Disclosure Report 2018

Values with impact.

Disclosure Report of the Helaba Group in Accordance with the CRR

31 December 2018

Contents

Preamble

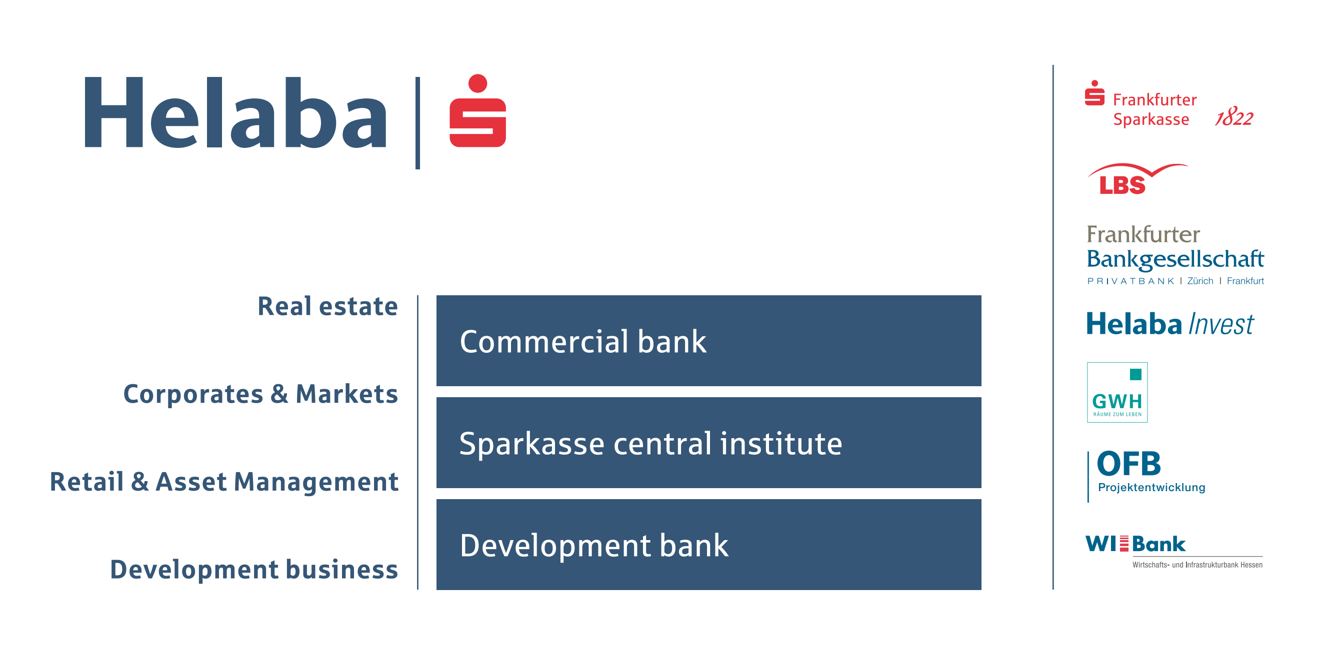
The Helaba Group

Landesbank Hessen-Thüringen Girozentrale, Frankfurt am Main and Erfurt (Helaba) is a credit institution organised under public law; its long-term strategic business model is that of a full-service bank with a regional focus, a presence in carefully selected international markets and a very close relationship with the Sparkassen-Finanzgruppe.

Helaba provides services for its customers in three different roles. As a commercial bank, it provides support for customers in Germany and abroad. As a Sparkasse central bank, it provides products and services for 40 % of all Germany's Sparkassen. In its capacity as the central development institution for Hesse, Helaba administers public-sector development programmes through Wirtschafts- und Infrastrukturbank Hessen (WIBank).

Frankfurter Sparkasse (FSP), the regional market leader in retail banking, is a wholly owned subsidiary of Helaba. In addition to FSP and WIBank, other entities that form part of the Helaba Group include 1822direkt online bank and Landesbausparkasse Hessen-Thüringen (LBS). The Bank's registered offices are situated in Frankfurt am Main and Erfurt, and it also has branches in Düsseldorf, Kassel, Paris, London, New York and Stockholm. The branches allow Helaba to strengthen its local presence close to customers and Sparkassen. In addition, Helaba's international branches open access to funding markets. The organisation also includes representative and sales offices, subsidiaries and affiliates.

Helaba's business model



Disclosure Report

Helaba is the superordinated institution in the Group and, as such, is responsible for meeting the disclosure requirements at Group level in accordance with Part 8 of Regulation (EU) No 575/2013 (Capital Requirements Regulation, CRR) in conjunction with European Banking Authority (EBA) guidelines EBA/GL/2016/11. This Disclosure Report satisfies these requirements for the reporting date of 31 December 2018. The supplementary provisions set out in Sections 10 and 10a of the German Banking Act (Kreditwesengesetz – KWG), Article 13 CRR, the transitional provisions set out in Part 10 CRR and the regulatory and implementing standards, EBA Guidelines, EBA Q&As and the European Central Bank (ECB) guidelines “Guidance to banks on non-performing loans” of relevance to disclosure are also taken into account.

The frequency and scope of the Disclosure Report are based on the requirements specified in the guidelines EBA/GL/2016/11 and EBA/GL/2014/14. The information to be disclosed in this report is subject to the materiality principle as specified in Article 432 CRR in conjunction with the EBA guidelines EBA/GL/2014/14. The use of the materiality principle at Helaba is described in the table below and in the sections referenced in the table.

Helaba’s approach to disclosures is regularly reviewed on the basis of a framework of requirements established by the Group to ensure that the approach is appropriate and fit for purpose; operational responsibilities are set out in detailed operating procedures.

On the basis of the EBA/GL/2016/11 guidelines, which have had to be applied at Helaba since 31 December 2017, reports will be issued quarterly from 2018. The content of this reporting, which was previously required in accordance with the CRR, has now been expanded and made more specific.

On the basis of the ECB’s “Guidance to banks on non-performing loans” (Annex 7, chapters 4-7) issued in March 2017, there is now a requirement for the first time to publish additional disclosures on non-performing exposures and forbearance in the disclosure report and annual report.

The following table sets out an overview of the quantitative requirements, the relevance for Helaba and the use of the materiality principle, together with cross-references to the relevant section or external documents. The table also lists qualitative requirements that are not included in the disclosure report but are covered in other Helaba publications.

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Preamble				
Overview of quantitative and qualitative requirements	x	–	–	
Risk Strategy and Risk Management				
Article 435 CRR – Mandates held by the members of the Board of Managing Directors (in accordance with Section 24 KWG)	–	–	x	
Article 435 CRR – Mandates held by the members of the Supervisory Board	–	–	x	
Scope of Application				
Group of consolidated companies for regulatory purposes (overview)	x	–	–	
EU LI3 – Outline of the differences in the scopes of consolidation	–	–	x	
EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories	–	–	x	
EU LI2 – Main sources of differences between regulatory exposure amounts and carrying amounts in financial statements	–	–	x	
Own Funds and Own Funds Structure				
KM1 – The Helaba Group in figures	x	–	–	
Article 437 CRR – Key features of the capital instruments	–	x	–	
Article 437 CRR – Disclosure of Own Funds	–	x	–	
Article 437 CRR – Reconciliation from the IFRS Consolidated Statement of Financial Position to the Consolidated Statement of Financial Position for Regulatory Purposes	–	x	–	
EU OV1 – Overview of RWAs	x	–	–	
Article 438 CRR – Overview of RWAs by exposure class	x	–	–	
EU INS1 – Equity investments in insurance companies that are not deducted from own funds	–	x	–	
EU CR10 – IRB: Equities (simple risk weight approach)	–	x	–	
Capital ratios	–	x	–	
Countercyclical Capital Buffer				
Article 440 CRR – Geographical distribution of credit risk exposures relevant to the calculation of the countercyclical capital buffer	–	–	x	
Article 440 CRR – Amount of the institution-specific countercyclical capital buffer	–	–	x	

Depending on the disclosure interval		
Helaba	**Use of materiality principle**	**Reference**
x	–	Preamble section, Disclosure Report subsection
x	–	Risk Strategy and Risk Management section, Risk Management Structure/Members of the management bodies subsections
x	–	Risk Strategy and Risk Management section, Risk Management Structure/Members of the management bodies subsections
x	–	Scope of Application section
x	–	Scope of Application section
x	–	Scope of Application section
x	–	Scope of Application section
x	–	Own Funds and Own Funds Structure section, Own funds structure subsection
x	–	Annex section
x	–	Own Funds and Own Funds Structure section, Own funds structure subsection
x	–	Own Funds and Own Funds Structure section, Own funds structure subsection
x	–	Own Funds and Own Funds Structure section, Capital adequacy subsection
x	–	Own Funds and Own Funds Structure section, Capital adequacy subsection
Generally relevant, no qualifying items as at 31.12.2018	–	Own Funds and Own Funds Structure section, Capital adequacy subsection
Generally relevant; no such specialised lending exposures as at 31.12.2018, only equity investments under the simple risk weight approach	Table presentation limited to equities provided no such specialised lending exposures held	Own Funds and Own Funds Structure section, Capital adequacy subsection
Presentation not required for regulatory purposes. Ratios shown for the Group, the Bank, and the significant subsidiaries in accordance with Article 13 CRR	–	Own Funds and Own Funds Structure section, Capital adequacy subsection
x	To keep the presentation clear and ensure only relevant information is shown, the data in the table is limited to countries that have specified a countercyclical capital buffer of greater than 0 % or whose weighted proportion of own funds requirements is 1 % or higher.	Countercyclical Capital Buffer section
x	–	Countercyclical Capital Buffer section

