycle and ensures that:

- the Board of Directors and the Group's senior management adequately identifies, measures and monitors the Group's risks and holds adequate capital in relation to the Group's risk profile;
- the quality and quantity of financial resources the Group holds in respect of capital resources meets its internal and CRD IV regulatory capital, leverage and liquidity requirements; and
- the Group holds adequate capital to support its strategic business objectives on a current and projected basis under base and stress scenarios.

The Board approved ICAAP Report and supporting documentation is submitted to the ECB and the CBI on an annual basis, and is subject to regulatory review as part of the Supervisory Review and Evaluation Process (SREP).

## RWA approaches

The Group uses the Foundation IRB,
Retail IRB and Standardised approaches for the calculation of its credit risk capital requirements. The capital requirements for market risk are calculated using the Standardised approach applicable to market risk. The capital requirements for operational risk are calculated using the Standardised approach applicable to operational risk.

Impediments to the transfer of funds
There is a requirement to disclose any impediment to the prompt transfer of funds within the Group. In respect of the Group's licensed subsidiaries, the Group is obliged to meet certain license conditions in respect of capital and / or liquidity. These requirements may include meeting or exceeding appropriate capital and liquidity ratios and obtaining appropriate regulatory approvals for the transfer of capital or, in certain circumstances, liquidity. The Group's licensed subsidiaries would be unable to remit funds to the parent when to do so would result in such ratios or other regulatory permissions being breached. Apart from this requirement, there is no restriction on the prompt transfer of own funds or the repayment of liabilities between the subsidiary companies and the parent.

At 31 December 2017, own funds were in excess of the required minimum requirement in all of the Group's licensed entities.

## Capital developments

## Capital issuance

On 19 September 2017, the Group successfully raised Stg£300 million and USD\$500 million of Tier 2 capital with a maturity of ten years (callable after five years). The capital instruments carry an initial coupon of $3.125 \%$ and $4.125 \%$ respectively.

## Credit risk transfer transaction

The Group announced a credit risk transfer (CRT) transaction in November 2017 which has increased the Group's regulatory CET 1 ratio by c. 55 basis points and the Group's fully loaded CET 1 ratio by c. 50 basis points. The transaction has reduced the Group's credit risk exposure, and consequently the risk weighted assets on the reference portfolio. The transaction resulted in a reduction in risk weighted assets of c.€1.6 billion. The Group also announced that it was continuing to engage with the ECB as part of the ECB's Targeted Review of Internal Models (TRIM) on Irish mortgages. The Group noted that adjustments arising from this process could absorb the capital benefits of the CRT in part or in full.

[^6]| Table 2.2 - EU OV1 - Overview of RWA |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |
|  |  |  |  |

## Group holding company and capital

## impacts

The Group implemented a corporate reorganisation resulting in Bank of Ireland Group plc (BOIG plc) being introduced as the listed holding company of the Group in July 2017. BOIG plc was established to facilitate the Single Resolution Board's (SRB's) preferred resolution strategy which consists of a single point of entry bail-in strategy. All future issuance of MREL (Minimum Requirement for Own Funds and Eligible Liabilities) eligible debt will be issued by BOIG plc and downstreamed to the Bank.

As a result of the establishment of BOIG plc , and due to the requirements of Articles 85 and 87 of the CRR, regulatory
capital instruments issued by subsidiaries (i.e. The Governor and Company of Bank of Ireland) cannot be recognised in full in the prudential consolidation. The calculation of the Group's Tier 1,Total capital and Leverage ratios are stated after a prudent application of the requirements of Articles 85 and 87 . The impact of the restriction on recognition of subsidiary issued capital has resulted in a reduction of c.50bps in the Tier 1 ratio and c. 140 basis points in the total capital ratio on a regulatory basis.

The requirements and guidance in relation to Articles 85 and 87 are under review by the ECB. Any clarifications from this review may change the Group's calculation, noting a prudent application
has been applied by the Group.

## Minimum Requirement for Own Funds and Eligible Liabilities (MREL)

The Group expects to receive an MREL target and details of transitional arrangements during the first half of 2018. The Single Resolution Board (SRB) published an updated MREL Policy in December 2017. The Group does not expect the policy to result in any material change in expected requirements from the previously indicated 27.25\% 'Informative Target'. Based on the current regulatory Total Capital ratio of $20.2 \%$ and excluding the impact of the Corporate Reorganisation on those ratios (1.4\%), a modest amount of new MREL issuance is expected.

Capital

Capital overview (continued)

## Distributable items

In July 2017, following the corporate reorganisation described in note 46 of the Group's Annual Report, the High Court approved a capital reduction and the creation of $€ 5.5$ billion in distributable reserves in BOIG plc. Since that date the

Company has generated profits attributable to shareholders of $€ 1.0$ billion and therefore, as at 31 December 2017, the Company had reserves available for distribution of $€ 6.5$ billion. Further information on the Company's equity is provided in the following sections.

Table 2.2 summarises RWA and minimum capital requirements by risk type. Minimum capital requirement is calculated at $8 \%$ of RWA.

## Capital requirements and buffers

The capital requirements and buffers for the Group are outlined below:

Capital requirements and buffers for 2017


Capital requirements / buffers Following the 2017 Supervisory Review and Evaluation Process (SREP) the Group is required to maintain a CET 1 ratio of 8.625\% on a regulatory basis from 1 January 2018. This includes a Pillar 1 requirement of $4.5 \%$, a Pillar 2 requirement (P2R) of 2.25\% and a capital conservation buffer for 2018 of $1.875 \%$ (reflecting a further year phase-in of $0.625 \%)$. Pillar 2 guidance (P2G) is not disclosed in accordance with regulatory preference.

The Central Bank of Ireland (CBI) has advised that the Group will be required to
maintain an O-SII (Other Systemically Important Institution) buffer, which will be phased in as follows: $0.5 \%$ from July 2019, 1.0\% from July 2020 and 1.5\% from July 2021. Both the SREP requirement and the O-SII buffer are subject to annual review by the SSM and the CBI respectively.

The Group expects to maintain a CET 1 ratio in excess of $13 \%$ on a regulatory basis and on a fully loaded basis at the end of the O-SII phase-in period. This includes meeting applicable regulatory capital requirements plus an appropriate management buffer.

The Financial Policy Committee (FPC) in the UK increased the countercyclical buffer (CCyB) from $0 \%$ to $0.5 \%$, with binding effect from 27 June 2018 with a further increase to $1 \%$, from 28 November 2018.

The UK CCyB is expected to result in an increase in the Group's capital requirement of c.0.15\% from June 2018 and a further c.0.15\% from November 2018. The CBI has set the CCyB's for Ireland at 0\% from 1 January 2018.

[^7]Capital requirements / RWA

| Table 2.3-Capital requirements / RWA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
| CRD IV | Capital requirements $€$ € | RWA € | Capital requirements € m | RWA |
| Credit risk | 3,090 | 38,629 | 3,515 | 43,930 |
| IRB | 2,231 | 27,891 | 2,665 | 33,303 |
| of which; |  |  |  |  |
| Foundation IRB | 1,140 | 14,256 | 1,480 | 18,494 |
| Central governments or central banks | - | - | - | - |
| Institutions | 54 | 673 | 69 | 862 |
| Corporates | 1,086 | 13,583 | 1,411 | 17,632 |
| of which; |  |  |  |  |
| - SME | 533 | 6,665 | 621 | 7,766 |
| - Specialised lending | 70 | 877 | 94 | 1,171 |
| Advanced IRB | 1,091 | 13,635 | 1,185 | 14,809 |
| - Secured by real estate property | 928 | 11,595 | 1,027 | 12,834 |
| - Qualifying revolving | 28 | 345 | 28 | 345 |
| - Other retail SME | 89 | 1,110 | 89 | 1,113 |
| - Other retail non SME | 46 | 585 | 41 | 517 |
| Standardised | 859 | 10,738 | 850 | 10,627 |
| of which; |  |  |  |  |
| Central governments or central banks | 21 | 268 | 25 | 309 |
| Regional governments or local authorities | - 1 | 17 | 1 | 16 |
| Public sector entities | 3 | 38 | - | - |
| Multilateral development banks ${ }^{1}$ | - | - | - | - |
| International organisations ${ }^{1}$ | - | - | - | - |
| Institutions | - | - | - | - |
| Corporates | 308 | 3,845 | 326 | 4,079 |
| Retail | 223 | 2,783 | 194 | 2,423 |
| Secured by mortgages on immovable |  |  |  |  |
| Exposures in default | 55 | 693 | 72 | 894 |
| Exposures associated with particularly |  |  |  |  |
| Covered bonds ${ }^{2}$ | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | h | - | - | - |
| Collective investment undertakings | - | - | - | - |
| Equity exposures | - | - | - | - |
| Other items | 222 | 2,772 | 206 | 2,574 |
| Counterparty credit risk (incl. CVA) | 58 | 729 | 113 | 1,418 |
| Settlement risk | - | - | - | 2 |
| Securitisations | 37 | 467 | 27 | 335 |
| Market risk | 41 | 516 | 30 | 380 |
| Operational risk | 370 | 4,619 | 367 | 4,591 |
| Total capital requirements | 3,596 | 44,960 | 4,052 | 50,656 |

Table 2.3 shows the amount of capital the Group is required to set aside to meet the minimum total capital ratio of $8 \%$ of RWA set by CRD IV.

Under CRD IV, the Group is required to maintain a transitional floor set at $80 \%$ of Basel I requirements. The transitional floor capital requirement was $€$ nil at 31
December 2017 and €nil at 31 December 2016.

[^8]
## Breakdown of the Group's regulatory capital requirement

At 31 December 2017, the Group applied the Foundation IRB and Retail IRB approaches to $68 \%$ (2016: 71\%) of its
credit exposures. In addition, 73\% of credit RWA are based on IRB approaches (2016: 77\%). Table 2.4 shows the Group's
minimum capital requirements (based on $8 \%$ of RWA), RWA and net value by risk type.

Table 2.4 - Minimum capital requirements, risk weighted assets and net value by risk type

|  | 2017 |  |  | 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Capital requirement €m | Risk weighted assets $€$ € | Net value € | Capital requirement $€$ € | Risk weighted assets €m |  |
| Credit risk | 3,090 | 38,629 | 113,192 | 3,515 | 43,930 | 114,354 |
| - IRB approach | 2,231 | 27,891 | 76,067 | 2,665 | 33,303 | 79,846 |
| - Standardised approach | 859 | 10,738 | 37,125 | 850 | 10,627 | 34,508 |
| Counterparty credit risk | 58 | 729 | 1,390 | 113 | 1,418 | 1,869 |
| Settlement risk | - | - | - | - | 2 | - |
| Securitisation | 37 | 467 | 4,057 | 27 | 335 | 2,841 |
| Market risk | 41 | 516 | - | 30 | 380 | - |
| Operational risk | 370 | 4,619 | - | 367 | 4,591 | - |
| Total | 3,596 | 44,960 | 118,639 | 4,052 | 50,656 | 119,064 |

Credit risk RWA (Standardised approach and IRB approaches) at 31 December 2017 of $€ 38.6$ billion are $€ 5.3$ billion lower than credit risk RWA of $€ 43.9$ billion at 31 December 2016. The decrease of $€ 5.3$
billion in RWA is primarily due to the change in book size and quality, changes in methodology, the execution of a credit risk transfer transaction and the impact of foreign exchange movements.

Market risk RWA and operational risk RWA are both calculated using the Standardised approach.

## Capital resources

Table 2.5 sets out the Group's capital position as at 31 December 2017 and 31 December 2016 and a reconciliation of accounting with regulatory capital.

It should be noted that while some quantitative information in this document is based on financial data contained in the Group's Annual Report 31 December 2017, other quantitative data is sourced from the Group's regulatory reporting
platform and is calculated according to regulatory requirements.

Further explanations relating to items contained in this table are included in Appendix $I$.

Capital resources (continued)

|  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Regulatory | Fully loaded | Regulatory | Fully loaded |
| CRD IV | €m | €m | €m | €m |
| Capital base |  |  |  |  |
| Total equity ${ }^{1}$ | 9,667 | 9,667 | 9,402 | 9,402 |
| Less proposed dividend ${ }^{2}$ | (120) | (120) | - | - |
| - less Additional tier 1 capital | (750) | (750) | (750) | (750) |
| Total equity less instruments not qualifying as CET 1 | 8,797 | 8,797 | 8,652 | 8,652 |
| Regulatory adjustments being phased in / out under CRD IV | (618) | $(1,483)$ | (520) | $(1,458)$ |
| - Deferred tax assets ${ }^{3}$ | (345) | $(1,150)$ | (243) | $(1,215)$ |
| - 10\% / 15\% threshold deduction ${ }^{4}$ | - | (78) | - | (43) |
| - Retirement benefit obligations ${ }^{5}$ | 95 | - | 156 | - |
| - Available for sale reserve ${ }^{6}$ | (68) | - | (140) | - |
| - Pension supplementary contributions ${ }^{5}$ | (10) | - | (20) | - |
| - Other adjustments ${ }^{7}$ | (290) | (255) | (273) | (200) |
| Other regulatory adjustments | $(1,057)$ | $(1,119)$ | (915) | (975) |
| - Expected loss deduction ${ }^{8}$ | (247) | (309) | (90) | (150) |
| - Intangible assets and goodwill | (723) | (723) | (625) | (625) |
| - Dividend / coupon expected on other equity instruments | (2) | (2) | (2) | (2) |
| - Cash flow hedge reserve | (41) | (41) | (156) | (156) |
| - Own credit spread adjustment (net of tax) | 22 | 22 | 12 | 12 |
| - Securitisation deduction | (66) | (66) | (54) | (54) |
| Common equity tier 1 | 7,122 | 6,195 | 7,217 | 6,219 |
| Additional tier 1 |  |  |  |  |
| AT1 instruments (issued by parent entity) | - | - | 805 | 750 |
| Instruments issued by subsidiaries that are given recognition in AT1 capital ${ }^{9}$ | 534 | 480 | - | - |
| Regulatory adjustments | (31) | - | (30) | - |
| - Expected loss deduction ${ }^{8}$ | (31) | - | (30) | - |
| Total tier 1 capital ${ }^{10}$ | 7,625 | 6,675 | 7,992 | 6,969 |
| Tier 2 |  |  |  |  |
| Tier 2 instruments (issued by parent entity) | 785 | 785 | 1,240 | 1,276 |
| Instruments issued by subsidiaries that are given recognition in Tier 2 capital ${ }^{9}$ | 799 | 699 | - | - |
| Regulatory adjustments | (31) | - | (30) | - |
| - Expected loss deduction ${ }^{8}$ | (31) | - | (30) | - |
| Standardised incurred but not reported (IBNR) provisions | 9 | - | 22 | - |
| Provisions in excess of expected losses on defaulted assets | - | - | 150 | 150 |
| Other adjustments | (106) | (160) | 10 | (80) |
| Total tier 2 capital | 1,456 | 1,324 | 1,392 | 1,346 |
| Total capital ${ }^{10}$ | 9,081 | 7,999 | 9,384 | 8,315 |

[^9]Capital resources (continued)

| Table 2.6 - Capital flow statement |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | Regulatory | Fully loaded | Regulatory | Fully loaded |
| Common equity tier 1 (CET 1) capital | €m | €m | €m | €m |
| Opening amount | 7,217 | 6,219 | 7,089 | 6,001 |
| Profit for the year (attributable to shareholders of the parent company) | 692 | 692 | 793 | 793 |
| Dividends on other preference equity instruments interest paid in cash | (7) | (7) | (8) | (8) |
| Distribution on other Equity instruments - Additional tier 1 coupon | (48) | (48) | (73) | (73) |
| Forseeable dividend | (120) | (120) | - | - |
| Removal of own credit spread (net of tax) | 10 | 10 | (1) | (1) |
| Movements in other comprehensive income | (256) | (256) | (422) | (422) |
| - Currency translation differences | (146) | (146) | (419) | (419) |
| - Available for sale investments | (9) | (9) | (169) | (169) |
| - Remeasurement of the net defined benefit pension liability, net of tax | (112) | (112) | 167 | 167 |
| - Other reserve movements | 11 | 11 | (1) | (1) |
| Intangibles assets and goodwill | (98) | (98) | (116) | (116) |
| Securitisation deduction | (12) | (12) | 8 | 8 |
| 10\%-15\% threshold deduction | - | (34) | - | 2 |
| Other, including regulatory adjustments and transitional arrangements | (256) | (151) | (53) | 35 |
| - Deferred tax assets that rely on future profitability (excluding those arising from temporary differences) | (102) | 65 | (109) | 130 |
| - Expected loss adjustment | (157) | (158) | (73) | (115) |
| - Retirement benefit obligations | (61) | - | (235) | - |
| - Available for Sale Reserve | 72 | - | 326 | - |
| - Pension supplementary contributions | 11 | - | 16 | - |
| - Capital contribution on CCN | - | - | 7 | - |
| - Other | (19) | (58) | 15 | 20 |
| Closing amount | 7,122 | 6,195 | 7,217 | 6,219 |
| Additional tier 1 capital |  |  |  |  |
| Opening amount | 775 | 750 | 808 | 750 |
| Restriction on recognition of subsidiary issued capital instruments (Article 85 CRR) | (216) | (270) | - | - |
| Other, including regulatory adjustments and transitional arrangements | (56) | - | (33) | - |
| Closing amount | 503 | 480 | 775 | 750 |
| Total tier 1 capital ${ }^{1}$ | 7,625 | 6,675 | 7,992 | 6,969 |
| Tier 2 capital |  |  |  |  |
| Opening amount | 1,392 | 1,346 | 1,679 | 1,586 |
| Restriction on recognition of subsidiary issued capital instruments (Article 87 CRR) | (401) | (502) | - | - |
| Amortisation adjustments | (42) | (42) | (156) | (156) |
| New Tier 2 capital issuance | 748 | 748 | - | - |
| Other, including regulatory adjustments and transitional arrangements | (241) | (226) | (131) | (84) |
| Closing amount | 1,456 | 1,324 | 1,392 | 1,346 |
| Total regulatory capital ${ }^{1}$ | 9,081 | 7,999 | 9,384 | 8,315 |

[^10]The following section provides commentary on the key movements in the reconciliation of accounting capital with regulatory capital during the year ended 31 December 2017. Table 2.6 also provides a capital flow statement outlining the movements in the CRD IV regulatory capital tiers during 2017. Appendix I provides qualitative information on, and a brief explanation of, the principle components of the Group's CRD IV capital resources as outlined in Table 2.7.

Total equity increased by $€ 0.3$ billion during 2017 from $€ 9.4$ billion at 31 December 2016 to $€ 9.7$ billion at 31 December 2017, primarily due to the impact of attributable profits partially offset by negative movements in the defined benefit pension schemes and reductions in the AFS and the foreign exchange reserves.

Regulatory adjustments on a regulatory basis to CET 1 capital totaled $€ 1.7$ billion at 31 December 2017 versus $€ 1.4$ billion at 31 December 2016. The increase is primarily due to increases in the intangible asset and goodwill / expected loss deductions and the impact of an additional year of phasing under the transitional arrangements of the CRR including:

- Deferred tax assets - $30 \%$ of deferred tax related to future profitability is required to be deducted in 2017. This will increase by $10 \%$ per annum until 2024;
- Retirement benefit obligations - the add back of the defined benefit pension schemes deficit is phased out under CRD IV rules at $80 \%$ in 2017, giving a reduction in the add back from that as at 31 December 2016; and
- Available for sale reserve (AFS) - the decrease in the deduction is due to

CRD IV phasing rules for AFS assets which require phasing in of $80 \%$ of unrealised losses and $80 \%$ unrealised gains in 2017.

Additional tier 1 capital on a regulatory basis has decreased by $€ 0.3$ billion primarily due to the impact of the restriction on recognition of subsidiary issued capital instruments (Article 85 CRR).

Tier 2 capital on a regulatory basis has increased by $€ 0.1$ billion to $€ 1.5$ billion at 31 December 2017, primarily due to the issuance of Stg£300 million and US\$500 million of Tier 2 instruments which was largely offset by the impact of the restriction on recognition of subsidiary issued capital instruments (Article 87 CRR), a reduction in provisions in excess of expected loses on defaulted assets and other regulatory adjustments.

## Group holding company and capital

 impactsThe Group implemented a corporate reorganisation resulting in Bank of Ireland Group plc (BOIG plc) being introduced as the listed holding company of the Group in July 2017. BOIG plc was established to facilitate the SRB's preferred resolution strategy which consists of a single point of entry bail-in strategy. All future issuance of MREL (Minimum Requirement for Own Funds and Eligible Liabilities) eligible debt will be issued by BOIG plc and downstreamed to the Bank.

As a result of the establishment of BOIG plc , and due to the requirements of Articles 85 and 87 of the CRR, regulatory capital instruments issued by subsidiaries (i.e. The Governor and Company of Bank of Ireland) cannot be recognised in full in the prudential consolidation. The calculation of the Group's Tier 1, total
capital and leverage ratios are stated after a prudent application of the requirements of Articles 85 and 87. The impact of the restriction on recognition of subsidiary issued capital has resulted in a reduction of $c .50$ basis points in the Tier 1 ratio and c. 140 basis points in the total capital ratio on a regulatory basis.

The requirements and guidance in relation to Articles 85 and 87 are under review by the ECB. Any clarifications from this review may change the Group's calculation, noting a prudent application has been applied by the Group.

Table 2.7 outlines the component parts of regulatory capital with further details of capital instruments, adjustments, deductions and filters in line with the prescribed template provided in Article 5 of commission regulation (EU) No.1423/2013.

The table further details total risk weighted assets, capital ratios and buffers before listing applicable caps on the inclusion of provisions in Tier 2 and capital instruments subject to phase-out.

Line referencing for Annex VI of commission regulation (EU) No.1423/2013 is also provided. Rows that are not applicable to the Group and rows with nil balances have been omitted.

Amounts subject to pre-regulation (EU) No.575/2013 treatment or prescribed residual amount of regulation (EU) No.575/2013, are listed separately at the end of the table.
Capital resources (continued)

| Table 2.7 - Regulatory \& fully loaded own funds disclosure |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CRD IV |  | Regulatory | Fully loaded | Regulatory | Fully loaded |
| Ann | VI - Reference | €m | €m | €m | €m |
| Common equity tier 1 (CET 1) capital: instruments and reserves |  |  |  |  |  |
| 1 | Capital Instruments and the related share premium accounts of which; | 1,535 | 1,535 | 3,056 | 3,056 |
|  | - Ordinary stock | 1,079 | 1,079 | 1,616 | 1,6166 |
|  | - Deferred stock | - | - | 920 | 920 |
|  | - Treasury stock | - | - | 2 | 2 |
|  | - Share premium | 456 | 456 | 518 | 518 |
| 2 | Retained earnings | 7,211 | 7,211 | 5,204 | 5,204 |
| 3 | Accumulated other comprehensive income (and other reserves) | 138 | 138 | 342 | 342 |
| 6 | Common equity tier 1 (CET 1) capital before regulatory adjustments | 8,884 | 8,884 | 8,602 | 8,602 |
| Common equity tier 1 (CET 1) capital regulatory adjustments |  |  |  |  |  |
| 7 | Additional value adjustments / other | (165) | (165) | (140) | (140) |
| 8 | Intangible assets (net of related tax liability) | (723) | (723) | (625) | (625) |
| 10 | Deferred tax asset that rely on future profitability excluding those arising from temporary differences (net of related tax liability) | (345) | $(1,150)$ | (243) | $(1,215)$ |
| 11 | Fair value reserves related to gains or losses on cashflow hedges | (41) | (41) | (156) | (156) |
| 12 | Negative amounts resulting from the calculation of expected loss amounts | (247) | (309) | (90) | (150) |
| 14 | Gains or losses on liabilities valued at fair value resulting from changes in own credit standing | 22 | 22 | 12 | 12 |
| 15 | Defined-benefit pension fund assets | (46) | (57) | (5) | (8) |
| 16 | Direct and indirect holdings by an institution of own CET 1 instruments | - | - | (2) | (2) |
| 19 | Direct, indirect and synthetic holdings by institutions of the CET 1 Instruments of financial sector entities where the institution has a significant investment in those entities | - | (78) | - | (43) |
| $\begin{aligned} & 20 a \\ & 20 \mathrm{c} \end{aligned}$ | Exposure amount of the following items which qualify for a RW of $1250 \%$ | (66) | (66) | (54) | (54) |
|  | of which; |  |  |  |  |
|  | - Securitisation positions | (66) | (66) | (54) | (54) |
| 26a | Regulatory adjustments relating to unrealised gains and losses of which; | (68) | - | (140) | - |
|  | - Unrealised gains on non sovereign bonds | (18) | - | (44) | - |
|  | - Unrealised losses on non sovereign bonds | 3) | - | 9 | - |
|  | - Unrealised gains on sovereign bonds | (53) | - | (107) | - |
|  | - Unrealised losses on sovereign bonds | - | - | 2 | - |

Capital resources (continued)

| Table 2.7 - Regulatory \& fully loaded own funds disclosure (continued) |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CRD IV <br> Annex VI - Reference |  | Regulatory | Fully loaded | Regulatory | Fully loaded |
|  |  | €m | €m | €m | €m |
| 26b | Amount to be deducted from or added to Common equity tier 1 capital |  |  |  |  |
|  | with regard to additional filters and deductions required pre CRR | (83) | (122) | 58 | (2) |
|  | of which; |  |  |  |  |
|  | - Defined benefit pension scheme | 95 | - | 156 | - |
|  | - Value in force asset | (46) | - | (82) | - |
|  | - Property revaluation reserve | (7) | - | (8) | - |
|  | - Fair value on Bristol and West Sub debt | 7 | - | 14 | - |
|  | - Minimum funding standard pension contributions | (10) | - | (20) | - |
|  | - Dividend / coupon expected on other equity instruments | (2) | (2) | (2) | (2) |
|  | - Foreseeable dividend | (120) | (120) | - | - |
| 28 | Total regulatory adjustments to Common equity tier 1 (CET 1) | $(1,762)$ | $(2,689)$ | $(1,385)$ | $(2,383)$ |
| 29 | Common equity tier 1 (CET 1) capital | 7,122 | 6,195 | 7,217 | 6,219 |
| Additional tier 1 (AT1) capital: instruments |  |  |  |  |  |
| 30 | Capital instruments and the relates share premium accounts | - | - | 750 | 750 |
| 31 | of which; |  |  |  |  |
|  | - Classified as equity under applicable accounting standards | - | - | 750 | 750 |
| 33 | Amount of qualifying items referred to in Articles 484 (4) and the related share premium accounts subject to phase out of the AT1 | - | - | 55 | - |
| 34 | Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interest not included in row 5 ) issued by subsidiaries and held by third parties | 534 | 480 | - | - |
| 35 | of which; |  |  |  |  |
|  | - Instruments issued by subsidiaries subject to phase out | - | - | - | - |
| 36 | Additional tier 1 (AT1) capital before regulatory adjustments | 534 | 480 | 805 | 750 |
| Additional tier 1 (AT1) capital: regulatory adjustments |  |  |  |  |  |
| 41 | Regulatory adjustments applied to Additional tier 1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in regulation No 575/2013 (i.e. CRR residual amounts) | (31) | - | (30) | - |
| 41a | Residual amounts deducted from Additional tier 1 capital with regard to deduction from Common equity tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013 of which; | (31) | - | (30) | - |
|  | - Shortfall of provisions to expected losses | (31) | - | (30) | - |
|  | - Investment in significant financial institutions | - | - | - | - |
| 42 | Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount) | - | - | - | - |
| 43 | Total regulatory adjustments to Additional tier 1 (AT1) capital | (31) | - | (30) | - |
| 44 | Additional tier 1 (AT1) capital | 503 | 480 | 775 | 750 |
| 45 | Tier 1 capital ${ }^{1}$ (T1 = CET $1+$ AT1) | 7,625 | 6,675 | 7,992 | 6,969 |

[^11]Capital resources (continued)

Capital resources (continued)

| Table 2.7 - Regulatory \& fully loaded own funds disclosure (continued) |
| :--- | :--- | :--- | :--- |
| CRD IV |
| Annex $\mathbf{V I}$ - Reference |

Capital resources (continued)

| Countercyclical buffer | The countercyclical buffer will be phased in from 1 January | di |
| :---: | :---: | :---: |
| CRD IV provides for a countercyclical buffer that could equire banks to hold additional CET 1 capital of up to | 2016 to 1 January 2019. | additional capital requirement of $€ 1$ million at 31 December 2017 are outlined below. |
| $2.5 \%$. This requirement is expected to be imposed by the | At 31 December 2017, the Central Bank of Ireland (Rol) |  |
| designated authority where credit growth is deemed to be | and Financial Policy Committee (UK) have set the |  |
| cessive and leading to the build-up of system-wide risk | Countercyclical buffer (CCyB) at 0\%. The geographical |  |


Capital resources (continued)


## Capital instruments

The following table provides information on the regulatory values of the Group's Additional tier 1 capital and Tier 2 debt.

The regulatory values in the below table will differ from the accounting values
disclosed in the Group's Annual Report 31 December 2017 as the regulatory values exclude hedge accounting adjustments and include the impact of regulatory amortisation where the instrument has less than five years to maturity.

The capital instruments template disclosure according to Article 3 in Commission implementing regulation (EU) No.1423/2013 is published separately at www.bankofireland.com.

| Table 2.9 - Capital instruments |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Nominal outstanding | Accounting value | CRD IV regulatory | CRD IV <br> fully loaded |
| 2017 | €m | €m | €m | €m |
| Issued by subsidiaries that are given recognition in AT1 capital |  |  |  |  |
| €750 million 7.375\% Additional tier 1 instrument | 750 | 740 | 750 | 750 |
| Restriction on recognition of subsidiary capital instruments ${ }^{1}$ (Article 85 CRR) | - | - | (216) | (270) |
| Additional tier 1 capital ${ }^{1}$ | 750 | 740 | 534 | 480 |
| Issued by Bank of Ireland Group plc (parent entity) Tier 2 capital |  |  |  |  |
| Stg£300 million 3.125\% Fixed Rate Reset Callable Subordinated Notes 2027 | 338 | 332 | 335 | 335 |
| US\$500 million 4.125\% Fixed Rate Reset Callable Subordinated Notes 2027 | 417 | 406 | 413 | 413 |
| Bristol \& West plc Stg£32.6 million 8.1/8 \% non-cumulative preference shares | 37 | 37 | 37 | 37 |
|  | 792 | 775 | 785 | 785 |
| Issued by subsidiaries that are given recognition in Tier 2 capital |  |  |  |  |
| €250 million 10\% Fixed Rate Subordinated Notes 2022 | 250 | 264 | 247 | 247 |
| €1002 million 10\% Fixed Rate Subordinated Notes 2020 | 206 | 222 | 87 | 87 |
| €750 million 4.25\% Fixed Rate Subordinated Notes 2024 | 750 | 759 | 748 | 748 |
| Other | 2 | 2 | 1 | 1 |
| Bank of Ireland Stg£75 million 13.3/8\% Perpetual Subordinated Bonds | 52 | 85 | 52 | 52 |
| Non-cumulative preference stock (1.9 million units of Stg£1 each and |  |  |  |  |
| 3 million units of $€ 1.27$ each) | 6 | 66 | 66 | 66 |
| Restriction on recognition of subsidiary capital instruments ${ }^{1}$ (Article 87 CRR) | - | - | (402) | (502) |
|  | 1,266 | 1,398 | 799 | 699 |
| Total Tier 2 capital instruments | 2,058 | 2,173 | 1,584 | 1,484 |
| Total capital instruments ${ }^{1}$ | 2,808 | 2,913 | 2,118 | 1,964 |

[^12]
## Risk management

## Risk management overview

## Risk management

The Group has identified the following key risks: business and strategic risk, conduct risk, credit risk, funding \& liquidity risk, life insurance risk, market risk, operational risk, pension risk, regulatory risk and reputation risk. An introduction to the Group's assessment of its capital requirements for credit risk, market risk and operational risk is outlined below while detail regarding how these, and other risks are identified, managed, measured and mitigated is provided in the Risk Management Report from page 12 of the Group's Annual Report 31 December 2017.

The Board of Directors (the 'Board') considers the risk management systems in place in the Group as outlined in the Risk Management Report in the Group's Annual Report 31 December 2017 and in particular under Section 2 Risk
Management Framework on page 49, to be adequate having regard to the Group's profile and strategy.

The role of the Board in relation to risk management is also set out in 'Role of the Board' in the Corporate Governance Statement of the Annual Report 31 December 2017 on pages 88 to 112 . Also set out in this statement is information relating to the:

- recruitment policy for the selection of members of the management body; and
- policy on diversity with regard to selection of members of the management body, its objectives and any relevant targets set out in that policy.

The number of directorships held by members of the Board is listed in the Table 3.2. In addition, there have been no additional directorships approved by the competent authorities in respect of the Directors during the reporting period.

For further information on how the Group applies the principles of good corporate governance see the Corporate Governance Statement in the Group's Annual Report 31 December 2017 (pages 88 to 112).

## Risk profile

The Group follows an integrated approach to risk management to ensure that all material classes of risk are taken into consideration and that the Group's overall business strategy and remuneration practices are aligned with its risk and capital management strategies. The Group's formal governance process to risk management is set out in the Group Risk Framework, which has the objective of ensuring that risks are managed and reported in a consistent manner across
the Group. The Framework outlines the approach for setting risk appetite, risk identification, assessment, measurement, monitoring and reporting. The Framework is reviewed, approved and cascaded by the Group Chief Risk Officer annually to all relevant senior management in the Group, and is reviewed and approved by the Board at minimum every three years.

The Risk Management Framework, Section 2 of the Risk Management Report in the Group's Annual Report 31 December 2017, contains information on the key components of the Group Risk Framework including risk governance, risk culture, risk strategy \& appetite, risk analysis \& measurement, and risk monitoring \& reporting. This includes information relating to the:

| Table 3.1 - Key risk figures and ratios |  |  |
| :--- | ---: | ---: |
|  | $\mathbf{2 0 1 7}$ | 2016 |
| Loan book profile (on balance sheet - gross of provisions) | €bn | €bn |
| Residential mortgages | 46.7 | 48.2 |
| Consumer | 4.3 | 3.8 |
| SME | 9.9 | 10.7 |
| Corporate | 8.8 | 9.3 |
| Property Investment | 8.3 | 9.3 |
| Property, land and development | 0.5 | 1.0 |
| Risk-based capital ratios as a \% of RWA | $\%$ | $\%$ |
| Common equity tier 1 ratio (\%) | $15.8 \%$ | $14.2 \%$ |
| Tier 1 ratio (\%) | $17.0 \%$ | $15.7 \%$ |
| Total capital ratio (\%) | $20.2 \%$ | $18.5 \%$ |
| Leverage ratio |  |  |
| Leverage ratio (\%) | $7.0 \%$ | $7.3 \%$ |
| Liquidity coverage ratio |  |  |
| LCR ratio (\%) | $136 \%$ | $113 \%$ |
| Net stable funding ratio |  |  |
| NSFR ratio | $127 \%$ | $122 \%$ |


| Table 3.2 - Number of directorships held by members of the Board |  |  |
| :--- | :--- | :--- |
| Director | No of <br> directorships | External directorships as counted under Article 91(3) and 91(4) of Directive 2013/36/EU |
| Archie G Kane | 3 | Non-executive director of Melrose Industries PLC |
| Kent Atkinson | 2 | None |
| Richard Goulding | 7 | Non-executive Director of Citigroup Global Markets Limited, Non-executive Director of Zopa Group Limited |
| Patrick Haren | 2 | None |
| Andrew Keating | 7 | None |
| Patrick Kennedy | 3 | Chairman of Cartrawler |
| Davida Marston | 3 | Non-Executive Director of Liberbank S.A. |
| Francesca McDonagh | 2 | None |
| Fiona Muldoon | 9 | Group Chief Executive of FBD Holdings plc |
| Patrick Mulvihill | 5 | Non-executive Director of International Fund Services (Ireland) Limited and Non-executive Director |
|  |  |  |
|  |  |  |

Risk management overview (continued)

- existence of a separate risk committee and the number of times the risk committee has met;
- structure and organisation of risk governance in the Group: including responsibilities, relationships and information flows to the Board and senior management;
- channels to communicate, decline and enforce risk culture;
- risk appetite process and limits;
- risk reporting and measurement systems; and
- use of stress testing for risk management purposes.

The Group's risk identity is to be the leading Irish retail, commercial and corporate bank focused on having longterm relationships with its customers. The Group's core franchise is in Ireland with income and risk diversification through a meaningful presence in the UK and selected international activities where the Group has proven competencies. The Group pursues an appropriate return for the risks taken and on capital deployed while operating within prudent Boardapproved risk appetite parameters to have and maintain a robust, standalone financial position.

Risk appetite defines the amount and type of risk the Group is prepared to accept in pursuit of its financial objectives. It informs Group strategy and, as part of the overall framework for risk governance, forms a boundary condition to strategy and guides the Group in its risk-taking and related business activities.

Risk appetite is defined in qualitative terms as well as quantitatively through a series of high level limits and targets covering areas such as credit risk, market risk, funding and liquidity risk, and capital measures. These high level limits and targets are cascaded where appropriate into more granular limits and targets across portfolios and business units. Risk appetite guides the Group in its risk-taking and related business activities, having regard to managing financial volatility, ensuring solvency and protecting the Group's core franchises and growth platforms.

Measures, approved by the Group, are employed to track its profile against the most significant risks that it assumes. Each of these measures has a defined target level or limit, as appropriate, and actual performance is tracked against these target levels or limits.

The Risk Appetite Statement (RAS) includes specific credit limits on sectoral and single name exposures among other qualitative and quantitative risk parameters and it also provides for the implementation of a hierarchy of sectoral credit limits. The RAS is reviewed at least annually or in light of changing business and economic conditions. It is set and approved by the Board following consideration and recommendation by the Board Risk Committee (BRC).

Notwithstanding matters impacting the Groups reputation and the continued intensity of the regulatory environment in 2017, key prudential and loan book profile metrics remain within their limits set by the Board in the RAS. These key ratios and figures associated with the risk profile are included in Table 3.1.

For further information on the Group's risk management framework and management of key Group risks, see Section 2 (pages 49 to 55 ) and Section 3 (pages 56 to 86 ) of the Risk Management Report in the Group's Annual Report 31 December 2017.

## Credit risk

The Group uses the Standardised, the Foundation IRB and the Retail IRB approaches for the calculation of its credit risk capital requirements. The Standardised approach involves the application of prescribed regulatory risk weights to credit exposures to calculate the capital requirement. The IRB approaches (Foundation and Retail) allow banks, subject to the approval of their regulator, to use their internal credit risk measurement models combined, where appropriate, with regulatory rules, to calculate their regulatory capital requirements.

At 31 December 2017, the Group applied the Foundation IRB and Retail IRB approaches to 68\% (2016: 71\%) of its group exposures by net value which resulted in $73 \%$ of credit risk weighted assets being based on IRB approaches (2016: 77\%). The credit risk information disclosed in this document includes a breakdown of the Group's exposures by CRD IV exposure class, geography, sector, maturity and asset quality. Accounting information on past due and impaired financial assets and provisions is also provided.

The Group's approach to management of balances in arrears and impaired loans is rigorous, with a focus on early intervention and active management of accounts. For further details, see the Management of Challenged Assets section on page 59 of the Group's Annual Report 31 December 2017.

## Market risk

Market risk is the risk of loss arising from movements in interest rates, foreign exchange rates or other market prices. Market risk arises from the structure of the balance sheet, the Group's business mix and discretionary risk-taking.

The management of market risk in the Group is governed by the Group's RAS and by the Group Policy on Market Risk, both of which are approved by the Board. Discretionary market risk is subject to strict controls which set out the markets and instruments in which risk can be assumed, the types of positions which can be taken and the limits which must be complied with. The Group employs a Value at Risk (VaR) approach to measure, and set limits for, proprietary market risktaking in Bank of Ireland Global Markets (BoIGM). This is supplemented by a range of other measures including stress tests.

The Group uses the Standardised approach for its assessment of Pillar 1 capital requirements for Trading Book market risk, using the prescribed regulatory calculation method.

## Operational risk

The Group has established a formal approach to the management of operational risk in the form of an 'Operational Risk Management Framework'. Implementation of this framework is monitored by the BRC, the GRPC, the GAC and the Group Operational Risk Committee (GORC). Group and business risk exposures are assessed, controls and mitigants are put in place and loss tolerances are set and monitored. This strategy is further supported by risk transfer mechanisms such as the Group's insurance programme.

The Group uses the Standardised approach for its assessment of capital requirements for operational risk, using the prescribed regulatory calculation method.

## Credit risk

Credit risk is the risk of loss resulting from a counterparty being unable to meet its contractual obligations to the Group in respect of loans or other financial transactions. This risk includes but is not limited to default risk, concentration risk, country risk, migration risk and collateral risk.

Credit risk arises from loans and advances to customers. It also arises from financial transactions the Group enters into with financial institutions, sovereigns, state institutions; and from reinsurance activities in New Ireland Assurance Company (NIAC) plc.

Credit facilities can be largely grouped into the following categories:

- cash advances (e.g. loans, overdrafts, revolving credit facilities and bonds), including commitments and letters of offer;
- credit related contingent facilities (issuing of guarantees / performance bonds / letters of credit);
- derivative instruments; and
- settlement lines

The core values and principles governing the provision of credit are contained in the Group Credit Policy which is approved by the Board. Further detail regarding the policy, strategies and processes by which credit risk is managed are included in the

Risk Management Report section from page 56 of the Group's Annual Report 31 December 2017.

Detail on the schedule and content of credit risk reporting is provided under the heading 'Credit risk reporting / monitoring' on page 59 of the Group's Annual Report 31 December 2017. Disclosures relating to the active monitoring of credit risk are also included in this section. The processes by which credit risk is assessed and measured are set out in the Credit Risk Measurement section on pages 57 and 58 of the Group's Annual Report 31 December 2017.

Capital measurement approaches and capital standards for credit risk are stated within CRD IV / CRR. The CRR details two approaches for the calculation of minimum regulatory capital requirements for credit risk:

- Standardised approach; and
- Internal Ratings Based (IRB) approach.

The Standardised approach involves the application of prescribed regulatory risk weights to credit exposures to calculate the capital requirements.

The IRB approach allows banks, subject to the approval of their regulator, to use their internal credit risk measurement
models combined, where appropriate, with regulatory rules (including regulatory floors or minimum values for certain model outputs), to calculate their regulatory capital requirements.