Overview of quantitative and qualitative requirements

	Disclosure interval		
	Quarterly	Half-yearly	Annually
Leverage Ratio			
Article 451 CRR – LRSum: Summary reconciliation of accounting assets and leverage ratio exposures	–	x	–
Article 451 CRR – LRCom: Leverage ratio common disclosure	–	x	–
Article 451 CRR – LRSpl: Split-up of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures)	–	x	–
Article 451 CRR – LRQua: Qualitative disclosures	–	x	–
Liquidity Coverage Ratio (LCR)			
EU LIQ1 – LCR	–	–	x
Credit Risk – General disclosures			
EU CRB-B – Types of credit exposure with average values based on the quarterly reporting dates	–	–	x
EU CRB-C – Geographical breakdown of exposures	–	–	x
EU CRB-D – Concentration of exposures by industry	–	–	x
EU CRB-E – Maturity of exposures (on-balance sheet exposures)	–	–	x
Article 442 CRR – Maturity of exposures (off-balance sheet exposures)	–	–	x
EU CR1-A – Credit quality of exposures by exposure class	–	x	–
EU CR1-B – Credit quality of exposures by industry	–	x	–
EU CR1-C – Credit quality of exposures by geography	–	x	–
EU CR1-D – Ageing of past-due exposures	–	x	–
EU CR1-E – Non-performing and forborne exposures	–	x	–
EU CR2-A – Changes in the stock of general and specific credit risk adjustments (on-balance sheet risk exposures)	–	x	–
Article 442 CRR – Changes in the stock of general and specific credit risk adjustments (off-balance sheet risk exposures)	–	–	x
EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities	–	x	–

Depending on the disclosure interval		
Helaba	**Use of materiality principle**	**Reference**
x	–	Leverage Ratio section
x	–	Leverage Ratio section
x	–	Leverage Ratio section
x	–	Leverage Ratio section
x	–	Liquidity Coverage Ratio (LCR) section
x	–	Credit Risk section, General disclosures subsection
x	Countries are shown individually that, in terms of the basis of measurement before credit risk adjustments, together account for at least 95 % of the basis of measurement before credit risk adjustments in the Helaba Group	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	Countries are shown individually that, in terms of the basis of measurement before credit risk adjustments, together account for at least 95 % of the basis of measurement before credit risk adjustments in the Helaba Group	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x (Also disclosed for reporting date 30.6.2018 due to change in presentation)	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection
x	–	Credit Risk section, General disclosures subsection

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Credit Risk – General disclosures on credit risk mitigation				
EU CR3 – Credit risk mitigation techniques	–	x	–	
Article 453 CRR – Credit risk mitigation techniques by exposure class	–	–	x	
Credit Risk – Credit risk and credit risk mitigation in the Standardised Approach				
EU CR4 – Standardised approach: Credit risk exposure and CRM effects by exposure class	–	x	–	
EU CR5 – Standardised approach: Credit risk exposure value by exposure class and risk weight (after credit risk mitigation)	–	x	–	
Article 444 CRR – Standardised approach: Credit risk exposure value by exposure class and risk weight (before credit risk mitigation)	–	–	x	
Credit Risk – Credit risk and credit risk mitigation in the IRB Approach				
Article 452 CRR – Overview of approved IRB approach rating models in use at Helaba Bank (excluding LBS and WIBank)	–	–	x	
Article 452 CRR – Overview of approved IRB approach rating models in use at FSP	–	–	x	
Article 452 CRR – Overview of approved IRB approach rating models in use at LBS	–	–	x	
EU CR6 – IRB: Credit risk exposures by exposure class and PD range	–	x	–	
Article 452 CRR – Average PD by country, FIRB	–	–	x	
Article 452 CRR – Retail portfolio average PD/LGD by country, AIRB	–	–	x	
EU CR7 – IRB approach – Effect on the RWAs of credit derivatives used as CRM techniques	–	x	–	
EU CR8 – RWA flow statements of credit risk exposures under the IRB approach	x	–	–	
RWA coverage by exposure class	–	–	x	
EU CR9 – FIRB: Back-testing of PD per exposure class	–	–	x	
EU CR9 – AIRB: Back-testing of PD per exposure class	–	–	x	
EU CR9 – AIRB: Back-testing of LGD per exposure class	–	–	x	
EU CR9 – AIRB: Back-testing of CCF per exposure class	–	–	x	
Article 452 CRR – Actual losses versus expected loss in lending business	–	–	x	
Equity Investments in the Banking Book				

Depending on the disclosure interval		
Helaba	Use of materiality principle	Reference
x	–	Credit Risk section, General disclosures on credit risk mitigation subsection
x	–	Credit Risk section, General disclosures on credit risk mitigation subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the Standardised Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the Standardised Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the Standardised Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
Generally relevant, no qualifying items as at 31.12.2018	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection
x	–	Credit Risk section, Credit risk and credit risk mitigation in the IRB Approach subsection

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Article 447 CRR – Type of equity investment instrument	–	–	x	
Counterparty credit risk (CCR)				
EU CCR1 – Analysis of CCR exposure by approach (excluding exposures to CCPs)	–	x	–	
EU CCR3 – Standardised approach: CCR exposures by regulatory portfolio and risk (after credit risk mitigation)	–	x	–	
Article 444 CRR – Standardised approach: CCR exposures by regulatory portfolio risk (before credit risk mitigation)	–	–	x	
EU CCR4 – FIRB approach: CCR exposures by portfolio and PD scale	–	x	–	
EU CCR4 – AIRB approach: CCR exposures by portfolio and PD scale	–	x	–	
EU CCR6 in conjunction with Article 439 h) CRR – Overview of credit derivatives exposures	–	x	–	
EU CCR8 – Exposures to CCPs	–	x	–	
EU CCR7 – RWA flow statements of CCR exposures under the IMM	x	–	–	
EU CCR5-A – Impact of netting and collateral held on exposure values	–	x	–	
EU CCR5-B – Composition of collateral for exposures to CCR	–	x	–	
EU CCR2 – CVA capital charge	–	x	–	
Securitisations				
Article 449 CRR – Approaches used for securitisation transactions	–	–	x	
Article 449 CRR – Total volume of securitisation exposures by asset type	–	–	x	
Article 449 CRR – Total volume of retained or purchased securitisation exposures by risk weight band	–	–	x	
Article 449 CRR – Total volume of securitisation exposures in respect of own special purpose vehicles	–	–	x	
Article 449 CRR – Requirements for originators	–	–	x	
Market risk				
EU MR1 – Market risk in accordance with the standardised method	–	x	–	
EU MR2-A – Market risk in internal models approach	–	x	–	
EU MR2-B – Market risk under the IMA	x	–	–	
EU MR3 – IMA values for trading portfolios	–	x	–	
EU MR4 – Clean back-testing of the internal model	–	x	–	
EU MR4 – Dirty back-testing of the internal model	–	x	–	

Depending on the disclosure interval		
Helaba	Use of materiality principle	Reference
x	–	Equity Investments in the Banking Book section
x	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
Generally relevant, no qualifying items as at 31.12.2018	–	Counterparty credit risk (CCR) section
Generally relevant; as at 31.12.2018, there were no credit derivatives transactions in connection with intermediation activities, only for Helaba's own credit portfolio	Table presentation limited to credit derivatives transactions for Helaba's own credit portfolio, provided there were no such transactions in connection with intermediation activities	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
Generally relevant, no qualifying items as at 31.12.2018	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
x	–	Securitisations section
x	–	Securitisations section
x	–	Securitisations section
x	–	Securitisations section
Helaba operates as a sponsor and investor only and so the requirements for originators stipulated in Article 449 CRR do not apply.	–	–
x	–	Market Risk section, Standardised method subsection
x	–	Market Risk section, Internal model subsection
x	–	Market Risk section, Internal model subsection
x	–	Market Risk section, Internal model subsection
x	–	Market Risk section, Internal model subsection
x	–	Market Risk section, Internal model subsection

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Interest Rate Risk in the Banking Book	–	–	x	
Operational risk	–	–	x	
Asset Encumbrance				
Article 443 CRR – Assets	–	–	x	
Article 443 CRR – Collateral received	–	–	x	
Article 443 CRR – Sources of encumbrance	–	–	x	
Non-Performing Exposures and Forbearance				
NPE 1 – Credit quality of forborne exposures	–	–	x	
NPE 2 – Quality of forbearance	–	–	x	
NPE 3 – Age structure of forborne exposures	–	–	x	
NPE 4 – Impact of the forbearance measures granted in the past 6/12/24 months on net present value	–	–	x	
NPE 5 – Credit quality of exposures by past due days	–	–	x	
NPE 6 – Individual and collective impairment by FINREP counterparty sector	–	–	x	
NPE 7 – Individual and collective impairment by industry	–	–	x	
NPE 8 – Individual and collective impairment by country	–	–	x	
NPE 9 – Performing and non-performing exposures and related provisions by FINREP counterparty sector	–	–	x	
NPE 10 – Performing and non-performing exposures and related provisions by industry	–	–	x	
NPE 11 – Performing and non-performing exposures and related provisions by country	–	–	x	
NPE 12 – Write-offs by time since classification as NPE	–	–	x	
NPE 13 – Cash collections in respect of non-performing exposures	–	–	x	
NPE 14 – Cash collections in respect of non-performing exposures, by FINREP counterparty sector	–	–	x	

	Depending on the disclosure interval		
	Helaba	**Use of materiality principle**	**Reference**
	x	With a view to improving clarity in the presentation of figures, the listing of individual currencies is limited to those that individually account for at least 5 % and those that are necessary to cover at least 95 % of the total foreign currency share	Interest Rate Risk in the Banking Book section
	x	–	Operational Risk section
	x	–	Asset Encumbrance section
	x	–	Asset Encumbrance section
	x	–	Asset Encumbrance section
	x	Limited to countries and industries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	Limited to industries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
	x	Limited to countries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	Limited to industries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
	x	Limited to countries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section
	x	–	Non-Performing Exposures and Forbearance section

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
NPE 15 – Cash collections in respect of non-performing exposures, by industry	–	–	x	
NPE 16 – Cash collections in respect of non-performing exposures, by country	–	–	x	
NPE 17 – Collateral and guarantees received, by FINREP counterparty sector	–	–	x	
NPE 18 – Collateral and guarantees received, by industry	–	–	x	
NPE 19 – Collateral and guarantees received, by country	–	–	x	
NPE 20 – Collateralised NPE portfolios	–	–	x	
NPE 21 – Foreclosed assets	–	–	x	
Qualitative/Other Disclosure Requirements				
Article 13 CRR – Disclosure by significant subsidiaries	–	–	x	
Article 435 CRR – Risk strategy and risk management; Article 435 1a CRR – Strategies and processes	–	–	x	
Article 435 1b CRR – Structure and organisation	–	–	x	
Article 435 1c CRR – Scope and nature of risk reporting and measurement systems	–	–	x	
Article 435 1d CRR – Hedging and mitigating risk	–	–	x	

Depending on the disclosure interval		
Helaba	**Use of materiality principle**	**Reference**
x	Limited to industries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
x	Limited to countries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
x	–	Non-Performing Exposures and Forbearance section
x	Limited to industries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
x	Limited to countries that together account for at least 95 % of the primary figures shown in the tables.	Non-Performing Exposures and Forbearance section
x	–	Non-Performing Exposures and Forbearance section
Generally relevant, no qualifying items as at 31.12.2018	–	Non-Performing Exposures and Forbearance section
x		The disclosure report for Frankfurter Sparkasse as an individual bank is published in a “Disclosure report” section within its Annual Report, which is available on FSP’s website.
x		The disclosures are included in the Annual Report (Group management report (Risk report)). This disclosure report includes additional information.
x		The disclosures are included in the Annual Report (“Entities involved”, “Principal risk monitoring areas”, “Compliance” sections under “Risk management structure” within the “Risk report” in the group management report). In the disclosure report, additional information on the number of meetings held by the Risk Committee can be found under “Principal risk monitoring areas” in the “Risk strategy and risk management” section.
x		“Principal risk monitoring areas” in the “Risk strategy and risk management” section.
x		“Strategies and processes to counter and mitigate risks” in the “Risk strategy and risk management” section.

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Article 435 1e CRR – Adequacy of risk management arrangements	–	–	x	
Article 435 1f CRR – Concise risk statement	–	–	x	
Article 435 2a-c CRR – Members of the management body	–	–	x	
Article 435 2d-e CRR – Disclosures on the risk committee and on the information flow to the management body	–	–	x	
Article 436 CRR – Differences in the basis of consolidation	–	–	x	
Article 447 CRR – Exposures in equities	–	–	x	
Article 450 CRR – Remuneration policy disclosures	–	–	–	
Article 441 CRR – Indicators of global systemic importance				

Depending on the disclosure interval		
Helaba	Use of materiality principle	Reference
x		Please refer to the "Responsibility of executive management" section under "Principles" within the "Risk report" in the group management report in conjunction with the "Responsibility statement" within the consolidated financial statements in the Helaba Group's Annual Report for information on declarations by the Board of Managing Directors regarding the appropriateness of the risk management system at Helaba. Additional information is available in the disclosure report under "Risk management process" in the "Risk strategy and risk management" section.
x		In relation to Article 435 (1f) CRR, please refer to the group management report within the Annual Report, specifically the "Risk report" (initial passage) in conjunction with the "Protection of assets" and "Risk appetite framework" sections under "Principles" and the "Risk types" section under "Risk classification".
x		Risk Strategy and Risk Management section, Risk Management Structure, Members of the management bodies subsections
x		The disclosures are included in the Annual Report ("Entities involved", "Principal risk monitoring areas", "Compliance" sections under "Risk management structure" within the "Risk report" in the group management report). This disclosure report includes additional information.
x		Information on the group of consolidated companies under IFRS may be found in the Annual Report (Note (4) in conjunction with Note (89) in the Notes to the Consolidated Financial Statements)
x		More detailed information on equity investment exposures is included in Notes (4) – (8), (17), (28), (31) et seq. of the Notes to the Consolidated Financial Statements in the Annual Report.
x		The disclosures are presented in a separate remuneration report and published on Helaba's website
Helaba is identified as an Other Systemically Important Institution and so the requirements stipulated in Article 441 CRR do not apply		–

Overview of quantitative and qualitative requirements

	Disclosure interval			
	Quarterly	Half-yearly	Annually	
Article 473 CRR in conjunction with EBA/GL/2018/01 – Disclosure of IFRS 9 transitional arrangements				
Qualitative disclosures on non-performing exposures and forbearance in accordance with the ECB's "Guidance to banks on non-performing loans".	–	–	x	
Section 26a KWG – Country by Country Reporting	–	–	x	
Section 35 SAG – Financial Assistance Provided Within the Group	–	–	x	

Article 13 CRR requires significant subsidiaries of EU parent institutions and those subsidiaries that are of material significance for their local market to prepare their own disclosure report on an individual or sub-consolidated basis.

Helaba's FSP subsidiary falls under this separate disclosure requirement. Since the disclosure reporting date of 31 December 2015, the disclosure report for FSP as an individual bank has been published in a "Disclosure report" section within its Annual Report, which is available on FSP's website. The disclosure report will be updated each year in the same way as FSP's Annual Report.

The regulatory own funds requirements and Helaba's own funds are based on financial reporting in accordance with IFRS. Since 1 January 2018, the figures have taken into account the new financial reporting requirements under IFRS 9.

Please refer to the "Responsibility of executive management" section under "Principles" within the "Risk report" in the group management report in conjunction with the "Responsibility statement" within the consolidated financial statements in the Helaba Group's Annual Report for information on declarations by the Board of Managing Directors regarding the appropriateness of the risk management system at Helaba pursuant to Article 435 (1e) CRR. Given the differences between the basis of consolidation for regulatory purposes and that under German commercial law, more detailed information relating to the financial statements can also be found in the Annual Report.

Depending on the disclosure interval		
Helaba	**Use of materiality principle**	**Reference**
Helaba will not make use of the transitional regulatory rules in accordance with Article 473 a) CRR covering the inclusion of the initial application effects when determining capital ratios and so the requirements stipulated in Article 473 CRR in conjunction with EBA GL 2018/01 do not apply		–
x		"Non-performing exposures and forbearance" section in conjunction with the Notes to the Consolidated Financial Statements in the Annual Report (Note (7) "Loss allowances" section, Note (9), "Modifications" section and Note (72), "Non-performing exposures and forbearance" section).
x		Disclosures can be found in the section Country-by-country reporting in accordance with Section 26a KWG in the Annual Report
x		The disclosures are included in the **Annual Report** (Note (74) in conjunction with Note (75) in the Notes to the Consolidated Financial Statements). The equivalent disclosures at Helaba Bank level are in the Annual Financial Report (Note (46) in the Notes to the **Annual Financial Statements** of Landesbank Hessen-Thüringen Girozentrale).

Risk Strategy and Risk Management

The disclosures relating to the risk strategy and risk management system at Helaba are included in the Annual Report (Group management report, Risk report section). For this reason, this disclosure report only includes additional information.

Please refer to the "Responsibility of executive management" section under "Principles" within the "Risk report" in the group management report in conjunction with the "Responsibility statement" within the consolidated financial statements in the Helaba Group's Annual Report for information on declarations by the Board of Managing Directors regarding the appropriateness of the risk management system at Helaba pursuant to Article 435 (1e) CRR. In relation to Article 435 (1f) CRR (concise risk statement), please refer to the group management report within the Annual Report, specifically the "Risk report" (initial passage) in conjunction with the "Protection of assets" and "Risk appetite framework" sections under "Principles" and the "Risk types" section under "Risk classification".

In addition to the details in the section covering risk management in the Group entities, the following should be noted in respect of FSP, a significant subsidiary: FSP operates as a legally independent institution and accordingly has its own comprehensive risk management system in accordance with Section 25a KWG in conjunction with the German Minimum Requirements for Risk Management (Mindestanforderungen an das Risikomanagement – MaRisk). The methods and processes employed and the system of implementation within its organisation are documented along with the strategies in FSP's Risk Manual and are updated regularly. The Risk Manual includes descriptions of the risk management regime in place and the risk early warning system and of the manner in which responsibilities are allocated to ensure strict separation of the relevant functions. The measures associated with the implementation of the CRR are fully integrated into FSP's own procedural instruction system. FSP's comprehensive risk containment apparatus extends from front office to portfolio management processes.

Risk Management Process

The risk management methods employed at Helaba are designed to be appropriate to the type, magnitude, complexity and risk content of business activities and the priorities of the Bank's business strategy and risk strategy. These risk management methods have been approved by management in accordance with the requirements imposed by the Charter, national and international law and the banking regulatory authorities. Helaba develops its risk management methods continuously to accommodate changing circumstances, new findings and newly introduced regulatory requirements in both national and international contexts. The risk management methods instituted consider all of the Bank's material risks and are appropriate to the institution's profile and strategy.

The models used at Helaba are subject to an annual inventory check. This model inventory check ensures that key information relating to each model is recorded centrally and that this information can then be used to determine the significance of the models in relation to the assessment and management of model risk.