The Group uses a combination of both the Standardised and IRB approaches for regulatory credit risk capital calculation purposes. The Group has adopted the Foundation IRB approach for certain of its non-retail exposures (seven Probability of Default (PD) models) and the (Advanced) Retail IRB approach (twenty five models in total including EAD, LGD and PD) for the majority of its retail exposures. Exposures for which capital requirements continue to be determined under the Standardised approach primarily include sovereign and multilateral development bank exposures, the Group's land and development exposures, certain asset finance and leasing portfolios, non-credit obligation assets and other corporate exposures for which regulatory approval to use the IRB approach is not held. The Group is committed to further rollout of the IRB approach. Further information on the Group's use of its internal rating systems under the IRB approach is available on pages 46 and 57 .

## Exposure to credit risk

Table 4.1 is based on net value and shows the Group's point-in-time and average quarterly exposure to credit risk.


## Exposure to credit risk (continued)

Information on non-performing exposures (NPE) is included in the Group's Annual Report on page 61 and includes non-performing loans relating to exposures outside of the regulatory scope of consolidation and certain loans which do not meet the regulatory definition for default in line with CRR Article 178.

Table 4.2 presents gross carrying values of credit risk exposures and specific credit risk adjustments, accumulated write-offs and credit risk adjustment charges in the period.

| Table 4.2 - EU CR1-A - Credit quality of exposures by exposure class and instrument |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross carrying value of |  |  |  | Credit risk <br> adjustment <br> charges  <br> Accumulated of the <br> write-off's period <br> $€ \mathrm{~m}$ $€ \mathrm{~m}$ |  |  |
| 2017 | Defaulted exposures € | Nondefaulted exposures $€ \mathrm{~m}$ | Specific credit risk adjustment € $m$ | General credit risk adjustment € |  |  | Net value € $m$ |
| Central governments or central banks | - | - | - | - | - | - | - |
| Institutions | - | 4,038 | - | - |  |  | 4,038 |
| Corporates | 1,864 | 19,089 | 932 | - | 3,516 | 100 | 20,021 |
| - SME | 1,524 | 9,215 | 725 | - | 1,488 | - | 10,014 |
| - Specialised lending | 45 | 937 | 34 | - | - | - | 948 |
| Retail | 3,099 | 49,757 | 848 | - | 1,525 | (142) | 52,008 |
| Secured by real estate property | 2,851 | 44,507 | 704 | - | 1,036 | (136) | 46,654 |
| - SME | - | - | - | - | - | - | - |
| - Non-SME | 2,851 | 44,507 | 704 | - | 1,036 | (136) | 46,654 |
| Qualifying revolving | 20 | 2,672 | 12 | - | 103 | - | 2,680 |
| Other Retail | 228 | 2,578 | 132 | - | 386 | (6) | 2,674 |
| - SME | 189 | 2,091 | 100 | - | 224 | 4 | 2,180 |
| - Non-SME | 39 | 487 | 32 | - | 162 | (10) | 494 |
| Total IRB approach | 4,963 | 72,884 | 1,780 | - | 5,041 | (42) | 76,067 |
| Central governments or central banks | - | 17,038 | - | - | - | - | 17,038 |
| Regional governments or local authorities | - | 190 | - | - | - | - | 190 |
| Public sector entities | - | 343 | - | - | - | - | 343 |
| Multilateral development banks | - | 781 | - | - | - | - | 781 |
| International organisations | - | 896 | - | - | - | - | 896 |
| Institutions | - | - | - | - | - | - | - |
| Corporates | 1,015 ${ }^{1}$ | 6,045 | 1 | - | - | - | 6,044 |
| of which; |  |  |  |  |  |  |  |
| - SME | - | 3,916 | 1 | - | - | - | 3,915 |
| Retail of which; | $69^{1}$ | 8,342 | 13 | - | - | - | 8,329 |
| - SME | - | 721 | 5 | - | - | - | 716 |
| Secured by mortgages on immovable property of which; | - | 455 | - | - | - | - | 455 |
| - SME | - | - | - | - | - | - | - |
| Exposures in default | 1,084 | - | 514 | - | 3,895 | 57 | 570 |
| Items associated with particularly high risk | - | 134 | - | - | - | - | 134 |
| Covered bonds | - | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - |
| Other items | - | 2,345 | - | - | - | - | 2,345 |
| Total Standardised approach | 1,084 | 36,569 | 528 | - | 3,895 | 57 | 37,125 |
| Total | 6,047 | 109,453 | 2,308 | - | 8,936 | 15 | 113,192 |
| of which; |  |  |  |  |  |  |  |
| Loans | 5,956 | 89,871 | 2,298 | - | 8,936 | 15 | 93,529 |
| Debt Securities | - | 3,102 | - | - | - | - | 3,102 |
| Off-balance sheet exposures | 91 | 16,480 | 10 | - | - | - | 16,561 |

Geographic analysis of exposures

Under CRD IV a geographical analysis of credit exposures is required based on exposures in the member states in which the institution has been authorised and member states or third countries in which institutions carry out activities through a branch or subsidiary.

The Group's primary markets are Ireland and the UK. The geographical locations shown in Tables 4.3a and 4.3b are based on the business unit where the exposure is booked, rather than where the borrower is located.

The Group also has branches in the US, Germany and France. The value of exposures booked on the balance sheet of these branches is not material (less than $5 \%$ of Group credit exposures on a combined basis) and is included in Rol.

Table 4.3 Geographical analysis of exposures - Location where exposure is booked
Table 4.3a - Geographical analysis of exposures - IRB approach

|  | Rol |  |  | UK |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | Net | Exposure weighted | Exposure weighted | Net | Exposure weighted | Exposure weighted | Net | Exposure weighted | Exposure weighted |
|  | value | PD | LGD | value | PD | LGD | value | PD | LGD |
| IRB approach | $\epsilon \mathrm{m}$ | \% | \% | €m | \% | \% | $\epsilon \mathrm{m}$ | \% | \% |


| Central governments and central banks | - | - | - | - | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Institutions | 3,831 | 0.1\% | 45.0\% | 207 | 0.1\% | 45.0\% | 4,038 | 0.1\% | 45.0\% |
| Corporates | 15,583 | 2.2\% | 41.3\% | 3,432 | 4.2\% | 40.2\% | 19,015 | 2.6\% | 41.1\% |
| of which; |  |  |  |  |  |  |  |  |  |
| - SME | 7,062 | 3.0\% | 38.3\% | 2,097 | 5.4\% | 38.1\% | 9,159 | 3.6\% | 38.2\% |
| - Specialised lending | 729 | 1.6\% | 44.8\% | 205 | 1.2\% | 45.0\% | 935 | 1.5\% | 44.8\% |
| Retail | 27,566 | 2.3\% | 20.3\% | 22,057 | 2.1\% | 11.3\% | 49,623 | 2.2\% | 16.1\% |
| Secured by real estate property | 22,332 | 2.2\% | 14.4\% | 22,057 | 2.1\% | 11.3\% | 44,389 | 2.1\% | 12.9\% |
| - SME | - | - | - | - | - | - | - | - | - |
| - Non-SME | 22,332 | 2.2\% | 14.4\% | 22,057 | 2.1\% | 11.3\% | 44,389 | 2.1\% | 12.9\% |
| Qualifying revolving | 2,668 | 2.2\% | 52.0\% | - | - | - | 2,668 | 2.2\% | 52.0\% |
| Other Retail | 2,566 | 3.6\% | 58.3\% | - | - | - | 2,566 | 3.6\% | 58.3\% |
| - SME | 2,086 | 3.7\% | 54.2\% | - | - | - | 2,086 | 3.7\% | 54.2\% |
| - Non-SME | 480 | 3.3\% | 73.0\% | - | - | - | 480 | 3.3\% | 73.0\% |
| Non-defaulted total | 46,980 | 2.1\% | 28.9\% | 25,696 | 2.3\% | 15.2\% | 72,676 | 2.2\% | 23.7\% |
| Defaulted total | 2,708 | 100.0\% | 33.8\% | 683 | 100.0\% | 27.8\% | 3,391 | 100.0\% | 32.8\% |
| Total | 49,688 | 10.8\% | 29.3\% | 26,379 | 5.5\% | 15.6\% | 76,067 | 8.9\% | 24.3\% |


|  | Rol |  |  | UK |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2016 | Net | Exposure weighted | Exposure weighted | Net | Exposure weighted | Exposure weighted | Net | Exposure weighted | Exposure weighted |
|  | value | PD | LGD | value | PD | LGD | value | PD | LGD |
| IRB approach | $€ \mathrm{~m}$ | \% | \% | €m | \% | \% | $€ \mathrm{~m}$ | \% | \% |


| Central governments and central banks | - | - | - | - | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Institutions | 5,065 | 0.1\% | 25.0\% | 231 | 0.3\% | 37.5\% | 5,296 | 0.1\% | 25.5\% |
| Corporates | 15,899 | 2.7\% | 41.7\% | 4,812 | 4.1\% | 40.6\% | 20,711 | 3.0\% | 41.4\% |
| of which; |  |  |  |  |  |  |  |  |  |
| - SME | 6,750 | 3.9\% | 38.4\% | 2,950 | 5.5\% | 38.4\% | 9,700 | 4.4\% | 38.4\% |
| - Specialised lending | 983 | 2.0\% | 44.8\% | 228 | 1.0\% | 45.0\% | 1,211 | 1.8\% | 44.9\% |
| Retail | 28,207 | 3.0\% | 20.9\% | 22,707 | 2.5\% | 10.9\% | 50,914 | 2.8\% | 16.3\% |
| Secured by real estate property | 23,065 | 3.0\% | 15.5\% | 22,707 | 2.5\% | 10.9\% | 45,772 | 2.7\% | 13.2\% |
| - SME | - | - | - | - | - | - | - | - |  |
| - Non-SME | 23,065 | 3.0\% | 15.5\% | 22,707 | 2.5\% | 10.9\% | 45,772 | 2.7\% | 13.2\% |
| Qualifying revolving | 2,684 | 2.2\% | 51.9\% | - | - |  | 2,684 | 2.2\% | 51.9\% |
| Other Retail | 2,458 | 3.8\% | 58.0\% | - | - | - | 2,458 | 3.8\% | 58.0\% |
| - SME | 2,037 | 3.9\% | 54.3\% | - | - | - | 2,037 | 3.9\% | 54.3\% |
| - Non-SME | 421 | 3.3\% | 73.0\% | - | - | - | 421 | 3.3\% | 73.0\% |
| Non-defaulted total | 49,171 | 2.6\% | 27.6\% | 27,750 | 2.7\% | 16.0\% | 76,921 | 2.6\% | 23.2\% |
| Defaulted total | 2,200 | 100.0\% | 37.6\% | 725 | 100.0\% | 30.3\% | 2,925 | 100.0\% | 36.2\% |
| Total | 51,371 | 10.8\% | 28.5\% | 28,475 | 6.1\% | 16.5\% | 79,846 | 9.1\% | 24.0\% |

Geographic analysis of exposures (continued)

| Table 4.3b - Geographic analysis of exposures - Standardised approach - Location where exposure is booked <br> 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Standardised approach - net value | Rol $€ \mathrm{~m}$ | $\begin{aligned} & \text { UK } \\ & \text { €m } \end{aligned}$ | Total € | $\begin{aligned} & \text { Rol } \\ & \text { €m } \end{aligned}$ | $\begin{aligned} & \text { UK } \\ & \text { €m } \end{aligned}$ | Total $€ \mathrm{~m}$ |
| Central governments or central banks | 14,422 | 2,616 | 17,038 | 12,830 | 2,151 | 14,981 |
| Regional governments or local authorities | 189 | 1 | 190 | 188 | 1 | 189 |
| Public sector entities | 326 | 17 | 343 | 165 | 18 | 183 |
| Multilateral development banks | 338 | 443 | 781 | 305 | 416 | 721 |
| International organisations | 896 | - | 896 | 623 | - | 623 |
| Institutions | - | - | - | - | - | - |
| Corporates | 4,701 | 1,343 | 6,044 | 4,647 | 2,176 | 6,823 |
| Retail | 2,536 | 5,793 | 8,329 | 2,222 | 5,329 | 7,551 |
| Secured by mortgages on immovable property | 455 | - | 455 | 438 | - | 438 |
| Exposures in default | 467 | 103 | 570 | 602 | 165 | 767 |
| Exposures associated with particularly high risk | 134 | - | 134 | 143 | - | 143 |
| Covered bonds | - | - | - | - | - | - |
| Institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity | - | - | - | - | - | - |
| Other items | 2,343 | 2 | 2,345 | 2,088 | 1 | 2,089 |
| Total | 26,807 | 10,318 | 37,125 | 24,251 | 10,257 | 34,508 |

The geographical locations shown in tables 4.4 and 4.5 are based on the residence of the immediate counterparty. Exposures with supranational organisations are included under the other geographical area.

| $2017$ | Europe | of which; Ireland | UK | Rest of <br> Europe | US | Other geographical area | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $€ m$ |  |  |  |  |
| Central governments or central banks | - | - | - | - | - | - | - |
| Institutions | 3,488 | 244 | 944 | 2,300 | 29 | 521 | 4,038 |
| Corporates | 18,079 | 11,212 | 5,392 | 1,475 | 1,577 | 365 | 20,021 |
| Retail | 51,804 | 29,024 | 22,730 | 50 | 88 | 116 | 52,008 |
| Total IRB approach | 73,371 | 40,480 | 29,066 | 3,825 | 1,694 | 1,002 | 76,067 |
| Central governments or central banks | 16,311 | 9,890 | 4,159 | 2,262 | 727 | - | 17,038 |
| Regional governments or local authorities | 169 | 168 | 1 | - | 21 | - | 190 |
| Public sector entities | 343 | 75 | - | 268 | - | - | 343 |
| Multilateral development banks | - | - | - | - | - | 781 | 781 |
| International organisations | - | - | - | - | - | 896 | 896 |
| Institutions | - | - | - | - | - | - | - |
| Corporates | 6,007 | 3,722 | 2,182 | 103 | 5 | 32 | 6,044 |
| Retail | 8,325 | 2,545 | 5,777 | 3 | 1 | 3 | 8,329 |
| Secured by mortgages on immovable property | 451 | 446 | 4 | 1 | 2 | 2 | 455 |
| Exposures in default | 565 | 450 | 95 | 20 | - | 5 | 570 |
| Items associated with particularly high risk | 114 | 109 | 2 | 3 | 20 | - | 134 |
| Covered bonds | - | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - |
| Other items | 2,345 | 1,716 | 629 | - | - | - | 2,345 |
| Total Standardised approach | 34,630 | 19,121 | 12,849 | 2,660 | 776 | 1,719 | 37,125 |
| Total | 108,001 | 59,601 | 41,915 | 6,485 | 2,470 | 2,721 | 113,192 |

Geographic analysis of exposures (continued)

Table 4.5 - EU CR1-C - Credit quality of exposures by geographical breakdown - Location of residence of counterparty


Industry analysis of exposures
The industry classification in Table 4.6 below is based the activity of the immediate counterparty.

Table 4.6-EU CRB-D - Industry analysis of exposures
Table 4.6a - Industry analysis of exposures - IRB approach

| $2017$ <br> IRB Approach - net value | Institutions € m | Corporates €m | Retail € $m$ | Total € |
| :---: | :---: | :---: | :---: | :---: |
| Agriculture, forestry and fishing | - | 359 | 890 | 1,249 |
| Mining and quarrying | - | 248 | 5 | 253 |
| Manufacturing | - | 3,097 | 93 | 3,190 |
| Electricity, gas, steam and air conditioning supply | - | 503 | 3 | 506 |
| Water supply | - | - | - | - |
| Construction | - | 268 | 117 | 385 |
| Wholesale and retail trade | - | 1,556 | 254 | 1,810 |
| Transport and storage | - | 711 | 43 | 754 |
| Accommodation and food service activities | - | 1,048 | 97 | 1,145 |
| Information and communication | - | 526 | 15 | 541 |
| Real estate activities | - | 6,911 | 97 | 7,008 |
| Professional, scientific and technical activities | - | 274 | 60 | 334 |
| Administrative and support service activities | - | 1,259 | 277 | 1,536 |
| Public administration and defence, compulsory social security | - | 44 | - | 44 |
| Education | - | 229 | 13 | 242 |
| Human health services and social work activities | - | 1,091 | 67 | 1,158 |
| Arts, entertainment and recreation | - | 239 | 22 | 261 |
| Other services | - | 621 | 27 | 648 |
| Central government | - | - | - | - |
| Personal residential mortgages | - | 14 | 46,654 | 46,668 |
| Other personal | - | 64 | 3,257 | 3,321 |
| Financial and Insurance activities | 4,038 | 959 | 17 | 5,014 |
| Total | 4,038 | 20,021 | 52,008 | 76,067 |

Industry analysis of exposures (continued)

| Table 4.6 - Industry analysis of exposures |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Table 4.6a-Industry analysis of exposures - IRB approach |  |  |  |  |
| $\begin{aligned} & 2016 \\ & \text { IRB Approach - net value } \end{aligned}$ | Institutions € m | Corporates $€ \mathrm{~m}$ | Retail € | Total € m |
| Agriculture, forestry and fishing | - | 338 | 858 | 1,196 |
| Mining and quarrying | - | 313 | 5 | 318 |
| Manufacturing | - | 3,876 | 93 | 3,969 |
| Electricity, gas, steam and air conditioning supply | - | 656 | 2 | 658 |
| Water supply | - | - | - | - |
| Construction | - | 262 | 112 | 374 |
| Wholesale and retail trade | - | 1,608 | 249 | 1,857 |
| Transport and storage | - | 920 | 43 | 963 |
| Accommodation and food service activities | - | 1,203 | 92 | 1,295 |
| Information and communication | - | 468 | 13 | 481 |
| Real estate activities | - | 7,489 | 99 | 7,588 |
| Professional, scientific and technical activities | - | 366 | 58 | 424 |
| Administrative and support service activities | - | 1,228 | 283 | 1,511 |
| Public administration and defence, compulsory social security | - | - | - | - |
| Education | - | 341 | 12 | 353 |
| Human health services and social work activities | - | 1,155 | 67 | 1,222 |
| Arts, entertainment and recreation | - | 397 | 23 | 420 |
| Other services | - | 669 | 22 | 691 |
| Central government | - | - | - | - |
| Personal residential mortgages | - | 16 | 46,762 | 46,778 |
| Other personal | - | 121 | 3,654 | 3,775 |
| Financial and Insurance activities | 5,296 | 660 | 17 | 5,973 |
| Total | 5,296 | 22,086 | 52,464 | 79,846 |


| Table 4.6 - EU CRB-D - Industry analysis of exposures <br> Table 4.6b - Industry analysis of exposures - Standardised approach |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 <br> Standardised approach - net value | Central governments or central banks $\epsilon \mathrm{m}$ | Regional governments or local authorities € m | Public sector entities € m | Multilateral development banks € | International organisations € | Corporates $\epsilon \mathrm{m}$ | Retail | Secured by mortgages on immovable property $\epsilon$ € | Exposures in default € | Items associated with particulary high risk € | Other items € m | Total |
| Agriculture, forestry and fishing | - | - | - | - | - | 467 | 168 | - | 38 | - | - | 673 |
| Mining and quarrying | - | - | - | - | - | 4 | 1 | - | - | - | - | 5 |
| Manufacturing | - | - | - | - | - | 203 | 331 | - | 9 | - | - | 543 |
| Electricity, gas, steam and air conditioning supply | - | - | - | - | - | 13 | 9 | - | - | - | - | 22 |
| Water supply | - | - | - | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | 156 | 125 | - | 26 | - | - | 307 |
| Wholesale and retail trade | - | - | - | - | - | 563 | 371 | - | 26 | - | - | 960 |
| Transport and storage | - | - | - | - | - | 185 | 275 | - | 25 | - | - | 485 |
| Accommodation and food service activities | - | - | - | - | - | 135 | 12 | - | 11 | - | - | 158 |
| Information and communication | - | - | - | - | - | 84 | 21 | - | - | - | - | 105 |
| Real estate activities | - | - | - | - | - | 1,221 | 4 | - | 244 | - | - | 1,469 |
| Professional, scientific and technical activities | - | - | - | - | - | 43 | 14 | - | 5 | - | - | 62 |
| Administrative and support service activities | - | - | - | - | - | 197 | 131 | - | 12 | - | - | 340 |
| Public administration and defence, compulsory social security | - | 190 | 343 | - | - | - | - | - | - | - | - | 533 |
| Education | - | - | - | - | - | 10 | 1 | - | - | - | - | 11 |
| Human health services and social work activities | - | - | - | - | - | 278 | 5 | - | 12 | - | - | 295 |
| Arts, entertainment and recreation | - | - | - | - | - | 26 | - | - | 1 | - | - | 27 |
| Other services | - | - | - | - | - | 524 | 169 | - | 5 | 73 | - | 771 |
| Central government | 16,044 | - | - | - | - | - | - | - | - | - | - | 16,044 |
| Personal residential mortgages | - | - | - | - | - | 79 | 5 | 455 | 35 | - | - | 574 |
| Other personal | - | - | - | - | - | 321 | 6,660 | - | 118 | - | - | 7,099 |
| Financial and Insurance activities | 994 | - | - | 781 | 896 | 1,535 | 27 | - | 3 | 61 | 2,345 | 6,642 |
| Total | 17,038 | 190 | 343 | 781 | 896 | 6,044 | 8,329 | 455 | 570 | 134 | 2,345 | 37,125 |

Industry analysis of exposures (continued)


Industry analysis of exposures (continued)

Table 4.7-EU CR1-B - Credit quality of exposures by industry or counterparty types

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € m | General credit risk adjustment € | $\left.\begin{array}{rr}\text { Credit risk } \\ \text { adjustment } \\ \text { charges } \\ \text { of the }\end{array}\right\}$ |  | Net value € m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures €m | Nondefaulted exposures € $m$ |  |  |  |  |  |
| Agriculture, forestry and fishing | 111 | 1,852 | 41 | - | 191 | 3 | 1,922 |
| Mining and quarrying | 15 | 247 | 4 | - | 59 | 1 | 258 |
| Manufacturing | 164 | 3,635 | 66 | - | 491 | 7 | 3,733 |
| Electricity, gas, steam and air conditioning supply | 2 | 527 | 1 | - | 59 | - | 528 |
| Water supply | - | - | - | - | - | - | - |
| Construction | 110 | 645 | 63 | - | 137 | 22 | 692 |
| Wholesale and retail trade | 271 | 2,641 | 142 | - | 381 | 13 | 2,770 |
| Transport and storage | 140 | 1,195 | 96 | - | 193 | 6 | 1,239 |
| Accommodation and food service activities | 221 | 1,182 | 100 | - | 220 | 15 | 1,303 |
| Information and communication | 2 | 645 | 1 | - | 70 | - | 646 |
| Real estate activities | 1,448 | 7,704 | 675 | - | 4,781 | 61 | 8,477 |
| Professional, scientific and technical activities | 29 | 378 | 11 | - | 57 | 2 | 396 |
| Administrative and support service activities | 99 | 1,832 | 55 | - | 210 | 6 | 1,876 |
| Public administration and defence, compulsory social security | - | 577 | - | - | 29 | - | 577 |
| Education | 4 | 254 | 5 | - | 46 | - | 253 |
| Human health services and social work activities | 122 | 1,400 | 69 | - | 223 | 5 | 1,453 |
| Arts, entertainment and recreation | 57 | 268 | 37 | - | 60 | 2 | 288 |
| Other services | 15 | 1,455 | 51 | - | 275 | 1 | 1,419 |
| Central government | - | 16,044 | - | - | - | - | 16,044 |
| Personal residential mortgages | 2,894 | 45,060 | 712 | - | 1,036 | (137) | 47,242 |
| Other personal | 334 | 10,261 | 175 | - | 418 | 8 | 10,420 |
| Financial and Insurance activities | 9 | 11,651 | 4 | - | - | - | 11,656 |
| Total | 6,047 | 109,453 | 2,308 | - | 8,936 | 15 | 113,192 |

## Maturity analysis of exposures

The maturity analysis in Table 4.8 below discloses the Group's credit exposure by residual contractual maturity date.

| Table 4.8 - EU CRB-E - Maturity of exposures |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2017$ | On <br> demand | <=1 year | >1 year <=5 years | >5 years | No stated maturity | Total |
| Net value | €m | €m | €m | €m | €m | €m |
| Central governments or central banks | - | - | - | - | - | - |
| Institutions | 5 | 1,224 | 2,496 | 313 | - | 4,038 |
| Corporates | 767 | 3,437 | 10,457 | 5,360 | - | 20,021 |
| Retail | 1,329 | 5,834 | 12,301 | 32,544 | - | 52,008 |
| Total IRB approach | 2,101 | 10,495 | 25,254 | 38,217 | - | 76,067 |
| Central governments or central banks | 7,120 | 2,409 | 1,474 | 5,087 | 948 | 17,038 |
| Regional governments or local authorities | 106 | 9 | 43 | 32 | - | 190 |
| Public sector entities | - | 126 | 217 | - | - | 343 |
| Multilateral development banks | - | 217 | 499 | 65 | - | 781 |
| International organisations | - | 126 | 630 | 140 | - | 896 |
| Institutions | - | - | - | - | - | - |
| Corporates | 651 | 898 | 3,114 | 1,381 | - | 6,044 |
| Retail | - | 5,353 | 2,942 | 34 | - | 8,329 |
| Secured by mortgages on immovable property | - | 2 | 26 | 427 | - | 455 |
| Exposures in default | 20 | 257 | 96 | 197 | - | 570 |
| Items associated with particularly high risk | - | 51 | 1 | 82 | - | 134 |
| Covered bonds | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | - | - | - | - | 2,345 | 2,345 |
| Total Standardised approach | 7,897 | 9,448 | 9,042 | 7,445 | 3,293 | 37,125 |
| Total | 9,998 | 19,943 | 34,296 | 45,662 | 3,293 | 113,192 |

Maturity analysis of exposures（continued）

Table 4.8 －EU CRB－E－Maturity of exposures

| $2016$ <br> Net value | demand € m | $\begin{array}{r} <=1 \text { year } \\ € m \end{array}$ | $\begin{array}{r} >1 \text { year } \\ <=5 \text { years } \\ € \mathrm{~m} \end{array}$ | $\begin{array}{r} >5 \text { years } \\ € m \end{array}$ | No stated maturity € | Total €m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Institutions | 301 | 2，312 | 2，187 | 496 | － | 5，296 |
| Corporates | 1，793 | 3，130 | 11，235 | 5，928 | － | 22，086 |
| Retail | 1，332 | 5，617 | 11，596 | 33，919 | － | 52，464 |
| Total IRB approach | 3，426 | 11，059 | 25，018 | 40，343 | － | 79，846 |
| Central governments or central banks | 4，958 | 1，738 | 1，754 | 4，626 | 1，095 | 14，981 |
| Regional governments or local authorities | 107 | 25 | 15 | 42 | － | 189 |
| Public sector entities | － | － | 183 | － | － | 183 |
| Multilateral development banks | － | 33 | 597 | 91 | － | 721 |
| International organisations | － | 31 | 379 | 213 | － | 623 |
| Institutions | － | － | － | － | － | － |
| Corporates | 780 | 932 | 3，584 | 1，527 | － | 6，823 |
| Retail | － | 4，934 | 2，584 | 33 | － | 7，551 |
| Secured by mortgages on immovable property | － | 25 | 92 | 321 | － | 438 |
| Exposures in default | 28 | 450 | 126 | 163 | － | 767 |
| Items associated with particularly high risk | － | 54 | － | 89 | － | 143 |
| Covered bonds | － | － | － | － | － | － |
| Claims on institutions and corporates with a short－term credit assessment | － | － | － | － | － | － |
| Collective investment undertakings | － | － | － | － | － | － |
| Equity exposures | － | － | － | － | － | － |
| Other items | － | － | － | － | 2，089 | 2，089 |
| Total Standardised approach | 5，873 | 9，032 | 9，314 | 7，105 | 3，184 | 34，508 |
| Total | 9，299 | 20，091 | 34，332 | 47，448 | 3，184 | 114，354 |

## IRB approach

This section covers the Group＇s use of its internal rating systems under the IRB approaches．

## Regulatory approval of approach

The Group has regulatory approval to use its internal credit models in the calculation of its capital requirements for $68 \%$ （2016：71\％）of its exposures． $73 \%$（2016： $77 \%$ ）of credit RWA are calculated using internal credit models．This approval covers the use of the Foundation IRB approach for non－retail exposures and the （Advanced）Retail IRB approach for retail exposures．Exposures for which capital requirements continue to be determined under the Standardised approach primarily include sovereign and multilateral development bank exposure，the Group＇s land and development exposures，certain asset finance and leasing portfolios，non－ credit obligation assets and other corporate exposures for which regulatory approval to use the IRB approach is not held．The Group is committed to further rollout of the IRB approach．

The structure of internal rating systems
The Group applies a different IRB approach to its non－retail and retail portfolios．

Both approaches differentiate PD estimates into 11 grades in addition to the category of default．

For both non－retail and retail internal rating systems，default is defined based on unlikeliness to pay indicators that vary between borrower types．In all cases， exposures 90 days or more past due are considered to be in default．

For the Group＇s retail consumer and smaller business portfolios，which are characterised by a large volume of customers with smaller individual exposures，the credit risk assessment is grounded on application and behavioural scoring tools．For larger commercial and corporate customers，the risk assessment is underpinned by statistical risk rating models which incorporate quantitative information from the customer（e．g．
financial statements）together with a qualitative assessment of non－financial risk factors such as management quality and market／trading outlook．Lending to financial institutions is assigned an internal rating supported by external ratings of the major rating agencies．

## PD calculation

The Group produces estimates of PD on either or both of the following bases：
－Through－the－Cycle（TtC）estimates are estimates of default over an entire economic cycle，averaged to a twelve month basis．These are in effect averaged expectations of PD for a borrower over the economic cycle； and
－Cyclical estimates are estimates of default applicable to the next immediate twelve months．These cyclical estimates partially capture the economic cycle in that they typically rise in an economic downturn and decline in an economic upturn but not necessarily to the same degree as default rates change in the economy．

## Non-retail internal rating systems

The Group has adopted the Foundation IRB (FIRB) approach for certain of its nonretail exposures. Under this approach, the Group calculates its own estimates for PD and uses supervisory estimates of Loss Given Default (LGD) and credit conversion factors (CCF).

To calculate PD under the FIRB approach, the Group assesses the credit quality of borrowers based on transaction and borrower specific characteristics. Scorecards are developed for each significant portfolio or type of lending, with outputs used to assign a PD grade to each borrower.

In the case of financial institutions, external credit agency ratings are used to provide a significant challenge within the Group's ratings approach. For exposures other than financial institutions, external ratings, when available for borrowers, play a role in the independent validation of internal estimates.

For non-retail exposures, the Group calculates its own estimates of PD on a TtC basis and on a cyclical basis. The TtC PD estimates are based on internal default experience, or where default data is limited, statistical model estimates combined with available data to reflect the average default rate over the course of an economic cycle. The TtC PDs do not vary with the economic cycle and are used to calculate risk weighted exposure amounts and to determine minimum regulatory capital requirements. The cyclical PD estimates which capture a change in borrower risk over the economic cycle, are used for internal credit management purposes. Both measures are estimated from the same borrower risk factors.

## Retail internal rating systems

The Group has adopted the (Advanced) Retail IRB approach for the majority of its retail exposures. Under this approach, the Group calculates its own estimates for PD, LGD and CCF. External ratings do not play a role within the Group's retail internal rating systems. However, external credit bureau data does play a significant role in assessing UK retail borrowers.

Under the Retail IRB approach, scorecards based on internal behavioural data and, where relevant, transaction specific characteristics are developed for specific portfolios or product types, the output from the scorecard is used to determine the PD estimate.

The Group calculates PD on a cyclical basis, although for most rating systems, limited cyclicality is observed. These estimates are calibrated based on a weighted average of the expected default rate over the course of an economic cycle (based on internal default experience). These cyclic PDs are used for both the calculation of risk weighted exposure amounts and for internal credit management purposes.

LGD estimates are based on historic loss experience and associated costs for all observed defaults for a defined time period. The time period is set for each model to ensure LGD estimates are representative of economic downturn conditions. CCF estimates are similarly derived based on historic experience from observed defaults, and are calibrated to produce estimates of behaviour characteristic of an economic downturn.

The assumption that the time periods and data used for LGD and CCF estimation
remain representative of economic downturn conditions is subject to review and challenge on an ongoing basis.

## Other uses of internal estimates

 Internal estimates play an essential role in risk management and decision making processes, the credit approval functions, the internal capital allocation function and the corporate governance functions of the Group. The specific uses of internal estimates differ from portfolio to portfolio, and for retail and non-retail approaches, but typically include:- internal reporting;
- credit management;
- calculation of Risk Adjusted Return on Capital (RARoC);
- credit decisioning / automated credit decisioning;
- borrower credit approval; and
- internal capital allocation between businesses of the Group.

For other purposes, the cyclical PD estimates typically are used. Both estimates feature within internal management reporting.

Association of PD grades with external ratings
Table 4.9 illustrates the relationship between PD grade, PD band and S\&P type ratings. PD is used in the IRB RWA calculation. These PD grades differ from internal obligor grades which are used in arriving at IFRS classifications, however there is a defined relationship between both sets of grades.

Note the internal ranges do not map directly to the prescribed ranges used in tables 4.11 and 4.12.

Table 4.9 - Relationship of PD grades with external ratings
PD grade PD S\&P type ratings

| $1-4$ | $0 \% \leq P D<0.26 \%$ | $A A A, A A+, A A, A A-, A+, A, A-, B B B+, B B B$ |
| :---: | :---: | :---: |
| $5-7$ | $0.26 \% \leq P D<1.45 \%$ | BBB-, BB + BB, BB- |
| $8-9$ | $1.45 \% \leq P D<3.60 \%$ | B+ |
| $10-11$ | $3.60 \% \leq P D<100 \%$ | $B, B e l o w$ B |
| Default | $100 \%$ | n/a |

Control mechanisms for rating systems The control mechanisms for rating systems are set out in the Group's Credit IRB Model Risk Policy and Standards. A committee appointed by the GRPC, the Risk Measurement Committee (RMC), approves all risk rating models, model developments and all associated policies. The Group mitigates model risk for rating models as follows:

- model development standards: the Group adopts centralised standards and methodologies over the operation and development of models. This ensures a common approach to documentation, data quality and management, conservatism and model testing;
- model governance: the Group adopts a uniform approach to the governance of all risk rating model related activities. This ensures the appropriate involvement of stakeholders;
- model performance monitoring: all risk rating models are subject to testing on a quarterly basis. The results form the basis of IRB model reporting to RMC, which includes assessment of model performance against observed outcomes, including: - rank order of borrowers;
- accuracy of parameter estimates; - the stability of the rating;
- the quality of data;
- the appropriate of model use; and
- independent validation: all risk rating models are subject to in-depth analysis at least annually. This analysis is carried out by a dedicated unit (the Independent Control Unit, ICU) which
is independent of credit origination and management functions.

The Group employs a rigorous validation process which includes an assessment of model performance against observed outcomes, including:

- rank order of borrowers;
- accuracy of parameter estimates;
- the stability of the rating population;
- the quality of data; and
- the appropriateness of model use.

When issues are raised on risk rating models, plans are developed to remediate or replace such models within an agreed timeframe.

In addition, Group Internal Audit regularly reviews the risk control framework, including policies and standards, to ensure that these are being adhered to, meet industry good practices and are compliant with regulatory requirements.

## The internal ratings process by exposure class

Details on how the internal ratings process is applied to each individual IRB exposure class are given below. Departures from Group standards outlined above are not permitted.

## Corporates

Corporate entities, including certain SME and specialised lending exposures are rated using a number of models. This suite of models typically incorporates scorecard-based calibrated PD outputs (both TtC and cyclical PD estimates). The

Group does not rate purchased corporate receivables under the IRB approach. Information on the Corporates Foundation IRB exposure class is provided in Table 4.11.

## Institutions

Institutions are rated by a single dedicated model. This is an internally-built scorecard and the output from this model is a single PD estimate that is fully TtC . Information on the Institutions Foundation IRB exposure class is provided in Table 4.11.

## Retail

Retail exposures including Mortgages, Qualifying Revolving Retail Exposures and certain Retail SME and Consumer loans are rated on a number of models based on application and behavioural data which is calibrated to a PD. This PD estimate typically varies with the economic cycle outlined above. The Group also generates LGD and CCF estimates for its retail exposures. These estimates are calibrated to produce estimates representative of an economic downturn. These estimates do not vary with the economic cycle. Information on the Retail IRB exposure classes is provided in Table 4.12.

## Securitisations

Capital requirements for securitisation positions (retained and purchased) are determined under the IRB approach. These are dealt within the Securitisation section.
IRB approach (continued)
Backtesting of modelled PDs may identify differences between actual default rates and PD estimates. The key drivers of difference include; (i) economic circumstances: TtC PD estimates are calibrated to the long run average default rate and will diverge from the observed one year default rates at periods of high economic growth or stress; and (ii) conservatism: PD models produce outputs which are conservative in cases where information is limited or less reliable, e.g. small portfolios or low default portfolios.

| Exposure class | Min PD | Max PD | External rating equivalent | Weighted average PD | Arithmetic average PD by obligors | Number of obligors |  | Defaulted obligors in the year | of which; New obligors | Average historical annual default rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | End of previous the year | End of the year |  |  |  |
| Institutions | 0.03\% | 20.00\% | AA- to B+ | 0.11\% | 0.40\% | 145 | 137 | - | - | 0.0\% |
| Corporates of which; | 0.03\% | 100.00\% | $A A-$ to $D$ | 2.58\% | 3.96\% | 10,179 | 9,579 | 283 | 20 | 4.9\% |
| - SME | 0.03\% | 100.00\% | $A A-$ to $D$ | 3.61\% | 4.46\% | 8,276 | 7,720 | 265 | 16 | 4.8\% |
| - Specialised Lending | 0.13\% | 100.00\% | $B B B$ to $D$ | 1.52\% | 1.48\% | 87 | 78 | - | - | 0.9\% |
| - Other | 0.03\% | 100.00\% | $A A-$ to $D$ | 1.41\% | 1.88\% | 1,816 | 1,781 | 18 | 4 | 1.1\% |
| Retail of which; | 0.03\% | 100.00\% |  | 2.21\% | 2.59\% | 1,312,467 | 1,307,585 | 26,718 | 1,174 | 2.2\% |
| - Secured by real estate property | 0.03\% | 100.00\% | - | 2.14\% | 2.18\% | 349,409 | 348,887 | 10,124 | 2 | 1.9\% |
| - Qualifying Revolving | 0.03\% | 100.00\% | - | 2.19\% | 2.49\% | 766,103 | 753,635 | 12,047 | 608 | 2.1\% |
| - Other retail SME | 0.07\% | 100.00\% | - | 3.68\% | 3.85\% | 120,075 | 120,921 | 3,103 | 199 | 3.1\% |
| - Other retail non-SME | 0.04\% | 100.00\% | - | 3.30\% | 3.45\% | 76,880 | 84,142 | 1,444 | 365 | 3.3\% |

Analysis of credit quality - Foundation IRB
Table 4.11 shows the breakdown of the Foundation IRB exposure classes by PD scale.

| Table 4.11 - EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (Foundation IRB) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2017 \\ & \text { PD scale } \end{aligned}$ | Original on-balance sheet gross exposures € | Off-balance <br> sheet exposures pre-CCF € | Average CCF \% | EAD post CRM and post CCF €m | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{gathered} \text { RWA } \\ \text { € } \end{gathered}$ | RWA density \% | $\begin{aligned} & \mathrm{EL} \\ & \epsilon \mathrm{~m} \end{aligned}$ | Value adjustments and provisions € |
| Total FIRB ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 4,430 | 1,865 | 43\% | 5,234 | 0.1\% | 384 | 33\% | 2.5 | 923 | 18\% | 1 | - |
| 0.15 to <0.25 | 1,035 | 556 | 38\% | 1,243 | 0.2\% | 269 | 42\% | 2.5 | 520 | 42\% | 1 | - |
| 0.25 to <0.50 | 2,052 | 635 | 36\% | 2,281 | 0.3\% | 861 | 40\% | 2.5 | 1,355 | 59\% | 4 | - |
| 0.50 to <0.75 | 2,389 | 638 | 36\% | 2,620 | 0.6\% | 579 | 40\% | 2.5 | 1,815 | 69\% | 7 | - |
| 0.75 to <2.50 | 3,176 | 1,301 | 43\% | 3,741 | 1.4\% | 2,338 | 41\% | 2.5 | 3,594 | 96\% | 23 | - |
| 2.50 to <10.00 | 3,127 | 409 | 33\% | 3,264 | 3.7\% | 2,775 | 41\% | 2.5 | 3,800 | 116\% | 52 | - |
| 10.00 to <100.00 | 1,441 | 73 | 37\% | 1,468 | 14.5\% | 1,164 | 39\% | 2.5 | 2,249 | 153\% | 87 | - |
| 100.00 (Default) | 1,810 | 55 | 43\% | 1,829 | 100.0\% | 1,346 | 42\% | 2.5 | - | - | 770 | - |
| Total foundation IRB | 19,460 | 5,531 | 40\% | 21,680 | 10.4\% | 9,716 | 39\% | 2.5 | 14,256 | 66\% | 944 | 931 |
| Institutions |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3,432 | 179 | 79\% | 3,578 | 0.1\% | 97 | 28\% | 2.5 | 456 | 13\% | - | - |
| 0.15 to <0.25 | 13 | 1 | 90\% | 13 | 0.2\% | 7 | 45\% | 2.5 | 5 | 40\% | - | - |
| 0.25 to <0.50 | 242 | 17 | 25\% | 246 | 0.4\% | 15 | 22\% | 2.5 | 96 | 39\% | 1 | - |
| 0.50 to <0.75 | 9 | - | - | 9 | 0.6\% | 2 | 45\% | 2.5 | 8 | 80\% | - | - |
| 0.75 to <2.50 | 76 | 66 | 21\% | 90 | 1.2\% | 13 | 45\% | 2.5 | 106 | 119\% | - | - |
| 2.50 to <10.00 | 1 | 2 | 35\% | 1 | 3.3\% | 2 | 45\% | 2.5 | 2 | 173\% | - | - |
| 10.00 to <100.00 | - | - | - | - | 20.0\% | 1 | 45\% | 2.5 | - | 287\% | - | - |
| 100.00 (Default) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total institutions | 3,773 | 265 | 61\% | 3,938 | 0.1\% | 137 | 28\% | 2.5 | 673 | 17\% | 1 | - |
| Corporates |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 998 | 1,685 | 39\% | 1,656 | 0.1\% | 287 | 44\% | 2.5 | 468 | 28\% | 1 | - |
| 0.15 to <0.25 | 1,022 | 555 | 37\% | 1,230 | 0.2\% | 262 | 41\% | 2.5 | 514 | 42\% | 1 | - |
| 0.25 to <0.50 | 1,809 | 618 | 36\% | 2,034 | 0.3\% | 846 | 42\% | 2.5 | 1,259 | 62\% | 3 | - |
| 0.50 to <0.75 | 2,380 | 638 | 36\% | 2,611 | 0.6\% | 577 | 40\% | 2.5 | 1,807 | 69\% | 7 | - |
| 0.75 to <2.50 | 3,100 | 1,235 | 45\% | 3,651 | 1.4\% | 2,325 | 41\% | 2.5 | 3,488 | 96\% | 23 | - |
| 2.50 to <10.00 | 3,127 | 407 | 33\% | 3,262 | 3.7\% | 2,773 | 41\% | 2.5 | 3,798 | 116\% | 52 | - |
| 10.00 to <100.00 | 1,441 | 73 | 37\% | 1,468 | 14.5\% | 1,163 | 39\% | 2.5 | 2,249 | 153\% | 87 | - |
| 100.00 (Default) | 1,810 | 55 | 43\% | 1,829 | 100.0\% | 1,346 | 42\% | 2.5 | - | 0\% | 770 | - |
| Total corporates | 15,687 | 5,266 | 39\% | 17,742 | 12.6\% | 9,579 | 41\% | 2.5 | 13,583 | 77\% | 943 | 931 |