A description of the risk management process at Helaba and the defined successive phases comprising four elements can be found in the Annual Report ("Risk management process" within the "Risk report" in the group management report).

Risk Management Structure

Members of the management bodies

Helaba's corporate governance statutes, which are based on the provisions of its Charter, assign responsibility for the appointment of members of the Board of Managing Directors to the Board of Public Owners acting with the consent of the Supervisory Board. Candidates for positions on Helaba's Board of Managing Directors are accordingly selected, with reference to Section 25 d (11) KWG, by the Board of Public Owners, which is assisted in this connection by the nine-member Public Owners' Committee.

The Public Owners' Committee helps the Board of Public Owners determine applicants for positions on Helaba's Board of Managing Directors. In this process, the Public Owners' Committee takes into account the balance and variety of knowledge, skills and experience provided by all the members of the Board of Managing Directors, draws up a job description with applicant profile and specifies the amount of time that the post will require. The objective is to achieve a balance between the management/control and market functions represented on the Board of Managing Directors based on the size and structure of Helaba's business model. The composition of the Board of Managing Directors should be broadly based in terms of attributes and skills (for example, educational background, professional career, gender, age) so that a wide range of views and experience is represented, independent opinion is facilitated and decision-making is on a reasonable basis.

The committee issues instructions in a suitable form for the operational selection process based on the following requirements profile:

- strategic and conceptual capabilities
- professional knowledge and experience in the area of responsibility for which the appointment is being made
- professional knowledge and experience in lending and capital markets business
- theoretical knowledge and practical expertise in regulation, risk management and corporate management
- leadership and communication skills
- professional experience in the financial services sector.

Article 1 of the Helaba company regulations stipulates that no employee of the organisation may be treated differently from others, either by the Bank or by other employees, on the basis of gender, race, age, religion, skin colour, origin or nationality.

Helaba signed the Diversity Charter, a German corporate initiative to promote diversity in companies and institutions, in 2011. Following the maxims of the Charter, it gives consideration when selecting members of the Board of Managing Directors to the differences in knowledge, skills and experience of all members of the Board of Managing Directors. On 30 May 2017, the Bank's Board of Managing Directors also decided to sign up to the United Nations Global Compact. The ten principles of the UN Global Compact cover a number of areas including a commitment to eliminate discrimination in respect of employment and occupation.

The Board of Public Owners additionally prepares a regular, at least annual, assessment of the knowledge, skills and experience of both the individual members of the Board of Managing Directors and of the Board of Managing Directors as a whole. In a further assessment, the Board of Public Owners regularly reviews the structure, size, composition and performance of the Board of Managing Directors, such review being carried out at least once a year. Close attention is paid to ensuring that the decision-making within the Board of Managing Directors by individuals or groups of individuals is not influenced in a way that might be prejudicial to Helaba's interests. The Public Owners' Committee assists the Board of Public Owners in these activities.

In 2018, the Board of Public Owners met on five occasions and the Public Owners' Committee convened for three meetings.

The changes in the management or supervisory functions carried out by the members of the Helaba Board of Managing Directors compared with the details in the Disclosure Report as at 31 December 2017 have been as follows:

Article 435 CRR – Mandates held by the members of the Board of Managing Directors (in accordance with Section 24 KWG)

		31 December 2018			31 December 2017
Members of the Board of Managing Directors	**Number**	**thereof: Subsidiaries/ equity investments >10%**	**Members of the Board of Managing Directors**	**Number**	**thereof: Subsidiaries/ equity investments >10%**
Herbert Hans Grüntker	4	3	Herbert Hans Grüntker	5	4
Thomas Groß	4	3	Thomas Groß	5	4
Dr. Detlef Hosemann	4	3	Dr. Detlef Hosemann	4	3
Hans-Dieter Kemler	4	4	Hans-Dieter Kemler	3	3
Klaus-Jörg Mulfinger	4	3	Klaus-Jörg Mulfinger	4	3
Dr. Norbert Schraad	0	0	Dr. Norbert Schraad	0	0
Christian Schmid	2	2			

With effect from 20 December 2018, the ECB consented to the appointment of Mr. Christian Schmid as a member of the Board of Managing Directors. Mr. Schmid is responsible for the Real Estate Lending and Real Estate Management business lines, administration and the GWH and OFB subsidiaries. Klaus-Jörg Mulfinger left the Board of Managing Directors of Helaba on 31 December 2018. Since then, Mr. Hans-Dieter Kemler has been responsible for the Sparkasse Lending Business and S-Group Service division, the Sparkasse Support division, LBS and the Banks and International Business division. The relevant Bank bodies have appointed Mr. Frank Nickel as Mr. Mulfinger's successor on Helaba's Board of Managing Directors. The appointment is subject to the consent of the ECB. Mr. Nickel joined the Bank on 1 March 2019.

Helaba's Supervisory Board consists of 36 members. Four positions were vacant as at 31 December 2018. The composition of the Supervisory Board is determined by Article 11 of Helaba's Charter. The right to appoint the members of the Supervisory Board other than the ex officio members and the representatives of the Bank's employees is held by Helaba's public owners. In accordance with a resolution passed by the relevant bodies at Helaba, the number of members of the Supervisory Board will be reduced from 36 to 27 on 1 July 2019.

The table below shows the number of positions held by the members of Helaba's Supervisory Board on other executive or supervisory boards as at 31 December 2018. The options for privileged treatment available under Section 25d (3) KWG have been applied when determining the number of positions held.

Article 435 CRR – Mandates held by the members of the Supervisory Board

	Number of executive functions	**Number of supervisory functions**
Andreas Bausewein		3
Frank Beck		1
Dr. Robert Becker		1
Dr. Annette Beller	1	3
Christian Blechschmidt	1	2
Thorsten Derlitzki		1
Anke Glombik-Batschkus		1
Gerhard Grandke		4
Stefan Hastrich	1	2
Dr. Werner Henning		4
Günter Högner	1	2
Thorsten Kiwitz		1
Dr. Christoph Krämer	1	3
Christiane Kutil-Bleibaum		1
Annette Langner		1
Susanne Noll		1
Jürgen Pilgenröther		1
Clemens Reif		2
Birgit Sahliger-Rasper		1
Dr. Karl-Peter Schackmann-Fallis		2
Dr. Thomas Schäfer		3
Thorsten Schäfer-Gümbel		1
Helmut Schmidt	1	3
Uwe Schmidt		1
Susanne Schmiedebach		1
Hartmut Schubert		1
Wolfgang Schuster		1
Thorsten Sittner		1
Dr. Eric Tjarks	1	2
Dr. Heiko Wingenfeld		1
Alexander Wüerst	1	3
Arnd Zinnhardt	1	2

The Nomination Committee is responsible for the duties specified in Section 25d (11) KWG with the exception of those tasks in connection with the remuneration, recruitment, appointment and dismissal of members of the Board of Managing Directors that fall within the remit of the Public Owners' Committee. The Nomination Committee assists the Supervisory Board with the preparation of proposals for the appointment of members of the Supervisory Board pursuant to Article 11 (1) numbers 1 to 3 of the Charter. In this process, the Nomination Committee takes into account the balance and variety of knowledge, skills and experience provided by all the members of Supervisory Board, draws up a job description with applicant profile and specifies the amount of time that the post will require. Helaba and its owners are promoting diversity among the members of the Supervisory Board. They are aiming to achieve a broad range of attributes and skills so that a wide range of views and experience is represented, independent opinion is facilitated and decision-making is on a reasonable basis. Helaba has set itself the objective of advancing the number of women members of the Supervisory Board in accordance with statutory requirements (section 25d (11) no. 2 KWG). The owners should give preference to women when making appointments to the Supervisory Board where there is no difference in knowledge, dependability and availability among candidates.

On a regular basis, but at least once a year, the Supervisory Board carries out a self-assessment covering its structure, size, composition and performance. In a further assessment, again on a regular basis and at least once a year, the Supervisory Board reviews the knowledge, skills and experience of both the individual members of the Supervisory Board and of the Supervisory Board as a whole. The Nomination Committee provides support for the Supervisory Board in both of these activities. The evaluation process is carried out by an external agent.

The evaluation of the Board of Managing Directors and of the Supervisory Board came to the conclusion that the structure, size, composition and performance as well as the knowledge, capabilities and experience of the governing bodies satisfied the requirements in statutory regulations and Helaba's Charter. The members of Helaba's Supervisory Board and Board of Managing Directors regularly take part in training and professional development events to ensure that they remain fit and proper persons and maintain the necessary expertise.

In 2018, the Supervisory Board held six meetings; the Nomination Committee met three times.

The Supervisory Board has created the following committees from among its members to help it fulfil its responsibilities:

The Risk and Credit Committee has 16 members and advises the Supervisory Board on Helaba's overall risk tolerance and strategy; it also assists with the monitoring of the senior management level's implementation of this strategy. It oversees activities to ensure that the terms and conditions in customer business are consistent with Helaba's business model and risk structure and reviews whether the incentives set as part of the remuneration system take into account the risk, capital and liquidity structure, together with the probability and timing of revenue. The Risk and Credit Committee is also responsible for giving consent to the granting of certain loans and to the transfer, acquisition, sale or modification of certain equity investments. The Risk and Credit Committee held 13 meetings in the year under review, including one closed meeting.

The Audit Committee helps the Supervisory Board to monitor the financial reporting process, the effectiveness of the risk management system (in particular the internal control system) and internal audit, and the implementation of the audits of financial statements, especially with regard to the independence of the auditors and the services they provide. The Audit Committee comprises eleven members and met on three occasions in 2018. In addition, there were two joint meetings with the Risk and Credit Committee.