Analysis of credit quality - Foundation IRB (continued)

| Table 4.11-EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (Foundation IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2017 \\ & \text { PD scale } \end{aligned}$ | Original on-balance sheet gross exposures € | Off-balance sheet exposures pre-CCF € m | Average CCF \% | EAD post CRM and post CCF $\epsilon \mathrm{m}$ | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{gathered} \text { RWA } \\ \epsilon \mathrm{m} \end{gathered}$ | $\begin{array}{r} \text { RWA } \\ \text { density } \\ \% \end{array}$ | ${ }_{\text {EL }}^{\text {Em }}$ | adjustments and provisions €m |
| Corporates of which SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 133 | 120 | 25\% | 162 | 0.1\% | 159 | 41\% | 2.5 | 32 | 19\% | - | - |
| 0.15 to <0.25 | 482 | 109 | 34\% | 519 | 0.2\% | 151 | 38\% | 2.5 | 163 | 31\% | - | - |
| 0.25 to <0.50 | 766 | 148 | 43\% | 830 | 0.3\% | 245 | 40\% | 2.5 | 395 | 48\% | 1 | - |
| 0.50 to <0.75 | 1,501 | 125 | 27\% | 1,534 | 0.6\% | 479 | 37\% | 2.5 | 840 | 55\% | 4 | - |
| 0.75 to <2.50 | 1,909 | 360 | 26\% | 2,004 | 1.4\% | 1,982 | 38\% | 2.5 | 1,462 | 73\% | 11 | - |
| 2.50 to <10.00 | 2,089 | 187 | 22\% | 2,130 | 3.9\% | 2,546 | 39\% | 2.5 | 2,015 | 95\% | 33 | - |
| 10.00 to <100.00 | 1,246 | 41 | 23\% | 1,255 | 14.4\% | 1,085 | 39\% | 2.5 | 1,759 | 140\% | 72 | - |
| 100.00 (Default) | 1,485 | 39 | 38\% | 1,496 | 100.0\% | 1,073 | 41\% | 2.5 | - | - | 620 | - |
| Total corporates of which SME | 9,610 | 1,129 | 29\% | 9,929 | 18.1\% | 7,720 | 39\% | 2.5 | 6,665 | 67\% | 740 | 725 |
| Corporates of which specialised lending |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3 | - | - | 3 | 0.1\% | - | 45\% | 2.5 | 1 | 28\% | - | - |
| 0.15 to <0.25 | 99 | 5 | 50\% | 102 | 0.2\% | 7 | 44\% | 2.5 | 43 | 42\% | - | - |
| 0.25 to <0.50 | 46 | 15 | 60\% | 55 | 0.4\% | 7 | 45\% | 2.5 | 34 | 62\% | - | - |
| 0.50 to <0.75 | 287 | 18 | 55\% | 297 | 0.6\% | 17 | 45\% | 2.5 | 238 | 80\% | 1 | - |
| 0.75 to <2.50 | 221 | 29 | 68\% | 241 | 1.4\% | 31 | 45\% | 2.5 | 262 | 109\% | 2 | - |
| 2.50 to <10.00 | 188 | 20 | 60\% | 200 | 3.8\% | 13 | 45\% | 2.5 | 288 | 144\% | 3 | - |
| 10.00 to <100.00 | 2 | 3 | 100\% | 5 | 10.0\% | 1 | 45\% | 2.5 | 11 | 205\% | - | - |
| 100.00 (Default) | 45 | - | - | 45 | 100.0\% | 2 | 45\% | 2.5 | - | - | 20 | - |
| Total corporates of which specialised lending | 892 | 90 | 62\% | 948 | 6.2\% | 78 | 45\% | 2.5 | 877 | 93\% | 27 | 34 |

Analysis of credit quality - Foundation IRB (continued)

| Table 4.11 - EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (Foundation IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2016 <br> PD scale | Original on-balance sheet gross exposures € | Off-balance sheet exposures pre-CCF €m | Average CCF \% | EAD post CRM and post CCF $€ \mathrm{~m}$ | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | RWA € | RWA density \% | $\begin{aligned} & \mathrm{EL} \\ & € \mathrm{~m} \end{aligned}$ | Value adjustments and provisions €m |
| Total FIRB |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 4,238 | 2,275 | 60\% | 5,601 | 0.1\% | 404 | 29\% | 2.5 | 912 | 16\% | 1 | - |
| 0.15 to <0.25 | 1,224 | 662 | 40\% | 1,486 | 0.2\% | 339 | 41\% | 2.5 | 617 | 42\% | 1 | - |
| 0.25 to <0.50 | 1,990 | 638 | 35\% | 2,215 | 0.4\% | 902 | 36\% | 2.5 | 1,363 | 62\% | 3 | - |
| 0.50 to <0.75 | 2,435 | 605 | 43\% | 2,693 | 0.6\% | 639 | 40\% | 2.5 | 2,039 | 76\% | 7 | - |
| 0.75 to <2.50 | 4,559 | 1,079 | 43\% | 5,020 | 1.4\% | 2,417 | 42\% | 2.5 | 5,631 | 112\% | 34 | - |
| 2.50 to <10.00 | 4,173 | 379 | 35\% | 4,307 | 3.7\% | 2,758 | 41\% | 2.5 | 4,996 | 116\% | 68 | - |
| 10.00 to <100.00 | 1,804 | 61 | 33\% | 1,824 | 15.8\% | 1,171 | 40\% | 2.5 | 2,936 | 161\% | 120 | - |
| 100.00 (Default) | 2,659 | 89 | 46\% | 2,697 | 100.0\% | 1,694 | 43\% | 2.5 | - | 0\% | 1,157 | - |
| Total foundation IRB | 23,082 | 5,788 | 48\% | 25,843 | 12.6\% | 10,324 | 38\% | 2.5 | 18,494 | 72\% | 1,390 | 1,488 |
| Institutions |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3,723 | 779 | 96\% | 4,469 | 0.1\% | 99 | 25\% | 2.5 | 542 | 12\% | 1 | - |
| 0.15 to $<0.25$ | 11 | 4 | 100\% | 15 | 0.2\% | 7 | 45\% | 2.5 | 7 | 42\% | - | - |
| 0.25 to <0.50 | 512 | 11 | 2\% | 512 | 0.4\% | 13 | 14\% | 2.5 | 157 | 31\% | - | - |
| 0.50 to <0.75 | 145 | 29 | 22\% | 151 | 0.6\% | 12 | 41\% | 2.5 | 111 | 73\% | - | - |
| 0.75 to <2.50 | 25 | 48 | 22\% | 36 | 1.3\% | 9 | 45\% | 2.5 | 36 | 103\% | - | - |
| 2.50 to <10.00 | 1 | 5 | 40\% | 3 | 3.2\% | 3 | 45\% | 2.5 | 5 | 142\% | - | - |
| 10.00 to <100.00 | 2 | - | - | 2 | 10.1\% | 2 | 45\% | 2.5 | 4 | 218\% | - | - |
| 100.00 (Default) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total institutions | 4,419 | 876 | 88\% | 5,188 | 0.1\% | 145 | 25\% | 2.5 | 862 | 17\% | 1 | - |
| Corporates |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 515 | 1,496 | 41\% | 1,132 | 0.1\% | 305 | 44\% | 2.5 | 370 | 33\% | - | - |
| 0.15 to <0.25 | 1,213 | 658 | 39\% | 1,471 | 0.2\% | 332 | 41\% | 2.5 | 610 | 42\% | 1 | - |
| 0.25 to <0.50 | 1,478 | 627 | 36\% | 1,703 | 0.4\% | 889 | 42\% | 2.5 | 1,206 | 71\% | 3 | - |
| 0.50 to <0.75 | 2,290 | 576 | 44\% | 2,542 | 0.6\% | 627 | 40\% | 2.5 | 1,928 | 76\% | 7 | - |
| 0.75 to <2.50 | 4,534 | 1,031 | 44\% | 4,984 | 1.4\% | 2,408 | 42\% | 2.5 | 5,595 | 112\% | 34 | - |
| 2.50 to < 10.00 | 4,172 | 374 | 35\% | 4,304 | 3.7\% | 2,755 | 41\% | 2.5 | 4,991 | 116\% | 67 | - |
| 10.00 to <100.00 | 1,802 | 61 | 33\% | 1,822 | 15.8\% | 1,169 | 40\% | 2.5 | 2,932 | 161\% | 120 | - |
| 100.00 (Default) | 2,659 | 89 | 46\% | 2,697 | 100.0\% | 1,694 | 43\% | 2.5 | - | - | 1,157 | - |
| Total corporates | 18,663 | 4,912 | 41\% | 20,655 | 15.7\% | 10,179 | 42\% | 2.5 | 17,632 | 85\% | 1,389 | 1,488 |

Analysis of credit quality - Foundation IRB (continued)

| Table 4.11-EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (Foundation IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2016 \\ & \text { PD scale } \end{aligned}$ | Original on-balance sheet gross exposures $€ \mathrm{~m}$ | Off-balance sheet exposures pre-CCF € | Average CCF \% | EAD post CRM and post CCF $€$ € | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{gathered} \text { RWA } \\ \text { €m } \end{gathered}$ | RWA density \% | EL €m | Value adjustments and provisions € m |
| Corporates of which SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 62 | 64 | 18\% | 73 | 0.1\% | 181 | 42\% | 2.5 | 15 | 21\% | - | - |
| 0.15 to <0.25 | 716 | 205 | 43\% | 803 | 0.2\% | 227 | 38\% | 2.5 | 246 | 31\% | 1 | - |
| 0.25 to <0.50 | 552 | 57 | 23\% | 566 | 0.4\% | 290 | 38\% | 2.5 | 257 | 45\% | 1 | - |
| 0.50 to <0.75 | 1,357 | 102 | 30\% | 1,387 | 0.6\% | 529 | 37\% | 2.5 | 768 | 55\% | 3 | - |
| 0.75 to <2.50 | 1,695 | 280 | 24\% | 1,762 | 1.4\% | 2,063 | 38\% | 2.5 | 1,363 | 77\% | 10 | - |
| 2.50 to <10.00 | 2,973 | 166 | 22\% | 3,009 | 3.9\% | 2,558 | 39\% | 2.5 | 2,850 | 95\% | 46 | - |
| 10.00 to <100.00 | 1,520 | 40 | 20\% | 1,529 | 16.3\% | 1,093 | 39\% | 2.5 | 2,267 | 148\% | 101 | - |
| 100.00 (Default) | 2,123 | 79 | 45\% | 2,154 | 100.0\% | 1,335 | 42\% | 2.5 | - | - | 908 | - |
| Total corporates of which SME | 10,998 | 993 | 29\% | 11,283 | 22.7\% | 8,276 | 39\% | 2.5 | 7,766 | 69\% | 1,070 | 1,130 |
| Corporates of which |  |  |  |  |  |  |  |  |  |  |  |  |
| Specialised Lending |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | - | - | - | - | - | - | - | - | - | - | - | - |
| 0.15 to <0.25 | 76 | 59 | 88\% | 128 | 0.2\% | 7 | 45\% | 2.5 | 54 | 42\% | - | - |
| 0.25 to <0.50 | 84 | 9 | 69\% | 90 | 0.4\% | 7 | 45\% | 2.5 | 56 | 62\% | - | - |
| 0.50 to <0.75 | 174 | 76 | 62\% | 222 | 0.6\% | 20 | 45\% | 2.5 | 177 | 80\% | 1 | - |
| 0.75 to <2.50 | 382 | 61 | 58\% | 417 | 1.4\% | 36 | 45\% | 2.5 | 452 | 108\% | 3 | - |
| 2.50 to <10.00 | 213 | 30 | 60\% | 231 | 3.4\% | 13 | 45\% | 2.5 | 335 | 145\% | 3 | - |
| 10.00 to <100.00 | 45 | 4 | 98\% | 48 | 10.0\% | 2 | 44\% | 2.5 | 97 | 198\% | 2 | - |
| 100.00 (Default) | 46 | - | - | 46 | 100.0\% | 2 | 45\% | 2.5 | - | - | 21 | - |
| Total corporates of which specialised lending | 1,020 | 239 | 68\% | 1,182 | 5.6\% | 87 | 45\% | 2.5 | 1,171 | 99\% | 30 | 34 |

Analysis of credit quality - Retail IRB
Table 4.12 shows the breakdown of the Retail sub-exposure classes by PD scale.

Analysis of credit quality - Retail IRB (continued)

| Table 4.12-EU CR6-IRB approach - Credit risk exposures by exposure class and PD scale (Retail IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2017 \\ & \text { PD scale } \end{aligned}$ | Original on-balance sheet gross exposures € | Off-balance sheet exposures pre-CCF € | Average CCF \% | EAD post CRM and post CCF € | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{array}{r} \text { RWA } \\ € \mathrm{~m} \end{array}$ | RWA density \% | $\begin{aligned} & \mathrm{EL} \\ & \text { €m } \end{aligned}$ | Value adjustments and provisions € |
| Qualifying revolving |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 15 | 108 | 28\% | 46 | 0.1\% | 21,818 | 45\% | - | 1 | 3\% | - | - |
| 0.15 to <0.25 | 67 | 438 | 30\% | 196 | 0.2\% | 77,952 | 45\% | - | 10 | 5\% | - | - |
| 0.25 to <0.50 | 93 | 730 | 39\% | 379 | 0.3\% | 231,208 | 57\% | - | 39 | 10\% | 1 | - |
| 0.50 to <0.75 | 104 | 427 | 40\% | 276 | 0.7\% | 115,267 | 52\% | - | 44 | 16\% | 1 | - |
| 0.75 to <2.50 | 136 | 249 | 44\% | 247 | 1.3\% | 180,196 | 54\% | - | 69 | 28\% | 2 | - |
| 2.50 to <10.00 | 90 | 107 | 39\% | 133 | 3.8\% | 64,353 | 50\% | - | 72 | 54\% | 3 | - |
| 10.00 to <100.00 | 59 | 50 | 29\% | 78 | 22.8\% | 46,147 | 47\% | - | 96 | 123\% | 9 | - |
| 100.00 (Default) | 16 | 3 | 54\% | 23 | 100.0\% | 16,694 | 80\% | - | 14 | 63\% | 18 | - |
| Total qualifying revolving | 579 | 2,112 | 37\% | 1,378 | 3.8\% | 753,635 | 52\% | - | 345 | 25\% | 33 | 12 |
| Other retail SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3 | 95 | 42\% | 43 | 0.1\% | 10,788 | 40\% | - | 3 | 8\% | - | - |
| 0.15 to <0.25 | 18 | 274 | 46\% | 145 | 0.2\% | 18,428 | 58\% | - | 30 | 21\% | - | - |
| 0.25 to <0.50 | 27 | 33 | 47\% | 46 | 0.4\% | 8,151 | 48\% | - | 12 | 27\% | - | - |
| 0.50 to <0.75 | 53 | 134 | 49\% | 119 | 0.6\% | 7,623 | 56\% | - | 46 | 38\% | - | - |
| 0.75 to <2.50 | 336 | 75 | 58\% | 380 | 1.7\% | 29,083 | 51\% | - | 203 | 53\% | 3 | - |
| 2.50 to <10.00 | 846 | 37 | 60\% | 868 | 4.0\% | 28,138 | 55\% | - | 566 | 65\% | 20 | - |
| 10.00 to <100.00 | 151 | 10 | 60\% | 157 | 14.0\% | 9,423 | 60\% | - | 151 | 96\% | 14 | - |
| 100.00 (Default) | 185 | 4 | 55\% | 187 | 100.0\% | 9,287 | 59\% | - | 100 | 54\% | 110 | - |
| Total other Retail SME | 1,619 | 662 | 49\% | 1,944 | 12.9\% | 120,921 | 55\% |  | 1,111 | 57\% | 148 | 101 |
| Other retail non-SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 2 | - | - | 2 | 0.1\% | 192 | 73\% | - | - | 20\% | - | - |
| 0.15 to <0.25 | 2 | - | - | 2 | 0.2\% | 196 | 73\% | - | 1 | 35\% | - | - |
| 0.25 to <0.50 | 7 | - | - | 8 | 0.4\% | 891 | 73\% | - | 4 | 55\% | - | - |
| 0.50 to <0.75 | 27 | - | - | 27 | 0.7\% | 2,056 | 73\% | - | 21 | 76\% | - | - |
| 0.75 to <2.50 | 138 | - | - | 138 | 1.6\% | 33,087 | 73\% | - | 145 | 104\% | 2 | - |
| 2.50 to <10.00 | 291 | - | - | 291 | 3.3\% | 38,437 | 73\% | - | 363 | 125\% | 8 | - |
| 10.00 to <100.00 | 19 | - | - | 19 | 21.4\% | 2,844 | 73\% | - | 36 | 188\% | 3 | - |
| 100.00 (Default) | 39 | - | - | 39 | 100.0\% | 6,439 | 73\% | - | 16 | 40\% | 29 | - |
| Total other Retail non-SME | 526 | - | - | 526 | 10.5\% | 84,142 | 73\% | - | 585 | 111\% | 42 | 32 |

Analysis of credit quality - Retail IRB (continued)

| Table 4.12-EU CR6-IRB approach - Credit risk exposures by exposure class and PD scale (Retail IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2016 \\ & \text { PD scale } \end{aligned}$ | Original on-balance sheet gross exposures € m | Off-balance <br> sheet exposures pre-CCF $€ \mathrm{~m}$ | Average CCF \% | EAD post CRM and post CCF $€ \mathrm{~m}$ | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{array}{r} \text { RWA } \\ € \mathrm{~m} \end{array}$ | RWA density $\%$ | $\begin{aligned} & \mathrm{EL} \\ & \text { €m } \end{aligned}$ | Value adjustments and provisions €m |
| Retail |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 4,834 | 407 | 40\% | 5,058 | 0.1\% | 80,907 | 11\% | - | 166 | 3\% | 1 | - |
| 0.15 to <0.25 | 9,969 | 1,047 | 39\% | 10,437 | 0.2\% | 150,612 | 13\% | - | 633 | 6\% | 2 | - |
| 0.25 to <0.50 | 10,287 | 1,115 | 41\% | 10,807 | 0.3\% | 320,103 | 15\% | - | 1,102 | 10\% | 7 | - |
| 0.50 to <0.75 | 6,834 | 962 | 47\% | 7,333 | 0.7\% | 160,885 | 16\% | - | 1,273 | 17\% | 9 | - |
| 0.75 to <2.50 | 5,416 | 581 | 53\% | 5,775 | 1.4\% | 298,497 | 19\% | - | 1,884 | 33\% | 21 | - |
| 2.50 to <10.00 | 5,868 | 288 | 57\% | 6,045 | 4.9\% | 172,966 | 24\% | - | 4,25 | 70\% | 78 | - |
| 10.00 to <100.00 | 3,426 | 180 | 55\% | 3,537 | 24.7\% | 81,749 | 23\% | - | 3,985 | 113\% | 208 | - |
| 100.00 (Default) | 2,403 | 10 | 46\% | 2,412 | 100.0\% | 46,748 | 29\% | - | 1,561 | 65\% | 927 | - |
| Total | 49,037 | 4,590 | 45\% | 51,404 | 7.3\% | 1,312,467 | 17\% | - | 14,809 | 29\% | 1,253 | 1,161 |
| Secured by real estate property Ireland |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 1,629 | 209 | 48\% | 1,730 | 0.1\% | 21,340 | 14\% | - | 64 | 4\% | - | - |
| 0.15 to <0.25 | 4,379 | 331 | 49\% | 4,540 | 0.2\% | 31,142 | 14\% | - | 307 | 7\% | 1 | - |
| 0.25 to <0.50 | 5,645 | 315 | 49\% | 5,801 | 0.4\% | 49,617 | 15\% | - | 623 | 11\% | 3 | - |
| 0.50 to <0.75 | 3,331 | 259 | 50\% | 3,462 | 0.6\% | 19,611 | 14\% | - | 561 | 16\% | 4 | - |
| 0.75 to <2.50 | 1,622 | 60 | 52\% | 1,653 | 1.3\% | 18,824 | 14\% | - | 421 | 25\% | 4 | - |
| 2.50 to <10.00 | 3,301 | 1 | 73\% | 3,302 | 5.8\% | 28,686 | 16\% | - | 2,365 | 72\% | 38 | - |
| 10.00 to <100.00 | 2,226 | - | 100\% | 2,226 | 18.8\% | 12,286 | 24\% | - | 2,869 | 129\% | 101 | - |
| 100.00 (Default) | 1,672 | - | 0\% | 1,672 | 100.0\% | 8,045 | 26\% | - | 1,007 | 60\% | 665 | - |
| Total | 23,805 | 1,176 | 49\% | 24,386 | 9.7\% | 189,551 | 16\% | - | 8,217 | 34\% | 816 | 909 |
| UK |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3,188 | 17 | 100\% | 3,250 | 0.1\% | 30,194 | 9\% | - | 98 | 3\% | 1 | - |
| 0.15 to <0.25 | 5,509 | 40 | 100\% | 5,574 | 0.2\% | 27,499 | 10\% | - | 286 | 5\% | 1 | - |
| 0.25 to <0.50 | 4,515 | 36 | 100\% | 4,575 | 0.3\% | 34,307 | 11\% | - | 424 | 9\% | 3 | - |
| 0.50 to <0.75 | 3,311 | 140 | 59\% | 3,443 | 0.7\% | 15,256 | 12\% | - | 598 | 17\% | 4 | - |
| 0.75 to <2.50 | 3,200 | 187 | 62\% | 3,371 | 1.4\% | 32,713 | 12\% | - | 1,070 | 32\% | 9 | - |
| 2.50 to <10.00 | 1,428 | 130 | 72\% | 1,537 | 3.6\% | 10,262 | 14\% | - | 916 | 60\% | 11 | - |
| 10.00 to <100.00 | 940 | 106 | 73\% | 1,030 | 39.8\% | 6,588 | 12\% | - | 811 | 79\% | 79 | - |
| 100.00 (Default) | 443 | 2 | 100\% | 448 | 100.0\% | 3,039 | 17\% | - | 414 | 92\% | 77 | - |
| Total | 22,534 | 657 | 56\% | 23,228 | 4.4\% | 159,858 | 11\% | - | 4,617 | 20\% | 185 | 74 |
| Total secured by re estate property | 46,339 | 1,833 | 52\% | 47,614 | 7.1\% | 349,409 | 14\% | - | 12,834 | 27\% | 1,001 | 984 |

Analysis of credit quality - Retail IRB (continued)

| Table 4.12-EU CR6-IRB approach - Credit risk exposures by exposure class and PD scale (Retail IRB) (continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2016 <br> PD scale | Original on-balance sheet gross exposures $€$ m | Off-balance sheet exposures pre-CCF € | Average CCF \% | EAD post CRM and post CCF € m | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{array}{r} \text { RWA } \\ € \mathrm{~m} \end{array}$ | RWA density \% | EL $€ m$ | Value adjustments and provisions € |
| Qualifying revolving |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 13 | 94 | 29\% | 39 | 0.1\% | 18,984 | 44\% | - | 1 | 3\% | - | - |
| 0.15 to <0.25 | 63 | 419 | 29\% | 184 | 0.2\% | 74,281 | 44\% | - | 10 | 5\% | - | - |
| 0.25 to <0.50 | 91 | 730 | 40\% | 379 | 0.4\% | 227,046 | 57\% | - | 39 | 10\% | 1 | - |
| 0.50 to <0.75 | 107 | 430 | 40\% | 277 | 0.7\% | 116,356 | 53\% | - | 44 | 16\% | 1 | - |
| 0.75 to <2.50 | 145 | 255 | 44\% | 256 | 1.4\% | 188,328 | 54\% | - | 71 | 28\% | 2 | - |
| 2.50 to <10.00 | 98 | 117 | 39\% | 142 | 3.8\% | 72,139 | 50\% | - | 77 | 54\% | 3 | - |
| 10.00 to <100.00 | 64 | 63 | 25\% | 79 | 22.8\% | 50,487 | 45\% | - | 92 | 117\% | 8 | - |
| 100.00 (Default) | 19 | 4 | 57\% | 21 | 100.0\% | 18,482 | 80\% | - | 11 | 53\% | 17 | - |
| Total qualifying revolving | 600 | 2,112 | 37\% | 1,377 | 3.7\% | 766,103 | 52\% | - | 345 | 25\% | 32 | 14 |
| Other retail SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 3 | 87 | 41\% | 38 | 0.1\% | 10,216 | 40\% | - | 3 | 8\% | - | - |
| 0.15 to <0.25 | 16 | 257 | 47\% | 137 | 0.2\% | 17,498 | 58\% | - | 29 | 21\% | - | - |
| 0.25 to <0.50 | 29 | 34 | 47\% | 45 | 0.4\% | 8,202 | 47\% | - | 12 | 26\% | - | - |
| 0.50 to <0.75 | 52 | 133 | 50\% | 118 | 0.6\% | 7,675 | 56\% | - | 45 | 39\% | - | - |
| 0.75 to <2.50 | 335 | 79 | 58\% | 381 | 1.6\% | 29,181 | 51\% | - | 202 | 53\% | 4 | - |
| 2.50 to <10.00 | 791 | 40 | 59\% | 814 | 4.1\% | 28,073 | 55\% | - | 535 | 66\% | 19 | - |
| 10.00 to <100.00 | 176 | 11 | 59\% | 182 | 14.0\% | 9,804 | 59\% | - | 177 | 97\% | 17 | - |
| 100.00 (Default) | 214 | 4 | 56\% | 216 | 100.0\% | 9,426 | 59\% | - | 110 | 51\% | 128 | - |
| Total other retail SME | 1,616 | 645 | 49\% | 1,931 | 14.6\% | 120,075 | 55\% | - | 1,113 | 58\% | 168 | 121 |
| Other retail non-SME |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 1 | - | - | 1 | 0.1\% | 173 | 73\% | - | - | 20\% | - | - |
| 0.15 to <0.25 | 2 | - | - | 2 | 0.2\% | 192 | 73\% | - | 1 | 35\% | - | - |
| 0.25 to <0.50 | 7 | - | - | 7 | 0.4\% | 931 | 73\% | - | 4 | 54\% | - | - |
| 0.50 to <0.75 | 33 | - | - | 33 | 0.7\% | 1,987 | 73\% | - | 25 | 77\% | - | - |
| 0.75 to <2.50 | 114 | - | - | 114 | 1.6\% | 29,451 | 73\% | - | 120 | 106\% | 2 | - |
| 2.50 to <10.00 | 250 | - | - | 250 | 3.3\% | 33,806 | 73\% | - | 312 | 125\% | 7 | - |
| 10.00 to <100.00 | 20 | - | - | 20 | 20.0\% | 2,584 | 73\% | - | 36 | 183\% | 3 | - |
| 100.00 (Default) | 55 | - | - | 55 | 100.0\% | 7,756 | 73\% | - | 19 | 34\% | 40 | - |
| Total other retail non-SME | 482 | - | - | 482 | 14.3\% | 76,680 | 73\% | - | 517 | 107\% | 52 | 43 |

Analysis of credit quality - Standardised approach
The Standardised approach applies where exposures do not qualify for use of the IRB approach and / or where an exemption from IRB has been granted. It is less sophisticated than the RB approach for regulatory capital calculations. Under this approach, credit risk is measured by applying risk weights outlined in CRD IV based on the exposure class to which the exposure is allocated. The following tables outline the Standardised exposure classes by CRD IV prescribed risk weight.

| Table 4.13-EU CR5-Standardised approach by exposure class |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2017 \\ & \text { EAD (€m) } \end{aligned}$ | Risk Weight |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total | Unrated |
|  | 0\% | 2\% | 4\% | 10\% | 20\% | 35\% | 50\% | 70\% | 75\% | 100\% | 150\% | 250\% | 370\% | 1,250\% | Others | Deducted |  |  |
| Central governments or central banks | 16,931 | - | - | - | - | - | - | - | - | - | - | 107 | - | - | - | - | 17,038 | - |
| Regional governments or local authorities | - | - | - |  | 84 | - | - | - | - | - | - | - | - | - | - | - | 84 | - |
| Public sector entities | 268 | - | - | - | - | - | 75 | - | - | - | - | - | - | - | - | - | 343 | - |
| Multilateral development banks | 781 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 781 | - |
| International organisations | 896 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 896 | - |
| Institutions | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Corporates | - | - | - | - | 10 | - | 8 | - | - | 4,184 | - | - | - | - | - | - | 4,202 | - |
| Retail | - | - | - | - | - | - | - | - | 3,877 | - | - | - | - | - | - | - | 3,877 | - |
| Secured by mortgages on immovable property | - | - | - | - | - | 455 | - | - | - | - | - | - | - | - | - | - | 455 | - |
| Exposures in default | - | - | - | - | - | - | - | - | - | 277 | 278 | - | - | - | - | - | 555 | - |
| Items associated with particularly high risk | - | - | - | - | - | - | - | - | - | - | 109 | - | - | - | - | - | 109 | - |
| Covered bonds | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other items | 384 | - | - |  | 307 | - | - | - | - | 949 | - | 705 | - | - | - | - | 2,345 | - |
| Total | 19,260 | - | - | - | 401 | 455 | 83 | - | 3,877 | 5,410 | 387 | 812 | - | - | - | - | 30,685 | - |

Analysis of credit quality - Standardised approach (continued)

| Table 4.13-EU CR5 - Standardised approach by exposure class |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2016 <br> EAD ( $€ \mathrm{~m}$ ) | Risk Weight |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total | Unrated |
|  | 0\% | 2\% | 4\% | 10\% | 20\% | 35\% | 50\% | 70\% | 75\% | 100\% | 150\% | 250\% | 370\% | 1,250\% | Others | Deducted |  |  |
| Central governments or central banks | 14,857 | - | - | - | - | - | - | - | - | - | - | 124 | - | - | - | - | 14,981 | - |
| Regional governments or local authorities | - | - | - | - | 82 | - | - | - | - | - | - | - | - | - | - | - | 82 | - |
| Public sector entities | 183 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 183 | - |
| Multilateral development banks | 721 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 721 | - |
| International organisations | 623 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 623 | - |
| Institutions | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Corporates | - | - | - | - | 10 | - | 22 | - | - | 4,470 | - | - | - | - | - | - | 4,502 | - |
| Retail | - | - | - | - | - | - | - | - | 3,401 | - | - | - | - | - | - | - | 3,401 | - |
| Secured by mortgages on immovable property | - | - | - | - | - | 428 | - | - | 10 | - | - | - | - | - | - | - | 438 | - |
| Exposures in default | - | - | - | - | - | - | - | - | - | 456 | 292 | - | - | - | - | - | 748 | - |
| Items associated with particularly high risk | - | - | - | - | - | - | - | - | - | - | 117 | - | - | - | - | - | 117 | - |
| Covered bonds | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other items | 326 | - | - | - | 243 | - | - | - | - | 851 | - | 669 | - | - | - | - | 2,089 | - |
| Total | 16,710 | - | - | - | 335 | 428 | 22 | - | 3,411 | 5,777 | 409 | 793 | - | - | - | - | 27,885 | - |

## Analysis of credit quality - Standardised approach (continued)

Table 4.14 presents Standardised exposures on two different basis (before CCF and CRM and after CCF and CRM).

| Table 4.14-EU CR4-Standardised approach - Credit risk exposure and CRM effects |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exposures before CCF and CRM |  | Exposures post CCF and CRM |  | RWA <br> RWA density |  |
| 2017 | On-balance sheet amount | Off-balance sheet amount | On-balance sheet amount | Off-balance sheet amount | RWA | RWA density |
| Exposure classes | €m | €m | €m | €m | €m | \% |
| Central Governments or central banks | 16,992 | 46 | 16,992 | 46 | 268 | 1.6\% |
| Regional governments or local authorities | 62 | 128 | 62 | 22 | 17 | 20.0\% |
| Public sector entities | 343 | - | 343 | - | 38 | 10.9\% |
| Multilateral development banks | 759 | 22 | 759 | 22 | - | - |
| International organisations | 896 | - | 896 | - | - | - |
| Institutions | - | - | - | - | - | - |
| Corporates | 4,927 | 1,117 | 3,988 | 214 | 3,845 | 91.5\% |
| Retail | 3,873 | 4,456 | 3,873 | 4 | 2,783 | 71.8\% |
| Secured by mortgages on immovable property | 455 | - | 455 | - | 159 | 35.0\% |
| Exposures in default | 542 | 27 | 543 | 12 | 693 | 125.0\% |
| Items associated with particularly high risk | 84 | 49 | 84 | 25 | 163 | 150.0\% |
| Covered bonds | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | 2,345 | - | 2,345 | - | 2,772 | 118.2\% |
| Total | 31,280 | 5,845 | 30,340 | 345 | 10,738 | 35.0\% |

## Loan loss experience in the year ended 31 December 2017

Information on the factors which impacted the loan loss experience in the year ended 31 December 2017 is included in the Risk Management Report of the Group's Annual Report 31 December 2017 (under the Credit Risk section from page 56).

## Past due and impaired exposures

Past due but not impaired loans, whether forbone of not, are defined as loans where repayment of interest and / or principal are overdue by at least one day but which are not impaired.

Impaired loans are defined as exposures which carry a specific provision whether forbone of not. Specific provisions are as
a result of either individual or collective assessment for impairment.

The Group's non-performing exposures are set out on page 61 of the Group's Annual Report and consist of impaired loans, loans greater than 90 days in arrears and not impaired, Forborne Collateral Realisation loans (FCRs) and
other / probationary loans that have yet to satisfy exit criteria in line with EBA guidance to return to performing.

For additional information on past due and impaired exposures, please refer to page 61 of the Group's Annual Report 31 December 2017.

## Past due and impaired exposures (continued)

## Past due and impaired exposures by industry

Table 4.15 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by industry class.

| Table 4.15 - Past due and impaired exposures by industry class |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  |  | $\begin{aligned} & \text { Restated }^{1} \\ & 2016 \end{aligned}$ |  |  |
| Gross carrying value | Past due exposures € | Impaired exposures € $m$ | Total € | Past due exposures $€ \mathrm{~m}$ | Impaired exposures €m | Total €m |
| Personal | 1,339 | 1,403 | 2,742 | 1,504 | 1,738 | 3,242 |
| - Residential mortgages | 1,275 | 1,314 | 2,589 | 1,445 | 1,634 | 3,079 |
| - Other | 64 | 89 | 153 | 59 | 104 | 163 |
| Property and construction | 142 | 1,301 | 1,443 | 372 | 2,669 | 3,041 |
| Business \& other services | 100 | 642 | 742 | 139 | 888 | 1,027 |
| Manufacturing | 13 | 181 | 195 | 26 | 208 | 234 |
| Distribution | 41 | 274 | 315 | 20 | 379 | 399 |
| Transport | 2 | 122 | 124 | 19 | 181 | 200 |
| Financial | - | 14 | 14 | 1 | 22 | 23 |
| Agriculture | 36 | 99 | 135 | 51 | 150 | 201 |
| Energy | 1 | 7 | 8 | - | 1 | 1 |
| Total | 1,674 | 4,043 | 5,717 | 2,132 | 6,236 | 8,368 |

## Past due and impaired exposures by geography

Table 4.16 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by geographic location, which are based on the location of the business unit where the exposure is booked.

| Table 4.16 - Past due and impaired exposure by geography |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  |  |  | $\begin{aligned} & \text { Restated }^{1} \\ & 2016 \end{aligned}$ |  |  |  |
|  | Past due exposures |  | Impaired exposures | Total | Past due exposures |  | Impaired exposures € |  |
|  | <90 days past due | $>90$ days past due |  |  | <90 days past due | $>90$ days past due |  | Total |
| Gross carrying value | €m | €m | €m | €m | $€ \mathrm{~m}$ | €m |  | €m |
| Rol | 504 | 298 | 3,369 | 4,171 | 573 | 396 | 5,192 | 6,161 |
| UK | 706 | 166 | 674 | 1,546 | 885 | 278 | 1,044 | 2,207 |
| Total | 1,210 | 464 | 4,043 | 5,717 | 1,458 | 674 | 6,236 | 8,368 |

Table 4.17 is based on the ageing analysis on balance sheet past-due exposures regardless of their impairment status.


[^13]
## Specific credit risk adjustments (provisions)

The loan loss provisioning methodology used by the Group is set out on page 58 of the Group's Annual Report 31 December 2017.
This includes:

- a description of the type of provisions; and
- a description of the approaches and methods adopted for determining provisions.

CRD IV introduced the definition of 'specific' and 'general' credit risk adjustments and, in line with the relevant technical standard, the Group has included 'specific provisions' and 'IBNR' as specific credit risk adjustments. The Group has no 'general' credit risk adjustments.

Changes in the stock of defaulted and impaired loans and debt securities
Table 4.18 shows the changes in stock of defaulted and impaired loans.

| Table 4.18 - EU CR2-B - Changes in the stock <br> of defaulted and impaired loans and debt securities |  |
| :--- | ---: |
|  | Gross <br> carrying value |
| 2017 | defaulted exposures <br> €m |
| 1. Opening balance | $\mathbf{7 , 0 7 1}$ |
| 2. Loans and debt securities that have defaulted or impaired | 874 |
| 3. $\quad$ Returne the last reporting period | $(946)$ |
| 4. Amounts written off | $(1,614)$ |
| 5. Other changes ${ }^{1}$ | 662 |
| 6. Closing balance | $\mathbf{6 , 0 4 7}$ |

## Specific credit risk adjustment charges during the year

Table 4.19 shows the movement in the provision on loans and advances to customers during the year ended 31 December 2017. It is based on financial statement information.

| Table 4.19-EU CR2-A - Changes in the stock of general and specific credit risk adjustments |  |  |
| :---: | :---: | :---: |
| 2017 | Accumulated specific credit risk adjustment € | Accumulated general credit risk adjustment € |
| Opening balance | 3,889 | - |
| Increases due to amounts set aside for estimated loan losses during the period | 315 | - |
| Decreases due to amounts reversed for estimated loan losses during the period | (301) | - |
| Decreases due to amounts taken against accumulated credit risk adjustments | $(1,618)$ | - |
| Transfers between credit risk adjustments | - | - |
| Impact of exchange rate differences | (31) | - |
| Business combinations, including acquistions and disposals of subsidiaries | - | - |
| Other adjustments | 105 | - |
| Closing balance | 2,359 | - |
| Recoveries on credit risk adjustments recorded directly to the statement of profit or loss | - | - |
| Specific credit risk adjustments directly recorded to the statement of profit or loss | - | - |

[^14]Specific credit risk adjustments (provisions) (continued)
Table 4.20 shows an overview of non-performing and forborne exposures


Comparison of expected versus actual loss

Table 4.21 is based on a comparison of regulatory expected loss of the performing IRB loan portfolios as at 31 December 2016 with actual loss (specific provision charge incurred) on the IRB loan portfolios in the year ended 31 December 2017.

The parameters underlying the calculation of expected loss (PD, LGD and EAD)
primarily represent through the cycle
estimations, i.e. they reflect and estimate the average outcomes for an entire economic cycle. To meaningfully validate expected loss, these estimates would need to be compared to all realised losses which may have materialised after all the assets have gone through their life cycle. However, such information cannot be provided and disclosed since life cycles could last for a significant number of
years. Using actual accounting loss information does not provide a suitable alternative, because - unlike expected loss estimates - accounting loss information is measured at point-in-time.

The following table should therefore be read bearing in mind these significant limitations.

Table 4.21 - Expected versus actual loss

| IRB exposure class | Expected loss calculated on 2016 € | Specific provision charge 2017 € | Expected loss calculated on 2015 € | Specific provision charge 2016 € m |
| :---: | :---: | :---: | :---: | :---: |
| Institutions | 1 | - | 1 | - |
| Corporates | 232 | 132 | 248 | 191 |
| Retail | 326 | (57) | 293 | (91) |
| - Secured by real estate property | 259 | (51) | 237 | (89) |
| - Qualifying revolving | 15 | - | 12 | - |
| - Other retail | 52 | (6) | 44 | (2) |
| Total | 559 | 75 | 542 | 100 |

## Credit risk mitigation

The credit risk section on pages 56 to 70
of the Group's Annual Report 31
December 2017 contains information relating to:

- the policies and processes for collateral valuation and management; and
- a description of the main types of collateral taken by the Group.

Collateral used to mitigate risk, both for mortgage and other lending is diversified. The main types of guarantors are corporates, individuals, financial institutions and sovereigns. Their creditworthiness is assessed on a case-by-case basis.

## Credit risk mitigation for regulatory capital requirements calculation

 For Retail IRB exposures, the effect of credit risk mitigation, principally due to the collateral taken to secure loans, is taken into account in the development of the Group's LGD models, which in turn are used in the calculation of the Group's regulatory capital requirements.For non-retail Foundation IRB exposures, supervisory LGDs are used for minimum regulatory capital requirements calculation
purposes as is required under the CRR.
These LGDs are either applied directly to obligors, or are reduced through the recognition of the risk-mitigating impact of qualifying collateral held.

Under the IRB approach, depending on the type of credit risk mitigation applied, PD or LGD may be impacted. Under the Standardised approach, credit risk mitigation impacts the risk weight which is then subsequently applied to the exposure amount to derive the capital requirement.

Table 4.22 shows the volume of unsecured and secured exposures. Secured exposures are limited to those exposures against which eligible collateral which meets CRR definitions is held and has been used in the calculation of the Group's capital requirements. Haircuts are applied consistent with CRR requirements.

This table is not reflective of the total volume of exposures against which collateral and guarantees are actually held across the Group, nor does it reflect the full range of credit risk mitigation taken. A significant portion of the exposures included in Table 4.22 (exposures unsecured carrying amount) benefit from
security taken to mitigate credit risk, but this security is not eligible for use in the regulatory capital calculations. For example, exposures in the Group's leasing business are included as Unsecured exposures in the table, although the underlying assets financed are held to mitigate credit risk in this business.