The Personnel and Remuneration Oversight Committee monitors the appropriate design of remuneration systems for employees and assesses the impact from remuneration systems on risk, capital and liquidity management. The committee has 15 members and held two meetings in 2018.

The Supervisory Board has also set up the following committees from among its members: an Investment Committee (one meeting in 2018), a Building Committee (one meeting) and a WIBank committee (six meetings). The members of the Supervisory Board are regularly informed of the work carried out by the committees in the form of reports submitted by the relevant committee chairpersons.

Principal Risk Monitoring Areas

Risk reporting is a key tool in the Helaba Group's risk management system aimed at monitoring and containing risk. Its purpose is to ensure there is regular reporting on the main types of risk, risk-bearing capacity and the status of the recovery indicators (German Minimum Requirements for the Design of Recovery Plans, MaSan), to assist the Board of Managing Directors, particularly in the implementation of the risk policy for the risk types set out in the general risk strategy and specific risk strategies, and to keep the Supervisory Board informed about the risk situation in the Helaba Group.

MaRisk specifies that the Board of Managing Directors of Helaba and the Supervisory Board must be informed in writing about the risk situation of the Bank at least quarterly.

In addition to the regular reporting, ad hoc risk reports must be prepared for the Board of Managing Directors of Helaba if this appears to be necessary as a result of the prevailing risk situation at Helaba or the current situation in the markets in which Helaba operates. Helaba's Board of Managing Directors must forward any material risk-related information without delay to the Supervisory Board. An overall risk report is prepared at the end of each quarter. This is broken down as follows:

- Management summary (overarching report), including risk appetite statement (RAS), together with the Helaba Group dashboard and overall report on recovery indicators (MaSan)
- ICAAP report, including risk-bearing capacity calculation
- Default risk report
- Market risk report (including information on risk management in the Pfandbrief business)
- Liquidity risk report (including information on risk management in the Pfandbrief business)
- Operational risk report
- Risk report on other key risk types (equity risk, business risk and real estate risk)
- Supplementary information report (overarching report)

The quarterly overall risk report is submitted to the full Board of Managing Directors and is prepared to coincide with the dates for committee meetings, generally on the first Tuesday of the second month following the reporting date. The full Board of Managing Directors has delegated its responsibility to receive reports to its Risk Committee, on which currently all members of the Board of Managing Directors are represented as members with voting rights. If all the members of the Board of Managing Directors were no longer represented on the Risk Committee with voting rights, decisions would be taken at a meeting of the full Board of Managing Directors, either additionally or alternatively. The Risk Committee in principle meets every month and held a total of 14 meetings in 2018.

After the overall risk report has been discussed by the Board of Managing Directors' Risk Committee, it must be submitted to the Supervisory Board by the Risk Controlling unit.

The Supervisory Board has delegated its responsibility to receive this information to its Risk and Credit Committee (VR-RKA) with the proviso that the chair of the VR-RKA must keep the Supervisory Board regularly informed in a suitable manner about any material content in the risk report and notify the Supervisory Board of the outcome of the committee meeting. The main points of the discussion at the meeting of the VR-RKA and the management summary in the risk report must also be submitted to the Supervisory Board as part of this notification. Information is submitted in a similar manner to the Board of Public Owners.

Other recipients of the overall risk report are the heads of the Group Strategy and Central Staff division and Internal Audit division, the head of audit at the independent auditors and the banking supervisor.

In addition to the quarterly overall risk report, a reduced-scope risk report based on preliminary figures is submitted monthly on the month-end closing date. In addition to the regular reports, other reports are generated on an ad hoc basis if significant risks arise or materialise, or if specified threshold values are reached or exceeded. Such reports are independent of any reports generated in the event of a material deterioration in the credit quality of borrowers.

Strategies and processes to counter and mitigate risks

Risks may be assumed only as permitted under the general risk strategy and the specific risk strategies and only in pursuit of the strategic objectives of Helaba on the basis of the risk appetite framework (RAF), in particular in order to maintain Helaba's long-term earnings power while protecting its assets as effectively as possible and accomplishing its mission. More detailed information on the RAF can be found in the Annual Report ("Risk appetite framework" section under "Principles" in the "Risk report" within the group management report).

The risk strategy – which is approved by the Board of Managing Directors at least annually, and also during the year where required – is submitted in advance to the Risk and Credit Committee of the Supervisory Board for discussion and for information purposes. The risk strategy then has to be presented to, and discussed with, the Supervisory Board and Helaba's Board of Public Owners, whereby these bodies also have a monitoring function to ensure compliance with the latest version of the risk strategy. In addition, Helaba's independent auditor verifies that all the strategies are consistent as specified in MaRisk, which includes checks to ensure that the risk strategy is consistent with the business strategy.

An ad hoc review of the risk strategy is required in a number of scenarios, notably if defined events in a key risk type are flagged with a red light on the risk dashboard, i.e. they are classified in the traffic light system as having reached a critical position. The relevant factors in this regard are the MaRisk key indicators, which are communicated as part of the regular reporting system to the Board of Managing Directors and to Helaba's committees.

The Board of Managing Directors is responsible for ensuring that the risk strategy is implemented at Helaba and at Group level. The relevant units are generally responsible for monitoring compliance with the general and specific risk strategies. Appropriate rules and regulations – especially in relation to the approval of deviations from the risk strategy – are set out in the operating procedures. Material deviations from the risk strategies must be included in the risk reports submitted to the Board of Managing Directors.

The responsibilities of the organisational units follow a "three lines of defence" (3-LoD) policy. In terms of governance, this policy sets out roles and responsibilities to ensure there is independent monitoring and internal auditing of the effectiveness of the risk containment and monitoring functions that have been implemented. At Helaba Bank, including LBS and WIBank, and in the Group companies, the containment of risks in the first line of defence is separated in terms of disciplinary and organisational reporting lines from the independent monitoring of risks in the second line of defence. A description of the 3 LoD structure can be found in the Annual Report ("Principal risk monitoring areas" section under "Risk management structure" within the "Risk report" in the group management report).

Strategies and processes to counter and mitigate risks with recourse to suitable collateral are also in place. The processes established by Helaba ensure that the collateral received is appropriately measured. Reporting, financial and non-financial covenants, including material adverse change (MAC) clauses, are agreed in line with customary standards and taking into account the market position or credit rating of the borrower/sponsor insofar as this is established practice in the relevant markets. The Helaba Group unit responsible for managing the portfolio (generally the Credit Risk Management unit) continuously reviews compliance with the covenants.

Operational risk is inherent in Helaba's business: the business activities specified in the business strategy involve operational risk. It is impossible to eliminate operational risk entirely from certain higher-level business activities. The business strategy can, however, seek to avoid operational risk for specific products, services or markets, for example.

Risks that are sufficient in scale to put the institution's existence in jeopardy must be included in Helaba's financial protection concept and reviewed to determine their suitability for transfer to third parties. Such risks are transferred to suitable insurance companies using insurance policies appropriate for the purpose, taking account of cost-benefit criteria. These actions together create a minimum framework for systematic containment within Helaba Bank, LBS and WIBank and in the Group companies.

Market risk and interest rate risk can only be assumed in the banking book within the scope of approved limits (see "Limitation of market risks"). All the processes and models used to reflect market risk must be constantly reviewed to ensure that they are appropriate and then adjusted if required. This relates to both risk and measurement models. This issue must be taken into account especially in the authorisation of new products.

The number one economic liquidity risk management priority is initially to ensure that the Helaba Group has adequate day-to-day (short-term) liquidity to meet its payment obligations, including intra-day liquidity. The main objective of medium-/long-term funding management (funding) is to avoid cost risks when obtaining medium- and long-term funding (maturity-matched funding) and to limit dependency on short-term sources of funding. The activities to achieve both objectives are managed and monitored by using a detailed system of limits.

The funding strategy is derived from Helaba's business model and therefore makes optimum use of the "natural" sources of funding. The cornerstones are (1) S-Group funding from the Sparkassen and/or Sparkassen (retail) customers, (2) the sale of Pfandbriefe, (3) the use of development funds and (4) wholesale funding, particularly from institutional clients. Helaba has a further direct retail funding base available at Group level in the form of Frankfurter Sparkasse and LBS. The diversity of funding sources and the state of access to the markets are monitored and checked continuously.

An additional liquidity buffer is created for short-term liquidity management by systematically accumulating highly liquid portfolios of securities based on non-encumbered assets. A well-established collateral management system ensures that information is available at all times on the portfolios and asset encumbrance. Measures include the provision of a dedicated liquidity resource to ensure intra-day liquidity.

A liquidity transfer pricing system (LTP) also helps to ensure cost-efficient management of liquidity as a resource.

The Bank maintains compliance with the liquidity coverage ratio (LCR) stipulated by the banking supervisory authorities pursuant to the CRR alongside its economic liquidity risk containment activities. The securities portfolios to be held available for this purpose also form part of the liquidity buffer. The Bank has defined its own conservative target lower threshold for compliance with the LCR to ensure these requirements are met at all times. Mandatory regulatory requirements for structural liquidity at the multi-year level (in the form of the net stable funding ratio or NSFR) pursuant to the CRR are not expected until after 2020. Irrespective of this, the NSFR currently still calculated in accordance with the principles of the BCBS already reflects Helaba's established practice of arranging funding largely with matched maturities.

Economic liquidity management and liquidity management for regulatory purposes are combined in the Internal Liquidity Adequacy Assessment Processes (ILAAP).

Scope of Application

These disclosures are provided for the Helaba Group on the basis of the group of consolidated companies for regulatory purposes pursuant to the KWG/CRR. The document is prepared and coordinated by the parent company – Helaba.