The table excludes exposures where the Group nets derivative mark-to-market positions with certain interbank counterparties against cash collateral placed and received with those counterparties under CSA agreements. For cash collateral held against derivative exposures refer to the counterparty credit risk section.

Debt securities are included in the relevant exposure classes in the table. Credit risk mitigation realised through the netting of on-balance sheet assets and liabilities is not reflected in the table. Certain customer loans and overdrafts are netted against deposits as permitted by the CRR subject to certain criteria including a legal right of offset. Effectiveness of netting techniques is achieved through the execution of industry standard legal agreements.

Credit risk mitigation (continued)

| Table 4.22-EU CR3-CRM techniques - Overview |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net value | Total $€ \mathrm{~m}$ | Exposures unsecured carrying amount € m | Exposures secured carrying amount $€ \mathrm{~m}$ | Exposures secured by collateral €m | Exposures secured by financial guarantees € $m$ | Exposures secured by credit derivatives $€ m$ |
| 1. Loans | 110,090 | 54,973 | 55,117 | 55,117 | - | - |
| Institutions | 936 | 936 | - | - | - | - |
| Corporates | 20,021 | 12,953 | 7,068 | 7,068 |  |  |
| of which: |  |  |  |  |  |  |
| - Specialised lending | 948 | 944 | 4 | 4 | - | - |
| - SME | 10,014 | 3,513 | 6,501 | 6,501 | - | - |
| Retail | 52,008 | 5,354 | 46,654 | 46,654 | - | - |
| Secured by real estate property | 46,654 | - | 46,654 | 46,654 | - | - |
| - SME | - | - | - | - | - | - |
| - Non-SME | 46,654 | - | 46,654 | 46,654 | - | - |
| Qualifying revolving | 2,680 | 2,680 | - | - | - | - |
| Other Retail | 2,674 | 2,674 | - | - | - | - |
| - SME | 2,180 | 2,180 | - | - | - | - |
| - Non-SME | 494 | 494 | - | - | - | - |
| Total IRB | 72,965 | 19,243 | 53,722 | 53,722 | - | - |
| Central governments or central banks | 17,038 | 17,038 | - | - | - | - |
| Regional governments or local authorities | 190 | 190 | - | - | - | - |
| Public sector entities | 343 | 343 | - | - | - | - |
| Multilateral development banks | 781 | 781 | - | - | - | - |
| International organisations | 896 | 896 | - | - | - | - |
| Institutions | - | - | - | - | - | - |
| Corporates | 6,044 | 5,104 | 940 | 940 | - | - |
| Retail | 8,329 | 8,329 | - | - | - | - |
| Secured by mortgages on immovable property | 455 | - | 455 | 455 | - | - |
| Exposures in default | 570 | 570 | - | - | - | - |
| Items associated with particularly high risk | 134 | 134 | - | - | - | - |
| Covered bonds | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | 2,345 | 2,345 | - | - | - | - |
| Total Standardised | 37,125 | 35,730 | 1,395 | 1,395 |  |  |
| 2. Debt securities | 3,102 | - | 3,102 | 3,102 | - | - |
| 3. Total exposures | 113,192 | 54,973 | 58,219 | 58,219 | - | - |
| of which; |  |  |  |  |  |  |
| 4. Defaulted | 3,961 | 1,196 | 2,765 | 2,765 | - | - |

Counterparty credit risk

Information on how counterparty credit risk is managed is provided on page 58 of the Group's Annual Report 31 December 2017.

## Limits, policies and collateral

## Limits

Counterparty credit limits are based primarily on the counterparty credit rating but also take into account historic limit usage and requirements from the business. The capital calculation uses PDs assigned to counterparties based on their ratings and the PDs are then used to calculate RWA and EL.

## Policies

Policies are in place for securing collateral and establishing credit reserves. Legal agreements giving effect to netting International Swaps and Derivatives Association (ISDA) and / or collateral arrangements (Global Master Repurchase Aggreement (GMRA) and Credit Support Annex (CSA)) are negotiated and put in place with interbank and other counterparties. In the case of collateral agreements, collateral calls are agreed with the counterparty. In the vast majority of cases, collateral is cash and the agreed amount is either transferred by the counterparty to the Group or paid by the Group to the counterparty.

## Wrong-way risk

The Group recognises the potential for 'wrong-way' exposure in derivatives rewriting risk. This occurs where the
potential market-driven exposure on the contract is likely to be positively correlated with the counterparty because both are linked to a common factor such as a commodity price or an exchange rate. The Group allows for the potential impact of wrong-way exposure qualitatively in assessing individual credits.

## Collateral

As at 31 December 2017, the maximum impact of a two-notch downgrade of the Group by either S\&P or Moody's on the Group's CSAs covering its interbank derivative positions, is that legally the Group could not be required to post additional collateral in respect of its existing trades, as due to new EMIR requirements, threshold amounts can no longer be included in CSAs for over-thecounter (OTC) derivative transactions entered into on or after 1 March 2017.

## European Markets Infrastructure Regulation (EMIR)

EMIR includes the obligation to centrally clear certain classes of OTC derivative contracts through Central Counterparty Clearing (CCPs). The Group began clearing OTC interest rate swaps and Index referenced CDS (Credit Default Swaps) in 2016 to meet this obligation.

## Exposure value measure

The Group determines exposure values for counterparty credit risk using the mark-to-market method. This primarily covers derivative exposures. The Group determines exposure values for
repurchase transactions using the Financial Collateral Comprehensive Method (FCCM) and as such, no disclosures for repurchase agreements are made in this section.

In determining the EAD for derivative credit exposure, the Group recognises the credit risk mitigating impact of cash collateral received under CSAs. EAD for particular netting sets is reduced by the amount of cash collateral held in accordance with the relevant specific regulatory rules. Separately, where the Group posts collateral under a CSA, the net negative mark-to-market on the related netting set is used to reduce the EAD on the collateral exposure, once again in accordance with the relevant specific regulatory rules.

In addition, a Credit Valuation Adjustment ('Incurred CVA') is applied to the Group's non- collateralised derivatives based primarily on the creditworthiness of the client and the fair value of the underlying transaction. At 31 December 2017 Incurred CVA of €255 million reduces EAD on the relevant exposures consistent with the requirements of the CRR.

Under CRD IV, a Credit Valuation Adjustment (CVA) risk weighted asset is also calculated for certain financial counterparties. CVA risk on OTC derivative exposures for 2017 is $€ 169$ million RWA (2016: €313 million).

## Counterparty credit risk (continued)

## Counterparty credit exposure

The tables below reflect the Group's counterparty credit exposures, including the impact of netting and collateral. Current credit exposures consist of the replacement cost of contracts together with potential future credit exposure.

| 2017 | Notional € m | Replacement cost / current market value €m | Potential future credit exposure € m | $\begin{array}{r} \text { EEPE } \\ \text { €m } \end{array}$ | Multiplier € m | $\begin{aligned} & \text { EAD } \\ & \text { post } \\ & \text { CRM } \\ & \text { €m } \end{aligned}$ | $\begin{array}{r} \text { RWA } \\ \text { € } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Market to Market |  | 358 | 685 | - | - | 1,043 | 557 |
| 2. Original exposure | - | - | - | - | - | - | - |
| 3. Standardised approach | - | - | - | - | - | - | - |
| 4. IMM (for derivatives and SFTs) of which; | - | - | - | - | - | - | - |
| 5. securities financing transactions | - | - | - | - | - | - | - |
| 6. derivatives and long settlement transactions | - | - | - | - | - | - | - |
| 7. from contractual cross-product netting | - | - | - | - | - | - | - |
| 8. Financial collateral simple method (for SFTs) | - | - | - | - | - | - | - |
| 9. Financial collateral comprehensive method (for SFTs) | - | - | - | - | - | 348 | 3 |
| 10. VaR for SFTs | - | - | - | - | - | - | - |
| 11. Total |  |  |  |  |  |  | 560 |


| Table 5.2 - Current credit exposure by product |  |
| :--- | ---: |
|  | $\mathbf{2 0 1 7}$ |
| EAD | $\mathbf{\epsilon m}$ |
| Interest rate | 309 |
| FX | 16 |
| Equity | - |
| Netted agreements credit exposure | 717 |
| Credit derivatives | 1 |
| Commodity contracts | - |
| Total | $\mathbf{1 , 0 4 3}$ |


| Table 5.3-EU CCR2 - CVA capital charge |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Exposure |  |
| 2017 |  | value | RWA |
| Standardised approach - exposure class |  | €m | €m |
|  | Total portfolios subject to the advanced method | - | - |
| 2. | (i) VaR component (including the 3 x multiplier) | - | - |
| 3. | (ii) SVaR component (including the $3 \times$ multiplier) | - | - |
| 4. | All portfolios subject to the Standardised method | 464 | 169 |
| EU4. | Based on the original exposure method | - | - |
|  | Total subject to the CVA capital charge | 464 | 169 |

Counterparty credit risk (continued)

| Table 5.4 - EU CCR5-A Impact of netting and collateral held on exposure values |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | Gross positive value or net carry amount € | Netting benefits € m | Netted current credit exposure €m | Collateral held € | Net credit exposure € |
| 1. Derivatives | 2,348 | 1,472 | 876 | 518 | 358 |
| 2. SFTs | - | - | - | - | - |
| 3. Cross-product netting | - | - | - | - | - |
| 4. Total | 2,348 | 1,472 | 876 | 518 | 358 |

Table 5.5 - EU CCR3 - Standardised approach - CCR exposures by regulatory portfolio and risk weight

|  | Risk Weight |  |  |  |  |  |  |  |  |  |  | Total | Unrated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EAD ( $€ \mathrm{~m}$ ) | 0\% | 2\% | 4\% | 10\% | 20\% | 50\% | 70\% | 75\% | 100\% | 150\% | Others |  |  |
| 1. Central governments or central banks | 331 | - | - | - | - | - | - | - | - | - | - | 331 | - |
| 2. Regional governments or local authorities | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3. Public sector entities | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4. Multilateral development banks | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5. International organisations | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6. Institutions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7. Corporates | - | - | - | - | - | - | - | - | 1 | - | - | 1 | - |
| 8. Retail | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9. Secured by mortgages on immovable property | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10. Exposures in default | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11. Items associated with particularly high risk | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12. Covered bonds | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13. Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14. Collective investment undertakings | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15. Equity exposures | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16. Other items | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17. Total | 331 | - | - | - | - | - | - | - | 1 | - | - | 332 | - |

Counterparty credit risk (continued)

| Table 5.6-EU CCR4-IRB approach - CCR exposures by exposure class and PD scale |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2017$ <br> PD range | EAD post CRM and post CCF € $m$ | Average PD \% | Number of obligors | Average LGD \% | Average maturity in years | $\begin{gathered} \text { RWA } \\ € \mathrm{~m} \end{gathered}$ | RWA density \% |
| Total FIRB |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 585 | 0.1\% | 101 | 45\% | 2.4 | 146 | 26\% |
| 0.15 to $<0.25$ | 108 | 0.2\% | 60 | 45\% | 2.5 | 56 | 52\% |
| 0.25 to <0.50 | 47 | 0.3\% | 103 | 45\% | 2.5 | 30 | 64\% |
| 0.50 to $<0.75$ | 90 | 0.6\% | 51 | 45\% | 2.5 | 74 | 83\% |
| 0.75 to <2.50 | 105 | 1.4\% | 109 | 45\% | 2.5 | 115 | 109\% |
| 2.50 to <10.00 | 83 | 3.5\% | 41 | 45\% | 2.5 | 123 | 147\% |
| 10.00 to <100.00 | 8 | 10.0\% | 6 | 45\% | 2.5 | 15 | 180\% |
| 100.00 (Default) | 31 | 100.0\% | 3 | 45\% | 2.5 | - | - |
| Total Foundation IRB | 1,058 | 3.6\% | 474 | 45\% | 2.5 | 559 | 53\% |
| Institutions |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 529 | 0.1\% | 55 | 45\% | 2.4 | 128 | 24\% |
| 0.15 to <0.25 | 70 | 0.2\% | 5 | 45\% | 2.5 | 40 | 57\% |
| 0.25 to $<0.50$ | - | - | - | - | - | - | - |
| 0.50 to $<0.75$ | - | - | - | - | - | - | - |
| 0.75 to <2.50 | - | - | - | - | - | - | - |
| 2.50 to <10.00 | - | - | - | - | - | - | - |
| 10.00 to <100.00 | - | - | - | - | - | - | - |
| 100.00 (Default) | - | - | - | - | - | - | - |
| Total Institutions | 599 | - | 60 | 45\% | 2.4 | 168 | 28\% |
| Total Corporates |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 57 | 0.1\% | 46 | 44\% | 2.5 | 18 | 32\% |
| 0.15 to $<0.25$ | 38 | 0.2\% | 55 | 45\% | 2.5 | 16 | 43\% |
| 0.25 to <0.50 | 47 | 0.3\% | 103 | 45\% | 2.5 | 30 | 64\% |
| 0.50 to <0.75 | 90 | 0.6\% | 51 | 45\% | 2.5 | 74 | 83\% |
| 0.75 to <2.50 | 105 | 1.4\% | 109 | 45\% | 2.5 | 115 | 109\% |
| 2.50 to <10.00 | 83 | 3.5\% | 41 | 45\% | 2.5 | 123 | 147\% |
| 10.00 to <100.00 | 8 | 10.0\% | 6 | 45\% | 2.5 | 15 | 180\% |
| 100.00 (Default) | 31 | 100.0\% | 3 | 45\% | 2.5 | - | - |
| Total Corporates | 459 | 8.1\% | 414 | 45\% | 2.5 | 391 | 85\% |
| Corporates of which SME |  |  |  |  |  |  |  |
| 0.00 to 0.15 | 1 | 0.1\% | 13 | 45\% | 2.5 | 0 | 21\% |
| 0.15 to <0.25 | 5 | 0.2\% | 15 | 45\% | 2.5 | 2 | 37\% |
| 0.25 to $<0.50$ | 3 | 0.4\% | 16 | 45\% | 2.5 | 2 | 51\% |
| 0.50 to <0.75 | 3 | 0.6\% | 23 | 45\% | 2.5 | 2 | 65\% |
| 0.75 to <2.50 | 9 | 1.3\% | 39 | 45\% | 2.5 | 8 | 87\% |
| 2.50 to <10.00 | 9 | 3.8\% | 19 | 45\% | 2.5 | 10 | 119\% |
| 10.00 to <100.00 | 6 | 10.0\% | 3 | 45\% | 2.5 | 10 | 163\% |
| 100.00 (Default) | 31 | 100.0\% | 2 | 45\% | 2.5 | - | - |
| Total Corporates of which SME | 67 | 47.7\% | 130 | 45\% | 2.5 | 34 | 50\% |
| Corporates of which Specialised Lending |  |  |  |  |  |  |  |
| 0.00 to 0.15 | - | - | - | - | - | - | - |
| 0.15 to <0.25 | 26 | 0.2\% | 6 | 45\% | 2.5 | 11 | 43\% |
| 0.25 to $<0.50$ | 32 | 0.3\% | 11 | 45\% | 2.5 | 20 | 62\% |
| 0.50 to $<0.75$ | 72 | 0.6\% | 13 | 45\% | 2.5 | 57 | 80\% |
| 0.75 to <2.50 | 86 | 1.4\% | 4 | 45\% | 2.5 | 94 | 109\% |
| 2.50 to <10.00 | 54 | 3.7\% | 1 | 45\% | 2.5 | 78 | 144\% |
| 10.00 to <100.00 | - | - | - | - | - | - | - |
| 100.00 (Default) | - | - | - | - | - | - | - |
| Total Corporates of which Specialised Lending | 270 | 1.4\% | 35 | 45\% | 2.5 | 260 | 96\% |

Counterparty credit risk (continued)

Table 5.7 - EU CCR5-B Composition of collateral for exposures to CCR

|  | Collateral used in derivative transactions |  |  |  | Collateral used in SFTs |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair value of collateral received |  | Fair value of posted collateral |  |  |  |
|  | Segregated | Unsegregated | Segregated | Unsegregated | Fair value of collateral received | Fair value of posted collateral |
| Cash | - | 554 | - | 508 | 330 | 3,918 |
| Total | - | 554 | - | 508 | 330 | 3,918 |

Table 5.8-EU CCR6 - Credit derivative exposures

| 2017 | Credit derivative hedges |  | Other credit derivatives € m |
| :---: | :---: | :---: | :---: |
|  | Protection bought $€ m$ | Protection sold €m |  |
| Notionals |  |  |  |
| Single-name credit default swaps | - | - | 64 |
| Index credit default swaps | - | - | 53 |
| Total return swaps | - | - | 45 |
| Credit options | - | - | - |
| Other credit derivatives | - | - | - |
| Total Notionals | - | - | 162 |
| Fair values |  |  |  |
| - Positive fair value (asset) | - | - | 1 |
| - Negative fair value (liability) | - | - | 2 |

Counterparty credit risk (continued)

| Table 5.9-CCR8 - Exposures to CCPs |  |  |
| :---: | :---: | :---: |
| EAD post |  |  |
| 2017 | CRM |  |
| Standardised approach - exposure class | €m | €m |
| 1. Exposure to QCCPs (total) | 160 | 3 |
| 2. Exposures for trades at QCCPs (excluding initial margin and default fund contributions); | 160 | 3 |
| 3. OTC derivatives | 160 | 3 |
| 4. Exchange-traded derivatives | - | - |
| 5. SFTS | - | - |
| 6. Netting sets where cross-product netting has been approved | - | - |
| 7. Segregated initial margin | - | - |
| 8. Non-segregated initial margin | - | - |
| 9. Prefunded default fund contributions | - | - |
| 10. Alternative calculation of own funds requirements for exposures | - | - |
| 11. Exposure to non-QCCPs (total) | - | - |
| 12. Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); | - | - |
| 13. OTC derivatives | - | - |
| 14. Exchange-traded derivatives | - | - |
| 15. SFTs | - | - |
| 16. Netting sets where cross-product netting has been approved | - | - |
| 17. Segregated initial margin | - | - |
| 18. Non-segregated initial margin | - | - |
| 19. Prefunded default fund contributions | - | - |
| 20. Unfunded default fund contributions | - | - |

## Securitisation

## Securitisation roles and strategy

The Group has acted as originator under a number of securitisation structures, both traditional and synthetic. The purpose of these securitisations is to diversify the sources of funding for the Group and to increase the proportion of funding that is long-term, as well as to transfer credit risk. Information on the exposures securitised under these transactions, and which qualify for Pillar 1 derecognition, are provided in the tables in this section.

The Group has also purchased positions in securitisation transactions. These positions have been purchased in transactions where the individual notes were originally highly rated and benefited from strong credit enhancement provided by lower ranking notes. The purchased positions cover a broad range of asset classes including Commercial MortgageBacked Securities (CMBS), Residential Mortgage-Backed Securities (RMBS), consumer loans and loans to Corporates / SME.

In addition, the Group has transacted a number of internal securitisations for funding purposes. These do not qualify for derecognition under Pillar 1 and the exposures securitised under them are included in the credit risk tables in this document. These securitisations are outside the scope of this section.

The Group has not acted as a sponsor in any securitisation transactions.

## Calculation of risk weighted exposure

 amountsCertain securitisations originated by the Group, where the bonds issued by the securitisation vehicle have been sold to third party investors, qualify for derecognition under Pillar 1. The Group has retained positions in these securitisations and the KIRB value of these 'first loss' positions is deducted from CET 1.

For the Group's synthetic securitisations, the retained senior position is risk weighted using the Supervisory Formula Method (SFM) in accordance with Article 262 of the CRR and the retained junior position is deducted fully from CET 1 . The Group has recognised significant credit risk transfer for these transactions pursuant to Article 244 (2) of the CRR.

The risk weighted exposure amounts for the Group's purchased positions are calculated using the IRB approach. The Group's purchased positions are all held in the Banking Book.

A supervisory deduction is taken from CET 1 for purchased positions which otherwise would have attracted a 1250\% risk weight under this approach.

## Risk management for securitisation activities

There is no distinction in management of credit risk between securitised and nonsecuritised exposures. The Group's securitised exposures and the retained securitisation positions are managed and reviewed in accordance with the Group's internal requirements for management of credit risk. See pages 56 to 70 of the Group's Annual Report 31 December 2016.

Information on liquidity risk inherent in securitised assets has not been provided on the basis of materiality. A table showing wholesale funding securitisations is included in the liquidity risk section in the Group's Annual Report 31 December 2017 page 74.

## Accounting policies for securitisation activities

Securitisations generally require Group companies to enter into transactions with a Structured Entity (SE). From an accounting perspective, the treatment of SEs is assessed in accordance with IFRS 10 which establishes the principles for when the Group is deemed to control another entity and therefore required to consolidate it through the Group's financial statements.

A SE is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. The Group assesses whether it has power over the relevant activities in assessing control over such an entity by considering factors such as who manages the assets of these entities and whether the Group has lending to, or a residual interest in such entities.

In relation to these SEs, there are no contractual arrangements that require the Group to provide financial support. In the years ended 31 December 2017 and 31 December 2016 the Group did not provide financial or other support, nor does it expect or intend to do so. All of the Group's SEs were consolidated in the Group's financial statements for the years ended 31 December 2017 and 31 December 2016.

Where the Group acts as originator in a securitisation, all financial assets continue to be held on the Group balance sheet, and a liability is recognised for the proceeds of the funding transaction, unless:

- the contractual rights to the cash flows have expired; or
- the financial assets have been transferred and the Group has transferred the contractual right to receive the cash flows of the financial asset or assumes a contractual obligation to pay the cash flows of the financial asset only where it collects equivalent amounts from the original asset, such amount are remitted without material delay and the Group is prohibited from selling or pledging the original asset other than as security.

Where any of the above conditions apply to a fully proportionate share of all or specifically identified cashflows, the relevant accounting treatment is applied to that proportion of the asset.

While originated mortgage backed securitisations (where the bonds issued by the securitisation vehicles have been sold to third party investors) have been derecognised for Pillar 1 purposes, they have not been derecognised for accounting purposes under IFRS. The exposures securitised under these securitisations are recognised as financings and credit risk exposures under IFRS 7 as a securitisation transaction is only recognised as a sale or partial sale where de-recognition is achieved. As the conditions for de-recognition are not met, there are no sales or transfers of assets.

Synthetic securitisations, where only credit risk of the underlying assets is transferred with the Group retaining legal ownership and substantially all of the risks and

## Securitisation (continued)

rewards of ownership of the assets, are accounted for using the accounting treatment summarised above.

The Group's purchased positions are classified as either available for sale or loans and receivables from an accounting perspective.

There is no change to the accounting treatment of assets securitised in originated securitisations or purchased securitisations from the previous reporting period.

The Group has no assets awaiting securitisation at 31 December 2017.

Use of External Credit Assessment Institutions (ECAIs)
For the purpose of the RWA calculation, ECAls are used for the Group's purchased securitisation positions. The following ECAls are used: Fitch Ratings, Moody's Investors Service and Standard \& Poor's. These are used for all exposure types, though the securitisations may not have been rated by all three agencies.

## Total outstanding amount of exposures

 securitisedTable 6.1 below shows the total outstanding amount of exposures securitised by the Group in its role as originator and have qualified for Pillar 1 derecognition.

Table 6.1 - Outstanding amount of exposures securitised

|  | 2017 |  |  | 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exposure type | Traditional $€$ € | Synthetic € | Total € | Traditional $€ \mathrm{~m}$ | Synthetic $€ \mathrm{~m}$ | Total €m |
| Residential mortgages | 1,060 | - | 1,060 | 1,252 | - | 1,252 |
| Corporate loans | - | 4,296 | 4,296 | - | 2,870 | 2,870 |
| Total | 1,060 | 4,296 | 5,356 | 1,252 | 2,870 | 4,122 |

## Summary of securitisation activity

The Group originated one securitisation which qualifies for derecognition under Pillar 1 during the year ended 31 December 2017. This credit risk transfer transaction or synthetic securitisation, references a portfolio of $c$.USD $\$ 1.71$ billion Leveraged Acquisition Finance (LAF) loan assets in the 'Corporate' exposure type.

## Specific provisions, past due and impaired securitised exposures

| Table 6.2-Specific provisions, past due and impaired securitised exposures |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Traditional |  |  | Synthetic |  |  | Total |  |  |
| Exposure type | Past due exposures €m | Impaired exposures €m | Specific provisions $€$ m | Past due exposures €m | Impaired exposures € | Specific provisions € | Past due exposures € | Impaired exposures € | Specific provisions $€$ € |
| 2017 |  |  |  |  |  |  |  |  |  |
| Residential mortgages | 47 | 11 | 1 | - | - | - | 47 | 11 | 1 |
| Corporate loans | - | - | - | 12 | 7 | 3 | 12 | 7 | 3 |
| Total | 47 | 11 | 1 | 12 | 7 | 3 | 59 | 18 | 4 |
| 2016 |  |  |  |  |  |  |  |  |  |
| Residential mortgages | 58 | 16 | 2 | - | - | - | 58 | 16 | 2 |
| Corporate loans | - | - | - | - | - | - | - | - | - |
| Total | 58 | 16 | 2 | - | - | - | 58 | 16 | 2 |

## Securitisation (continued)

## Securitisation positions retained and purchased by exposure type

| Table 6.3-Retained and purchased securitisation positions by exposure type |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Traditional |  |  | Synthetic |  |  | Total |  |  |
| Provisions | Retained EAD € | Purchased EAD € | Total EAD €m | Retained EAD € | Purchased EAD €m | Total EAD € | Retained EAD € | Purchased EAD € | Total EAD € |
| 2017 |  |  |  |  |  |  |  |  |  |
| Residential mortgages | 24 | 58 | 82 | - | - | - | 24 | 58 | 82 |
| Commercial mortgages | - | 26 | 26 | - | - | - | - | 26 | 26 |
| Loans to corporates or SME | - | 45 | 45 | 3,946 |  | 3,946 | 3,946 | 45 | 3,991 |
| Consumer loans | - | 17 | 17 | - | - | - | - | 17 | 17 |
| Total | 24 | 146 | 170 | 3,946 | - | 3,946 | 3,970 | 146 | 4,116 |
| 2016 |  |  |  |  |  |  |  |  |  |
| Residential mortgages | 30 | 69 | 99 | - | - | - | 30 | 69 | 99 |
| Commercial mortgages | - | 27 | 27 | - | - | - | - | 27 | 27 |
| Loans to corporates or SME | - | 60 | 60 | 2,684 | - | 2,684 | 2,684 | 60 | 2,744 |
| Consumer loans | - | 25 | 25 | - | - | - | - | 25 | 25 |
| Total | 30 | 181 | 211 | 2,684 | - | 2,684 | 2,714 | 181 | 2,895 |

## Securitisation positions retained and purchased

Retained positions refer to positions retained by the Group with respect to the securitisations originated by the Group.

Purchased positions are positions purchased by the Group in external securitisations. Repurchased tranches of own securitisations which are not subject to risk weights are excluded from the
tables below. For supervisory reporting purposes, the traditional positions are included as on-balance sheet exposures and synthetic securitisations are included as off-balance sheet.
Securitisation (continued)
Securitisation positions retained and purchased by risk weight
Table 6.4-Retained and purchased securitisation positions by risk weight

| Securitisation positions retained and purchased by risk weight |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table 6.4 - Retained and purchased securitisation positions by risk weight |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Traditional |  |  |  |  |  | Synthetic |  |  |  |  |  | Total |  |  |  |  |  |
|  | Retained |  | Purchased |  | Total |  | Retained |  | Purchased |  | Total |  | Retained |  | Purchased |  | Total |  |
|  | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | $\underset{€ \mathrm{~m}}{(\mathrm{RWA})}$ | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | (RWA) $€ \mathrm{~m}$ | $\underset{\text { ©m }}{(E A D)}$ | (RWA) €m | (EAD) $€ \mathrm{~m}$ | (RWA) €m | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | (RWA) €m | $\begin{aligned} & \text { (EAD) } \\ & \ldots \mathrm{m} \end{aligned}$ | $\underset{€ \mathrm{~m}}{(\mathrm{RWA})}$ | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | (RWA) €m | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | $\begin{gathered} \text { (RWA) } \\ \epsilon \mathrm{m} \end{gathered}$ | $\begin{gathered} \text { (EAD) } \\ \text { €m } \end{gathered}$ | (RWA) € m |
| 2017 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <=10\% | - | - | 35 | 3 | 35 | 3 | 3,917 | 274 | - | - | 3,917 | 274 | 3,917 | 274 | 35 | 3 | 3,952 | 277 |
| >10\% but <=18\% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| >18\% but <=35\% | - | - | 45 | 16 | 45 | 16 | - | - | - | - | - | - | - | - | 45 | 16 | 45 | 16 |
| >35\% but <=75\% | - | - | 28 | 15 | 28 | 15 | - | - | - | - | - | - | - | - | 28 | 15 | 28 | 15 |
| >75\% but <=100\% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| >100\% but <=250\% | - | - | 7 | 7 | 7 | 7 | - | - | - | - | - | - | - | - | 7 | 7 | 7 | 7 |
| >250\% but <=425\% | - | - | 9 | 24 | 9 | 24 | - | - | - | - | - | - | - | - | 9 | 24 | 9 | 24 |
| >425\% but <=650\% | - | - | 9 | 41 | 9 | 41 | - | - | - | - | - | - | - | - | 9 | 41 | 9 | 41 |
| >650\% but <=1250\% | - | - | - | - | - | - | 7 | 87 | - | - | 7 | 87 | 7 | 87 | - | - | 7 | 87 |
| Total subject to risk weights | - | - | 133 | 106 | 133 | 106 | 3,924 | 361 | - | - | 3,924 | 361 | 3,924 | 361 | 133 | 106 | 4,057 | 467 |
| Deducted from capital | 24 | - | 13 | - | 37 | - | 22 | - | - | - | 22 | - | 46 | - | 13 | - | 59 | - |
| Total | 24 | - | 146 | 106 | 170 | 106 | 3,946 | 361 | - | - | 3,946 | 361 | 3,9670 | 361 | 146 | 106 | 4,116 | 467 |
| 2016 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <=10\% | - | - | 50 | 4 | 50 | 4 | 2,670 | 187 | - | - | 2,670 | 187 | 2,670 | 187 | 50 | 4 | 2,720 | 191 |
| >10\% < = 18\% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| $>18 \%<=35 \%$ | - | - | 53 | 18 | 53 | 18 | - | - | - | - | - | - | - | - | 53 | 18 | 53 | 18 |
| $>35 \%<=75 \%$ | - | - | 37 | 21 | 37 | 21 | - | - | - | - | - | - | - | - | 37 | 21 | 37 | 21 |
| $>75 \%<=100 \%$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| $>100 \%<=250 \%$ | - | - | 18 | 47 | 18 | 47 | - | - | - | - | - | - | - | - | 18 | 47 | 18 | 47 |
| $>250 \%<=425 \%$ | - | - | 13 | 58 | 13 | 58 | - | - | - | - | - | - | - | - | 13 | 58 | 13 | 58 |
| >425\% < = 650\% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| >650\% < $=1250 \%$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total subject to risk weights | - | - | 171 | 148 | 171 | 148 | 2,670 | 187 | - | - | 2,670 | 187 | 2,670 | 187 | 171 | 148 | 2,841 | 335 |
| Deducted from capital | 30 | - | 10 | - | 40 | - | 14 | - | - | - | 14 | - | 44 | - | 10 | - | 54 | - |
| Total | 30 | - | 181 | 148 | 211 | 148 | 2,684 | 187 | - | - | 2,684 | 187 | 2,714 | 187 | 181 | 148 | 2,895 | 335 |

## Market risk

## Overview

| Table 7.1-Market risk under the Standardised approach |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | Capital requirements $€$ € | $\begin{gathered} \text { RWA } \\ \text { €m } \end{gathered}$ | Capital requirements € m | $\begin{gathered} \text { RWA } \\ € \mathrm{~m} \end{gathered}$ |
| Outright products |  |  |  |  |
| 1. Interest rate risk (general and specific) | 27 | 342 | 21 | 259 |
| 2. Equity risk (general and specific) | - | - | - | - |
| 3. Foreign exchange risk | 14 | 174 | 9 | 120 |
| 4. Commodity risk | - | - | - | - |
| Options |  |  |  |  |
| 5. Simplified approach | - | - | - | - |
| 6. Delta-plus method | - | - | - | 1 |
| 7. Scenario approach | - | - | - | - |
| 8. Securitisation (specific risk) | - | - | - | - |
| 9. Total | 41 | 516 | 30 | 380 |

Market risk is the risk of loss arising from movements in interest rates, foreign
exchange rates or other market prices.

Market risk arises from the structure of the Group's balance sheet, the Group's business mix and discretionary risk-taking.

The management of market risk in the Group is governed by the Group's RAS and by the Group Policy on Market risk, both of which are approved by the Board.

The Group uses the Standardised approach for its assessment of Pillar 1 capital requirements for Trading Book market risk, using the prescribed regulatory calculation method. Risk weighted assets for market risk (predominantly interest rate risk on the Trading Book and foreign exchange risk) on 31 December 2017 are $€ 516$ million (2016: €380 million).

Further detailed information in relation to market risk, including Interest Rate Risk in the Banking Book (IRRBB), is set out on pages 76 to 79 of the Group's Annual Report 31 December 2017.

## Discretionary risk

Discretionary risk consists of risk that is proactively assumed in the Trading Book and discretionary Interest Rate Risk in the Banking Book (IRRBB). As a consequence of the Bank's hedging strategies, discretionary IRRBB (which incorporates the major part of mismatch and yield curve risk as defined for regulatory purposes) is immaterial and therefore no further information is disclosed.

BolGM is the sole Group business permitted to run discretionary market risk
on behalf of the Group. The major part of BolGM's discretionary risk is interest rate risk in euro, sterling and US dollar markets.

The Group employs a VaR approach to measure, and set limits on, discretionary market risk. This applies to both the Trading Book and discretionary IRRBB. The Group measures VaR for a one-day horizon at the 99\% (two-tailed) level of statistical confidence. VaR reporting is conducted daily.

For the nature of the risks assumed by the Group, VaR remains a reliable basis of risk measurement. Nonetheless, VaR limits are supplemented by a range of controls that include position limits and loss tolerances. In addition, scenario based stress tests and long-run historic simulations, taking in past periods of market stress, are used to assess and manage discretionary market risk.

## Customer risk

Interest rate risk arising on customer lending and term deposit-taking is centralised by way of internal hedging transactions with BoIGM. This exposure is, in turn, substantially eliminated by BoIGM through external hedges.

## Structural risk

Notwithstanding the overriding objective of running minimal levels of market risk, certain structural elements of IRRBB remain, notably structural basis risk and the earnings risk that arises from the presence of non-interest bearing liabilities on the balance sheet.

Structural basis risk arises where marketrelated assets, liabilities and swaps reprice at different frequencies (monthly, quarterly, semi-annually) and where
ending re-prices with changes in centra bank rates but is funded at a blend of retail deposit and market-related rates. In addition, certain economic risks are inherent in the Group's balance sheet and the requirement to fund a material part of the Group's sterling balance sheet from euro creates a structural exposure. These risks are managed centrally as structural treasury risk.

The presence of non-interest bearing liabilities on the balance sheet - principally equity and non-interest bearing nonmaturity customer deposits - exposes Group earnings to changes in interest rates. This structural interest rate risk is mitigated over the cycle by investing these liabilities in a portfolio of fixed rate assets only a proportion of which are re-invested in any given year. The Group applies the same investment convention to all noninterest bearing liabilities.

## Operational risk

## Overview

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

The Group is exposed to operational risks in the normal pursuit of its business objectives and encompasses a very broad range of sources of potential financial loss
which the Group actively seeks to manage, mitigate and transfer. Such sources include inadequate or failed internal processes such as payments processing and financial reporting, information technology or equipment failures, the malfunction of external systems and controls, including those of the Group's suppliers or counterparties, or
from people-related or external events, such as cybercrime and fraud, or from natural disasters and social or political events. In the case of legal and contractually related operational risks, the Group is exposed to the risk of loss due to litigation arising from errors, omissions and acts by the Group and its officers in the conduct of its business.

## Operational risk management objective

The primary goals of operational risk management within the Group are to ensure the sustainability and integrity of the Group's operations and the protection
of its reputation by controlling, mitigating or transferring the impact of operational risk. The Group has established a formal approach to the management of
operational risk in an 'Operational Risk Framework'.

## Operational risk management framework

The framework defines the Group's approach to identifying, assessing, managing, monitoring and reporting the operational risks which may impact the achievement of the Group's business objectives. The framework outlines, inter alia, the following:

- formulating and disseminating a Group Operational Risk policy specifying the risk management obligations of management within the Group;
- maintaining organisational structures for the oversight, monitoring and management of operational risk throughout the Group;
- embedding formal operational risk management processes and standards throughout the Group;
- setting aside capital and maintaining a suite of insurance policies; and
- setting out the boundary conditions in which operational risks are to be managed, by way of Board approved RAS.

In what follows, some of the key elements of the Group's operational risk framework are briefly described.

## Operational risk policy and governance

In 2017, in accordance with its risk appetite, the Group continued to maintain its on-going oversight and control of its exposure to operational risk. A critical component of the operational risk management framework is a BRC approved Operational Risk Policy which sets out the Group's objectives and the
obligations of management in respect of operational risk.

Governance and oversight of operational risk matters forms part of the Group's Risk Framework which aims to ensure that risk management activities are adequate and commensurate with the Board approved risk appetite. The GORC is appointed by the GRPC and is responsible for the oversight and monitoring of operational risk within the Group and its material subsidiaries.

Business units hold primary responsibility for the management of operational risk and compliance with internal control requirements.

Group Operational Risk is accountable for the development and maintenance of an Operational Risk Management Framework to ensure a robust, consistent and systematic approach is applied to managing operational risk exposures across the Group.

## Operational risk appetite

The Board has set out its appetite for operational risk in terms of both qualitative factors and quantitative measures reflecting the nature of non-financial risks. As such, the monitoring of operational risk indicators is supplemented with qualitative review and discussion at senior management executive committees to ensure appropriate actions are taken to enhance controls.

## Risk assessment

A systematic identification and assessment of the operational risks faced by the Group is a core component of the Group's overall operational risk framework. This is known as the Risk and Control Self-Assessment (RCSA) and is a framework for capturing, measuring and managing operational risk as well as providing a mechanism for the consistent identification, monitoring, reviewing, updating and reporting of risks throughout the Group. A key element of this process is the categorisation of risks by taxonomy.

## Operational risk capital

The Group holds operational risk capital to cover the potential financial impact of operational risk events, and uses the Standardised Approach (TSA) to determine its Pillar 1 capital requirement. Risk weighted assets for operational risk on 31 December 2017 are $€ 4.6$ billion (2016: €4.6 billion). The Pillar 2 capital assessment process incorporates a scenario analysis programme.

Scenario analysis assists the Group in determining the possible frequency and severity of operational risk losses for certain extreme yet plausible events associated with different types of operational risk. The process also takes into account the potential for correlations between scenarios. The outputs of the scenario analysis programme forms part of the operational risk element of the Group's ICAAP.

Operational risk management framework (continued)

## Insurance

The Group mitigates the risk of potential financial losses from selected operational risk events through the Group insurance programme, which is reviewed annually to ensure that the risk coverage remains appropriate to the Group's risk management objectives.

## Operational risk reporting

Regular reporting of operational risk is a key component of the Group's Operational Risk Framework.

The Board receives a monthly update on the operational risk profile via the Court Risk Report which provides a timely assessment of the material operational risks against risk appetite.

At least four times a year, the Head of Group Operational Risk reports to the GORC on the status of operational risk in the Group, including the status of the top operational risks, the progress of risk mitigation initiatives, programmes and significant loss events.

In addition, specified operational risk information is collated for the purposes of reporting to regulatory supervisors in the jurisdictions in which the Group operates.

## Liquidity risk

## Overview

Liquidity risk is the risk that the Group will experience difficulty in financing its assets and / or meeting its contractual payment obligations as they fall due, or will only be able to do so at substantially above the prevailing market cost of funds.

The Group must comply with the regulatory liquidity requirements of the Single Supervisory Mechanism (SSM) and the requirements of local regulators in those jurisdictions where such requirements apply to the Group.

SSM requirements include compliance with the CRR / CRDIV and associated Delegated Acts which are a comprehensive set of measures to strengthen the regulation, supervision and risk management of the banking sector

## including:

- Liquidity Coverage Ratio - the liquidity coverage ratio (LCR) requires banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario. A minimum 100\% ratio applies from January 2018;
- Net Stable Funding Ratio - the net stable funding ratio (NSFR) requires banks to have sufficient quantities of funding from stable sources and a binding ratio is being proposed under the CRD V package; and
- Additional Pillar 2 liquidity requirements may also apply.

The annual Internal Liquidity Adequacy Assessment Process (ILAAP) enables the Board to assess the adequacy of the Group's Funding \& Liquidity Risk

## Table 8.1-Liquidity ratios

| Liquidity coverage ratio | $\mathbf{2 0 1 7}$ | 2016 |
| :--- | :---: | :---: |
| Net stable funding ratio | $136 \%$ | $113 \%$ |
|  | $127 \%$ | $122 \%$ |

Management Framework; to assess the key liquidity and funding risks to which it is exposed; and details the Group's approach to determining the level of liquid assets and contingent liquidity that is required to be maintained under both BAU and severe stress scenarios.

Via its approval of the ILAAP, the Board has satisfied itself that the volume and capacity of liquidity resources available to the Group are adequate to support its business model, to achieve its strategic objectives, to withstand severe but plausible stress scenarios and to meet regulatory requirements including the Liquidity Coverage and Net Stable Funding Ratios.

The Group will continue to target a buffer above minimum applicable regulatory liquidity requirements.

Further information is available in the Group's Annual Report 31 December 2017, Section 3.2 - Liquidity Risk, pages 71 to 75.

Overview (continued)

| Table 8.2-LCR disclosures |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total unweighted value (average) |  |  |  | Total weighted value (average) |  |  |  |
| Quarter ending | Mar-17 | Jun-17 | Sep-17 | Dec-17 | Mar-17 | Jun-17 | Sep-17 | Dec-17 |
| 2017 | €m | €m | €m | €m | €m | €m | €m | €m |
| Number of data points used in the calculation of averages | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| High-quality liquid assets |  |  |  |  |  |  |  |  |
| 1. Total high-quality liquid assets (HQLA) | - | - | - | - | 16,134 | 16,459 | 16,782 | 17,445 |
| Cash-outflows |  |  |  |  |  |  |  |  |
| 2. Retail deposits and deposits from small business customers of which; | 43,540 | 43,393 | 43,777 | 44,488 | 3,591 | 3,508 | 3,478 | 3,502 |
| 3. Stable deposits | 23,376 | 24,995 | 26,755 | 28,396 | 1,169 | 1,250 | 1,338 | 1,420 |
| 4. Less stable deposits | 20,156 | 18,388 | 17,013 | 16,084 | 2,414 | 2,248 | 2,132 | 2,075 |
| 5. Unsecured wholesale funding | 17,065 | 17,433 | 17,729 | 18,087 | 8,512 | 8,537 | 8,503 | 8,488 |
| 6. Operational deposits (all counterparties) and deposits in networks of cooperative banks | 3,825 | 3,683 | 3,538 | 3,388 | 956 | 921 | 885 | 847 |
| 7. Non-operational deposits (all counterparties) | 13,170 | 13,683 | 14,128 | 14,637 | 7,486 | 7,549 | 7,556 | 7,579 |
| 8. Unsecured debt | 70 | 67 | 63 | 62 | 70 | 67 | 63 | 62 |
| 9. Secured wholesale funding | - | - | - | - | 2 | 2 | 1 | 1 |
| 10. Additional requirements | 5,653 | 5,919 | 6,054 | 6,274 | 1,205 | 1,367 | 1,376 | 1,472 |
| 11. Outflows related to derivative exposures and other collateral requirements | 541 | 623 | 704 | 391 | 541 | 623 | 704 | 791 |
| 12. Outflows related to loss of funding on debt products | 91 | 172 | 101 | 102 | 91 | 172 | 101 | 102 |
| 13. Credit and liquidity facilities | 5,021 | 5,124 | 5,249 | 5,382 | 572 | 572 | 570 | 580 |
| 14. Other contractual funding obligations | 911 | 996 | 862 | 840 | 662 | 728 | 567 | 547 |
| 15. Other contingent funding obligations | 10,952 | 11,113 | 11,287 | 11,402 | 617 | 649 | 677 | 743 |
| 16. Total cash outflows | - | - | - | - | 14,588 | 14,791 | 14,602 | 14,754 |
| Cash-inflows |  |  |  |  |  |  |  |  |
| 17. Secured lending (eg reverse repos) | 298 | 241 | 204 | 194 | 1 | - | - | - |
| 18. Inflows from fully performing exposures | 641 | 629 | 624 | 626 | 423 | 414 | 408 | 410 |
| 19. Other cash inflows | 1,454 | 1,406 | 1,412 | 1,380 | 454 | 427 | 439 | 435 |
| EU-19a (Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies) | - | - | - | - | - | - | - | - |
| EU-19b (Excess inflows from a related specialised credit institution) | - | - | - | - | - | - | - | - |
| 20. Total cash inflows | 2,393 | 2,276 | 2,240 | 2,200 | 878 | 841 | 847 | 845 |
| EU-20a. Fully exempt inflows | - | - | - | - | - | - | - | - |
| EU-20b. Inflows Subject to 90\% Cap | - | - | - | - | - | - | - | - |
| EU-20c. Inflows Subject to 75\% Cap | 2,393 | 2,276 | 2,240 | 2,200 | 878 | 841 | 847 | 845 |
| 21. Liquidity buffer | - | - | - | - | 16,134 | 16,459 | 16,782 | 17,445 |
| 22. Total net cash outflows | - | - | - | - | 13,710 | 13,950 | 13,756 | 13,908 |
| 23. Liquidity coverage ratio (\%) | - | - | - | - | 118\% | 118\% | 122\% | 125\% |

## Concentration of funding and liquidity <br> sources

The Group's lending portfolios are funded predominantly (>90\%) by granular retail originated deposits with any residual
funding requirements principally met through term wholesale funding and equity. The Group's liquidity buffer comprises high-quality liquid securities and cash holdings.

## Derivative exposures and potential collateral calls

The Group calculates additional liquidity outflows corresponding to collateral needs resulting from the impact of an adverse

## Overview (continued)

market scenario on the Group's derivative transactions using the Historical Look Back Approach (HLBA) as guided by the EBA.

## Currency mismatch in the LCR

The Group manages its liquidity by jurisdiction with liquid assets predominantly held in the currency of each jurisdiction. In preparing the LCR, the Group recognises restrictions on the transferability of liquidity between
jurisdictions with surplus liquid assets in one jurisdiction not transferable to another jurisdiction.

## Degree of centralisation of liquidity management

Group Treasury provides top-down centralised control of the Group's funding and liquidity position including overall responsibility for the management of the Group's liquidity position and funding strategy. This ensures a co-ordinated
approach to balance sheet management and is accomplished through the:

- incorporation of funding and liquidity risk appetite metrics into risk appetite at a consolidated level;
- monitoring liquidity metrics for each liquidity centre; and
- compliance by the business units with the Group's funds transfer pricing principles.


## Encumbered and unencumbered assets held by the Group

Tables 8.3, 8.4 and 8.5 are designed to show the amounts of encumbered and unencumbered assets held by the Group. Assets are differentiated between those
that are available for potential funding needs. All tables below are based on the official EBA reporting templates pertaining to Asset Encumbrance under CRD IV.

Please note that all figures are median values based on quarter end point-in-time (PiT) figures covering the year ended 31 December 2017.

Table 8.3-Encumbered and unencumbered assets held by the Group

|  | Carrying amount of encumbered assets € m | Fair value of encumbered assets € | Carrying amount of unencumbered assets € | Fair value of unencumbered assets € |
| :---: | :---: | :---: | :---: | :---: |
| 2017 |  |  |  |  |
| Assets | 20,449 | - | 86,483 | - |
| - Loans on demand | - | - | 5,215 | - |
| - Equity instruments | - | - | 68 | 68 |
| - Debt securities | 1,266 | 1,266 | 12,898 | 12,898 |
| - Loans and advances other than loans on demand | 19,172 | - | 61,433 | - |
| - Other assets | 11 | - | 6,869 | - |
| 2016 |  |  |  |  |
| Assets | 19,293 | - | 91,328 | - |
| - Loans on demand | - | - | 5,871 | - |
| - Equity instruments | - | - | 68 | 68 |
| - Debt securities | 346 | 346 | 12,837 | 12,922 |
| - Loans and advances other than loans on demand | 18,942 | - | 65,067 | - |
| - Other assets | 5 | - | 7,485 | - |

Encumbered and unencumbered assets held by the Group (continued)

| Table 8.4-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 € |
| 2017 |  |  |
| Collateral received | 1,049 | 75 |
| - Equity instruments | - | - |
| - Debt securities | 105 | 75 |
| - Other collateral received | 944 | - |
| - Own debt securities issued other than own covered bonds or ABSs | - | - |
| 2016 |  |  |
| Collateral received | 1,153 | 205 |
| - Equity instruments | - | - |
| - Debt securities | 70 | 205 |
| - Other collateral received | 1,083 | - |
| - Own debt securities issued other than own covered bonds or ABSs | - | - |


| Table 8.5 - Encumbered assets / collateral received and associated liabilities |
| :--- | :--- | ---: |

As part of managing its funding requirements, the Group from time to time encumbers assets as collateral to support wholesale funding initiatives. This would include covered bonds, asset backed securities, securities repurchase agreements and other structures that are
secured over customer loans. In 2017, $€ 21.4$ billion of the Group's assets and collateral received were encumbered, primarily through these structures.

Covered bonds, a key element of the Group's long term funding strategy are
issued through its subsidiary Bank of Ireland Mortgage Bank (BoIMB). BoIMB is registered as a designated mortgage credit institution to issue Irish Asset Covered Securities in accordance with relevant legislative requirements. BolMB is required to maintain minimum contractual overcollateralization of $5 \%$ and minimum legislative overcollateralization of $3 \%$ (both on a prudent market value basis). This is monitored by the Covered Asset Monitor on behalf of the Central Bank of Ireland.

The Group recognises the restrictions on the transfer of liquidity between jurisdictions and separately monitors asset encumbrance by jurisdiction.

The Group has $€ 6.9$ billion of unencumbered 'Other assets'. These are primarily made up of assets which would not be deemed available for encumbrance in the normal course of business and include intangible assets, tax assets, fixed assets and derivative assets.

## Leverage ratio

The leverage ratio measures the level of Tier 1 capital against both on and off balance sheet exposures. As at 31 December 2017, the leverage ratio was 7.0\% on a regulatory basis (2016: 7.3\%) and $6.2 \%$ on a fully loaded basis (2016: 6.4\%).

The purpose of monitoring and managing this metric is to enable Regulators to constrain the build-up of excessive
leverage, which was considered to be one of the drivers of the banking crisis.

The European Commission have proposed the introduction of a binding leverage requirement of 3\% as part of the CRD IV developments. It is anticipated that the binding leverage requirement will be applicable from 2019 at the earliest pending final agreement of the proposals at EU level.

The tables below illustrates leverage ratio calculated in accordance with Articles 429, 499(2) and (3) of the CRR and a breakdown of the Group's leverage ratio exposure as at 31 December 2017 on both a regulatory and fully loaded basis.

Table 9.1-LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

|  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
| Annex IV Reference | Regulatory CRD IV € m | Fully loaded CRD IV € m | Regulatory CRD IV € | Fully loaded <br> CRD IV <br> € |
| 1 Total assets as per published financial statements | 122,555 | 122,555 | 123,129 | 123,129 |
| 2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation | $(17,401)$ | $(17,401)$ | $(16,461)$ | $(16,461)$ |
| 4 Adjustments for derivative financial instruments | $(1,767)$ | $(1,767)$ | $(2,818)$ | $(2,818)$ |
| 5 Adjustments for securities financing transactions 'SFTs' | 182 | 182 | 257 | 257 |
| 6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures) | 4,108 | 4,108 | 4,516 | 4,516 |
| 7 Other adjustments | 662 | (263) | 1,214 | 166 |
| 8 Total leverage ratio exposure | 108,339 | 107,414 | 109,837 | 108,789 |

Leverage ratio (continued)

| Table 9.2 - LRCom: Leverage ratio common disclosure |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |

[^15]Leverage ratio (continued)

| Table 9.3-LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Annex IV <br> Referen |  | Regulatory CRD IV €m | Fully loaded CRD IV €m | Regulatory CRD IV €m | Fully loaded <br> CRD IV $€ \mathrm{~m}$ |
| EU-1 | Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which: | 103,468 | 102,543 | 104,173 | 103,125 |
| EU-2 | Trading book exposures | 68 | 68 | 18 | 18 |
| EU-3 | Banking book exposures, of which: | 103,400 | 102,475 | 104,155 | 103,107 |
| EU-4 | Covered bonds | 3,131 | 3,131 | 3,513 | 3,513 |
| EU-5 | Exposures treated as sovereigns | 19,248 | 19,248 | 15,398 | 15,398 |
| EU-6 | Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns | - | - | - | - |
| EU-7 | Institutions | 1,339 | 1,339 | 1,685 | 1,685 |
| EU-8 | Secured by mortgages of immovable properties | 42,421 | 42,421 | 44,373 | 44,373 |
| EU-9 | Retail exposures | 6,391 | 6,391 | 5,881 | 5,881 |
| EU-10 | Corporate | 19,125 | 19,125 | 21,928 | 21,928 |
| EU-11 | Exposures in default | 3,916 | 3,916 | 3,570 | 3,570 |
| EU-12 | Other exposures (e.g. equity, securitisations, and other non-credit obligation assets) | 7,829 | 6,904 | 7,807 | 6,759 |

LRQua: Disclosure on qualitative items
The leverage ratio is designed to serve as an important backstop to the risk-based capital measures by constraining the build-up of leverage in the banking system and providing an extra layer of protection against model risk and measurement error.

Leverage is the extent to which a firm funds its assets with borrowings rather than equity. More debt relative to each euro of equity results in a higher level of leverage. The leverage ratio measures the extent to which a firm has financed its assets with equity. It does not take into account what those assets are, or what their risk characteristics are. Leverage ratios effectively place a cap on borrowings as a multiple of a bank's equity.

The definition of the leverage ratio is Tier 1 capital divided by total assets (which
include derivatives, SFT's, undrawn balances).

The European Commission has proposed the introduction of a binding leverage requirement of $3 \%$ as part of the CRD $V$ Package proposals. It is anticipated that the binding leverage requirement will be applicable from 2019 at the earliest pending final agreement of the proposals at EU level.

The Group's capital and exposures are monitored on a monthly basis which covers both a historical and a forward looking viewpoint. When proposed transactions or movements in capital or assets are being considered the impact on the leverage ratio is taken into account.

The leverage ratio at 31 December 2017 is 7.0\% on a CRD IV regulatory basis (2016: $7.3 \%$ ), $6.2 \%$ on a pro-forma fully loaded
basis (2016: 6.4\%). The reduction is due to a decrease in Tier 1 capital of $€ 0.3$ billion due to the impact of the restriction on recognition of subsidiary issued capital instruments (Article 85), partially offset by a reduction in leverage exposures due to FX movements and changes in book size and quality.

The Group expects to remain above the European Commission proposed leverage requirement of $3 \%$ which is expected to be applicable from 2019.

## Appendices

Appendix I provides qualitative information on, and a brief explanation of, the principle components of the Group's CRD IV capital resources as outlined in Table 2.4.

## Total equity

Total equity represents accounting equity and comprises capital stock (including related share premium), retained earnings, foreign exchange reserve, available for
sale reserve, cash flow hedging reserve, capital contribution reserve and other reserves. A consolidated statement of changes in these reserves is outlined on
pages 141 and 143 of the Group's Annual Report 31 December 2017.

## Pension supplementary contributions

Under a prudential filter previously applied, credit institutions were required to deduct from capital certain pension supplementary contributions. As a result, the accounting deficit, which is reversed
from capital as outlined above, is replaced with a deduction reflecting the amount required over a specified period (three years for Irish schemes, five years for UK schemes) towards the elimination of a
pension deficit under CRD IV funding standard rules. This prudential filter is being phased out under CRD IV transitional rules.

## Cashflow hedge reserve

The cashflow hedge reserve is included in accounting equity and is removed from regulatory capital through the application
of a prudential filter. The cash flow reserve was positive at 31 December 2017, hence the application of the filter results in a
accounting equity. This is no longer the case under CRD IV and is to be phased out in line with CRD IV transitional rules.

Deferred tax assets

Key provisions under CRD IV include the introduction of deductions from CET 1 capital relating to deferred tax assets
(DTA) that rely on future profitability line with CRD IV transitional rules. according to Article 36 of the CRR, which are being introduced on a phased basis in

## Retirement benefit obligations

A prudential filter was previously applied in relation to the Group's defined benefit pension schemes resulting in a reversal of the IAS 19 accounting deficit and an addback to total equity. The prudential filter
required that any surpluses arising under IFRS in a defined benefit pension scheme was reversed for capital adequacy purposes. Similarly any deficits, reflecting actuarial losses were reversed from

## Available for sale reserve

The available for sale reserve was removed from regulatory capital under Basel II / CRD. CRD IV transitional rules in 2017 require phasing in $80 \%$ of unrealised losses and $80 \%$ of unrealised gains. From 2018, unrealised losses and gains will be fully phased in.

## Expected loss deduction / Expected loss excess

Expected loss deduction / excess is the difference between accounting provisions recognised on the Group's IRB portfolios under IFRS on an incurred loss basis and the regulatory expected loss (EAD x PD x LGD) calculated for these portfolios. If regulatory expected loss exceeds
accounting provisions the resulting shortfall is deducted from CET 1, this deduction is phased into CET 1 on a transitional basis. If accounting provisions exceed regulatory expected loss the excess can be included in Tier 2 capital subject to a maximum threshold ( $0.6 \%$ of

IRB Credit RWA). Default and non-default exposures are treated separately which can result in both an expected loss deduction from CET 1 and / or an addition to Tier 2 of excess provisions.

Standardised incurred but not reported (IBNR) provisions

Impairment provisions recognised for losses not specifically identified but which, experience and observable data indicate, are present in the portfolio / Group of
exposures at the date of assessment are described as incurred but not reported provisions. Under CRD IV the inclusion of Standardised IBNR in Tier 2 is to be
phased out in line with CRD IV transitional rules.

## Intangible assets and goodwill

Intangible assets and goodwill are deducted in accordance with CRD IV requirements. The deduction is made at the level of CET 1 capital. The deduction excludes intangible assets in the Group's Life and pension business.

Own credit spread adjustment (net of tax)

Under CRD IV rules, credit institutions shall not include in own funds, gains or losses recognised on their liabilities
accounted for at fair value that are attributable to changes in the credit institutions' own credit standing.

Cumulative post tax gains and losses recognised in revenue reserves are reversed for regulatory capital purposes.

## Securitisation deduction

The Group has retained tranches in certain traditional securitisation transactions. The KIRB value of these portfolios is taken as a supervisory deduction. Separately, a
deduction is taken for purchased securitisation positions which otherwise would have attracted a 1250\% risk weight under the Ratings Based approach and
also for the first loss tranche in the synthetic securitisation.

## Holdings in financial sector entities \& 10\% / 15\% threshold deduction

Where the investments in financial sector entities exceed relevant thresholds, a deduction from CET 1 is required. The amount below the threshold is included in risk weighted assets at 250\%.

## Dividend / coupon expected on preference stock \& other equity instruments

Dividends / coupons expected on preference stock and other equity instruments relate primarily to the Additional tier 1.

## Additional tier 1 (AT1) capital

Additional tier 1 capital instruments are subordinated securities with some equitylike features but cannot be included as CET 1 capital, but can be included in AT1 capital provided they meet the criteria set
out in Article 52 of the CRR. Such securities do not generally carry voting rights and rank higher than ordinary shares for coupon payments in the event of a winding-up. These include securities
that may be called and redeemed by the issuer, subject to the prior approval of the SSM. Refer to Table 2.6 for further information.

Tier 2 capital

Tier 2 capital comprises certain qualifying subordinated liabilities, the criteria for which is set out in Article 62 of the CRR.

## Appendix II: Equity holdings not in the Trading Book

The CRD IV permits non-disclosure where the information to be provided is not regarded as material. Information is deemed to be material under the CRD IV if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purposes of making an economic decision.

The Group's total exposure to non-Trading Book available for sale (AFS) equities has a balance sheet value of $€ 25$ million in 2017 (2016: €37 million). The Group considers its exposure to non-Trading Book AFS equities not to be material within the context of the CRD IV's definition of materiality and the Group will not be disclosing further quantitative information required to be disclosed with respect to non-Trading Book equity holdings.

As Bank of Ireland Life is not a credit institution for the purposes of CRD IV, its equity holdings (which are held on behalf of policy holders) fall outside the scope of the Group's Pillar 3 disclosures.

## Nature and objectives of the Group's Non-Trading Book equity holdings

The Group's non-Trading Book equity holdings primarily constitute direct equity fund investments and equity coinvestments, and investments in venture capital funds. The investments are
undertaken to achieve strategic objectives and support venture capital transactions.

Investment in new funds or increases in commitments to existing funds are subject
to the approval of the Private Equity Governance Committee (which is a Group Risk Policy Committee (GRPC) appointed committee).

## Accounting treatment and valuation

Direct private equity fund investments and equity co-investments are accounted for in the same manner - i.e. both are treated as AFS assets on the Group's balance sheet. Given the absence of an active market or a reliable measure of fair value, they are held at cost.

An impairment charge is recognised when the Group believes the expected future cashflows from the asset will no longer support the carrying amount on the balance sheet. Impairment on equity instruments cannot be reversed and as such, this permanent diminution in value cannot be reversed in the income statement unless an actual recovery has occurred.

The Group's venture capital investments are accounted for as Investments in Associates and are measured at fair value in accordance with IAS 39, with changes in fair value recognised in profit or loss in the period of the change.

## CRD IV treatment

The Group's non-Trading Book equities are treated under the Standardised approach for credit risk exposures.

## Appendix III: Remuneration

Remuneration restrictions (the 'remuneration restrictions')

The Group ${ }^{1}$ is currently operating under significant Remuneration Restrictions which cover all directors, senior management, employees and certain service providers across the Group.

The Remuneration Restrictions were contained within the Covered Institutions Financial Support Scheme 2008 and the 'Minister's Letter' (July 2011), under which the Group gave a number of commitments and undertakings to the Minister for Finance in respect of remuneration practices. The Minister's Letter was a further condition of the Transaction and

Underwriting Agreement entered into with the Irish Government (July 2011) during the 2011 Recapitalisation of the Group.

As a result of the Remuneration Restrictions, the Group is currently unable to provide a fixed/variable remuneration mix throughout the Group, which results in risks in terms of attraction, retention and alignment with the needs of the business and some inflexibilities with the cost base. If the Group fails to recruit and retain skilled and qualified people, its businesses may be negatively impacted.

The Group considers itself to be in compliance with these Remuneration Restrictions.

In addition, in the absence of the Remuneration Restrictions, the Excess Bank Remuneration Charge on ROI tax residents in Covered Institutions ${ }^{2}$, which results in a maximum tax charge of 89\% where variable pay equals or exceeds €20,000, would also impact the application of the Group Remuneration Policy.

Remuneration at Bank of Ireland

This section of the Group's Pillar 3 document should be read in conjunction with the Group's Annual Report 31 December 2017, and in particular the Remuneration Report pages 118 to 123, which provides information on directorships held by members of management body. Copies of the Group's Annual Report 31 December 2017 can be obtained from our website
www.bankofireland.com
This section summarises remuneration for Code Role Holders and all staff in respect of 2017 and provides brief information on the decision-making policies for remuneration and, subject to the Remuneration Restrictions, the links between pay and performance in line with the EBA Remuneration Guidelines and other relevant guidelines.

Whereas the Group seeks to ensure it operates remuneration policies which are compliant with regulatory guidelines, the Group is currently operating under significant governmental and legal constraints in relation to remuneration. Remuneration Policy, therefore, can only be implemented to the extent possible given these constraints.

Decision-making process for remuneration policy

The Group and Court Remuneration Committees (GRC and CRC) hold delegated responsibility from the Board of Directors and Court of Directors, respectively, for the oversight of Groupwide Remuneration Policy with specific reference to the Chairman, Governor,

Directors and senior management across the Group, and those employees whose activities have a material impact on the Group's risk profile. During 2017, the Group Remuneration Committee met two times and the Court Remuneration Committee met six times. Terms of
reference for the GRC and CRC, and details on their composition are available at: www.bankofireland.com/about-bank-of-ireland/corporate-governance/courtcommittees.

## Code Role Holders

Under EBA Remuneration Guidelines, the Group is required to maintain a list of individuals identified as material risk takers, 'Code Role Holders'. This listing is maintained using the Code Role Holder
dentification process, in line with the EBA Guidelines and criteria. As per our internal Code Role Holder process, this listing is reviewed on a regular basis, at a minimum bi-annually. These criteria were tested
against all Bank of Ireland employees to determine who was holding a Code Role. As at 31 December 2017, there were 190 Code Role Holders (December 2016: 170)

## All staff reporting

The EBA Guidelines on Sound Remuneration Policies, effective 1 January 2017, introduced a new reporting requirement of disclosing the aggregate
figures on the total number of staff and their total remuneration broken down into the fixed and variable remuneration components. The Group reports on all
employees in the Group at Table 2c. The Group defines all staff as employees whose remuneration is directly paid by the Group.

[^16]The Group's success depends in part on the availability of high calibre people and the continued services of members of its management team, both at its head office and at each of its business units.

If the Group fails to attract and appropriately train, motivate and retain
high calibre people, its businesses may be negatively impacted. Restrictions, including the Remuneration Restrictions, imposed on remuneration by Government, tax or regulatory authorities or other factors outside the Group's control in relation to the retention and recruitment of employees may adversely impact on the

Group's ability to attract and retain such staff.

The Remuneration Restrictions place the Group at an increasing competitive disadvantage in seeking to retain and attract staff, particularly those with certain skill sets and in international locations.

## Link between pay and performance

Individual performance measures and targets are agreed for each employee using a Balanced Scorecard approach through the Group performance management process. The four key result areas, each with a minimum weighting of $10 \%$, are as follows:

- Customer.
- Leadership, People and Personal Development.
- Financial / Revenue / Cost / Efficiency.
- Risk (covers all areas of Risk including Credit, Regulatory, Operational and Conduct Risk).

The Remuneration Restrictions impact the effectiveness of the Group's performance management system as it prevents a strong link between performance and reward. In addition, the lack of variable pay also impacts the Group's ability to incentivise and re-enforce cultural change and the Group's values of:

- Customer centricity
- One Group, one team
- Accountability
- Agility

Further information on Performance Management in the Group (including our Balanced Scorecard) is available in the Group Remuneration Report.

## Group Remuneration Policy

Subject to the Remuneration Restrictions, the Group's Remuneration Policy aims to support the Group's objectives of longterm sustainability and success, sound and effective risk management and good corporate governance. The application of this policy is consistent with the Group's Risk Appetite Statement and regulations that govern remuneration in the jurisdictions where the Group operates.

Subject to the Remuneration Restrictions, the Group Remuneration Policy seeks to ensure that:

- the Group's efforts are aligned with, and contribute to, the long term strategy, sustainability, value creation and success of the Group
- the Group has the necessary remuneration philosophy, strategy and framework to attract, retain and motivate high calibre employees
- the Group offers a competitive remuneration package across all markets, in a cost effective manner
- remuneration frameworks, policies and practices are simple, transparent, easy to understand and implement
- sound and effective risk management is reflected in performance management and remuneration frameworks and their alignment to performance targets and governance structures
- remuneration frameworks, policies and practices are applied in consideration of and in alignment with the Group's Risk Appetite Statement and overall risk governance framework
- risk adjusted financial performance is an important measure when evaluating performance
- business and individual performance measures and targets are aligned with business objectives at either a Group or local business level, ensuring alignment with business strategy, risk measures and priorities and is based on a balanced scorecard approach, and designed and implemented to avoid conflicts of interest from adversely affecting the interests of customers
- all remuneration policies are subject to appropriate governance
- the Group is compliant with all applicable regulatory remuneration requirements as they relate to the Group; and
- remuneration frameworks, policies, process, procedures, systems and controls support and encourage responsible business conduct, the fair treatment of customers and mitigate the potential for conflict between commercial, customer and public interests, and avoiding any conflict with staff's duty to act in the best interests of customers (or clients)

Subject to the Remuneration Restrictions, the Group will continue to seek to ensure that its remuneration strategy enables it to be competitive and comprehensively adhere to regulatory principles and guidelines set out by relevant regulatory authorities including the EBA. These design features support all remuneration frameworks, policies and processes across the Group, being applied proportionately depending on the nature, scale and complexity of the particular business area.

Remuneration expenditure

Table 1a - Aggregate remuneration expenditure by business area*

| 2017 <br> Business area | No. of code role holders 2017 | No. of employees who held a code role in 2017 ${ }^{\mathbf{1 , 2}}$ | 2017 Remuneration expenditure $€ \mathrm{~m}$ |
| :---: | :---: | :---: | :---: |
| Corporate and Treasury | 30 | 37 | 16.06 |
| Group credit \& market risk | 24 | 25 | 5.56 |
| Group governance risk | 29 | 35 | 6.11 |
| Group manufacturing | 11 | 13 | 3.55 |
| Group support functions (CEO, Group Finance, Group HR) | 25 | 28 | 8.59 |
| Retail Ireland | 31 | 41 | 12.28 |
| Retail UK | 20 | 22 | 7.52 |
| Governor and NEDs | $20^{3}$ | $21^{3}$ | 2.11 |
| Total | 190 | 222 | 61.78 |
| $2016$ | No. of code role holders 2016 | No. of employees who held a code role in 20161,2 | 2016 <br> Remuneration expenditure |
| Corporate and Treasury | 42 | 44 | 18.03 |
| Group credit \& market risk | 17 | 17 | 4.41 |
| Group governance risk | 18 | 24 | 4.58 |
| Group manufacturing | 7 | 7 | 2.04 |
| Group support functions (CEO, Group Finance, Group HR) | 22 | 24 | 7.71 |
| Retail Ireland | 25 | 30 | 9.25 |
| Retail UK | 17 | 19 | 6.25 |
| Governor and NEDs | $22^{3}$ | $25^{3}$ | 2.34 |
| Total | 170 | 190 | 54.61 |

The following tables show the remuneration awards made by the Group to Code Role Holders in 2017.

The award data is pro-rated for those employees who were newly classified as Code Role Holders during 2017 and for those who were removed from the Code

Role list during 2017.

[^17]
## Remuneration expenditure（continued）

Table 2 －Analysis of 2017 remuneration between fixed and variable amounts（actually paid in 2017）



[^18]
## Remuneration expenditure (continued)



## 2017 New sign-on and severance payments

- No payments were made to any code role holders hired during 2017 relating to the commencement of their employment.
- During the course of the year, eight individuals designated as a code role holders received severance payments.
- The total value of payments made to this population, comprising Statutory Redundancy, Voluntary Parting Payments, pay in lieu of notice, and Annual Leave payment was €2.1 million.
- The highest individual payment made to a departing employee was €0.5 million.
- The above payments are included in the previous tables.

Remuneration which is classified as fixed in nature ${ }^{3}$

Other 2.77
Remuneration which is classified as variable in nature ${ }^{4}$
based

- Performance related
- Non-performance related - severance

[^19]
## Appendix IV: Significant subsidiaries

## Bank of Ireland (UK) plc

Bank of Ireland (UK) plc publishes a separate Pillar 3 document available at www.bankofirelanduk.com.
Table 1 shows the amount of capital Bank of Ireland (UK) plc is required to set aside to meet the minimum total capital ratio of $8 \%$ of RWA set by the CRR.

| Table 1 - Breakdown of Bank of Ireland (UK) plc's regulatory capital requirement |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  |  | 2016 |  |  |
|  | Capital requirement £m | $\begin{aligned} & \text { RWA } \\ & \text { £m } \end{aligned}$ | Exposure £m | Capital requirement £m | $\begin{array}{r} \text { RWA } \\ \text { £m } \end{array}$ | Exposure £m |
| Central governments or central banks | 1 | 13 | 3,636 | 1 | 19 | 2,975 |
| Public sector entities | - | - | 15 | - | - | 16 |
| Multilateral development banks | - | - | 394 | - | - | 356 |
| Institutions | 3 | 44 | 2,058 | 6 | 69 | 2,965 |
| Corporates | 107 | 1,334 | 1,992 | 117 | 1,461 | 2,153 |
| Retail | 149 | 1,861 | 5,342 | 114 | 1,424 | 4,555 |
| Secured by mortgages on residential property | 442 | 5,525 | 16,528 | 449 | 5,623 | 16,257 |
| Exposures in default | 31 | 382 | 345 | 33 | 410 | 371 |
| Covered bonds | 3 | 35 | 175 | 3 | 37 | 187 |
| Equity | 4 | 44 | 44 | - | 2 | 2 |
| Other items | 18 | 237 | 421 | 17 | 210 | 344 |
| Credit and counterparty risk | 758 | 9,475 | 30,950 | 740 | 9,255 | 30,181 |
| Operational risk | 60 | 756 | - | 62 | 779 | - |
| Total | 818 | 10,231 | 30,950 | 802 | 10,034 | 30,181 |

Bank of Ireland (UK) plc applies the Standardised approach for the calculation of its credit and counterparty risk and operational risk capital requirements.

The Standardised categories included in the table above are the exposure classes, as per Article 112 of CRR where the Bank has exposures

## Bank of Ireland (UK) plc (continued)

Table 2 sets out Bank of Ireland (UK) plc's regulatory capital position and key capital and leverage ratios on a regulatory and fully loaded basis.

| Table 2 - Regulatory capital position and key capital and leverage ratios |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
| Annex IV | Regulatory | Fully loaded | Regulatory | Fully loaded |
| Reference - CRD IV | £m | £m | £m | £m |
| Ordinary share capital | 851 | 851 | 851 | 851 |
| Capital contributions | 566 | 566 | 566 | 566 |
| Retained earnings and other reserves | 215 | 215 | 267 | 267 |
| Total equity | 1,632 | 1,632 | 1,684 | 1,684 |
| Regulatory adjustments | (124) | (124) | (132) | (132) |
| - Deferred tax assets relying on future profitability | (73) | (73) | (74) | (74) |
| - Intangible assets | (20) | (20) | (25) | (25) |
| - Cashflow hedge reserve | (23) | (23) | (32) | (32) |
| - Retirement benefit asset | (7) | (7) | - | - |
| - Prudent valuation adjustment | (1) | (1) | (1) | (1) |
| Common equity tier 1 capital | 1,508 | 1,508 | 1,552 | 1,552 |
| Additional tier 1 | 300 | 300 | 300 | 300 |
| - Subordinated perpetual contingent conversion Additional tier 1 securities | 300 | 300 | 300 | 300 |
| Total tier 1 capital | 1,808 | 1,808 | 1,852 | 1,852 |
| Tier 2 |  |  |  |  |
| Dated loan capital | 290 | 290 | 335 | 335 |
| Total tier 2 capital | 290 | 290 | 335 | 335 |
| Total capital | 2,098 | 2,098 | 2,187 | 2,187 |
| Total risk weighted assets | 10,231 | 10,231 | 10,034 | 10,034 |
| Capital ratios |  |  |  |  |
| Common equity tier 1 capital ratio | 14.7\% | 14.7\% | 15.5\% | 15.5\% |
| Tier 1 capital ratio | 17.7\% | 17.7\% | 18.4\% | 18.4\% |
| Total capital ratio | 20.5\% | 20.5\% | 21.8\% | 21.8\% |
| Leverage ratio | 6.6\% | 6.6\% | 6.9\% | 6.9\% |

## Bank of Ireland Mortgage Bank

The principal activities of Bank of Ireland Mortgage Bank (BolMB) are the provision of Irish residential mortgages and the issuance of securities in accordance with the Asset Covered Securities Acts, 2001 to 2007 (the 'ACS Acts').

BoIMB is a wholly owned subsidiary of BOIG plc (the 'Group').

## Risk management

The Board of Directors for BolMB approves policies and limits with respect to credit risk, market risk, liquidity risk, regulatory risk, conduct risk, operational risk, business / strategic risk, capital adequacy risk and reputation risk. BolMB has entered into a range of service level agreements with the Group to support its overall risk management and control processes.

The Head of Credit has responsibility for credit policy implementation and the Head of Finance has responsibility for financial risk policy implementation. Group Treasury has responsibility for day-to-day monitoring of market and liquidity risks. The Group Operational Risk Unit has responsibility for the operational risk framework and policy.

BolMB's risk management and control policies comply with Group risk management policies, which include reviews on a regular basis. In addition, the Group's control functions (e.g. Credit,

Group Internal Audit etc) independently review compliance with Group policies as part of their on-going work.

BoIMB employs a range of policies and practices to mitigate credit risk. The most important of these is the initial assessment of the borrower's capacity to repay the facility over the agreed timescale and the taking of security for funds advanced. BoIMB implements guidelines on the acceptability of specific classes of collateral or credit risk mitigation. In relation to loans and advances to customers, the principal type of security taken is residential property.

BolMB's loan book property values are determined by reference to the original or latest property valuations held, indexed to the Residential Property Price index published by the CSO at 31 November 2017. This index provides the relevant index to be applied to original market values in the period after January 2005. Equity / negative equity values are determined using the Residential property price index published by the CSO at 31 November 2017. The weighted average indexed LTV for the total loan book was $61 \%$ at 31 December 2017 (2016: 70\%).

BoIMB's requirements around completion, valuation and management requirements for collateral / security are set out in appropriate policies and procedures. BolMB's credit risk processes are
designed to ensure that mortgage charges are enforceable at the time the credit agreement is concluded and that mortgage charges are filed on a timely basis.

## Capital

At the 31 December 2017, BolMB's total capital ratio, including 2017 results, was 27.0\% on a regulatory basis ( 2016: 21.8\%). In 2017, BoIMB exercised an option to redeem a €90 million interest bearing subordinated loan which was due to mature on 30 December 2021. The loan was replaced with a new $€ 90$ million interest bearing subordinated loan from The Governor and Company of the Bank of Ireland with a maturity date of 27 October 2027. There was no change to share capital during the year to 31 December 2017.

## Remuneration

BoIMB is covered under the Group's Remuneration policy and associated governance. Please see pages 118 to 123 of the Group's Annual Report 31 December 2017.

Remuneration disclosures relating to BolMB's material risk takers (Code Role Holders) are incorporated within the Group's remuneration disclosures.

| Table 1 - Capital, RWA and capital ratios |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

Bank of Ireland Mortgage Bank (continued)

| Table 2 - Movement of risk weighted assets by key driver |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit risk € bn | of which; IRB €bn | $\begin{aligned} & \text { STD } \\ & \epsilon b n \end{aligned}$ | Counterparty credit risk €bn | Securitisation € $\quad$ n | Market risk €bn | $\begin{array}{r} \text { Operational } \\ \text { risk } \\ \text { €bn } \end{array}$ | Total € bn | Capital requirements € $\quad$ b |
| RWA as at the 31 December 2016 | 6.1 | 6.0 | 0.1 | - | - | - | 0.3 | 6.4 | 0.5 |
| Asset size ${ }^{1}$ | (0.2) | (0.2) | - | - | - | - | - | (0.2) | - |
| Asset quality ${ }^{2}$ | - | - | - | - | - | - | - | - | - |
| Model updates ${ }^{3}$ | - | - | - | - | - | - | - | - | - |
| Methodology and policy ${ }^{4}$ | (0.5) | (0.5) | - | - | - | - | - | (0.5) | - |
| Acquisitions and disposals ${ }^{5}$ | (0.9) | (0.9) | - | - | - | - | - | (0.9) | (0.1) |
| Foreign exchange movements | - | - | - | - | - | - | - | - | - |
| Credit Risk Transfer | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | 0.1 | 0.1 | - |
| RWA as at the 31 December 2017 | 4.5 | 4.4 | 0.1 | - | - | - | 0.4 | 4.9 | 0.4 |


| Table 3-EU OV1 - Overview of RWA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | $\begin{array}{r} \text { RWA } \\ \in \mathrm{m} \end{array}$ | Minimum capital requirements $\epsilon$ € | $\begin{array}{r} \text { RWA } \\ € \mathrm{~m} \end{array}$ | Minimum capital requirements $€ \mathrm{~m}$ |
| 1. Credit Risk (excluding CCR) of which; | 4,552 | 364 | 6,073 | 486 |
| 2. the Standardised approach | 153 | 12 | 133 | 11 |
| 3. the foundation IRB (FIRB) approach | - | - | - | - |
| 4. the advanced IRB (AIRB) approach | 4,399 | 352 | 5,940 | 475 |
| 5. equity IRB under the simple risk-weighted approach or the IMA | - | - | - | - |
| 6. CCR of which; | - | - | - | - |
| 7. market to market | - | - | - | - |
| 8. original exposure | - | - | - | - |
| 9. the Standardised approach | - | - | - | - |
| 10. internal model method (IMM) | - | - | - | - |
| 11. risk exposure amount for contributions to the default fund of CCP | - | - | - | - |
| 12. CVA | - | - | - | - |
| 13. Settlement risk | - | - | - | - |
| 14. Securitisation exposures in the banking book (after the cap) of which; | - | - | - | - |
| 15. IRB approach | - | - | - | - |
| 16. IRB supervisory formula approach (SFA) | - | - | - | - |
| 17. internal assessment approach (IAA) | - | - | - | - |
| 18. Standardised approach | - | - | - | - |
| 19. Market risk of which; | - | - | - | - |
| 20. the Standardised approach | - | - | - | - |
| 21. IMA | - | - | - | - |
| 22. Large exposures | - | - | - | - |
| 23. Operational Risk of which; | 393 | 32 | 327 | 26 |
| 24. basic indicator approach | - | - | - | - |
| 25. Standardised approach | 393 | 32 | 327 | 26 |
| 26. advanced measurement approach | - | - | - | - |
| 27. Amounts below the thresholds for deduction (subject to $250 \%$ risk weight) | - | - | - | - |
| 28. Floor adjustment ${ }^{1}$ | - | 63 | - | 44 |
| 29. Total | 4,945 | 459 | 6,400 | 556 |

[^20]Capital requirements / RWA (continued)

| Table 4 - Capital requirements / RWA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | Capital requirements | RWA | Capital requirements | RWA |
| CRD IV | €m | €m | $€ \mathrm{~m}$ | $€ \mathrm{~m}$ |
| Credit Risk | 364 | 4,552 | 486 | 6,073 |
| IRB | 352 | 4,399 | 475 | 5,940 |
| of which; |  |  |  |  |
| Advanced IRB | 352 | 4,399 | 475 | 5,940 |
| - Secured by immovable property collatera | al 352 | 4,399 | 475 | 5,940 |
| Standardised | 12 | 153 | 11 | 133 |
| of which; |  |  |  |  |
| Other items | 12 | 153 | 11 | 133 |
| Counterparty Credit Risk (incl CVA) | - | - | - | - |
| Settlement Risk | - | - | - | - |
| Securitisations | - | - | - | - |
| Market Risk | - | - | - | - |
| Operational Risk | 32 | 393 | 26 | 327 |
| Basel 1 Floor requirement ${ }^{1}$ (80\%) | 63 | - | 44 | - |
| Total Capital Requirements | 459 | 4,945 | 556 | 6,400 |

Table 4 shows the amount of capital BoIMB is required to set aside to meet the minimum total capital ratio of $8 \%$ of RWA set by CRD IV.

## Breakdown of BolMB's regulatory capital requirement

Table 5 shows BoIMB's minimum capital requirements (based on $8 \%$ of RWA), RWA and Net Value by risk type.

Table 5 - Minimum capital requirements, risk weighted assets and net value by risk type

|  | 2017 |  |  | 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Capital requirement €m | Risk weighted assets €m |  | Capital requirement $€$ m | Risk weighted assets € m | Net value €m |
| Credit ${ }^{\text {risk }}{ }^{1}$ | 364 | 4,552 | 18,210 | 486 | 6,073 | 21,835 |
| - IRB Approach | 352 | 4,399 | 16,103 | 475 | 5,940 | 19,555 |
| - Standardised Approach | 12 | 153 | 2,107 | 11 | 133 | 2,280 |
| Counterparty Credit Risk | - | - | 371 | - | - | 443 |
| Settlement Risk | - | - | - | - | - | - |
| Securitisation | - | - | - | - | - | - |
| Market Risk | - | - | - | - | - | - |
| Operational Risk | 32 | 393 | - | 26 | 327 | - |
| Floor adjustment ${ }^{1}$ | 63 | - | - | 44 | - | - |
| Total | 459 | 4,945 | 18,581 | 556 | 6,400 | 22,278 |

[^21]
## Capital resources

| Table 6 - Reconciliation of accounting capital with regulatory capital |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |

Table 7 outlines the component parts of regulatory capital with further details of capital instruments, adjustments, deductions and filters in line with the prescribed template provided in Article 5 of commission regulation (EU) No.1423/2013.

The table further details total risk weighted assets, capital ratios and buffers before listing applicable caps on the inclusion of provisions in Tier 2 and capital instruments subject to phase-out.