A total of 22 companies are fully consolidated in the consolidation process for regulatory purposes in accordance with Sections 10 and 10a KWG and Article 18 CRR in addition to Helaba as the superordinated institution, and one other company is included in the consolidation on a pro-rata basis. A further 18 companies are excluded from the scope of consolidation for regulatory purposes in accordance with Section 31 KWG in conjunction with Article 19 CRR. The composition of the entities included in the prudential scope of consolidation is unchanged compared with the position at 30 September 2018.

Group of consolidated companies for regulatory purposes (overview)

Regulatory treatment	Number and type of companies
Full consolidation	**22 companies** 16 financial institutions 1 asset management company 3 banks 1 investment firm 1 provider of ancillary services
Pro-rata consolidation	**1 company** 1 financial institution
Excluded from the scope of consolidation for regulatory purposes	**18 companies** 17 financial institutions 1 provider of ancillary services

Of the subsidiary enterprises included in the scope of prudential consolidation under the KWG, 22 companies are fully consolidated in the consolidated accounts under IFRS and one other company is accounted for using the equity method. Information on the group of consolidated companies under IFRS may be found in the Annual Report (Note (4) in conjunction with Note (89) in the Notes to the Consolidated Financial Statements).

Four of the entities not included in the scope of prudential consolidation are consolidated in the IFRS banking group; the other entities not consolidated for regulatory purposes do not form part of the IFRS group of consolidated companies.

One of the fundamental reasons for the difference between the two scopes of consolidation is the focus of activities in the entities concerned: entities that are consolidated in accordance with IFRS but whose activities are focused outside the financial sector cannot be included in the prudential scope of consolidation in accordance with the KWG/CRR.

Further information on the regulatory treatment of the entities included in the IFRS consolidated financial statements is shown in the following table.

Helaba does not avail itself of the exemptions listed in Article 7 CRR for institutions belonging to a group. There are no obstacles, either legal or in substance, to the transfer of funds or liable capital within the Helaba Group.

Details of the financial assistance provided within the group in accordance with Section 35 of the German Recovery and Resolution Act (SAG) can also be found in the Annual Report (Note (74) in conjunction with Note (75) in the Notes to the Consolidated Financial Statements). The equivalent disclosures at Helaba Bank level are in the Annual Financial Report (Note (46) in the Notes to the Annual Financial Statements).

EU LI3 – Outline of the differences in the scopes of consolidation

	a
Entity name	**Method of accounting consolidation**
1822direkt Gesellschaft der Frankfurter Sparkasse mbH, Frankfurt am Main	Full consolidation
GGM Gesellschaft für Gebäude-Management mbH, Erfurt	Full consolidation
ASTARTE Verwaltungsgesellschaft mbH & Co. Vermietungs KG, Pullach	Full consolidation
BHT-Baugrund Hessen-Thüringen Gesellschaft für Baulandbeschaffung, Erschließung und Kommunalbau mbH & Co. Objekt FBM Freizeitbad Mühlhausen KG, Frankfurt am Main	Full consolidation
DKB Wohnimmobilien Beteiligungs GmbH & Co. KG, Potsdam	Full consolidation
G & O Alpha Hotelentwicklung GmbH, Eschborn	Equity method
G & O Baufeld Alpha 2. BA GmbH & Co. KG, Eschborn	Equity method
GOB Dritte E & A Grundbesitz GmbH, Eschborn	Equity method
GWH Immobilien Holding GmbH, Frankfurt am Main	Full consolidation
Helaba Asset Services Unlimited Company, Dublin, Ireland	Full consolidation
Helaba Digital GmbH & Co. KG, Frankfurt am Main	Full consolidation
Helicon Verwaltungsgesellschaft mbH & Co. Immobilien KG, Pullach	Full consolidation
LHT MSIP, LLC, Wilmington, USA	Full consolidation
LHT Power Three LLC, Wilmington, USA	Full consolidation
LHT TCW, LLC, Wilmington, USA	Full consolidation
LHT TPF II, LLC, Wilmington, USA	Full consolidation
Main Capital Funding II Limited Partnership, St. Helier, Jersey	Full consolidation
Main Capital Funding Limited Partnership, St. Helier, Jersey	Full consolidation
OFB Beteiligungen GmbH, Frankfurt am Main	Full consolidation
OPUSALPHA FUNDING LTD, Dublin, Ireland	Full consolidation
TE Kronos GmbH, Frankfurt am Main	Full consolidation
Westhafen-Gelände Frankfurt am Main GbR, Frankfurt am Main	Equity method
WoWi Media GmbH & Co. KG, Hamburg	Equity method
Frankfurter Bankgesellschaft (Deutschland) AG, Frankfurt am Main	Full consolidation
Frankfurter Bankgesellschaft (Schweiz) AG, Zurich, Switzerland	Full consolidation
Frankfurter Sparkasse, Frankfurt am Main	Full consolidation
HI-A-FSP-Fonds, Frankfurt am Main	Full consolidation
HI-C-FSP-Fonds, Frankfurt am Main	Full consolidation
HI-FBI-Fonds, Frankfurt am Main	Full consolidation
HI-FBP-Fonds, Frankfurt am Main	Full consolidation
HI-FSP-Fonds, Frankfurt am Main	Full consolidation
HI-H-FSP-Fonds, Frankfurt am Main	Full consolidation
HI-HT-KOMP.-Fonds, Frankfurt am Main	Full consolidation
HI-HTNW-Fonds, Frankfurt am Main	Full consolidation
HI-RentPlus-Fonds, Frankfurt am Main	Full consolidation
Airport Office One GmbH & Co. KG, Schönefeld	Full consolidation
BHT Baugrund Hessen-Thüringen GmbH, Kassel	Full consolidation
CORDELIA Verwaltungsgesellschaft mbH, Pullach	Full consolidation

b	c	d			e	f
Method of regulatory consolidation						
			Neither consolidated nor deducted			
Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR		thereof: Risk weighting	Deducted[1)]	Description of the entity
x						Provider of ancillary services
		x				Provider of ancillary services
x						Financial institution
x						Financial institution
x						Financial institution
		x				Financial institution
		x				Financial institution
	x					Financial institution
x						Financial institution
x						Financial institution
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x						Financial institution
x						Financial institution
x						Financial institution
x						Financial institution
		x				Financial institution
					x	Financial institution
x						Bank
x						Bank
x						Bank
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x	x		Special fund
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking

EU LI3 – Outline of the differences in the scopes of consolidation

	a
Entity name	**Method of accounting consolidation**
CP Campus Projekte GmbH, Frankfurt am Main	Equity method
Dritte OFB Friedrichstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation
EGERIA Verwaltungsgesellschaft mbH, Pullach	Full consolidation
Einkaufszentrum Wittenberg GmbH, Leipzig	Equity method
Erste OFB Friedrichstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation
Erste Veritas Frankfurt GmbH & Co. KG, Kriftel	Full consolidation
FHP Friedenauer Höhe Dritte GmbH & Co. KG, Berlin	Equity method
FHP Friedenauer Höhe Erste GmbH & Co. KG, Berlin	Equity method
FHP Friedenauer Höhe Fünfte GmbH & Co. KG, Berlin	Equity method
FHP Friedenauer Höhe Projekt GmbH, Berlin	Equity method
FHP Friedenauer Höhe Sechste GmbH & Co. KG, Berlin	Equity method
FHP Friedenauer Höhe Vierte GmbH & Co. KG, Berlin	Equity method
FHP Friedenauer Höhe Zweite GmbH & Co. KG, Berlin	Equity method
G & O Alpha Projektentwicklungs-GmbH & Co. KG, Eschborn	Equity method
G & O Gateway Gardens Dritte GmbH & Co. KG, Frankfurt am Main	Equity method
G & O Gateway Gardens Erste GmbH & Co. KG, Frankfurt am Main	Equity method
G & O MK 14.3 GmbH & Co. KG, Frankfurt am Main	Equity method
G & O MK 17.7 Nord GmbH & Co. KG, Frankfurt am Main	Equity method
G & O MK 17.7 Süd GmbH & Co. KG, Frankfurt am Main	Equity method
G & O MK 15 Bauherren GmbH & Co. KG, Frankfurt am Main	Equity method
G+S Wohnen in Frankfurt am Main GmbH, Frankfurt am Main	Full consolidation
Galerie Lippe GmbH & Co. KG, Frankfurt am Main	Full consolidation
gatelands Projektentwicklung GmbH & Co. KG; Schönefeld/OT Waltersdorf	Equity method
GHT Gesellschaft für Projektmanagement Hessen-Thüringen mbH, Frankfurt am Main	Full consolidation
GIZS GmbH & Co. KG, Stuttgart	Equity method
GOB Projektentwicklung Fünfte GmbH & Co. KG, Frankfurt am Main	Equity method
Grundstücksgesellschaft Gateway Gardens GmbH, Frankfurt am Main	Equity method
Grundstücksgesellschaft Limes-Haus Schwalbach II GbR, Frankfurt am Main	Full consolidation
Grundstücksverwaltungsgesellschaft Kaiserlei GmbH & Co. Projektentwicklung Epinayplatz KG, Frankfurt am Main	Full consolidation
Grundstücksverwaltungsgesellschaft Kaiserlei GmbH, Frankfurt am Main	Full consolidation
GSG Siedlungsgesellschaft für Wohnungs- und Städtebau mbH, Frankfurt am Main	Full consolidation
GWH Bauprojekte GmbH, Frankfurt am Main	Full consolidation
GWH WertInvest GmbH, Frankfurt am Main	Full consolidation
GWH Wohnungsgesellschaft mbH Hessen, Frankfurt am Main	Full consolidation
Hafenbogen GmbH & Co. KG, Frankfurt am Main	Full consolidation
HANNOVER LEASING Life Invest Deutschland I GmbH & Co. KG, Pullach	Full consolidation
HANNOVER LEASING Life Invest Deutschland II GmbH & Co. KG, Pullach	Full consolidation
HANNOVER LEASING Wachstumswerte Asien 1 GmbH & Co. KG, Pullach	Equity method

	b	c	d		e	f
	Method of regulatory consolidation					
				Neither consolidated nor deducted		
	Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR		thereof: Risk weighting	Deducted[1)]	Description of the entity
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x	x		Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
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				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x			Other undertaking
				x	x		Other undertaking
				x			Other undertaking
				x			Other undertaking
				x	x		Other undertaking
				x			Other undertaking
				x			Other undertaking
				x	x		Other undertaking
				x			Other undertaking
				x	x		Other undertaking
				x	x		Other undertaking
				x	x		Other undertaking
				x	x		Other undertaking
				x	x		Other undertaking
				x	x		Other undertaking