Line referencing for Annex VI of commission regulation (EU) No.1423/2013 is also provided. Rows that are not applicable to BoIMB have been omitted.

[^22]Capital resources（continued）

Table 7 －Regulatory \＆fully loaded own funds disclosure

| Annex VI | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Regulatory € m | Fully loaded € | Regulatory € m | Fully loaded $€ \mathrm{~m}$ |
| Common equity tier 1 （CET 1）capital：Instruments and reserves |  |  |  |  |
| Capital Instruments and the related share premium accounts of which； | 1，399 | 1，399 | 1，399 | 1，399 |
| Ordinary stock | 738 | 738 | 738 | 738 |
| Share premium | 661 | 661 | 661 | 661 |
| 2 Retained earnings | （375） | （375） | （177） | （177） |
| 3 Accumulated other comprehensive income（and other reserves，to include unrealised gains and losses under the applicable accounting standards） | 16 | 16 | 35 | 35 |
| 6 Common equity tier 1 （CET 1）capital before regulatory adjustments | 1，040 | 1，040 | 1，257 | 1，257 |

## 6 Common equity tier 1 （CET 1）capital before regulatory adjustments

| $(1)$ | $(1)$ | - | - |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| $(19)$ | $(37)$ | $(5)$ | $(22)$ |
| $(16)$ | $(16)$ | $(35)$ | $(35)$ |
| $(7)$ | $(7)$ | - | - |
| $(43)$ | $(61)$ | $(40)$ | $(57)$ |
| 997 | 979 | $\mathbf{1 , 2 1 7}$ | $\mathbf{1 , 2 0 0}$ |

## Additional tier 1 （AT1）capital：instruments

30 Capital instruments and the relates share premium accounts of which；
31 classified as equity under applicable accounting standards
36 Additional tier 1 （AT1）capital before regulatory adjustments

Additional tier 1 （AT1）capital：regulatory adjustments
43 Total regulatory adjustments to Additional tier 1 （AT1）capital
44 Additional tier 1 （AT1）capital
45 Tier 1 capital（T1＝CET $1+A T 1$ ）

| 200 | 200 | - | - |
| ---: | ---: | ---: | ---: |
| 200 | 200 | - | - |

Tier 2 （T2）Capital：instruments and provisions
46 Capital instruments and the related share premium accounts
50 Credit Risk adjustments
51 Tier 2 （T2）capital before regulatory adjustments

| 140 | 140 | 140 | 140 |
| ---: | ---: | ---: | ---: |
| - | - | 35 | 35 |
| 140 | 140 | $\mathbf{1 7 5}$ | $\mathbf{1 7 5}$ |

Tier 2 （T2）capital：regulatory adjustments
57 Total regulatory adjustments to tier 2 （T2）capital
58 Tier 2 （T2）capital
59 Total capital（TC＝T1＋T2）

| - | - | - | - |
| ---: | ---: | ---: | ---: |
| 140 | 140 | 175 | 175 |
| 1,337 | 1,319 | 1,392 | 1,375 |

59a Risk weighted assets in respect of amounts subject to pre－CRR treatment and transitional treatments subject to phase out as prescribed in Regulation（EU）No 575／2013（i．e．CRR residual amounts） of which；
items not deducted from CET 1 （Regulation（EU）No 575／2013 residual amounts）（items to be detailed line by line，e．g．deferred tax assets that rely on future profitability net of related tax liability indirect holdings of own CET 1，etc．）
of which；
items not deducted from AT1 items（Regulation（EU）No 575／2013 residual amounts）（items to be detailed line by line，e．g．Reciprocal cross holdings in T2 instruments，direct holdings of non－significant investments in capital of other financial sector entities，etc．）
items not deducted from T2 items（Regulation（EU）No 575／2013 residual amounts）．
60 Total risk weighted assets

| － | － | － | － |
| :---: | :---: | :---: | :---: |
|  | － | － | － |
| － | － | － | － |
| 4，945 | 4，945 | 6，400 | 6，400 |


| Table 7 - Regulatory \& fully loaded own funds disclosure (continued) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
| Annex VI | Regulatory | Fully loaded | Regulatory | Fully loaded |
| Reference | €m | €m | €m | €m |
| Capital ratios and buffers |  |  |  |  |
| 61 Common equity tier 1 (as a percentage of total risk exposure amount) | 20.2\% | 19.8\% | 19.0\% | 18.7\% |
| 62 Tier 1 (as a percentage of total risk exposure amount) | 24.2\% | 23.8\% | 19.0\% | 18.7\% |
| 63 Total capital (as a percentage of total risk exposure amount) | 27.0\% | 26.7\% | 21.8\% | 21.5\% |
| 64 Institution specific buffer requirement (CET 1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important |  |  |  |  |
| institution buffer expressed as a percentage of risk exposure amount) | 5.75\% | 7.0\% | 5.1\% | 7.0\% |
| 65 Of which; capital conservation buffer requirement | 1.25\% | 2.5\% | 0.6\% | 2.5\% |
| 66 Of which; countercyclical buffer requirement | - | - | - | - |
| 67 Of which; systemic risk buffer requirement |  |  | - | - |
| 67a Of which; Global Systemically Important institution (G-SII) or Other Systemically Important Institution (O-SII) buffer | - | - | - | - |
| 68 Common equity tier 1 available to meet buffers (as a percentage of risk exposure amount) | 15.7\% | 15.3\% | 14.5\% | 14.2\% |
| Applicable cap on the inclusion of provisions in Tier 2 |  |  |  |  |
| 76 Credit risk adjustments included in T2 in respect of exposures subject to Standardised approach (prior to the application of the cap) | - | - | - | - |
| 77 Cap on inclusion of credit risk adjustments in T2 under Standardised approach | 2 | 2 | 2 | 2 |
| 78 Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap) | - | - | 69 | 69 |
| 79 Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach | 26 | 26 | 36 | 36 |

Amounts subject to pre-regulation (eu) no 575/2013 treatment or prescribed residual amount of regulation (eu) 575/2013
10 Deferred tax asset that rely on future profitability excluding those arising from temporary differences (net of related tax liability)
(17)

## Capital instruments

Table 8 provides information on the regulatory values of BoIMB's Additional tier 1 capital and Tier 2 debt.
The Capital instruments template disclosure according to Article 3 in Commission implementing regulation (EU) No.1423/2013 is published separately at www.bankofireland.com.

| Table 8 - Capital instruments |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2017 | Nominal outstanding € | CRD IV <br> regulatory <br> Accounting value € | CRD IV regulatory value at fully loaded € m | CRD IV <br> fully loaded value at regulatory € |
| Additional tier 1 from parent | 200 | 200 | 200 | 200 |
| Additional Tier 1 Capital | 200 | 200 | 200 | 200 |
| Tier 2 debt from parent | 140 | 140 | 140 | 140 |
| Tier 2 Capital | 140 | 140 | 140 | 140 |
| Total Capital instruments | 340 | 340 | 340 | 340 |



## Exposure to credit risk

Table 10 is based on EAD and shows BoIMB's point-in-time and average exposure to credit risk

| Table 10-EU CRB-B - Exposure to credit risk |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | Net value of exposures at the end of the period | Average net exposures over the period | exposures at the end of the period | Average net exposures over the period |
| Exposure class | €m | €m | €m | $€ \mathrm{~m}$ |
| Retail ${ }^{1}$ | 16,103 | 18,800 | 19,555 | 19,619 |
| Secured by real estate property | 16,103 | 18,800 | 19,555 | 19,619 |
| - SME | - | - | - | - |
| - Non-SME | 16,103 | 18,800 | 19,555 | 19,619 |
| Total IRB approach | 16,103 | 18,800 | 19,555 | 19,619 |
| Central governments or central banks | 39 | 12 | 17 | 29 |
| Institutions | 1,915 | 2,035 | 2,129 | 2,196 |
| Other items | 153 | 146 | 133 | 127 |
| Total Standardised approach | 2,107 | 2,193 | 2,279 | 2,352 |
| Total | 18,210 | 20,993 | 21,834 | 21,971 |

Table 11 - EU CR1-A - Credit quality of exposures by exposure class and instrument

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € | General credit risk adjustment € $m$ | Credit risk <br> adjustment <br> charges  <br> Accumulated of the <br> write-off's period <br> €m $€ \mathrm{~m}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures € | Non- <br> defaulted exposures € |  |  |  |  | Net value € $m$ |
| Retail | 1,618 | 14,949 | 464 | - | 664 | (98) | 16,103 |
| Secured by real estate property | 1,618 | 14,949 | 464 | - | 664 | (98) | 16,103 |
| - SME | - | - | - | - | - | - | - |
| - Non-SME | 1,618 | 14,949 | 464 | - | 664 | (98) | 16,103 |
| Total IRB approach | 1,618 | 14,949 | 464 | - | 664 | (98) | 16,103 |
| Central governments or central banks | - | 39 | - | - | - | - | 39 |
| Institutions | - | 1,915 | - | - | - | - | 1,915 |
| Other items | - | 153 | - | - | - | - | 153 |
| Total Standardised approach | - | 2,107 | - | - | - | - | 2,107 |
| Total | 1,618 | 17,056 | 464 | - | 664 | (98) | 18,210 |
| of which; |  |  |  |  |  |  |  |
| Loans | 1,618 | 15,749 | 464 | - | 664 | (98) | 16,903 |
| Debt Securities | - | - | - | - | - | - | - |
| Off-balance sheet exposures | - | 1,307 | - | - | - | - | 1,307 |

[^23]Geographic analysis of exposures
The geographical locations shown in tables 12 and 13 are based on the residence of the immediate counterparty. Exposures with supranational organisations are included under the other geographical area. BolMB's primary market is Ireland.


Table 13-EU CR1-C - Credit quality of exposures by geography

| 2017 | Gross carrying value of |  | Specific credit risk adjustment €m | General credit risk adjustment € m | Credit risk <br> adjustment <br> charges  <br> Accumulated of the <br> write-off's <br> period <br> $\epsilon m$ $€ \mathrm{~m}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures €m | Nondefaulted exposures € m |  |  |  |  | Net value €m |
| Europe of which; | 1,595 | 16,953 | 460 | - | 664 | (98) | 18,088 |
| - Ireland | 1,553 | 16,839 | 446 | - | 664 | (98) | 17,946 |
| - UK | 39 | 92 | 13 | - | - | - | 118 |
| - Rest of Europe | 3 | 22 | 1 | - | - | - | 24 |
| US | 11 | 40 | 3 | - | - | - | 48 |
| Other geographical area | 12 | 63 | 1 |  | - | - | 74 |
| Total | 1,618 | 17,056 | 464 | - | 664 | (98) | 18,210 |

## Industry analysis of exposures

Table 14 is based on net value. The industry classification below is based on the purpose of the loan. Similar industry headings to those in the industry analysis contained in BolMB's Annual Report 31 December 2017 have been used, however, the values will differ as these tables are based on net value.

| Table 14 - EU CB-D - Industry analysis of exposure |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  |  | 2016 |  |  |
|  | Financial and insurance activities € m | Personal residential mortgages € | Total €m | Financial and insurance activities € | Personal residential mortgages € | Total € |
| IRB approach |  |  |  |  |  |  |
| Retail | - | 16,103 | 16,103 | - | 19,555 | 19,555 |
| Total IRB | - | 16,103 | 16,103 | - | 19,555 | 19,555 |
| Standardised approach |  |  |  |  |  |  |
| Central governments or central banks | 39 | - | 39 | 17 | - | 17 |
| Institutions | 1,915 | - | 1,915 | 2,130 | - | 2,130 |
| Other items | 153 | - | 153 | 133 | - | 133 |
| Total Standardised | 2,107 | - | 2,107 | 2,280 | - | 2,280 |
| Total | 2,107 | 16,103 | 18,210 | 2,280 | 19,555 | 21,835 |

Table 15 - EU CR1-B - Credit quality of exposures by industry or counterparty types

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € | General credit risk adjustment € | Credit risk <br> adjustment <br> charges  <br> Accumulated of the <br> write-off's period <br> €m $€ \mathrm{~m}$ |  | Net value € m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures € m | Nondefaulted exposures €m |  |  |  |  |  |
| Personal residential mortgages | 1,618 | 14,949 | 464 | - | 664 | (98) | 16,103 |
| Financial and Insurance activities | - | 2,107 | - | - | - | - | 2,107 |
| Total | 1,618 | 17,056 | 464 | - | 664 | (98) | 18,210 |

## Maturity analysis of exposures

The maturity analysis below discloses BolMB's credit exposure by residual contractual maturity date. Table 16 is based on net value.

| Table 16-EU CRB-E - Maturity of exposures |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | demand | <=1 year | $>1$ year $<=5$ years | >5 years | No stated maturity |  |
| Net value | €m | €m | €m | €m | €m | €m |
| Retail | - | 786 | 2,965 | 12,352 | - | 16,103 |
| Total IRB approach | - | 786 | 2,965 | 12,352 | - | 16,103 |
| Central governments or central banks | - | 13 | - | - | 26 | 39 |
| Institutions | - | 1,915 | - | - | - | 1,915 |
| Other items | - | - | - | - | 153 | 153 |
| Total Standardised approach | - | 1,928 | - | - | 179 | 2,107 |
| Total | - | 2,714 | 2,965 | 12,352 | 179 | 18,210 |
| 2016 | demand | <=1 year | $>1$ year $<=5$ years | >5 years | No stated maturity | Total |
| Net value | $€ \mathrm{~m}$ | €m | €m | €m | €m | €m |
| Retail | - | 1,040 | 3,879 | 14,636 | - | 19,555 |
| Total IRB approach | - | 1,040 | 3,879 | 14,636 | - | 19,555 |
| Central governments or central banks | - | - | - | - | 17 | 17 |
| Institutions | - | 2,130 | - | - | - | 2,130 |
| Other items | - | - | - | - | 133 | 133 |
| Total Standardised approach | - | 2,130 | - | - | 150 | 2,280 |
| Total | - | 3,170 | 3,879 | 14,636 | 150 | 21,835 |

## Loan loss experience in the year ended 31 December 2017

A discussion on the factors which impacted the loan loss experience in the year ended 31 December 2017 is included in the Risk Management Report of the Group's Annual Report 31 December 2017 (under the credit risk section on pages 56 to 70 ).

## Past due and impaired exposures

Past due but not impaired loans, whether forbone of not, are defined as loans where repayment of interest and / or principal are overdue by at least one day but which are not impaired.

Impaired loans are defined as exposures which carry a specific provision whether
forbone of not. Specific provisions are as a result of either individual or collective assessment for impairment.

For additional information on past due and impaired exposures please refer to page 61 of the Group's Annual Report 31 December 2017.

Past due and impaired exposures by industry
Table 17 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by industry class.

| Table 17 - Past due and impaired by industry class |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Past due and impaired exposures by geography
Table 18 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by geographic location, which are based on the location of the business unit where the exposure is booked.

| Table 18 - Past due and impaired by geography |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  |  | 2016 |  |  |
|  | Past due exposures | Impaired exposures | Total | Past due exposures | Impaired exposures | Total |
| Exposures by geography | €m | $€ \mathrm{~m}$ | €m | €m | $€ \mathrm{~m}$ | €m |
| ROI | 364 | 802 | 1,166 | 413 | 1,047 | 1,460 |
| Total | 364 | 802 | 1,166 | 413 | 1,047 | 1,460 |

Table 19 is based on the ageing analysis on balance sheet past-due exposures regardless of their impairment status.

| Table 19 - EU CR1-D - Ageing of past-due exposures |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | >30 days | >60 days | >90 days | >180 days |  |
| 2017 | <=30 days | <=60 days | <=90 days | <=180 days | <=1 year | >1 year |
| Gross carrying value | Em | Em | €m | Em | €m | €m |
| Loans | 306 | 64 | 43 | 74 | 82 | 597 |
| Debt securities | - | - | - | - | - | - |
| Total exposures | 306 | 64 | 43 | 74 | 82 | 597 |

## Specific credit risk adjustments (provisions)

| Table 20 - EU CR2-B - Changes in the stock of defaulted and impaired loans and debt securities |  |
| :---: | :---: |
|  | Gross carrying value defaulted exposures |
| 2017 | €m |
| 1. Opening balance | 1,207 |
| 2. Loans and debt securities that have defaulted or impaired since the last reporting period ${ }^{1}$ | 747 |
| 3. Returned to non-defaulted status | (317) |
| 4. Amounts written off | (117) |
| 5. Other changes | 98 |
| 6. Closing balance | 1,618 |

Changes in the stock of defaulted and impaired loans and debt securities Table 20 shows the changes in stock of defaulted and impaired loans.

| Table 21 - EU CR2-A - Changes in the stock of general and specific credit risk adjustments |  |  |
| :---: | :---: | :---: |
| 2017 | Accumulated specific credit risk adjustment € | Accumulated general credit risk adjustment € |
| Opening balance | 669 | - |
| Increases due to amounts set aside for estimated loan losses during the period | - | - |
| Decreases due to amounts reversed for estimated loan losses during the period | (98) | - |
| Decreases due to amounts taken against accumulated credit risk adjustments | (117) | - |
| Transfers between credit risk adjustments | - | - |
| Impact of exchange rate differences | - | - |
| Business combinations, including acquistions and disposals of subsidiaries | - | - |
| Other adjustments | 10 | - |
| Closing balance | 464 | - |
| Recoveries on credit risk adjustments recorded directly to the statement of profit or loss | - | - |
| Specific credit risk adjustments directly recorded to the statement of profit or loss | - | - |

Specific credit risk adjustment charges during the year
Table 21 shows the movement in the provision on loans and advances to customers during the year ended 31 December 2017. It is based on financial statement information.

Accumulated

Decreases due to amounts reversed for estimated loan

Decreases due to amounts taken against accumulated credit risk adjustments
Transfers between credit risk adjustments

Business combinations, including acquistions and
disposals of subsidiaries
Other adjustments

Recoveries on credit risk adjustments recorded directly to the statement of profit or loss statement of profit or loss
specific credit risk adjustment 669
ncreases due to amounts set aside for estimated loan losses during the period
general
redit risk adjustment €
Specific credit risk adjustments (provisions) (continued)
Table 22 shows an overview of non-performing and forborne exposures

| Table 22 shows an overview of non-performing and forborne exposures. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table 22-EU CR1-E - Non-performing and forborne exposures |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Gross carrying amount of performing and non-performing exposures |  |  |  |  |  |  | Accumulated impairment and provisions and negative fair value adjustments due to credit risk |  |  |  | Collaterals and financial guarantees received |  |
| 2017 | Total € | of which; performing but past due $>30$ days and <=90 days € | performing forborne $€ m$ | Nonperforming € | of which; defaulted € | impaired $€ m$ | forborne $€ m$ | On performing exposures € | of which; forborne $€ m$ | On nonperforming exposures $€$ € | of which; forborne $€ m$ | On nonperforming exposures € |  |
| 10 Debt securities | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 Loans and advances | 17,339 | 34 | 686 | 1,790 | 1,623 | 803 | 1,478 | (119) | (77) | (345) | (210) | 1,371 | 1,854 |
| 30 Off-balance sheet exposures | 1,307 | - | - | - | - | - | - | - | - | - | - | - | - |

## Appendices

Comparison of expected versus actual loss

Table 23 is based on a comparison of regulatory expected loss of the performing IRB loan portfolios as at 31 December 2016 with actual loss (specific provision charge incurred) on these portfolios in the year ended 31 December 2017

The parameters underlying the calculation of expected loss (PD, LGD and EAD) primarily represent through the cycle estimations, i.e. they reflect and estimate
the average outcomes for an entire economic cycle. To meaningfully validate expected loss, these estimates would need to be compared to all realised losses which may have materialised after all the assets have gone through their life cycle. However, such information cannot be provided and disclosed since life cycles could last for a significant number of years. Using actual accounting loss information does not provide a suitable
alternative, because - unlike expected loss estimates - accounting loss information is measured at point-in-time.

Table 23 should therefore be read bearing in mind these significant limitations.

|  | Expected loss calculated on 2016 | Specific provision charge 2017 | Expected loss calculated on 2015 | Specific provision charge 2016 |
| :---: | :---: | :---: | :---: | :---: |
| IRB exposure class | €m | €m | €m | €m |
| Institutions | - | - | - | - |
| Corporates | - | - | - | - |
| Retail | 103 | (39) | 78 | (72) |
| - Secured by immovable property collateral | 103 | (39) | 78 | (72) |
| - Qualifying revolving retail exposures | - | - | - | - |
| - Other retail exposures | - | - | - | - |
| Total | 103 | (39) | 78 | (72) |

Credit risk mitigation

| Table 24 - EU CR3-CRM techniques - Overview |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net value | Total € | Exposures unsecured carrying amount € | Exposures secured carrying amount € m | Exposures secured by collateral € $m$ | Exposures secured by financial guarantees $€ m$ | Exposures secured by credit derivatives € $m$ |
| 1. Loans | 18,243 | 2,140 | 16,103 | 16,103 | - | - |
| Institutions | - | - | - | - | - | - |
| Corporates | - | - | - | - | - | - |
| Retail | 16,103 | - | 16,103 | 16,103 | - | - |
| Total IRB | 16,103 | - | 16,103 | 16,103 | - | - |
| Central governments or central banks | 39 | 39 | - | - | - | - |
| Regional governments or local authorities | - | - | - | - | - | - |
| Public sector entities | - | - | - | - | - | - |
| Multilateral development banks | - | - | - | - | - | - |
| International organisations | - | - | - | - | - | - |
| Institutions | 1,915 | 1,915 | - | - | - | - |
| Corporates | - | - | - | - | - | - |
| Retail | - | - | - | - | - | - |
| Secured by mortgages on immovable property | - | - | - | - | - | - |
| Exposures in default | - | - | - | - | - | - |
| Items associated with particularly high risk | - | - | - | - | - | - |
| Covered bonds | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | 153 | 153 | - | - | - | - |
| Total Standardised | 2,107 | 2,107 | - | - | - | - |
| 2. Debt securities | - | - | - | - | - | - |
| 3. Total exposures | 18,210 | 2,107 | 16,103 | 16,103 | - | - |
| of which; |  |  |  |  |  |  |
| 4. Defaulted | 1,216 | - | 1,216 | 1,216 | - | - |

Leverage ratio
Table 25 - LRSum: Summary reconciliation of accounting
assets and leverage ratio exposures

CRD IV

Table 26 - LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

| CRD IV | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Regulatory € | Fully loaded €m | Regulatory € | Fully loaded € m |
| On-balance sheet exposures (excluding derivatives and SFTs) |  |  |  |  |
| On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral) | 16,926 | 16,926 | 20,671 | 20,671 |
| 2 (Asset amounts deducted in determining Tier 1 capital) | (20) | (38) | (5) | (22) |
| 3 Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) | 16,906 | 16,888 | 20,666 | 20,649 |
| Derivative exposures |  |  |  |  |
| 4 Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin) | 73 | 73 | 103 | 103 |
| 5 Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method) | 298 | 298 | 340 | 340 |
| 11 Total derivative exposures | 371 | 371 | 443 | 443 |
| Other off-balance sheet exposures |  |  |  |  |
| 17 Off-balance sheet exposures at gross notional amount | 1,307 | 1,307 | 1,175 | 1,175 |
| 18 (Adjustments for conversion to credit equivalent amounts) | $(1,016)$ | $(1,016)$ | (917) | (917) |
| 19 Other off-balance sheet exposures | 291 | 291 | 258 | 258 |
| Capital and total exposures |  |  |  |  |
| 20 Tier 1 capital | 1,197 | 1,179 | 1,217 | 1,200 |
| 21 Total leverage ratio exposures | 17,568 | 17,550 | 21,367 | 21,350 |
| 22 Leverage ratio | 6.8\% | 6.7\% | 5.7\% | 5.6\% |

Leverage ratio (continued)

Table 27 - LRSpl: Split-up of on balance sheet exposures

|  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
| Annex IV <br> Reference - CRD IV | Regulatory € | Fully loaded €m | Regulatory € m | Fully loaded € |
| EU-1 Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which: | 16,906 | 16,888 | 20,666 | 20,649 |
| EU-2 Trading book exposures | - | - | - | - |
| EU-3 Banking book exposures, of which: | 16,906 | 16,888 | 20,666 | 20,649 |
| EU-5 Exposures treated as sovereigns | - | - | - | - |
| EU-7 Institutions | 1,948 | 1,948 | 2,129 | 2,129 |
| EU-8 Secured by mortgages of immovable properties | 13,596 | 13,596 | 17,681 | 17,681 |
| EU-11 Exposures in default | 1,216 | 1,216 | 710 | 710 |
| EU-12 Other exposures (e.g. equity, securitisations, and other non-credit obligation assets) | 146 | 128 | 146 | 129 |

CRD IV requires the disclosure of the BoIMB's leverage ratio, which measures the level of Tier 1 capital against both on and off balance sheet exposures. As at 31 December 2017, the leverage ratio was 6.8\% on a regulatory basis (2016: 5.7\%) and $6.7 \%$ on a fully loaded basis (2016: 5.6\%).

The purpose of monitoring and managing this metric is to enable Regulators to constrain the build-up of excessive
leverage, which was considered to be one of the drivers of the banking crisis.

The European Commission has proposed the introduction of a binding leverage requirement of $3 \%$ as part of the CRD V Package proposals. It is anticipated that the binding leverage requirement will be applicable from 2019 at the earliest pending final agreement of the proposals at EU level.

The tables below illustrate leverage ratio calculated in accordance with Articles 429, 499(2) and (3) of the CRR and a breakdown of the BolMB's leverage ratio exposure as at 31 December 2017 on both a regulatory and fully loaded basis.

## The Governor and Company of the Bank of Ireland

The Governor and Company of the Bank of Ireland (the 'Bank') is a wholly owned subsidiary of BOIG plc. The Bank provides a range of banking and other financial services.

## Risk management

The Board of Directors for the Bank approves policies and limits with respect to credit risk, market risk, liquidity risk, regulatory risk, conduct risk, operational risk, business / strategic risk, capital adequacy risk and reputation risk.

The Bank's risk management and control policies comply with BOIG plc risk management policies, which include reviews on a regular basis. In addition, the Group's control functions (e.g. Credit, Group Internal Audit etc) independently review compliance with Group policies as part of their on-going work.

The Bank employs a range of policies and practices to mitigate credit risk. The most important of these is the initial assessment of the borrower's capacity to repay the facility over the agreed timescale and the taking of security for funds advanced. Further information can be found in the Risk Management section of this document.

## Capital

At the 31 December 2017, the Bank's CET 1 ratio, including 2017 profits, was 15.3\% on a regulatory basis. The total capital ratio was $22.2 \%$ on a regulatory basis.

The Group undertook a corporate reorganisation during the year whereby BOIG plc became the parent company of the Bank. Details of the resulting changes in equity are set out in the annual report of the Bank.

In December 2017 the Bank declared a dividend of $€ 1,000$ million payable to its parent BOIG plc.

On 19 September 2017, the Bank completed a dual tranche issuance of Stg£300 million and US $\$ 500$ million ten year (callable at the end of year five) Tier 2 capital instruments to BOIG plc, the Bank's parent. The sterling bond has a coupon of $3.425 \%$ and the US dollar bond has a coupon of $4.425 \%$.

## Remuneration

The Bank is covered under the Group's Remuneration policy and associated governance. Please see pages 118 to 123 of the Group's Annual Report 31 December 2017.

Remuneration disclosures relating to the Bank's material risk takers (Code Role Holders) are incorporated within the Group's remuneration disclosures.

| Table 1-Capital, RWA and capital ratios |  |  |
| :---: | :---: | :---: |
| 2017 | Regulatory € $m$ | Fully loaded € m |
| Available capital |  |  |
| Common equity tier 1 (CET 1) | 5,656 | 4,779 |
| Tier 1 | 6,406 | 5,529 |
| Total Capital | 8,190 | 7,321 |
| Risk weighted assets |  |  |
| Total RWA | 36,956 | 36,762 |
| Risk-based capital ratios as a \% of RWA |  |  |
| Common equity tier 1 (CET1) (\%) | 15.3\% | 13.0\% |
| Tier 1 (\%) | 17.3\% | 15.0\% |
| Total Capital (\%) | 22.2\% | 19.9\% |

The Governor and Company of the Bank of Ireland (continued)

| Table 2 - Movement of risk weighted assets by key driver |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit risk €bn | of which; IRB $\epsilon b n$ | $\begin{aligned} & \text { STD } \\ & € b n \end{aligned}$ | Counterparty credit risk € $\quad$ n | Securitisation €bn | Market risk €bn | Operational risk €bn | Total € $\quad$ n | Capital requirements €bn |
| RWA as at the 31 December 2016 | 35.7 | 23.0 | 12.7 | 1.5 | 0.3 | 0.4 | 3.3 | 41.2 | 3.3 |
| Asset size ${ }^{1}$ | (0.5) | (0.6) | 0.1 | (0.4) | - | 0.1 | - | (0.8) | (0.1) |
| Asset quality ${ }^{2}$ | (0.6) | (0.6) | - | (0.1) | - | - | - | (0.7) | - |
| Model updates ${ }^{3}$ | - | - | - | - | - | - | - | - | - |
| Methodology and policy ${ }^{4}$ | (0.8) | (0.8) | - | - | - | - | - | (0.8) | (0.1) |
| Acquisitions and disposals ${ }^{5}$ | 0.9 | 0.9 | - | - | - | - | - | 0.9 | 0.1 |
| Foreign exchange movements | (0.7) | (0.7) | - | - | - | - | - | (0.7) | (0.1) |
| Credit Risk Transfer | (1.8) | (1.8) | - | - | 0.2 | - | - | (1.6) | (0.1) |
| Other | (0.3) | - | (0.3) | (0.2) | - | - | - | (0.5) | - |
| RWA as at the 31 December 2017 | 31.9 | 19.4 | 12.5 | 0.8 | 0.5 | 0.5 | 3.3 | 37.0 | 3.0 |

[^24]Capital requirements / RWA
Table 3 summarises RWA and minimum capital requirements by risk type. Minimum capital requirements is calculated at 8\% of RWA.

| Table 3-EU OV1-Overview of RWA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | $\begin{gathered} \text { RWA } \\ \in \mathrm{m} \end{gathered}$ | Minimum capital requirements € m | $\begin{array}{r} \text { RWA } \\ \text { € } \end{array}$ | Minimum capital requirements $€ \mathrm{~m}$ |
| 1. Credit Risk (excluding CCR) of which; | 30,187 | 2,415 | 33,749 | 2,700 |
| 2. the Standardised approach | 10,829 | 867 | 10,763 | 861 |
| 3. the foundation IRB (FIRB) approach | 13,366 | 1,069 | 17,375 | 1,390 |
| 4. the advanced IRB (AIRB) approach | 5,992 | 479 | 5,611 | 449 |
| 5. equity IRB under the simple risk-weighted approach or the IMA | - | - | - | - |
| 6. CCR of which; | 752 | 60 | 1,470 | 118 |
| 7. market to market | 583 | 47 | 1,157 | 93 |
| 8. original exposure | - | - | - | - |
| 9. the Standardised approach | - | - | - | - |
| 10. internal model method (IMM) | - | - | - | - |
| 11. risk exposure amount for contributions to the default fund of CCP | - | - | - | - |
| 12. CVA | 169 | 13 | 313 | 25 |
| 13. Settlement risk | - | - | 2 | - |
| 14. Securitisation exposures in the banking book (after the cap) of which; | 467 | 37 | 335 | 27 |
| 15. IRB approach | 106 | 8 | 148 | 12 |
| 16. IRB supervisory formula approach (SFA) | 361 | 29 | 187 | 15 |
| 17. internal assessment approach (IAA) | - | - | - | - |
| 18. Standardised approach | - | - | - | - |
| 19. Market risk of which; | 516 | 41 | 380 | 30 |
| 20. the Standardised approach | 516 | 41 | 380 | 30 |
| 21. IMA | - | - | - | - |
| 22. Large exposures | - | - | - | - |
| 23. Operational Risk of which; | 3,355 | 269 | 3,323 | 266 |
| 24. basic indicator approach | - | - | - | - |
| 25. Standardised approach | 3,355 | 269 | 3,323 | 266 |
| 26. advanced measurement approach | - | - | - | - |
| 27. Amounts below the thresholds for deduction (subject to $250 \%$ risk weight) | 1,679 | 134 | 1,924 | 154 |
| 28. Floor adjustment | - | - | - | - |
| 29. Total | 36,956 | 2,956 | 41,183 | 3,295 |

Capital requirements / RWA (continued)

| Table 4 - Capital requirements / RWA |  |  |
| :---: | :---: | :---: |
| 2017 CRD IV | Capital requirements | RWA |
| Credit Risk | 2,549 | 31,866 |
| IRB | 1,548 | 19,358 |
| of which; |  |  |
| Foundation IRB | 1,069 | 13,366 |
| Central governments or central banks | - | - |
| Institutions | 49 | 615 |
| Corporates of which; | 1,020 | 12,751 |
| - SME | 478 | 5,978 |
| - Specialised lending | 70 | 877 |
| Advanced IRB | 479 | 5,992 |
| - Secured by immovable property collateral | 316 | 3,952 |
| - Qualifying revolving retail exposures | 28 | 345 |
| - Other retail SME | 88 | 1,110 |
| - Other retail non SME | 47 | 585 |
| Equity | - | - |
| Other non credit-obligation assets | - | - |
| Standardised | 1,001 | 12,508 |
| of which; |  |  |
| Central governments or central banks ${ }^{1}$ | 19 | 236 |
| Regional governments or local authorities | 1 | 17 |
| Public sector entities | 3 | 38 |
| Multilateral development banks ${ }^{1}$ | - | - |
| International organisations ${ }^{1}$ | - | - |
| Institutions | 97 | 1,215 |
| Corporates | 264 | 3,300 |
| Retail | 68 | 845 |
| Secured by mortgages on immovable property | 13 | 159 |
| Exposures in default | 47 | 583 |
| Exposures associated with particularly high risk | 13 | 163 |
| Covered bonds ${ }^{2}$ | - | - |
| Securitisation positions | - | - |
| Institutions and corporates with a short-term credit assessment | - | - |
| Collective investment undertakings | - | - |
| Equity | - | - |
| Other items | 476 | 5,952 |
| Counterparty Credit Risk (incl CVA) | 60 | 752 |
| Settlement Risk | - | - |
| Securitisations | 37 | 467 |
| Market Risk | 41 | 516 |
| Operational Risk | 269 | 3,355 |
| Basel 1 Floor requirement (80\%) | - | - |
| Total Capital Requirements | 2,956 | 36,956 |

Table 4 shows the amount of capital out the Governor and Company of the Bank of Ireland is required to set aside to meet the minimum total capital ratio of $8 \%$ of RWA set by CRD IV.

Breakdown of The Governor and Company of the Bank of Ireland's regulatory capital requirement

| Table 5 - Minimum Capital Requirements, Risk Weighted Assets and Net Value by Risk Type |  |  |  |
| :---: | :---: | :---: | :---: |
| 2017 | Capital requirement € | Risk weighted assets € m |  |
| Credit risk | 2,549 | 31,866 | 81,092 |
| - IRB Approach | 1,548 | 19,358 | 39,072 |
| - Standardised Approach | 1,001 | 12,508 | 42,020 |
| Counterparty Credit Risk | 60 | 752 | 1,678 |
| Settlement Risk | - | - | - |
| Securitisation | 37 | 467 | - |
| Market Risk | 41 | 516 | - |
| Operational Risk | 269 | 3,355 | - |
| Floor adjustment | - | - | - |
| Total | 2,956 | 36,956 | 82,770 |

Table 5 shows The Governor and Company of the Bank of Ireland minimum capital requirements (based on 8\% of RWA), RWA and Net Value by risk type.

Capital resources

| Table 6 - Reconciliation of accounting capital with regulatory capital |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & 2017 \\ & \text { CRD IV } \end{aligned}$ | Regulatory € | Fully loaded €m |
| Capital base |  |  |
| Total equity <br> - less Additional tier 1 capital | $\begin{array}{r} 8,069 \\ (750) \\ \hline \end{array}$ | $\begin{array}{r} 8,069 \\ (750) \\ \hline \end{array}$ |
| Total equity less instruments not qualifying as CET 1 | 7,319 | 7,319 |
| Regulatory adjustments being phased in / out under CRD IV | (713) | $(1,550)$ |
| - Deferred tax assets | (324) | $(1,082)$ |
| - 10\% / 15\% threshold deduction | (103) | (206) |
| - Retirement benefit obligations | 89 | - |
| - Available for sale reserve | (66) | - |
| - Pension supplementary contributions | (9) | - |
| - Capital contribution on CCCN | - | - |
| - Other adjustments | (300) | (262) |
| Other regulatory adjustments | (950) | (990) |
| - Expected loss deduction | (164) | (204) |
| - Intangible assets and goodwill | (700) | (700) |
| - Dividend / coupon expected on other equity instruments | (2) | (2) |
| - Cash flow hedge reserve | (40) | (40) |
| - Own credit spread adjustment (net of tax) | 22 | 22 |
| - Securitisation deduction | (66) | (66) |
| Common equity tier 1 | 5,656 | 4,779 |
| Additional tier 1 |  |  |
| Additional tier 1 | 783 | 750 |
| Regulatory adjustments | (33) | - |
| - Expected loss deduction | (20) | - |
| - 10\% - 15\% threshold deduction | (13) | - |
| Total tier 1 capital | 6,406 | 5,529 |
| Tier 2 |  |  |
| Tier 2 dated debt | 1,834 | 1,834 |
| Tier 2 undated debt | 85 | 118 |
| Regulatory adjustments | (33) | - |
| - Expected loss deduction | (20) | - |
| - 10\% - 15\% threshold deduction | (13) | - |
| Standardised incurred but not reported (IBNR) provisions | 4 | - |
| Provisions in excess of expected losses on defaulted assets | - | - |
| Other adjustments | (106) | (160) |
| Total tier 2 capital | 1,784 | 1,792 |
| Total capital | 8,190 | 7,321 |
| Total risk weighted assets | 36,956 | 36,762 |
| Capital ratios |  |  |
| Total capital ratio | 22.2\% | 19.9\% |

Table 6 sets out the Governor and Company of the Bank of Ireland's capital position as at 31 December 2017, and a reconciliation of accounting with regulatory capital.
Capital resources (continued)

[^25]| Table 7 - Regulatory \& fully loaded own funds disclosure |  |  |  |
| :---: | :---: | :---: | :---: |
| 2017 |  |  |  |
| Annex VI |  | Regulatory | Fully loaded |
| Reference - CRD IV |  | €m | €m |
| Common equity tier 1 ( CET 1) capital: instruments and reserves |  |  |  |
|  | Capital Instruments and the related share premium accounts | 2,130 | 2,130 |
|  | of which; |  |  |
|  | - Ordinary stock | 1,618 | 1,618 |
|  | - Deferred stock | - | - |
|  | - Treasury stock | - | - |
|  | - Share premium | 512 | 512 |
| 2 | Retained earnings | 3,698 | 3,698 |
| 3 | Accumulated other comprehensive income (and other reserves) | 1,425 | 1,425 |
| 6 | Common equity tier 1 (CET 1) capital before regulatory adjustments | 7,253 | 7,253 |
| Common equity tier 1 (CET 1) capital regulatory adjustments |  |  |  |
| 7 | Additional value adjustments / other | (150) | (150) |
| 8 | Intangible assets (net of related tax liability) | (700) | (700) |
| 10 | Deferred tax asset that rely on future profitability excluding those arising from temporary differences (net of related tax liability) | (324) | $(1,082)$ |
| 11 | Fair value reserves related to gains or losses on cashflow hedges | (40) | (40) |
| 12 | Negative amounts resulting from the calculation of expected loss amounts | (164) | (204) |
| 14 | Gains or losses on liabilities valued at fair value resulting from changes in own credit standing | 22 | 22 |
| 15 | Defined-benefit pension fund assets | (37) | (46) |
| 16 | Direct and indirect holdings by an institution of own CET 1 instruments | - | - |
| 19 | Direct, indirect and synthetic holdings by institutions of the CET 1 Instruments of financial sector entities where the institution has a significant investment in those entities | (103) | (206) |
| $\begin{aligned} & 20 \mathrm{a} \\ & 20 \mathrm{c} \end{aligned}$ | Exposure amount of the following items which qualify for a RW of 1250\% | (66) | (66) |
|  | of which; |  |  |
|  | - Securitisation positions | (66) | (66) |
| 26a | Regulatory adjustments relating to unrealised gains and losses of which; | (66) | - |
|  | - Unrealised gains on non sovereign bonds | (18) | - |
|  | - Unrealised losses on non sovereign bonds | 3 | - |
|  | - Unrealised gains on sovereign bonds | (51) | - |
|  | - Unrealised losses on sovereign bonds | - | - |

Capital resources (continued)

| Table 7 -Regulatory \& fully loaded own funds disclosure (continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| 2017 |  |  |  |
| Ann |  | Regulatory | Fully loaded |
| Reference - CRD IV |  | €m | €m |
| 26b | Amount to be deducted from or added to Common equity tier 1 capital |  |  |
|  | with regard to additional filters and deductions required pre CRR | 31 | (2) |
|  | of which; |  |  |
|  | - Defined benefit pension scheme | 89 | - |
|  | - Value in Force asset | (46) | - |
|  | - Property revaluation reserve | (8) | - |
|  | - Fair value on Bristol and West Sub debt | 7 | - |
|  | - Minimum funding standard pension contributions | (9) | - |
|  | - Dividend / coupon expected on other equity instruments | (2) | (2) |
|  | Total regulatory adjustments to Common equity tier 1 (CET 1) | $(1,597)$ | $(2,474)$ |
| 29 | Common equity tier 1 (CET 1) Capital | 5,656 | 4,779 |
| Additional tier 1 (AT1) capital: instruments |  |  |  |
| 30 | Capital instruments and the relates share premium accounts | 750 | 750 |
| 31 | of which; |  |  |
|  | - Classified as equity under applicable accounting standards | 750 | 750 |
|  | Amount of qualifying items referred to in Articles 484 (4) and the related share premium accounts subject to phase out of the AT1 | 33 | - |
|  | Additional tier 1 (AT1) capital before regulatory adjustments | 783 | 750 |
| Additional tier 1 (AT1) capital: regulatory adjustments |  |  |  |
| 41 | Regulatory adjustments applied to Additional tier 1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in regulation No 575/2013 (i.e. CRR residual amounts) | (33) | - |
| 41a | Residual amounts deducted from Additional tier 1 capital with regard to deduction from Common equity tier 1 capital during the transitional period pursuant to |  |  |
|  | article 472 of Regulation (EU) No 575/2013 | (33) | - |
|  | of which; |  |  |
|  | - Shortfall of provisions to expected losses | (20) | - |
|  | - Investment in significant financial institutions | (13) | - |
| 42 | Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount) | - | - |
| 43 | Total regulatory adjustments to Additional tier 1 (AT1) capital | (33) | - |
| 44 | Additional tier 1 (AT1) capital | 750 | 750 |
| 45 | Tier 1 capital (T1 = CET 1 + AT1) | 6,406 | 5,529 |

Capital resources (continued)

| Table 7 - Regulatory \& fully loaded own funds disclosure (continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| 2017 |  |  |  |
| Annex VI |  | Regulatory | Fully loaded |
| Reference - CRD IV |  | $\epsilon \mathrm{m}$ | €m |
| Tier 2 (T2) capital: instruments and provisions |  |  |  |
| 46 | Capital instruments and the related share premium accounts | 1,919 | 1,952 |
| 50 | Credit Risk adjustments | - |  |
| 51 | Tier 2 (T2) capital before regulatory adjustments | 1,919 | 1,952 |
| Tier 2 (T2) capital: regulatory adjustments |  |  |  |
| 55 | Direct and indirect holdings by the institution of the T 2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) | (160) | (160) |
| 56 a | Residual amounts deducted from Tier 2 capital with regard to deduction from Common equity tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU No 575/2013) of which; | (33) | - |
|  | - Shortfalls of provisions to expected losses | (20) | - |
|  | - Investment in significant financial institutions | (13) | - |
| 56c | Amount to be deducted from or added to tier 2 capital with regards to additional filters and deductions required pre CRR of which; | 58 | - |
|  | - IBNR provisions | 4 | - |
|  | - Value in Force asset | 46 | - |
|  | - Property revaluation reserve | 8 | - |
| 57 | Total regulatory adjustments to tier 2 (T2) capital | (135) | (160) |
| 58 | Tier 2 (T2) capital | 1,784 | 1,792 |
| 59 | Total capital ( $\mathrm{TC}=\mathrm{T} 1+\mathrm{T}$ ) | 8,190 | 7,321 |
| 59a | Risk weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts) | - | - |
|  | of which; |  |  |
|  | - Items not deducted from CET 1 (Regulation (EU) No 575/2013 residual amounts) Deferred tax assets that rely on future profitability net of related tax liability | - | - |
|  | - Items not deducted from CET 1 (Regulation (EU) No 575/2013 residual amounts) Direct holdings in CET 1 instruments of financial sector entities where the institution has a significant investment | - | - |
| 60 | Total risk weighted assets | 36,956 | 36,762 |

Capital resources (continued)

Capital resources (continued)
Countercyclical buffer
CRD IV provides for a countercyclical buffer that could The countercyclical buffer will be phased in from 1 January Countercyclical buffer (CCyB) at $0 \%$. The geographical 2016 to 1 January 2019.
At 31 December 2017, the Central Bank of Ireland (Rol)
Table 8 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer $2.5 \%$. This requirement is expected to be imposed by the
designated authority where credit growth is deemed to be 2017 are outlined below.
excessive and leading to the build-up of system-wide risk.
Trading book exposures
$\begin{array}{ccc}\text { General credit } & \begin{array}{c}\text { Sum } \\ \text { exposures }\end{array} & \begin{array}{c}\text { Value of } \\ \text { of long }\end{array}\end{array} \begin{gathered}\text { Securities } \\ \text { exposures }\end{gathered}$ additional capital requirement of $€ 1$ million at 31 December -

| Table 8-Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Trading book | k exposures |  |  |  |  |  |  |  |  |
|  | Gener expo | al credit sures | Sum of long | Value of trading | Secu expo |  |  | Own funds req | uirements |  |  | Counter- |
| 2017 (€m) | Exposure value for SA | Exposure value for IRB | position of trading book | exposure for internal models | Exposure value for SA | Exposure value for IRB | $\begin{array}{r} \text { General } \\ \text { credit } \\ \text { exposures } \end{array}$ | Trading book exposures exposures | Securitisation exposures | Total | Own funds requirement weights | capital buffer rate |
| Countries with a buffer |  |  |  |  |  |  |  |  |  |  |  |  |
| Sweden | - | 20 | - | - | - | - | 2 | - | - | 2 | 0.0008 | 2.00\% |
| Norway | - | 1 | - | - | - | - | - | - | - | - | 0.0000 | 1.50\% |
| Hong Kong | 20 | 4 | - | - | - | - | 2 | - | - | 2 | 0.0007 | 1.25\% |
| Iceland | - | - | - | - | - | - | - | - | - | - | 0.0000 | 1.25\% |
| Slovakia | - | - | - | - | - | - | - | - | - | - | 0.0000 | 0.50\% |
| Czech Republic | - | 1 | - | - | - | - | - | - | - | - | 0.0000 | 0.50\% |
| Total | 20 | 26 | - | - | - | - | 4 | - | - | 4 | 0.0015 | - |
| Countries with a zero rate or no buffer- |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | 10,006 | 21,608 | - | - | - | 3,924 | 1,530 | - | 29 | 1,559 | 0.6370 | 0.00\% |
| United Kingdom ${ }^{1}$ | 2,750 | 7,697 | - | - | - | 633 | 605 | - | 4 | 609 | 0.2488 | 0.00\% |
| United States | 27 | 1,416 | - | - | - | 19 | 127 | - | 4 | 131 | 0.0536 | 0.00\% |
| Other | 108 | 1,687 | - | - | - | 32 | 145 | - | - | 145 | 0.0591 | 0.00\% |
| Total | 12,891 | 32,408 | - | - | - | 4,608 | 2,407 | - | 37 | 2,444 | 0.9985 | - |
| Overall Total | 12,911 | 32,434 | - | - | - | 4,608 | 2,411 | - | 37 | 2,448 | 1.0000 | - |
| Amount of institution-specific countercyclical capital buffer |  |  | 2017 |  |  |  |  |  |  |  |  |  |
| Total risk exposure amount ( $¢$ m) |  |  | 36,956 |  |  |  |  |  |  |  |  |  |
| Institution specific countercyclical buffer rate (\%) |  |  | 0.0025\% |  |  |  |  |  |  |  |  |  |
| Institution specific countercyclical buffer requirement ( $¢ \mathrm{~m}$ ) |  |  | 1 |  |  |  |  |  |  |  |  |  |

[^26]
## Capital instruments

Table 9 provides information on the regulatory values of the Governor and Company of Bank of Ireland Additional tier 1 capital and Tier 2 debt.

The Capital instruments template disclosure according to Article 3 in Commission implementing regulation (EU) No.1423/2013 is published separately at www.bankofireland.com.

| Table 9 - Capital instruments |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |

[^27]Credit risk

| Table: 10 - EU CRB-B - Exposure to credit risk | 2017 |  |
| :---: | :---: | :---: |
|  | Net value of exposures at the end of the period € | Average net exposures over the period €m |
| Central governments or central banks | - | - |
| Institutions | 3,673 | 4,055 |
| Corporates of which; | 18,852 | 20,009 |
| - SME | 9,098 | 9,292 |
| - Specialised lending | 948 | 1,040 |
| Retail- | 16,547 | 13,901 |
| Secured by real estate property | 11,193 | 8,571 |
| - SME | - | - |
| - Non-SME | 11,193 | 8,571 |
| Qualifying revolving | 2,680 | 2,686 |
| Other Retail | 2,674 | 2,644 |
| - SME | 2,180 | 2,169 |
| - Non-SME | 494 | 475 |
| Total IRB approach | 39,072 | 37,965 |
| Central governments or central banks | 13,022 | 12,307 |
| Regional governments or local authorities | 189 | 190 |
| Public sector entities | 326 | 295 |
| Multilateral development banks | 338 | 350 |
| International organisations | 896 | 967 |
| Institutions | 10,963 | 12,848 |
| Corporates | 4,983 | 5,258 |
| of which; |  |  |
| - SME | 672 | 2,305 |
| of which; |  | 2,523 |
| - SME | 254 | 254 |
| Secured by mortgages on immovable property of which; | 455 | 439 |
| - SME | - | - |
| Exposures in default | 476 | 604 |
| Items associated with particularly high risk | 134 | 127 |
| Covered bonds | 2,195 | 2,195 |
| Claims on institutions and corporates with a short-term credit assessment | - | - |
| Collective investment undertakings | - | - |
| Equity exposures | - | - |
| Other items | 5,508 | 5,474 |
| Total Standardised approach | 42,020 | 43,577 |
| Total | 81,092 | 81,542 |

Table 10 is based on EAD and shows the Governor and Company of the Bank of Ireland's point-in-time and average exposure to credit risk

## Credit risk (continued)

Table 11-EU CR1-A - Credit quality of exposures by exposure class and instrument

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € | General credit risk adjustment € | $\left.\begin{array}{\|r}\begin{array}{r}\text { Credit risk } \\ \text { adjustment } \\ \text { charges }\end{array} \\ \text { Accumulated } \\ \text { of the } \\ \text { write-off's } \\ \text { em }\end{array} \begin{array}{r}\text { period }\end{array}\right\}$ |  | Net value € |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures €m | Nondefaulted exposures € |  |  |  |  |  |
| Central governments or central banks | - | - | - | - | - | - | - |
| Institutions | - | 3,673 | - | - | - | - | 3,673 |
| Corporates of which; | 1,723 | 18,013 | 884 | - | 3,132 | 93 | 18,852 |
| - SME | 1,410 | 8,383 | 695 | - | 1,438 | - | 9,098 |
| - Specialised lending | 45 | 937 | 34 | - | - | - | 948 |
| Retail | 1,270 | 15,630 | 353 | - | 828 | (46) | 16,547 |
| Secured by real estate property | 1,022 | 10,380 | 209 | - | 339 | (40) | 11,193 |
| - SME | - | - | - | - | - | - | - |
| - Non-SME | 1,022 | 10,380 | 209 | - | 339 | (40) | 11,193 |
| Qualifying revolving | 20 | 2,672 | 12 | - | 103 | - | 2,680 |
| Other Retail | 228 | 2,578 | 132 | - | 386 | (6) | 2,674 |
| - SME | 189 | 2,091 | 100 | - | 224 | 4 | 2,180 |
| - Non-SME | 39 | 487 | 32 | - | 162 | (10) | 494 |
| Total IRB approach | 2,993 | 37,316 | 1,237 | - | 3,960 | 47 | 39,072 |
| Central governments or central banks | - | 13,022 | - | - | - | - | 13,022 |
| Regional governments or local authorities | - | 189 | - | - | - | - | 189 |
| Public sector entities | - | 326 | - | - | - | - | 326 |
| Multilateral development banks | - | 338 | - | - | - | - | 338 |
| International organisations | - | 896 | - | - | - | - | 896 |
| Institutions | - | 10,963 | - | - | - | - | 10,963 |
| Corporates of which: | $886{ }^{1}$ | 4,983 | - | - | - | - | 4,983 |
| - SME | - | 672 | - | - | - | - | 672 |
| Retail of which: | $43^{1}$ | 2,542 | 7 | - | - | - | 2,535 |
| - SME | - | 258 | 4 | - | - | - | 254 |
| Secured by mortgages on immovable property of which: | - | 455 | - | - | - | - | 455 |
| - SME | - | - | - | - | - | - | - |
| Exposures in default | 929 | - | 453 | - | 3,133 | 37 | 476 |
| Items associated with particularly high risk | - | 134 | - | - | - | - | 134 |
| Covered bonds | - | 2,195 | - | - | - | - | 2,195 |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - |
| Other items | - | 5,508 | - | - |  |  | 5,508 |
| Total Standardised approach | 929 | 41,551 | 460 | - | 3,133 | 37 | 42,020 |
| Total | 3,922 | 78,867 | 1,697 | - | 7,093 | 84 | 81,092 |
| of which: |  |  |  |  |  |  |  |
| Loans | 3,841 | 63,832 | 1,687 | - | 7,093 | 84 | 65,986 |
| Debt Securities | - | 2,934 | - | - | - | - | 2,934 |
| Off-balance sheet exposures | 81 | 12,101 | 10 | - | - | - | 12,172 |

Geographic analysis of exposures
The geographical locations shown in tables 12 and 13 are based on the residence of the immediate counterparty. Exposures with supranational organisations are included under the other geographical area.

| Table 12 - EU CRB-C - Geographical breakdown of exposures |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2017$ <br> Net value | Europe € | Ireland € | $\begin{aligned} & \text { UK } \\ & € m \end{aligned}$ | Rest of Europe € $m$ | $\begin{aligned} & \text { US } \\ & \text { €m } \end{aligned}$ | Other geographical area € | Total €m |
| Central governments or central banks | - |  |  |  |  |  | - |
| Institutions | 3,124 | 244 | 584 | 2,296 | 32 | 517 | 3,673 |
| Corporates | 16,925 | 11,088 | 4,362 | 1,475 | 1,574 | 353 | 18,852 |
| Retail | 16,464 | 13,185 | 3,253 | 26 | 39 | 44 | 16,547 |
| Total IRB approach | 36,513 | 24,517 | 8,199 | 3,797 | 1,645 | 914 | 39,072 |
| Central governments or central banks | 12,295 | 9,840 | 193 | 2,262 | 727 | - | 13,022 |
| Regional governments or local authorities | 168 | 168 | - | - | 21 | - | 189 |
| Public sector entities | 326 | 75 | - | 251 | - | - | 326 |
| Multilateral development banks | - | - | - | - | - | 338 | 338 |
| International organisations | - | - | - | - | - | 896 | 896 |
| Institutions | 10,963 | 8,535 | 2,428 | - | - | - | 10,963 |
| Corporates | 4,957 | 3,694 | 1,188 | 75 | 5 | 21 | 4,983 |
| Retail | 2,535 | 2,535 | - | - | - | - | 2,535 |
| Secured by mortgages on immovable property | 451 | 446 | 4 | 1 | 2 | 2 | 455 |
| Exposures in default | 471 | 439 | 12 | 20 | - | 5 | 476 |
| Items associated with particularly high risk | 114 | 109 | 2 | 3 | 20 | - | 134 |
| Covered bonds | 2,195 | 2,195 | - | - | - | - | 2,195 |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - | - |
| Other items | 5,508 | 3,263 | 2,245 | - | - | - | 5,508 |
| Total Standardised approach | 39,983 | 31,299 | 6,072 | 2,612 | 775 | 1,262 | 42,020 |
| Total | 76,496 | 55,816 | 14,271 | 6,409 | 2,420 | 2,176 | 81,092 |

Table 13-EU CR1-C - Credit quality of exposures by geographical breakdown

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € | General credit risk adjustment €m | $\left.\begin{array}{rr}\text { Credit risk } \\ \text { adjustment } \\ \text { charges } \\ \text { of the }\end{array}\right\}$period <br> write-off's <br> Am |  | Net value € m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures €m | Non- <br> defaulted <br> exposures € |  |  |  |  |  |
| Europe | 3,835 | 74,321 | 1,660 | - | 7,093 | 84 | 76,496 |
| of which; |  |  |  |  |  |  |  |
| - Ireland | 3,096 | 54,087 | 1,367 | - | 5,582 | (2) | 55,816 |
| - UK | 572 | 13,889 | 190 | - | 1,511 | 86 | 14,271 |
| - Rest of Europe | 167 | 6,345 | 103 | - | - | - | 6,409 |
| US | 63 | 2,383 | 26 | - | - | - | 2,420 |
| Other geographical area | 24 | 2,163 | 11 | - | - | - | 2,176 |
| Total | 3,922 | 78,867 | 1,697 | - | 7,093 | 84 | 81,092 |

Industry analysis of exposures
The industry classification in Table 14 below is based the activity of the immediate counterparty.

| Table 14 - EU CRB-D - Industry analysis of exposures |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Table 14(a) - Industry analysis of exposures - IRB approach |  |  |  |  |
| 2017 | Institutions | Corporates | Retail | Total |
| IRB Approach - Net value | €m | €m | €m | €m |
| Agriculture, forestry and fishing | - | 338 | 890 | 1,228 |
| Mining and quarrying | - | 247 | 5 | 252 |
| Manufacturing | - | 2,983 | 93 | 3,076 |
| Electricity, gas, steam and air conditioning supply | - | 503 | 3 | 506 |
| Water supply | - | - | - | - |
| Construction | - | 258 | 117 | 375 |
| Wholesale and retail trade | - | 1,472 | 254 | 1,726 |
| Transport and storage | - | 701 | 43 | 744 |
| Accommodation and food service activities | - | 962 | 97 | 1,059 |
| Information and communication | - | 517 | 15 | 532 |
| Real estate activities | - | 6,298 | 97 | 6,395 |
| Professional, scientific and technical activities | - | 263 | 60 | 323 |
| Administrative and support service activities | - | 1,188 | 277 | 1,465 |
| Public administration and defence, compulsory social security | - | 44 | - | 44 |
| Education | - | 220 | 13 | 233 |
| Human health services and social work activities | - | 1,071 | 67 | 1,138 |
| Arts, entertainment and recreation | - | 237 | 22 | 259 |
| Other Services | - | 611 | 27 | 638 |
| Central Government | - | - | - | - |
| Personal residential mortgages | - | 13 | 11,193 | 11,206 |
| Other Personal | - | 65 | 3,257 | 3,322 |
| Financial and Insurance activities | 3,673 | 861 | 17 | 4,551 |
| Total | 3,673 | 18,852 | 16,547 | 39,072 |


| Table 14 - Industry analysis of exposures |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table 14(b) - Industry analysis of exposures - Standardised approach |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2017 <br> Standardised Approach - net value | Central gov. or central banks €m | Regional gov.or local auth. € | Public sector entities $€$ € | Multil. develop. banks € | Inter. org. € | Institutions € | $\begin{aligned} & \text { Corp, } \\ & € \mathrm{~m} \end{aligned}$ | Retail €m | Secured by mortgages on immovable property €m | Exp. in default €m | Items associated with particulary high risk €m | Covered bonds € m | Other items €m | $\begin{gathered} \text { Total } \\ € \mathrm{~m} \end{gathered}$ |
| Agriculture, forestry and fishing | - | - | - | - | - | - | 386 | 30 | - | 35 | - | - | - | 451 |
| Mining and quarrying | - | - | - | - | - | - | 2 | 1 | - | - | - | - | - | 3 |
| Manufacturing | - | - | - | - | - | - | 68 | 290 | - | 5 | - | - | - | 363 |
| Electricity, gas, steam and air conditioning supply | - | - | - | - | - | - | 12 | 4 | - | - | - | - | - | 16 |
| Water supply | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | 118 | 42 | - | 18 | - | - | - | 178 |
| Wholesale and retail trade | - | - | - | - | - | - | 497 | 321 | - | 23 | - | - | - | 841 |
| Transport and storage | - | - | - | - | - | - | 175 | 208 | - | 25 | - | - | - | 408 |
| Accommodation and food service activities | - | - | - | - | - | - | 96 | 7 | - | 9 | - | - | - | 112 |
| Information and communication | - | - | - | - | - | - | 84 | 18 | - | - | - | - | - | 102 |
| Real estate activities | - | - | - | - | - | - | 1,053 | 1 | - | 207 | - | - |  | 1,261 |
| Professional, scientific and technical activities | - | - | - | - | - | - | 16 | 14 | - | 3 | - | - | - | 33 |
| Administrative and support service activities | - | - | - | - | - | - | 68 | 119 | - | 6 | - | - | - | 193 |
| Public administration and defence, compulsory social security | - | 189 | 326 | - | - | - | - | 3 | - | - | - | - | - | 518 |
| Education | - | - | - | - | - | - | 9 | - | - | - | - | - | - | 9 |
| Human health services and social work activities | - | - | - | - | - | - | 163 | 3 | - | 10 | - | - | - | 176 |
| Arts, entertainment and recreation | - | - | - | - | - | - | 16 | - | - | 1 | - | - | - | 17 |
| Other Services | - | - | - | - | - | - | 335 | 123 | - | 1 | 73 | - | - | 532 |
| Central Government | 12,143 | - | - | - | - | - | - | - | - | - | - | - |  | 12,143 |
| Personal residential mortgages | - | - | - | - | - | - | 77 | 1 | 455 | 35 | - | - | - | 568 |
| Other Personal | - | - | - | - | - | - | 188 | 1,335 | - | 95 | - | - | - | 1,618 |
| Financial and Insurance activities | 879 | - | - | 338 | 896 | 10,963 | 1,620 | 15 | - | 3 | 61 | 2,195 | 5,508 | 22,478 |
| Total | 13,022 | 189 | 326 | 338 | 896 | 10,963 | 4,983 | 2,535 | 455 | 476 | 134 | 2,195 | 5,508 | 42,020 |

Industry analysis of exposures (continued)

Table 15 - EU CR1-B - Credit quality of exposures by industry or counterparty types

| 2017 | Gross carrying value of |  | Specific credit risk adjustment € | General credit risk adjustment € m | Credit risk <br> adjustment <br> charges  <br> Accumulated of the <br> write-off's period <br> €m $€ \mathrm{~m}$ |  | Net value € $m$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defaulted exposures € | Nondefaulted exposures € |  |  |  |  |  |
| Agriculture, forestry and fishing | 108 | 1,612 | 41 | - | 172 | 3 | 1,679 |
| Mining and quarrying | 15 | 244 | 4 | - | 59 | 1 | 255 |
| Manufacturing | 155 | 3,349 | 65 | - | 465 | 7 | 3,439 |
| Electricity, gas, steam and air conditioning supply | 2 | 521 | 1 | - | 60 | - | 522 |
| Water supply | - | - | - | - | - | - | - |
| Construction | 92 | 515 | 54 | - | 112 | 20 | 553 |
| Wholesale and retail trade | 268 | 2,440 | 141 | - | 370 | 14 | 2,567 |
| Transport and storage | 140 | 1,108 | 96 | - | 191 | 6 | 1,152 |
| Accommodation and food service activities | 211 | 1,058 | 98 | - | 204 | 15 | 1,171 |
| Information and communication | 2 | 633 | 2 | - | 71 | - | 633 |
| Real estate activities | 1,262 | 7,002 | 608 | - | 3,981 | 52 | 7,656 |
| Professional, scientific and technical activities | 25 | 341 | 10 | - | 52 | 2 | 356 |
| Administrative and support service activities | 90 | 1,619 | 51 | - | 186 | 6 | 1,658 |
| Public administration and defence, compulsory social security | - | 562 | - | - | 29 | - | 562 |
| Education | 4 | 243 | 5 | - | 45 | - | 242 |
| Human health services and social work activities | 109 | 1,266 | 61 | - | 187 | 4 | 1,314 |
| Arts, entertainment and recreation | 57 | 256 | 37 | - | 58 | 2 | 276 |
| Other Services | 11 | 1,210 | 50 | - | 228 | 2 | 1,171 |
| Central Government | - | 12,143 | - | - | - | - | 12,143 |
| Personal residential mortgages | 1,065 | 10,926 | 217 | - | 339 | (41) | 11,774 |
| Other Personal | 297 | 4,795 | 152 | - | 284 | (9) | 4,940 |
| Financial and Insurance activities | 9 | 27,024 | 4 | - | - | - | 27,029 |
| Total | 3,922 | 78,867 | 1,697 | - | 7,093 | 84 | 81,092 |

## Maturity analysis of exposures

The maturity analysis in Table 16 below discloses the Group's credit exposure by residual contractual maturity date.

| Table 16-EU CRB-E - Maturity of exposures |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 <br> Net value | demand € m | $\begin{array}{r} <=1 \text { year } \\ € m \end{array}$ | $\begin{array}{r} >1 \text { year } \\ <=5 \text { years } \\ \text { €m } \end{array}$ | $\begin{array}{r} >5 \text { years } \\ € m \end{array}$ | No stated maturity € | Total € |
| Central governments or central banks | - | - | - | - | - | - |
| Institutions | 5 | 1,134 | 2,221 | 313 | - | 3,673 |
| Corporates | 691 | 3,059 | 10,045 | 5,057 | - | 18,852 |
| Retail | 1,329 | 3,328 | 4,004 | 7,886 | - | 16,547 |
| Total IRB approach | 2,025 | 7,521 | 16,270 | 13,256 | - | 39,072 |
| Central governments or central banks | 5,046 | 1,050 | 987 | 5,087 | 852 | 13,022 |
| Regional governments or local authorities | 105 | 9 | 43 | 32 | - | 189 |
| Public sector entities | - | 126 | 200 | - | - | 326 |
| Multilateral development banks | - | 33 | 255 | 50 | - | 338 |
| International organisations | - | 126 | 630 | 140 | - | 896 |
| Institutions | - | 9,216 | 1,747 | - | - | 10,963 |
| Corporates | 311 | 896 | 2,705 | 1,071 | - | 4,983 |
| Retail | - | 1,358 | 1,162 | 15 | - | 2,535 |
| Secured by mortgages on immovable property | - | 2 | 26 | 427 | - | 455 |
| Exposures in default | 10 | 231 | 82 | 153 | - | 476 |
| Items associated with particularly high risk | - | 51 | 1 | 82 | - | 134 |
| Covered bonds | - | 195 | 500 | 1,500 | - | 2,195 |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | - | - | - | - | 5,508 | 5,508 |
| Total Standardised approach | 5,472 | 13,293 | 8,338 | 8,557 | 6,360 | 42,020 |
| Total | 7,497 | 20,814 | 24,608 | 21,813 | 6,360 | 81,092 |

## Loan loss experience in the year ended 31 December 2017

A discussion on the factors which impacted the loan loss experience in the year ended 31 December 2017 is included in the Risk Management Report of the Group's Annual Report 31 December 2017 (under the Credit risk section on pages 56 to 70).

## Past due and impaired exposures

Past due but not impaired loans, whether forbone of not, are defined as loans where repayment of interest and / or principal are overdue by at least one day but which are not impaired.

Impaired loans are defined as exposures which carry a specific provision whether forbone of not. Specific provisions are as a result of either individual or collective assessment for impairment.

For additional information on past due and impaired exposures please refer to page 61 of the Group's Annual Report 31 December 2017.

Past due and impaired exposures (continued)

| Table 17 - Past due and impaired exposures by industry class |  |  |  |
| :---: | :---: | :---: | :---: |
| 2017 | Past due exposures $€$ € | Impaired exposures € | $\begin{gathered} \text { Total } \\ € \mathrm{~m} \end{gathered}$ |
| Personal | 575 | 497 | 1,072 |
| - Residential mortgages | 537 | 437 | 974 |
| - Other | 38 | 60 | 98 |
| Property \& Construction | 99 | 1,148 | 1,247 |
| Business \& other services | 65 | 594 | 659 |
| Manufacturing | 11 | 108 | 119 |
| Distribution | 38 | 271 | 309 |
| Transport | 2 | 80 | 82 |
| Financial | - | 1 | 1 |
| Agriculture | 32 | 98 | 130 |
| Energy | 1 | 7 | 8 |
| Total | 823 | 2,804 | 3,627 |

Past due and impaired exposures by industry
Table 17 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by industry class

Table 18 - Past due and impaired exposure by geography

| 2017 | Past due exposures |  | Impaired exposures € | Total € $m$ |
| :---: | :---: | :---: | :---: | :---: |
|  | <90 days past due € | $>90$ days past due € $m$ |  |  |
| Rol | 263 | 174 | 2,441 | 2,878 |
| UK | 320 | 66 | 363 | 749 |
| Total | 583 | 240 | 2,804 | 3,627 |

## Past due and impaired exposures by geography

Table 18 is based on financial statement information and discloses 'past due but not impaired' and 'impaired' balances by geographic location, which are based on the location of the business unit where the exposure is booked.

Table 19 is based on the ageing analysis on balance sheet past-due exposures regardless of their impairment status.

| Table 19 - EU CR1-D - Ageing of past-due exposures |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <=30 days | $\begin{gathered} >30 \text { days } \\ \text { <=60 days } \end{gathered}$ | $\begin{gathered} >60 \text { days } \\ <=90 \text { days } \end{gathered}$ | $\begin{array}{r} >90 \text { days } \\ <=180 \text { days } \end{array}$ | $\begin{gathered} >180 \text { days } \\ <=1 \text { year } \end{gathered}$ | >1 year |
| Gross carrying value | $€ \mathrm{~m}$ | €m | €m | €m | €m | €m |
| Loans | 721 | 277 | 120 | 239 | 460 | 1,810 |
| Debt securities | - | - | - | - | - | - |
| Total exposures | 721 | 277 | 120 | 239 | 460 | 1,810 |

Specific credit risk adjustments (provisions)

| Table 20 - EU CR2-2 - Changes in the stock of defaulted and impaired loans and debt securities |  |
| :---: | :---: |
|  | Gross carrying value defaulted exposures |
| 1. Opening balance | 5,181 |
| 2. Loans and debt securities that have defaulted or impaired since the last reporting period ${ }^{1}$ | 1,279 |
| 3. Returned to non-defaulted status | (695) |
| 4. Amounts written off | $(1,308)$ |
| 5. Other changes | (535) |
| 6. Closing balance | 3,922 |


| Table 21 - EU CR2-A - Changes in the stock of general and specific credit risk adjustments |  |  |
| :---: | :---: | :---: |
| Provisions | Accumulated specific credit risk adjustment € | Accumulated general credit risk adjustment € |
| Opening balance | 2,907 | - |
| Increases due to amounts set aside for estimated loan losses during the period | 213 | - |
| Decreases due to amounts reversed for estimated loan losses during the period | (130) | - |
| Decreases due to amounts taken against accumulated credit risk adjustments | $(1,324)$ | - |
| Transfers between credit risk adjustments | - | - |
| Impact of exchange rate differences | (19) | - |
| Business combinations, including acquistions and disposals of subsidiaries | - | - |
| Other adjustments | 71 | - |
| Closing balance | 1,718 | - |
| Recoveries on credit risk adjustments recorded directly to the statement of profit or loss | - | - |
| Specific credit risk adjustments directly recorded to the statement of profit or loss | - | - |

Changes in the stock of defaulted and impaired loans and debt securities Table 20 shows the changes in stock of defaulted and impaired loans.

## Specific credit risk adjustment charges

 during the yearTable 21 shows the movement in the provision on loans and advances to customers during the year ended 31 December 2017. It is based on financial statement information.

[^28]Specific credit risk adjustments (provisions) (continued)
Table 22 shows an overview of non-performing and forborne exposures.

| Table 22 shows an overview of non-performing and forborne exposures. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table 22-EU CR1-E - Non-performing and forborne exposures |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Gross carrying amount of performing and non-performing exposures |  |  |  |  |  |  | Accumulated impairment and provisions and negative fair value adjustments due to credit risk |  |  |  | Collater financial g rece | and ntees |
| 2017 | Total €m | of which; performing but past due $>30$ days and <=90 days € | performing forborne $\epsilon m$ | Nonperforming €m | of which; defaulted $\epsilon m$ | $\begin{array}{r} \text { impaired } \\ € m \end{array}$ | forborne $\epsilon m$ | performing exposures $\epsilon$ m | of which; forborne € $m$ | On nonperforming exposures $\epsilon$ © | of which; forborne $€ m$ | On nonperforming exposures $\epsilon m$ |  |
| 10 Debt securities | 14,438 | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 Loans and advances | 57,407 | 272 | 1,530 | 4,201 | 3,850 | 2,937 | 3,437 | (191) | (71) | $(1,527)$ | $(1,266)$ | 1,684 | 2,300 |
| 30 Off-balance sheet exposures | 12,112 | - | 46 | 94 | 68 | - | 81 | - | - | - | - | - | - |

Comparison of expected versus actual loss

| Table 23 - Expected versus actual loss | Expected loss <br> calculated on <br> 2016 | Specific <br> provision <br> charge <br> $\mathbf{6 m}$ |
| :--- | ---: | ---: |
| IRB exposure class | (m |  |
| Institutions | 1 | - |
| Corporates | 208 | 113 |
| Retail | 155 | $(19)$ |
| - Secured by real estate property | 89 | $(13)$ |
| - Qualifying revolving | 15 | - |
| - Other retail | 51 | $(6)$ |
| Total | $\mathbf{3 6 4}$ | $\mathbf{9 4}$ |

Table 23 is based on a comparison of regulatory expected loss of the performing IRB loan portfolios as at 31 December 2016 with actual loss (specific provision
charge incurred) on these portfolios in the year ended 31 December 2017.
The parameters underlying the calculation of expected loss (PD, LGD and EAD)
primarily represent through the cycle estimations, i.e. they reflect and estimate the average outcomes for an entire economic cycle. To meaningfully validate expected loss, these estimates would need to be compared to all realised losses which may have materialised after all the assets have gone through their life cycle. However, such information cannot be provided and disclosed since life cycles could last for a significant number of years. Using actual accounting loss information does not provide a suitable alternative, because - unlike expected loss estimates - accounting loss information is measured at point-in-time. Table 23 should therefore be read bearing in mind these significant limitations.

Credit risk mitigation

| Table 24 - EU CR3-CRM techniques - Overview |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net value | Total $€ \mathrm{~m}$ | Exposures unsecured carrying amount € $m$ | Exposures secured carrying amount € $m$ | Exposures secured by collateral €m | Exposures secured by financial guarantees € $m$ | Exposures secured by credit derivatives $€ m$ |
| 1. Loans | 75,963 | 56,975 | 18,988 | 18,988 | - | - |
| Institutions | 739 | 739 | - | - | - | - |
| Corporates | 18,852 | 12,452 | 6,400 | 6,400 | - | - |
| of which; |  |  |  |  |  |  |
| - Specialised lending | 948 | 944 | 4 | 4 | - | - |
| - SME | 9,098 | 3,242 | 5,856 | 5,856 | - | - |
| Retail | 16,547 | 5,354 | 11,193 | 11,193 | - | - |
| Secured by real estate property - SME | 11,193 | - | 11,193 | 11,193 | - | - |
|  | - | - | - |  |  |  |
| - Non-SME | 11,193 | - | 11,193 | 11,193 | - | - |
| Qualifying revolving | 2,680 | 2,680 | - |  |  |  |
| Other Retail | 2,674 | 2,674 | - | - | - | - |
| - SME | 2,180 | 2,180 | - | - | - | - |
| - Non-SME | 494 | 494 | - | - | - | - |
| Total IRB | 36,138 | 18,545 | 17,593 | 17,593 | - | - |
| Central governments or central banks | 13,022 | 13,022 | - | - | - | - |
| Regional governments or local authorities | 189 | 189 | - | - | - | - |
| Public sector entities | 326 | 326 | - | - | - | - |
| Multilateral development banks | 338 | 338 | - | - | - | - |
| International organisations | 896 | 896 | - | - | - | - |
| Institutions | 10,963 | 10,963 | - | - | - | - |
| Corporates | 4,983 | 4,043 | 940 | 940 | - | - |
| Retail | 2,535 | 2,535 | - | - | - | - |
| Secured by mortgages on immovable property | 455 | - | 455 | 455 | - | - |
| Exposures in default | 476 | 476 | - | - | - | - |
| Items associated with particularly high risk | 134 | 134 | - | - | - | - |
| Covered bonds | - | - | - | - | - | - |
| Claims on institutions and corporates with a short-term credit assessment | - | - | - | - | - | - |
| Collective investment undertakings | - | - | - | - | - | - |
| Equity exposures | - | - | - | - | - | - |
| Other items | 5,508 | 5,508 | - | - | - | - |
| Total Standardised | 39,825 | 38,430 | 1,395 | 1,395 | - | - |
| 2. Debt securities | 5,129 | - | 5,129 | 5,129 | - | - |
| 3. Total exposures | 81,092 | 56,975 | 24,117 | 24,117 | - | - |
| of which; |  |  |  |  |  |  |
| 4. Defaulted | 2,349 | 1,050 | 1,299 | 1,299 | - | - |

Leverage ratio

Table 25- LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

2017

| Regulatory Annex IV <br> Reference - CDR IV | Regulatory € | Fully loaded €m |
| :---: | :---: | :---: |
| 1 Total assets as per published financial statements | 80,004 | 80,004 |
| Adjustments for derivative financial instruments | $(1,399)$ | $(1,399)$ |
| 5 Adjustments for securities financing transactions 'SFTs' | 23 | 23 |
| 6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures) | 4,923 | 4,923 |
| 7 Other adjustments | 2,618 | 1,707 |
| 8 Total leverage ratio exposure | 86,169 | 85,258 |

Table 26 - LRCom: Leverage ratio common disclosure

| 2017 | Regulatory CRD IV € | Fully loaded CRD IV € |
| :---: | :---: | :---: |
| On-balance sheet exposures (excluding derivatives and SFTs) |  |  |
| 1 On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral) | 81,666 | 81,666 |
| 2 (Asset amounts deducted in determining Tier 1 capital) | $(1,395)$ | $(2,306)$ |
| 3 Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) | 80,271 | 79,360 |
| Derivative exposures |  |  |
| 4 Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin) | 381 | 381 |
| 5 Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method) | 1,033 | 1,033 |
| 7 (Deductions of receivables assets for cash variation margin provided in derivatives transactions) | (497) | (497) |
| 9 Adjusted effective notional amount of written credit derivatives | 35 | 35 |
| 11 Total derivative exposures | 952 | 952 |
| Securities financing transaction exposures |  |  |
| 14 Counterparty credit risk exposure for SFT assets | 23 | 23 |
| 16 Total securities financing transaction exposures | 23 | 23 |
| Other off-balance sheet exposures |  |  |
| 17 Off-balance sheet exposures at gross notional amount | 12,188 | 12,188 |
| 18 (Adjustments for conversion to credit equivalent amounts) | $(7,265)$ | $(7,265)$ |
| 19 Other off-balance sheet exposures | 4,923 | 4,923 |
| Capital and total exposures |  |  |
| 20 Tier 1 capital | 6,406 | 5,529 |
| 21 Total leverage ratio exposures | 86,169 | 85,258 |
| Leverage ratio |  |  |
| 22 Leverage ratio | 7.4\% | 6.5\% |

Leverage ratio (continued)


LRQua: Disclosure on qualitative items CRD IV requires the disclosure of the Governor and Company of the Bank of Ireland's leverage ratio, which measures the level of Tier 1 capital against both on and off balance sheet exposures. As at 31 December 2017, the leverage ratio was $7.4 \%$ on a regulatory basis and $6.5 \%$ on a fully loaded basis.

The purpose of monitoring and managing this metric is to enable Regulators to
constrain the build-up of excessive leverage, which was considered to be one of the drivers of the banking crisis.

The European Commission has proposed the introduction of a binding leverage requirement of $3 \%$ as part of the CRD V Package proposals. It is anticipated that the binding leverage requirement will be applicable from 2019 at the earliest pending final agreement of the proposals at EU level.