EU LI3 – Outline of the differences in the scopes of consolidation

	a
Entity name	**Method of accounting consolidation**
Haus am Brüsseler Platz GmbH & Co. KG, Frankfurt am Main	Full consolidation
Hello Darmstadt Projektentwickung GmbH & Co. KG, Frankfurt am Main	Full consolidation
HeWiPPP II GmbH & Co. KG, Frankfurt am Main	Full consolidation
Honua'ula Partners LLC, Wailea, Hawaii, USA	Full consolidation
Horus AWG GmbH, Pöcking	Equity method
HTB Grundstücksverwaltungsgesellschaft mbH, Frankfurt am Main	Full consolidation
Kalypso Projekt GmbH & Co. KG, Frankfurt am Main	Full consolidation
Logistica CPH K/S, Copenhagen, Denmark	Full consolidation
MAVEST Vertriebsgesellschaft mbH, Frankfurt am Main	Full consolidation
MAVEST Wohnungsbaugesellschaft mbH, Frankfurt am Main	Full consolidation
Merian GmbH Wohnungsunternehmen, Frankfurt am Main	Full consolidation
Montindu S.A./N.V., Brussels, Belgium	Full consolidation
Multi Park Mönchhof Dritte GmbH & Co. KG, Langen (Hesse)	Equity method
Multi Park Mönchhof GmbH & Co. KG, Langen (Hesse)	Equity method
Multi Park Mönchhof Main GmbH & Co. KG, Langen (Hesse)	Equity method
Neunte P 1 Projektgesellschaft mbH & Co. KG, Frankfurt am Main	Full consolidation
OFB & Procom Objekt Neu-Ulm GmbH & Co. KG, Neu-Ulm	Equity method
OFB & Procom Rüdesheim GmbH & Co. KG, Frankfurt am Main	Equity method
OFB Projektentwicklung GmbH, Frankfurt am Main	Full consolidation
Projekt Erfurt B38 GmbH & Co. KG, Frankfurt am Main	Full consolidation
Projekt Hirschgarten MK8 GmbH & Co. KG, Frankfurt am Main	Full consolidation
Projekt Wilhemstraße Wiesbaden GmbH & Co. KG, Frankfurt am Main	Equity method
Projektentwicklung Königstor GmbH & Co. KG, Kassel	Full consolidation
Projektentwicklung Neuwerkstraße 17 GmbH & Co. KG, Frankfurt am Main	Full consolidation
Projektgesellschaft ILP Erfurter Kreuz mbH & Co. KG, Frankfurt am Main	Full consolidation
PVG GmbH, Frankfurt am Main	Full consolidation
sono west Projektentwicklung GmbH & Co. KG, Frankfurt am Main	Equity method
SQO Stadt Quartier Offenburg GmbH & Co. KG, Frankfurt am Main	Full consolidation
Stresemannquartier GmbH & Co. KG, Berlin	Equity method
Systeno GmbH, Frankfurt am Main	Full consolidation
uniQus Projektentwicklung GmbH & Co.KG, Frankfurt am Main	Full consolidation
Versicherungsservice der Frankfurter Sparkasse GmbH, Frankfurt am Main	Full consolidation
Verso Grundstücksentwicklung GmbH & Co. KG, Frankfurt am Main	Full consolidation
Verso Projektentwicklung GmbH & Co. KG, Frankfurt am Main	Full consolidation
Vierte OFB Friedrichstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation
Vierte OFB PE GmbH & Co. KG, Frankfurt am Main	Full consolidation
Westhafen Haus GmbH & Co. Projektentwicklungs-KG, Frankfurt am Main	Equity method
Zweite OFB Friedrichstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation

b	c	d		e	f
Method of regulatory consolidation					
		Neither consolidated nor deducted			
Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR		thereof: Risk weighting	Deducted[1)]	Description of the entity
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x			Other undertaking
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			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x	x		Other undertaking
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking

EU LI3 – Outline of the differences in the scopes of consolidation

	a
Entity name	**Method of accounting consolidation**
Zweite OFB PE GmbH & Co. KG, Frankfurt am Main	Full consolidation
Helaba Invest Kapitalanlagegesellschaft mbH, Frankfurt am Main	Full consolidation
Family Office der Frankfurter Bankgesellschaft AG, Frankfurt am Main	Full consolidation

[1] Consists of the entities subject to the threshold exemptions under Article 48 CRR (excluding cases covered by Article 19 CRR).

The tables below showing a reconciliation from balance sheet items to regulatory risk types and a reconciliation from the balance sheet carrying amount to the exposure amount for regulatory purposes illustrate the differences between the group of consolidated companies for financial reporting purposes under company law (scope of accounting consolidation) and the equivalent group of consolidated companies for regulatory purposes (scope of prudential consolidation) as well as the differences between the accounting and regulatory measurement of transactions.

The risk types are credit risk, counterparty credit risk, risk from securitisation exposures and market risk as well as that portion (with the exception of market risk) that is subject to neither own funds requirements nor a capital deduction. Column f includes risk exposures in both the trading book and the banking book that have not been posted in euros (currency risk). The total of the values in columns (c) to (g) does not match the value in column (b) because the carrying amount for some individual exposures is reported in the CRR risk types for both the banking book and the trading book (conventional currency risk).

In EU LI2, the overall reconciliation to the net exposure used in market risk is due to the different calculation methods for the own funds requirements for market risk in the standardised approach, and to the internal model used to calculate the own funds requirements for general interest rate risk.

	b	c	d			e	f
	Method of regulatory consolidation						
				Neither consolidated nor deducted			
	Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR		thereof: Risk weighting	Deducted[1)]	Description of the entity
				x			Other undertaking
	x						Asset management company
	x						Investment firm

EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

	a	b
	Carrying amounts under the scope of German commercial law consolidation of the Helaba Group in accordance with IFRS	**Carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS**
Assets		
Cash on hand, demand deposits and overnight money balances with central banks and banks	7,342	7,199
Financial assets measured at amortised cost	106,755	107,373
Financial assets measured at fair value through profit or loss	21,885	22,426
Financial assets measured at fair value through other comprehensive income	22,494	23,747
Shares in equity-accounted entities	45	4
Investment property	2,420	2
Property and equipment	438	421
Intangible assets	80	79
Income tax assets	593	569
Non-current assets and disposal groups classified as held for sale	42	0
Other assets	874	297
Total assets	**162,968**	**162,117**
Equity and liabilities		
Financial liabilities measured at amortised cost	125,222	123,881
Financial liabilities measured at fair value through profit or loss	26,524	26,523
Provisions	2,087	2,032
Income tax liabilities	157	156
Other liabilities	516	413
Equity	8,462	9,113
Total equity and liabilities	**162,968**	**162,117**

in € m

c	d	e	f	g
Credit risk	**CCR**	**Securitisation exposures**	**Market risk**	**Not subject to capital requirement or subject to capital deduction**
7,199	0	0	940	0
100,677	0	6,696	20,580	0
3,110	13,878	1	11,825	5,437
23,724	0	24	1,877	0
4	0	0	0	0
2	0	0	0	0
421	0	0	5	0
1	0	0	7	78
569	0	0	22	0
0	0	0	0	0
297	0	0	15	0
136,003	**13,878**	**6,721**	**35,271**	**5,515**
0	0	0	8,288	123,881
0	1	0	26,585	26,522
34	0	0	37	1,998
0	0	0	5	156
0	0	0	9	413
0	0	0	1,285	9,113
34	**1**	**0**	**36,209**	**162,082**

EU LI2 – Main sources of differences between regulatory exposure amounts and carrying amounts in financial statements in € m

		a	b	c	d	e
			By risk type			
		Total	**Credit risk**	**CCR**	**Securitisation exposures**	**Market risk[1]**
1	**Total assets: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS (as per template LI1)**	**191,873**	**136,003**	**13,878**	**6,721**	**35,271**
2	Total liabilities: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS (as per template LI1)	36,244	34	1	0	36,209
3	Net amount: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS	155,629	135,969	13,877	6,721	−939
4	Off-balance-sheet exposures	36,429	35,330	0	1,099	0
5	Differences due to the application of credit conversion factors (CCFs)	14,901	14,901	0	0	0
6	Measurement differences	−0	0	−0	0	0
7	Differences due to the application of credit risk adjustments	314	314	0	0	0
8	Differences due to the application, for risk mitigation purposes, of recognised contractual netting for derivative financial instruments and securities financing transactions (SFTs), taking into account add-on amounts for PFE associated with derivatives transactions (regulatory add-on)	−4,973	0	−4,973	0	0
9	Differences due to prudential filters – calculation of additional valuation adjustments (AVAs) for financial instruments measured at fair value	0	0	0	0	0
10	Differences resulting from the calculation of the net foreign exchange position under the standardised method for market risk in accordance with Article 325 et seq. CRR	9,090	0	0	0	9,090
11	Other differences	−3,752	−2,754	−492	−506	0
12	**Exposure amount considered for regulatory purposes (excluding CRM effects)**	**177,836**	**153,959**	**8,412**	**7,314**	**8,151**

[1] Exposures only reported once even if multiple market risk types are applicable.