The tables above illustrate leverage ratio calculated in accordance with Articles 429, 499(2) and (3) of the CRR and a breakdown of the Governor and Company of the Bank of Ireland's leverage ratio exposure as at 31 December 2017 on both a regulatory and fully loaded basis.
Appendix V: Differences in scope of consolidation
Table 1-EU LI3 - Differences in scope of consolidation (entity by entity)

## Name of entity

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Financial corporations other than credit institutions







| Table 1 - EU LI3-Differences in scope of consolidation (entity by entity) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of entity | Method of accounting consolidation | Full consolidation | Proportional consolidation | Equity Method | Neither consolidated nor deducted | Deducted ${ }^{2}$ | Description of the entity |
| Alcorta Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland (UK) plc | Full consolidation | X |  |  |  |  | Credit institutions |
| Bank of Ireland Asset Management (U.S.) Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Britain Holdings Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Business Finance Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Commercial Finance Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Direct Marketing Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Entrepreneurs Fund Limited Partnership | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Bank of Ireland Finance Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Fund Managers Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Home Mortgages Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Insurance \& Investments Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Insurance Management Services Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Insurance Services Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland International Finance Designated Activity Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Kernel Capital Partners Private Equity Fund | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Bank of Ireland Kernel Capital Partners Private Equity Fund II | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Bank of Ireland Leasing Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Life Holdings Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Mortgage Bank | Full consolidation | X |  |  |  |  | Credit institutions |
| Bank of Ireland Nominee 1 Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Nominee 3 Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Pensions Trust Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Personal Finance Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Seed and Early Stage Equity Fund 2009 | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Bank of Ireland Start-Up and Emerging Sectors Equity Fund 2010 | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Bank of Ireland Treasury and International Banking Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Trust Services Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland Trustee Company Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bank of Ireland UK Holdings plc | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |

[^29]Differences in scope of consolidation (continued)

| Table 1 - EU LI3-Differences in scope of consolidation (entity by entity) (continued) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of entity | Method of accounting consolidation | Full consolidation | Proportional consolidation | Equity Method | Neither consolidated nor deducted | Deducted | Description of the entity |
| Bank of Ireland Unit Managers Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BIAM Holdings Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI (I.O.M.) Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Exchange Ltd | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Funding (No.1) LP | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Funding (No.2) LP | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Funding (No.3) LP | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Funding (No.4) LP | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Capital Holdings Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI European Holdings Sarl | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI G.P. No 1 Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Holdings (I.O.M.) Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI Insurance Limited | Full consolidation |  |  | X |  | X | Insurance entity |
| BOI Venture Capital Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI-IF Services No 10 Company Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| BOI-IF Services No 5 Company Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bowbell No. 1 Holdings Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bowbell No. 1 Plc | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bristol \& West Personal Pensions Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bristol \& West plc | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Brunel Residential Mortgage Securitisation No. 1 Pare | dFull consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Brunel Residential Mortgage Securitisation No. 1 plc | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Bushfield Leasing Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| C \& I (Division) Holdings Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Central Pensions Administration Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Centurion Card Services Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| College Green Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Copenhagen Retail Exclusive Lux Sarl | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Corbawn Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| December Leasing Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Delta Equity Fund II Limited Partnership | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Delta Equity Fund Limited Partnership | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| Edendork Leasing Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Enterprise 2000 Fund Limited | Equity method |  |  | X |  |  | Financial corporations other than credit institutions |
| First Rate Exchange Services Holdings Limited | Equity method |  |  | X |  |  | Financial corporations other than credit institutions |

[^30]Differences in scope of consolidation (continued)
Table 1 - EU LI3 - Differences in scope of consolidation (entity by entity) (continued)
Method of
accounting

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Differences in scope of consolidation (continued)

| Table 1 - EU LI3 - Differences in scope of consolidation (entity by entity) (continued) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of entity | Method of accounting consolidation | Full consolidation | Proportional consolidation | Equity Method | Neither consolidated nor deducted | Deducted | Description of the entity |
| Noisy Le Grand Paris Sarl | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| Professional Audit Services Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Rolmur Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Rue St Georges Sarl | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| SCI Immeuble Saint Georges | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| SCI Jupiter Immeuble | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| SCI Sang Rouge | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| Scribe Holdings Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Swallows Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| The Bank of Ireland Kernel Capital Growth Fund (ROI) | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| The Bank of Ireland Kernel Capital Growth Fund (ROI) II | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| The BDO Development Capital Fund Limited Partnership | Other ${ }^{1}$ |  |  |  | X |  | Financial corporations other than credit institutions |
| The Governor \& Company of the Bank of Ireland | Full consolidation | X |  |  |  |  | Credit institutions |
| The Investment Bank of Ireland Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| The National Bank of Ireland Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Tockhill Unlimited Company | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Trustcase Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Tustin Limited | Full consolidation | X |  |  |  |  | Financial corporations other than credit institutions |
| Weesperpelin 6 BV | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |
| Weesperpelin 6 Holding BV | Full consolidation |  |  | X |  | X | Financial corporations other than credit institutions |


Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 435(1)(e) | A declaration of adequacy of risk management arrangements approved by the Board | P3: Risk Management (page 33) |
| 435(1)(f) | Concise risk statement approved by the Board | P3: Risk Management (page 33) |
| 435(2) | Information on governance arrangements, including information on Board composition and recruitment and risk committees | AR: Corporate Governance Statement - Corporate Governance Report (pages 89 to 112) |
| 435(2)(a) | Number of directorships held by Board members | AR: Corporate Governance Statement - Corporate Governance Statement - The Board of Directors (pages 89 to 93) |
| 435(2)(b) | Recruitment policy for selection of Board members, their actual knowledge, skills and expertise. | AR: Corporate Governance Statement - Corporate Governance Report (pages 89 to 112) |
| 435(2)(c) | Policy on diversity of Board membership and results against targets. | AR: Corporate Governance Statement - Corporate Governance Report (pages 89 to 112) |
| 435(2)(d) | Disclosure of whether a dedicated risk committee is in place, and number of meeting in the year. | AR: Risk Management Report - Risk governance (pages 50 and 51) |
| 435(2)(e) | Description of information flow on risk to Board | AR: Risk Management Report - Risk governance (pages 50 and 51) |
| 436 | Disclose information as follows: |  |
| 436(a) | Name of institution | Bank of Ireland Group plc |
| 436(b) | Difference in basis of consolidation for accounting andprudential purposes, describing entities that are: |  |
| 436(b)(i) | Fully consolidated | P3: Appendix V - Differences in scope of consolidation (pages 139 to 143). |
| 436(b)(ii) | Proportionally consolidated | P3: Appendix V - Differences in scope of consolidation (pages 139 to 143). |
| 436(b)(iii) | Deducted from own funds | P3: Appendix V - Differences in scope of consolidation (pages 139 to 143). |
| 436(b)(iv) | Neither consolidated nor deducted | P3: Appendix V - Differences in scope of consolidation (pages 139 to 143). |
| 436(c) | Impediments to transfer of own funds between parent and subsidiaries | P3: Capital (page 18) |
| 436(d) | Capital shortfalls in any subsidiaries outside the scope of consolidation | Entities outside the scope of consolidation are appropriately capitalised. |
| 436(e) | Making use of articles on derogations from a) prudential requirements or b) liquidity requirements for individual subsidiaries/entities. | P3: Pillar 3 Overview: Preparation and Basis of Consolidation (page 13) |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 437(1)(a) | A full reconciliation of Common equity tier 1 items, Additional tier 1 items, Tier 2 items and filters and deductions applied pursuant to Articles 32 to $35,36,56,66$ and 79 to own funds of the institution and the balance sheet in the audited financial statements of the institution | P3: Table 2.7-Transitional \& fully loaded own funds disclosure (page 26) <br> P3: Table 2.9 - Capital Instruments (page 32) |
| 437(1)(b) | A description of the main features of the Common equity tier 1 and Additional tier 1 instruments and Tier 2 instruments issued by the institution. | T\&Cs pertaining to the main features of Bol's capital instruments is to be provided separately on the Bol website. |
| 437(1)(c) | The full terms and conditions of all Common equity tier 1, Additional tier 1 and Tier 2 instruments | T\&Cs pertaining to the main features of Bol's capital instruments is to be provided. separately on the Bol website. |
| 437(1)(d) | Disclosure of the nature and amounts of the following. |  |
| 437(1)(d)(i) | Each prudential filter applied. | P3: Table 2.7-Transitional \& fully loaded own funds disclosure (page 26). |
| 437(1)(d)(ii) | Each capital deduction applied. | P3: Table 2.7-Transitional \& fully loaded own funds disclosure (page 26). |
| 437(1)(d)(iii) | Items not deducted from capital. | P3: Table 2.7 - Transitional \& fully loaded own funds disclosure (page 26). |
| 437(1)(e) | A description of all restrictions applied to the calculation of own funds in accordance with this Regulation and the instruments, prudential filters and deductions to which those restrictions apply | P3: Table 2.7-Transitional \& fully loaded own funds disclosure (page 26). |
| 437(1)(f) | Where institutions disclose capital ratios calculated using elements of own funds determined on a different basis. | Not applicable. |
| 437(2) | EBA shall develop draft implementing technical standards to specify uniform templates for disclosure. | EBA published technical standards introducing Common Disclosure templates for Own funds - (EU) No 1423/2013. |
| 438(a) | Summary of institution's approach to assessing adequacy of capital levels. | P3: Capital Section - Narrative on ICAAP (page 18). |
| 438(b) | Result of ICAAP on demand from authorities. | Not applicable. |
| 438(c) | Capital requirements for each Standardised approach credit risk exposure class. | P3: Table 2.4 - Minimum Capital Requirements, Risk Weighted Assets and Net Value by Risk Type (page 22). |
| 438(d) | Capital requirements amounts for credit risk for each internal Ratings Based Approach exposure class. | P3: Table 2.3-Capital requirements / RWA (page 21). |
| 438(d)(i)-(iv) | Capital requirements for each Internal Ratings Based Approach credit risk exposure class. | P3: Table 2.3-Capital requirements / RWA (page 21). |
| 438(e) | Capital requirements for market risk or settlement risk. | P3: Table 7.1-Market risk under the Standardised approach (page 76). |
| 438(f) | Capital requirements for operational risk, separately for the Basic Indicator Approach, the Standardised Approach, and the Advanced Measurement Approaches as applicable. | P3: Table 2.3 - Capital requirements / RWA (page 21) includes operational risk capital requirements. |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 439(a) | Description of process to assign internal capital and credit limits to CCR exposures. | P3: Risk Management: Counterparty credit risk (page 66). |
| 439(b) | Discussion of policies for securing collateral and establishing credit reserves. | P3: Risk Management: Counterparty credit risk (page 66). |
| 439(c) | Discussion of management of wrong-way risk exposures. | P3: Risk Management: Counterparty credit risk (page 66). |
| 439(d) | Disclosure of collateral to be provided (outflows) in the event of a ratings downgrade. | P3: Risk Management: Counterparty credit risk (page 66). |
| 439(e) | Derivation of net derivative credit exposure. | P3: Risk Management: Counterparty credit risk (page 66). |
| 439(f) | Exposure values for mark-to-market, original exposure, Standardised and internal model methods. | P3: Table 5.1 - EU CCR1 - Analysis of CCR exposure by approach (page 67). |
| 439(g) | Notional value of credit derivative hedges and current credit exposure by type of exposure. | P3: Table 5.8 - EU CCR6-Credit derivative exposures (page 70). |
| 439(h) | Notional amounts of credit derivative transactions. | P3: Table 5.8 - EU CCR6 - Credit derivative exposures (page 70). |
| 439(i) | Estimate of alpha, if applicable. | Not applicable. |
| 440(1)(a) | Geographical distribution of relevant credit exposures for calculation of countercyclical capital buffer. | P3: Table 2.8-Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (page 30). |
| 440(1)(b) | Amount of the institution specific countercyclical capital buffer. | P3: Table 2.8 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (page 30). |
| 440(2) | EBA will issue technical implementation standards related to 440 (1). | EBA published the Commission Delegated Regulation (EU) No 2015/1555 in relation to the Countercyclical buffer. |
| 441(1) | Disclosure of the indicators of global systemic importance. | Not applicable. |
| 441(2) | EBA will issue technical implementation standards related to 441 (1). | Not applicable. |
| 442(a) | Disclosure of bank's definitions of past due and impaired. | P3: Risk Management - Credit Risk (page 35). <br> AR: Other Information - Supplementary asset quality and forbearance disclosures (pages 273 to 277). |
| 442(b) | Approaches for calculating specific and general credit risk adjustments. | Ar: Business review - Risk Management Report - Management of key Group risks credit risk (page 66). |
| 442(c) | Disclosure of pre-CRM EAD by exposure class. | P3: Table 4.1 - Exposure to credit risk (page 36). |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 442(d) | Disclosure of pre-CRM EAD by geography and exposure class. | P3: Table 4.3a - Geographical analysis of e exposures - IRB approach (page 38). <br> P3: Table 4.3b - Geographic analysis of exposures - Standardised approach (page 39). <br> P3: Table 4.4 - EU CRB-C - Geographical breakdown of exposures (page 39). <br> P3: Table 4.5 - EU CR1-C - Credit quality of exposures by geographical breakdown (page 40). |
| 442(e) | Disclosure of pre-CRM EAD by industry and exposure class. | P3: Table 4.6a - Industry analysis of exposures - IRB approach (pages 40 and 41). <br> P3: Table 4.6b - Industry analysis of exposures - Standardised approach (pages 42 and 43). <br> P3: Table 4.7 - EEU CR1-B - Credit quality of exposures by industry or counterparty types (page 44). |
| 442(f) | Disclosure of pre-CRM EAD by residual maturity and exposure class. | P3: Table 4.8 - EU CRB-E - Maturity of exposures (page 45). |
| 442(g) | Breakdown of impaired, past due, specific and general credit risk adjustments, and impairment charges for the period, by industry. | P3: Table 4.15 - Past due and impaired exposures by industry (page 61) <br> P3: Table 4.19 - EU CR2-A - Changes in the stock of general and specific credit risk adjustments (page 62). |
| 442(h) | Impaired, past due exposures, by geographical area, and amounts of specific and general impairment for each geography. | P3: Table 4.16 - Past due and impaired exposure by geography (page 61). |
| 442(i) | Reconciliation of changes in specific and general credit risk adjustments. | P3: Table 4.19 - EU CR2-A - Changes in the stock of general and specific credit risk adjustments (page 62). |
| 443 | Disclosures on unencumbered assets. | P3: Risk Management - Encumbered and unencumbered assets held by the Group (pages 80 and 81). |
| 444(a) | Names of the ECAls used in the calculation of Standardised approach risk-weighted assets and reasons for any changes. | Not material. |
| 444(b) | Exposure classes associated with each ECAI. | Not material. |
| 444(c) | Description of the process used to transfer credit assessments to non-trading book items. | Not material. |
| 444(d) | Mapping of external rating to CQS. | Not material. |
| 444(e) | Exposure value pre and post-credit risk mitigation, by CQS. | Not material. |
| 445 | Disclosure of position risk, large exposures exceeding limits,FX, settlement and commodities risk. | P3: Table 7.1-Market risk under the Standardised approach (page 76) |
| 446 | Scope of approaches used to calculate operational risk. | P3: Risk Management - Operational risk management framework (page 77) |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 447(a) | Differentiation of exposures based on objectives and an overview of accounting techniques and valuation methodologies. | P3: Appendix II: Equity holdings not in the Trading Book (page 87) |
| 447(b) | The balance sheet value, the fair value and, for those exchange-traded, a comparison to the market price where it is materially different from the fair value. | Not material. |
| 447(c) | The types, nature and amounts of exchange-traded exposures, private equity exposures in sufficiently diversified portfolios, and other exposures. | Not material. |
| 447(d) | Realised gains or losses arising from sales and liquidations in the period. | Not material. |
| 447(e) | Total unrealised gains or losses, the total latent revaluation gains or losses, and any of these amounts included in the original or additional own funds. | Not material. |
| 448(a) | Nature of the interest rate risk and the key assumptions, and frequency of measurement of the interest rate risk. | Ar: Business review - Risk Management Report - Management of key Group risks market risk (pages 76 to 79 ). |
| 448(b) | Variation in earnings, economic value or other relevant measure used by the bank for upward and downward rate shocks according to the banks method for measuring the interest rate risk, broken down by currency. | Ar: Business review - Risk Management Report - Management of key Group risks market risk (pages 76 to 79). |
| 449(a) | Objectives in relation to securitisation activity. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(b) | Nature of other risks in securitised assets, including liquidity. | Not material. |
| 449(c) | Risks in re-securitisation activity stemming from seniority of underlying securitisations and ultimate underlying assets. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(d) | The roles played by the institution in the securitisation process. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(e) | Indication of the extent of involvement in roles. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(f) | Processes in place to monitor changes in credit and market risks of securitisation exposures, and how the processes differ for re-securitisation exposures. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(g) | Description of the institution's policies with respect to hedging and unfunded protection, and identification of material hedge counterparties. | P3: Risk Management: Securitisations: Accounting policies for securitisation activities (page 72) - only material for where securitisations are originated by the Group. |
| 449(h) | Approaches to the calculation of risk-weighted assets for securitisations mapped to types of exposures. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(i) | Types of SSPEs used to securitise third-party exposures as a sponsor. | Not applicable |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 449() | Summary of accounting policies for securitisations. | P3: Risk Management: Securitisations sections (pages 72 to 75 ). |
| 449(k) | Names of ECAls used for securitisations and type. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(1) | Full description of Internal Assessment Approach. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(m) | Explanation of significant changes in quantitative disclosures. | P3: Risk Management: Securitisations sections (pages 72 to 75). |
| 449(n) | As appropriate, separately for the Banking and trading book securitisation exposures: |  |
| 449(n)(i) | Amount of outstanding exposures securitised. | P3: Table 6.1- Outstanding amount of exposures securitised (page 73). |
| 449(n)(ii) | On balance sheet securitisation retained or purchased, and off balance sheet exposures. | P3: Table 6.3 - Retained and purchased securitisation positions by exposure type (page 74). |
| 449(n)(iii) | Amount of assets awaiting securitisation. | Not applicable. |
| 449(n)(iv) | Early amortisation treatment; aggregate drawn exposures, capital requirements. | Not applicable. |
| $449(n)(v)$ | Deducted or 1,250\%-weighted securitisation positions. | P3: Table 6.4 - Retained and purchased securitisation positions by risk weight (page 75). |
| 449(n)(vi) | Securitisation activity including the amount of exposures securitised and recognised gains or losses on sales. | P3: Risk Management: Securitisation positions retained and purchased by exposure (page 74). |
| 449(o) | Banking and trading book securitisations. |  |
| 449(o)(i) | Retained and purchased positions and associated capital requirements, broken down by risk-weight bands. | P3: Risk Management: Securitisation positions retained and purchased by exposure (page 74). |
| 449(o)(ii) | Retained and purchased re-securitisation positions before and after hedging and insurance; exposure to financial guarantors broken down by guarantor credit worthiness. | Not applicable. |
| 449(p) | Impaired assets and recognised losses related to banking book securitisations, by exposure type. | P3: Table 6.2-Specific provisions, past due and impaired securitised exposures (page 73). |
| 449(q) | Exposure and capital requirements for trading book securitisations, separated into traditional and synthetic. | P3: Table 6.1 - Outstanding amount of exposures securitised (page 73). |
| 449(r) | Whether the institution has provided non-contractual financial support to securitisation vehicles. | Not applicable. |

Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :---: | :---: | :---: |
| 450 | Remuneration disclosures. | P3: Appendix III: Remuneration (pages 88 to 92 ). <br> AR: Governance - Remuneration Report (pags 118 to 123). |
| 451(1)(a) | Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items. | P3: Risk Management - Leverage Ratio section (pages 82 to 84). |
| 451(1)(b) | Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items. | P3: Table 9.1-LRSum: Summary reconciliation of accounting assets and leverage ratio exposures (page 82). |
| 451(1)(c) | Leverage ratio, and breakdown of total exposure measure, including reconciliation to financial statements, and derecognised fiduciary items. | P3: Table 9.1 - LRSum: Summary reconciliation of accounting assets and leverage ratio exposures (page 82). |
| 451(1)(d) | Description of the processes used to manage the risk of excessive leverage, and factors that impacted the leverage ratio during the year. | P3: Risk Management - Leverage Ratio section (page 82). |
| 451(1)(e) | Description of the processes used to manage the risk of excessive leverage, and factors that impacted the leverage ratio during the year. | P3: Risk Management - Leverage Ratio section (page 82). |
| 451(2) | EBA to publish implementation standards for points above. | EBA published technical standards introducing common disclosure for leverage Commission Implementing Regulation (EU) No 2016/200. |
| 452(a) | Permission for use of the IRB approach from the competent authority. | P3: Risk Management - IRB Approach (pages 46 to 57). |
| 452(b)(i) | Internal rating scales, mapped to external ratings. | P3: Risk Management - IRB Approach (pages 46 to 57). |
| 452(b)(ii) | Use of internal ratings for purposes other than capital requirement calculations. | P3: Risk Management - IRB Approach (pages 46 to 57). |
| 452(b)(iii) | Management and recognition of credit risk mitigation. | P3: Risk Management - credit risk mitigation (page 64). |
| 452(b)(iv) | Controls around ratings systems. | P3: Risk Management - IRB Approach (pages 46 to 57). |
| 452(c) | Description of ratings processes for each IRB asset class, provided separately. | P3: Risk Management - IRB Approach (pages 46 to 57). |
| 452(d) | Exposure values by IRB exposure class, separately for Advanced and Foundation IRB. | P3: Risk Management: IRB Approach (pages 46 to 57). |
| 452(e)(i) | Total exposure, separating drawn and undrawn exposure. | P3: Table 4.11 - EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (pages 50 to 53 ). <br> P3: Table 4.12 - EU CR6 - IRB approach - Credit risk exposures by exposure class and PD scale (pages 54 to 57 ). |


Appendix VI: CRR Roadmap (continued)

| CRR Ref | High Level Summary | BOI Reference |
| :--- | :--- | :--- |
| $455($ (a)(i) | Disclosure of the characteristics of the market risk models. | Not applicable. |
| $455($ (a)(ii) | Disclosure of the methodologies used to measure incremental default and migration risk. | Not applicable. |
| $455($ (a)(ii) | Descriptions of stress tests applied to the portfolios. | Not applicable. |
| $455($ (i)(iv) | Methodology for back-testing and validating the models. | Not applicable. |
| $455($ (b) | Scope of permission for use of the models. | Not applicable. |
| $455($ (c) | Policies and processes to determine trading book classification, and to comply with prudential <br> valuation requirements. | Not applicable. |
| $455($ d) | High / Low / Mean values over the year of VaR, SVaR and incremental risk charge. | Not applicable. |
| $455(e)$ | The elements of the own fund calculation. | Not applicable. |
| $455(f)$ | Weighted average liquidity horizons of portfolios covered by models. | Not applicable. |
| $455(\mathrm{~g})$ | Comparison of end-of-day VaR measures compared with one day changes in the portfolio's value. | Not applicable. |

## Advanced IRB

## Banking Book

Basel I

Basel II The Capital Adequacy Framework issued in June 2004 by the Basel Committee, and implemented into EU law by Directive 2006/48/EC and Directive 2006/49/EC.

Basel III Basel III is a global regulatory standard on bank capital adequacy and liquidity risk. It was agreed upon by the members of the Basel Committee on Banking Supervision. Basel III is implemented in Europe through the CRD IV legislation (see below).

Capital Requirements Directive (CRD)

## CET 1

CRD IV

## Central Bank / CBI

## Collateral

## Counterparty

Credit Risk

## Credit Conversion

 Factor (CCF)Credit Risk Standardised Approach

Credit Risk A technique to reduce the credit risk associated with an exposure by the application of credit risk mitigants Mitigation such as collateral, guarantees and credit protection.

CSA

CVA

Derecognition
The Banking Book consists of all banking assets, liabilities and derivatives other than those held with trading intent and booked on this basis in the Trading Book.

The framework issued in 1988 by the Basel Committee on Banking Supervision.

Directive 2006/48/EC of the European Parliament and the Council of 14 June 2006, relating to the taking up and pursuit of the business of credit institutions together with Directive 2006/49/EC on the capital adequacy of investment firms and credit institutions.

Common equity tier 1.
The CRD IV package transposes, via a Regulation and a Directive, the new global standards on bank capital (commonly known as the Basel III agreement) into the EU legal framework. The Capital Requirements Directive and the Capital Requirements Regulation were published in the Official Journal of the EU on 27 June 2013 and the legislation is being implemented on a phased basis from 1 January 2014 with full implementation by 2019.

The Central Bank of Ireland.

Property or assets made available by a borrower as security against a loan. Under a collateralisation arrangement, a party who has an obligation to another party posts collateral (typically consisting of cash or securities) to secure the obligation. In the event that the counterparty defaults on the obligation, the secured party may seize the collateral.

Counterparty credit risk (CCR) means the risk that the counterparty to derivatives and security finance transactions could default before the final settlement of the transaction's cashflows.

An estimate of the proportion of undrawn commitments expected to be drawn down at the point of default. The CCF is expressed as a percentage and is used in the calculation of Exposure at Default (EAD).

A method for calculating risk capital requirements using ECAI ratings (where available) and supervisory risk weights.

Credit Support Annex. This is an annex to an ISDA agreement which allows the exchange of collateral (usually cash) based on mark-to-market movements on derivative contracts between counterparties.

Credit Valuation Adjustments.

The removal of a previously recognised financial asset or financial liability from an entity's balance sheet.

Advanced Internal Ratings Based approach. The approach which allows banks to calculate their capital requirement for credit risk for their retail and non-retail portfolios using their own internally generated estimates of PD, LGD and CCF. These variables are then fed into a standard formula to calculate the capital requirement for the asset. Referred to as Retail IRB in this document.

EBA

| Expected Loss | A regulatory calculation of the amount expected to be lost on an exposure using a twelve month time horizon <br> and downturn loss estimates. Expected loss is calculated by multiplying the Probability of Default (a <br> percentage) by the Exposure at Default (an amount) and Loss Given Default (a percentage). |
| :--- | :--- |
| External Credit | An eligible External Credit Assessment Institution (ECAI) is an entity, other than an Export Credit Agency, that <br> issues external credit assessments, and that has been determined by the competent authorities to meet the |
| Assessment |  |
| Institution (ECAI) | eligibility requirements set out in the Capital Requirements Directive. The credit assessment provided by the <br> ECAI is used to provide a basis for capital requirement calculations in the Standardised approach for <br> securitisation positions as well as an input into the IRB Institutions model. Further information on the use of |
| ECAIs under the Standardised approach for other asset classes has not been disclosed due to immateriality. |  |

Exposure at The estimated value of the bank's exposure at the moment of the borrower's default determined under regulatory rules.

Exposure Weighted Calculating the exposure weighted average LGD involves multiplying the exposure values by the relevant LGD, Average LGD summing the answers and dividing by the total exposure values.

Exposure Weighted Calculating the exposure weighted average PD involves multiplying the exposure values by the relevant PD,

Average PD
Foundation IRB The approach where institutions use their own estimates of PD to calculate risk weights for each exposure. Supervisory estimates of LGDs and EADs are used.

GMRA Global Master Repurchase Agreements, are standard industry agreements that permit the netting and the collateralisation of repo type transactions.

Incurred but not reported provisions.

International Financial Reporting Standards.

Approach to credit risk under which a bank may use internal estimates to generate risk components for use in the calculation of their credit risk regulatory capital requirements. There are two approaches: Foundation and Advanced (including Retail).

The CRD IV permits non-disclosure where the information to be provided is not regarded as material. Information is deemed to be material under the CRD IV if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purposes of making an economic decision. Any required items left out of this document due to immateriality are referenced in the relevant section of this document.

IRB Exposure - Institutions: Exposures to Financial Institutions authorised and supervised by the competent Classes
authorities and subject to prudential requirements. Includes exposure to Covered Bonds.

- Corporates: CRD IV does not provide a definition of the corporate exposure class; it simply provides that any exposure not falling into any of the other exposure classes will be allocated to the corporate exposure class.
- Secured by Residential mortgages. immovable property collateral:
- Qualifying revolving:
- Securitisation positions:

The exposures (to individuals) are revolving and unsecured. Primarily comprises of credit cards.

Exposures belonging to a pool - as defined below under securitisation.

ISDA

## Leverage Ratio

## Loss Given Default

 (LGD)Mark-to-Market
(MTM) (MTM)

Market Risk
Standardised
Approach

## MDB

## NPE

## Off Balance Sheet

## Operational Risk

Standardised
Approach

## Originator

## Probability of

Default (PD)

## Risk Exposure

Amount

KIRB $8 \%$ of the risk weighted exposure amounts that would be calculated under Part 3 - Chapter 3 of CRD IV in respect of the securitised exposures, had they not been securitised, plus the amount of expected loss associated with those exposures as calculated under those articles.

The leverage ratio is a monitoring tool which allows competent authorities to assess the risk of excessive leverage in their respective institutions.

Net Value For on balance sheet items the net value is the gross carrying value of exposure less allowances / impairments. For off balance sheet items, the net value is the gross carrying value of exposure less provisions.

## Regulatory Basis The application of the requirements in accordance with competent authority application of transitional provisions

ISDA is the International Swaps and Derivatives Association. ISDA Agreements are standard industry agreements issued by ISDA which permit the netting of derivative transactions.

The likely financial loss associated with default, net of collections / recovery costs and realised security.

The act of recording the price or value of a security, portfolio or account to reflect its current market value rather than its book value.

The Standardised approach to the determination of Pillar 1 capital for market risk in the Trading Book involves estimating a minimum required capital charge based on the difference in the re-pricing periods for assets, liabilities and derivatives (treated as equivalent on-balance sheet assets and liabilities). In addition, depending on the nature of the positions, it also provides for a specific risk charge. The total minimum capital charge is converted to a risk weighted asset equivalent for the Trading Book which is summed with other risk weighted assets in determining overall regulatory capital ratios.

Multilateral Development Bank. Non-performing exposures consist of impaired loans, loans past due greater than 90 days but not impaired, Forborne Collateral Realisation loans (FCRs) and other / probationary loans that have yet to satisfy exit criteria in line with EBA guidance to return to performing.

Off balance sheet items include undrawn commitments to lend, guarantees, letters of credit, acceptances and other items as listed in Annex I of the CRR.

The Pillar 1 approach which allows banks to calculate their capital requirement in respect of operational risk by multiplying the gross income from each business line by the relevant factor specified in respect of that business line (as set out in CRD IV).

An entity which, either itself or through related entities, directly or indirectly, was involved in the original agreement which created the obligations or potential obligations of the debtor or potential debtor giving rise to the exposure being securitised; or an entity which purchases a third party's exposures onto its balance sheet and then securitises them.

The likelihood that a debt instrument will default within a stated timeframe (For CRD IV this is a twelve month time horizon). For example, the probability of default of a certain loan is $2 \%$; this means that there are 2 chances out of 100 that the borrower will default in the next 12 months.

Risk Exposure Amount refers to an amount in respect of which capital requirements arise under CRR and is used interchangeably in this document with RWA.

Glossary (c)
Risk Weighted
Assets (RWA)

## RWA Density (\%)

## Securitisation

Settlement Risk
SME
Standardised $\quad$ Retail:
Exposure Classes

- Public Sector Exposures to Public Sector Entities and non-commercial undertakings.

Entities:

- Corporates: In general, a corporate exposure is defined as a debt obligation of a corporate, partnership or proprietorship.
- Exposures in default: Where the exposure is past due more than 90 days or unlikely to pay.
- Exposures associated Exposures associated with particularly high risks such as investments in venture with particularly high risks:
- Institutions and Corporates with a short-term credit assessment:
- Other items: Exposures not falling into the other exposure classes outlined.


## Abbreviations

| ABS | Asset-backed securities | GAC | Group Audit Committee |
| :---: | :---: | :---: | :---: |
| AFS | Available-for-sale | GORC | Group Operational Risk Committee GORC Group |
| AIRB | Advanced Internal Ratings-Based Approach |  | Operational Risk Committee |
| AT1 | Additional Tier 1 capital | GRPC | Group Risk Policy Committee |
| AVA | Additional Value Adjustments | ICAAP | Internal Capital Adequacy Assessment Process |
| Bank | The Governor and Company of the Bank of Ireland | IFRS | International Financial Reporting Standards |
| BCBS | Basel Committee on Banking Supervision | IRB | Internal Ratings-Based Approach |
| BOIG | plc Bank of Ireland Group plc | IRRBB | Interest rate risk in the banking book |
| BoIMB | Bank of Ireland Mortgage Bank | ISDA | International Swaps and Derivative Association |
| BSA | Balance Sheet Assessment | LCR | Liquidity coverage ratio |
| BRC | Board Risk Committee | LGD | Loss given default |
| CCB | Capital Conservation Buffer | LTV | Loan-to-value |
| CCF | Credit conversion factor | MTM | Mark-to-market |
| CCP | Central counterparty | OTC | Over-the-counter |
| CCR | Counterparty credit risk | O-SII | Other Systemically Important Institutions |
| CCyB | Countercyclical Capital Buffer | PD | Probability of default |
| CDS | Credit default swap | PFE | Potential future exposure |
| CET 1 | Common equity tier 1 capital | PIT | Point-in-time |
| CRD IV | Capital Requirements Directive \& Regulation | PRA | Prudential Regulation Authority (UK) |
| CRM | Credit risk mitigation | PVA | Prudent valuation adjustment |
| CRR | Capital Requirements Regulation | P2G | Pillar II Guidance |
| CRT | Credit risk transfer | P2R | Pillar II Requirement |
| CSA | Credit support annex | QRRE | Qualifying revolving retail exposure |
| CVA | Credit valuation adjustment | Retail IRB | Retail Internal Ratings Based Approach |
| EAD | Exposure at default | RMC | Risk Measurement Committee |
| EBA | European Banking Authority | Rol | Republic of Ireland |
| ECAI | External Credit Assessment Institutions | Row | Rest of World |
| EL | Expected loss | SME | Small Medium Enterprise |
| EU | European Union | SSM | Single Supervisory Mechanism |
| FCA | Financial Conduct Authority (UK) | SRB | Single Resolution Board |
| FIRB | Foundation Internal Ratings-Based Approach | TRIM | Targeted Review of Internal Models |
| FPC | Financial Policy Committee (UK) |  |  |


[^0]:    1 Organic capital generation consists of attributable profit, AFS reserve movements, the reduction in the DTA deduction (DTAs that rely on future profitability), movements in the Expected Loss deduction and RWA book size and quality movements. Transitional organic capital generation is 20 basis points higher due to the phasing impacts on AFS reserves and the DTA / Expected Loss deductions.
    2 Core banking platform investment relates to a programme commenced by the Group to replace the Group's core banking platform.
    3 In December 2017, the Group executed a credit risk transfer (CRT) transaction.
    4 Relates primarily to other regulatory deductions.

[^1]:    The Group availed of the regulatory profit verification process for profit in interim and year end regulatory disclosures.
    2 RWA in 2016 was restated from $€ 50.8$ billion to $€ 50.7$ billion due to a change in Market Risk RWA to reflect a minor restatement of the foreign exchange risk calculation.
    3 The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^2]:    Under CRD IV rules, expected loss CET 1 deduction was phased in at $80 \%$ in 2017. The residual is deducted 50/50 from Tier 1 and Tier 2.
    2 Deferred tax assets that rely on future profitability but which do not relate to timing differences. Transition period concludes 1 January 2024.
    3 Increasing by 10\% per annum to 100\% each year thereafter.
    4 Other adjustments primarily relate to the phase out of certain national filters.

[^3]:    Includes RWA relating to non-credit obligation assets / other assets, settlement risk and RWA arising from the $10 \%$ / $15 \%$ threshold deductions.
    2 The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^4]:    Asset size: This represents movements in RWA driven by changes in the composition of the Group's existing portfolios. This includes, but is not limited to: constant currency growth in existing portfolios including new business and repayment of
    loans, changes in the product mix.
    Model updates: This can represent movements in RWA including, but is not limited to: new model approvals, refinements and enhancements to improve model performance.
    Methodology and policy: Updates to the RWA calculation methodology, communicated by the Regulator. This includes a revision to the maturity parameter used in the FIRB calculation to align with ECB guidance and a reclassification of forborne
    collateral realisation (FCR) loans to align with EBA classifications. For more information on FCR see page 60 of the Group's Annual Report.

[^5]:    The following table provides a reconciliation of the Group's consolidated balance sheet as at 31 December 2017 on an accounting consolidated basis (as presented on page 139 of the Group's Annual Report 31 December 2017) to the Group's consolidated balance sheet under the regulatory scope of consolidation. Certain assets and liabilities can be subject to

[^6]:    The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR).
    2 Risk weighted assets reflect the application of certain Central Bank of Ireland Balance Sheet Assessment and expected loss required adjustments.

[^7]:    1 For information on the Countercyclical buffer, see Table 2.8.

[^8]:    The IRB and Standardised categories included in this table are the exposure classes outlined in CRD IV.
    1 The Group has exposures in the Standardised approach for multilateral development banks and International organisations, however these are 0\% risk weighted.
    2 The Group's holdings of Covered bonds are included in the IRB approach.

[^9]:    1 As outlined in the Group accounting policies on page 148 of the Group's Annual Report comparative periods have been restated to reflect the impact of the voluntary change in the Life assurance operations policy. See note 62 for additional information. For capital comparatives, December 2016 equity has not been restated and capital numbers are reported as per the Group's regulatory submission to the ECB.
    2 A potential dividend of $€ 120$ million has been deducted as required under Article 2 of $E U$ Regulation No. 241/2014. The Board has proposed an ordinary dividend of $€ 124$ million in respect of 2017, which subject to shareholder approval will be deducted from equity once paid.
    ${ }^{3}$ Deduction relates to DTA on losses carried forward, net of certain deferred tax liabilities. The deduction is phased at 30\% in 2017, increasing annually at a rate of $10 \%$ thereafter.
    4 The $10 \% / 15 \%$ threshold deduction is phased in at $80 \%$ in 2017 and increasing to $100 \%$ in 2018, and is deducted in full from CET 1 under fully-loaded rules.
    ${ }^{5}$ Regulatory deductions applicable under CRD and phased out under CRD IV relate primarily to national filters. These will be phased out at $20 \%$ per annum until 2018 and are not applicable under fully loaded rules.
    6 CRD IV transitional rules in 2017 require phasing in 80\% of unrealised losses and $80 \%$ of unrealised gains. In 2018 unrealised losses and gains will be phased in at 100\%. The reserve is recognised in capital under fully loaded CRD IV rules.
    7 Includes technical items such as other national filters and non-qualifying CET 1 items.
    ${ }^{8}$ Under CRD IV transitional rules, expected loss deduction is phased in at 80\% in 2017. Expected loss not deducted from CET 1 is deducted 50:50 from Tier 1 and Tier 2 capital. It is deducted in full from CET 1 under fully loaded rules.

    - The parent entity for 2016 refers to the Bank and for 2017 refers to BOIG plc. Also includes instruments issued by subsidiaries not subject to restriction on recognition in consolidated own funds.
    10 The calculation of the Group's Tier 1, total capital and related ratios (inc/uding leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^10]:    1 The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^11]:    

[^12]:    The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^13]:    ${ }^{1}$ As described on page 60 of the Group's Annual Report 31 December 2017, the Group has revised its asset quality reporting methodology to align with EBA guidance on nonperforming and forborne classifications. The Group's definition of impaired loans has been modified to remove non-mortgage loans that are greater than 90 days in arrears but where a specific provision is not required, instead these loans are now classified as 'past due greater than 90 days but not impaired'.

[^14]:    Includes the impact of the reclassification of FCR loans to align with EBA classifications. For more information on FCR see page 60 of the Group's Annual Report 31 December 2017.

[^15]:    1 The calculation of the Group's Tier 1, total capital and related ratios (including leverage ratio) at December 2017 are stated after a prudent application of the requirements of Articles 85 and 87 of Capital Requirements Regulation (CRR). Further details are provided on page 19.

[^16]:    References to Group are to the BOIG plc from 7 July and to the Gov Co Group from 1 January 2017 to 7 July 2017.
    Covered Institutions are defined as institutions that have executed a guarantee acceptance deed and have been designated in an order by the Minister for Finance under the Credit Institutions (Financial Support) Scheme 2008. The Covered Institutions are The Governor and Company of the Bank of Ireland and Bank of Ireland Mortgage Bank.

[^17]:    Includes.

    - Fixed Pay (Fees, Salaries, Employer Pension Contributions, Car Cash Allowances and other fixed payments and non-monetary benefits) as defined by the EBA Remuneration Guidelines and;
    - Variable payments (all other payments not defined as fixed pay under the EBA Remuneration Guidelines). Please note that no variable payments, excluding severance payments and a contractual pension credit award, were made to Code Role Holders in 2017.

    1 Data shown for all employees who held a Code Role at any stage in 2017 for the period they held the Code Role.
    2 Individuals, who are employed by an external company, are not classified as Code Role holders; however the individual responsible for their engagement to the Group, and therefore responsible for the risk they pose, has been identified as a Code Role holder.
    3 The Governor and NEDs figures include NEDs from Bank of Ireland Group (BoIG), Bank of Ireland (UK) plc (BoIUK), New Ireland Assurance Company (NIAC) and Bank of Ireland Mortgage Bank.

[^18]:    ＇Remuneration which is classified as fixed in nature：meets the conditions set out in Section 7 of the EBA－GL－2015－22 Guidelines on Sound Remuneration Policies．The Group＇s application of these guidelines is as follows：
    －Cash based 2017 includes：fees，salaries，employer pension contribution amounts，car allowances and other fixed payments．
    －Other 2017 includes：BIK charged，health insurance，certain travel and accommodation costs．

    Remuneration which is classified as variable in nature：means all remuneration which is not fixed as set out in Section 7 of the EBA－GL－2015－22 Guidelines on Sound Remuneration Policies．The Group＇s application of these guidelines is as follows．
    －Cash based 2017：Severance pay．
    －Other 2017：Contractual pension credits．
    The fixed to variable remuneration ratio for 2017 was 0．97：0．03

[^19]:    Staff are defined as all employees who are paid directly by the Bank of Ireland Group.
    2 Average full time equivalent (FTE) during the year.
    3 Remuneration which is classified as fixed in nature: meets the conditions set out in Section 7 of the EBA-GL-2015-22 Guidelines on Sound Remuneration Policies. The Group's application of these guidelines is as follows:

    - Cash based 2017 includes: fees, salaries, employer pension contribution amounts, car allowances and other fixed payments.
    - Other 2017 includes: BIK charged, health insurance, certain travel and accommodation costs.

    4 Remuneration which is classified as variable in nature: meets the conditions set out in Section 7 of the EBA-GL-2015-22 Guidelines on Sound Remuneration Policies. The Group's application of these guidelines is as follows:

    - Performance Related: Commissions and top of scale payments
    - Non-performance related: Severance payments
    - Deferred 2017: Deferred severance payments (Voluntary Early Leaving)

[^20]:    Under CRD IV, BoIMB is required to maintain a transitional floor set at $80 \%$ of Basel 1 requirements. At 31 December 2017, the transitional floor capital requirement was $€ 63$ million with RWA $€ 0.8$ billion (2016: transitional floor capital requirement: $€ 44$ million with RWA $€ 0.5$ billion).

[^21]:    Under CRD IV, BoIMB is required to maintain a transitional floor set at $80 \%$ of Basel 1 requirements. At 31 December 2017, the transitional floor capital requirement was $€ 63$ million with RWA $€ 0.8$ billion (2016: transitional floor capital requirement: $€ 44$ million with RWA $€ 0.5$ billion).

[^22]:    Deduction for deferred tax assets (DTA) relates to DTA on losses carried forward, net of certain deferred tax liabilities. The deduction is phased at $30 \%$ in 2017 for DTA created prior to 1 January 2014 and 80\% for those created thereafter.
    2 Excess of provisions over expected losses are included in Tier 2 capital subject to a limit of $0.6 \%$ of risk weighted assets calculated under the IRB approach.

[^23]:    During 2017, BoIMB sold its beneficial interest in a portfolio of c.€4 billion in nominal value of performing loans, together with related security and related rights to The Governor and Company of the Bank of Ireland.

[^24]:    Asset size: This represents movements in RWA driven by changes in the composition of the Group's existing portfolios. This includes, but is not limited to: constant currency growth in existing portfolios including new business and repayment of
    Asset quality: This can represent movements in RWA including but not limited to: PD Migration and LGD changes driven by economic conditions, changes in lending practices, demographics and model re-calibrations and re-anchoring. Model updates: This can represent movements in RWA including, but is not limited to: new model approvals, refinements and enhancements to improve model performance. Methodology and policy: Updates to the RWA calculation methodology, communicated by the Regulator. This includes a revision to the maturity parameter used in the FIRB calculation to align with ECB guidance and a reclassification of forborne collateral realisation FCR loans to align with EBA classifications. For more information on FCR see page 60 of the Group's Annual Report.

    During 2017, BoIMB sold its beneficial interest in a portfolio of c.€4 billion in nominal value of performing loans, together with related security and related rights to The Governor and Company of the Bank of Ireland. The RWA associated with
    these loans was c. $€ 0.9$ billion.

[^25]:    Table 7 below outlines the component parts of regulatory capital with further details of capital instruments, adjustments, deductions and filters in line with the prescribed template provided in Article 5 of commission regulation (EU) No. $1423 / 2013$. The table further details total risk weighted assets, capital ratios and buffers before listing applicable caps on the inclusion of provisions in Tier 2 and capital instruments subject to phase-out. Line referencing for Annex VI of commission regulation (EU) No. $1423 / 2013$ is also provided. Rows that are not applicable to the Governor and Company of the Bank of Ireland have been omitted.

[^26]:    The Financial Policy Committee (FPC) in the UK increased the countercyclical buffer (CCyB) to 0.5\% from 0\%, with binding effect from 27 June 2018 with a further increase to $1 \%$, from 28 November 2018.

[^27]:    CRD IV treatment
    ${ }^{1}$ The non-cumulative preference stock does not qualify as Tier 1 capital under CRD IV but does qualify as Tier 2 capital. These instruments will be phased into Tier 2 from Tier 1 at $50 \%$ in 2017 and increases by $10 \%$ per annum thereafter. The nominal and accounting values have been allocated in the same manner.
    2 The Additional tier 1 equity securities issued in June 2015 qualifies as Additional tier 1 under CRD IV.
    3 The subordinated notes due 2022 qualify as Tier 2 under CRD IV. They are subject to regulatory amortisation from 2017.
    4 The subordinated notes due 2020 qualify as Tier 2 under CRD IV. As these notes have less than 5 years to maturity they have been subject to amortisation from 2015.
    5 The subordinated notes due 2024 qualify as Tier 2 under CRD. They will be subject to regulatory amortisation from 2019.
    6 These instruments qualify as Tier 2 under CRD IV. As they are undated they will not be subject to regulatory amortisation.

[^28]:    Includes the impact of the reclassification of FCR loans to align with EBA classifications. For more information on FCR see page 60 of the Group's Annual Report 31 December 2017.

[^29]:    Other than full consolidation, proportional consolidation, equity method
    Other than full consolidation, proportio
    Deductions are subject to thresholds.

[^30]:    Other than full consolidation, proportional consolidation, equity method.