Own Funds and Own Funds Structure

This section presents information about the Helaba Group's own funds and key figures together with a breakdown of the own funds requirements for each risk type in accordance with the COREP report under Pillar I as at 31 December 2018. The capital ratios and the determination of limits for risk-weighted assets are also reported.

KM1 – The Helaba Group in figures

in € m

		31.12.2018	30.9.2018	30.6.2018	31.3.2018	31.12.2017
Composition of own funds for regulatory purposes						
1	Common Equity Tier 1 capital	8,108	8,004	8,023	8,021	7,673
	thereof: Regulatory adjustments	–509	–390	–370	–365	–281
	Additional Tier 1 capital	775	421	421	421	507
	thereof: Regulatory adjustments	–20	–	–	–	–19
2	Tier 1 capital	8,883	8,425	8,445	8,442	8,180
	Tier 2 capital	2,288	2,712	2,720	2,727	2,667
	thereof: Regulatory adjustments	–14	–14	–14	–14	–19
3	Own funds, total	11,171	11,137	11,165	11,169	10,847
Total risk exposure amount						
4	Total RWAs	54,281	52,360	51,881	50,966	49,822
Capital ratios						
5	Common Equity Tier 1 (CET1) capital ratio in %	14.9	15.3	15.5	15.7	15.4
6	Tier 1 capital ratio in %	16.4	16.1	16.3	16.6	16.4
7	Total capital ratio in %	20.6	21.3	21.5	21.9	21.8
Capital buffers						
8	Capital conservation buffer in %	1.88	1.88	1.88	1.88	1.25
9	Institution-specific countercyclical capital buffer in %	0.09	0.06	0.06	0.03	0.03
10	Buffer for global/other systemically important institutions in %	0.66	0.66	0.66	0.66	0.33
11	Institution-specific buffer requirement in % (rows 8 + 9 + 10)	2.63	2.60	2.59	2.56	1.61
12	CET1 capital available for the buffers in % (expressed as a percentage of the total risk exposure amount))	10.36	10.09	10.28	10.56	10.42
Leverage ratio						
13	Leverage ratio total exposure measure	174,608	184,153	177,664	177,314	167,618
14	Leverage ratio in %	5.1	4.6	4.8	4.8	4.9

Common Equity Tier 1 capital rose by € 104 m compared with the figure as at 30 September 2018. This increase was attributable to the inclusion of the net profit for the second half of the year less planned dividends and the positive change in accumulated other comprehensive income. Some of this increase was offset by the rise in capital deductions in connection with prudent measurement and the net loss arising from the comparison between recognised allowances and expected losses.

The Helaba Group's Common Equity Tier 1 capital rose by € 435 m compared with the figure as at 31 December 2017. Capital rose in particular as a result of positive effects from the first-time recognition at fair value of subsidiaries not included in the prudential scope of consolidation in connection with the switch to IFRS 9 as at 1 January 2018, as well as the inclusion of net profit for the year after the deduction of expected dividends. Some of this was offset by increased regulatory capital deductions in connection with prudent measurement and the end of the last phase of the CRR transitional arrangements relating to deductible items.

Additional Tier 1 capital went up by € 354 m as a result of the issue of additional Tier 1 registered bonds (AT1 bonds) in December 2018.

Total own funds have risen by approximately € 324 m. Other than the positive effects referred to above relating to Common Equity Tier 1 capital, the main reasons were the return of grandfathered capital instruments and the impact from residual maturity amortisation on Tier 2 capital instruments.

Own Funds Structure

The CRR defines own funds as Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital.

The Helaba Group's Common Equity Tier 1 capital essentially comprises the subscribed capital (paid-up capital and capital contributions), capital reserves and retained earnings.

Shown in the Additional Tier 1 capital category are the Additional Tier 1 registered bonds and the silent participations that constituted liable capital in accordance with Section 10 KWG until 31 December 2013 and that fall under the grandfathering provisions set out in the CRR, meaning that they can still be applied as Additional Tier 1 capital, on a steadily decreasing basis, until 2021.

The Tier 2 capital as defined in the CRR consists largely of profit participation rights and other subordinated liabilities of Helaba.

A description of the individual capital instruments together with a list of their key features can be found in the Annex under "Key features of the capital instruments".

Details of the composition of the regulatory own funds and the regulatory deduction amounts, together with a presentation of how the regulatory own funds can be derived from the relevant items in the audited consolidated financial statements of the Helaba Group, are shown in the following two tables.

Article 437 CRR – Disclosure of own funds (table based on Annex VI of Implementing Regulation (EU) No 1423/2013) in € m

	Common Equity Tier 1 capital: Instruments and reserves	**Amount at reporting date**	**Regulation (EU) No 575/2013 Article Reference**	**Full imple-mentation of CRD IV/CRR**	**Notes**
1	Capital instruments and the related share premium accounts	4,055	26 (1), 27, 28, 29	4,055	
	of which: Share capital	2,509	EBA list 26 (3)	2,509	
2	Retained earnings	4,260	26 (1) (c)	4,260	(a)
3	Accumulated other comprehensive income (and other reserves)	116	26 (1)	116	(b)
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	186	26 (2)	186	(c)
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**8,617**	**Sum of rows 1 to 5a**	**8,617**	
Common Equity Tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments	−159	34, 105	−159	
8	Intangible assets (net of relaxed tax liability)	−80	36 (1) (b), 37	−80	
	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met)	−4	36 (1) (c), 38	−4	
12	Negative amounts resulting from the calculation of expected loss amounts	−70	36 (1) (d), 40, 159	−70	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	−86	33 (1) (b)	−86	(d)
16	Direct and indirect holdings by an institution of own CET1 instruments	−108	36 (1) (f), 42	−108	
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**−509**	**Sum of rows 7 to 20a, 21, 22 and 25a to 27**	**−509**	
29	**Common Equity Tier 1 (CET1) capital**	**8,108**	**Sum of row 6 and row 28**	**8,108**	
Additional Tier 1 (AT1) capital: instruments					
30	Capital instruments and the related share premium accounts	374	51, 52	374	
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1	421	486 (3)	–	(e)
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**795**	**Additional Tier 1 (AT1) capital: instruments**	**374**	
Additional Tier 1 (AT1) capital: regulatory adjustments					
37	Direct and indirect holdings by an institution of own AT1 instruments	−20	52 (1) (b), 56 (a), 57	−20	

Article 437 CRR – Disclosure of own funds (table based on Annex VI of Implementing Regulation (EU) No 1423/2013) in € m

	Common Equity Tier 1 capital: Instruments and reserves	**Amount at reporting date**	**Regulation (EU) No 575/2013 Article Reference**	**Full implementation of CRD IV/CRR**	**Notes**
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**–20**	**Sum of rows 37 to 42**	**–20**	
44	**Additional Tier 1 (AT1) capital**	**775**	**Sum of row 36 and row 43**	**354**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**8,883**	**Sum of row 29 and row 44**	**8,462**	
Tier 2 (T2) capital: instruments and provisions					
46	Capital instruments and the related share premium accounts	2,302	62, 63	2,723	(f)
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2	–	486 (4)	–	
51	**Tier 2 (T2) capital before regulatory adjustments**	**2,302**		**2,723**	
Tier 2 (T2) capital: regulatory adjustments					
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans	–9	63 (b) (i), 66 (a), 67	–9	
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions)	–5	66 (d), 69, 79	–5	(g)
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**–14**	**Sum of rows 52 to 56**	**–14**	
58	**Tier 2 (T2) capital**	**2,288**	**Sum of row 51 and row 57**	**2,709**	
59	**Total capital (TC = T1 + T2)**	**11,171**	**Sum of row 45 and row 58**	**11,171**	
60	**Total risk weighted assets**	**54,281**		**54,281**	
Capital ratio and buffers					
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	14.94 %	92 (2) (a)	14.94 %	
62	Tier 1 (as a percentage of total risk exposure amount)	16.36 %	92 (2) (b)	15.59 %	
63	Total capital (as a percentage of total risk exposure amount)	20.58 %	92 (2) (c)	20.58 %	

Article 437 CRR – Disclosure of own funds (table based on Annex VI of Implementing Regulation (EU) No 1423/2013) in € m

	Common Equity Tier 1 capital: Instruments and reserves	Amount at reporting date	Regulation (EU) No 575/2013 Article Reference	Full imple-mentation of CRD IV/CRR	Notes
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer, expressed as a percentage of risk exposure amount)	7.13 %	CRD 128, 129, 130, 131, 133	8.09 %	
65	of which: capital conservation buffer requirement	1.88 %		2.50 %	
66	of which: countercyclical buffer requirement	0.09 %		0.09 %	
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.66 %		1.00 %	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	10.36 %	CRD 128	9.59 %	
Amounts below the thresholds for deduction (before risk weighting)					
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10 % threshold and net of eligible short positions)	219	36 (1) (h), 46, 45, 56 (c), 59, 60, 66 (c), 69, 70	219	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10 % threshold and net of eligible short positions)	73	36 (1) (i), 45, 48	73	
75	Deferrred tax assets arising from temporary differences (amount below 10 % threshold, net of related tax liability where the conditions in Article 38 (3) are met)	455	36 (1) (c), 38, 48	455	
Applicable caps on the inclusion of provisions in Tier 2					
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	60	62	60	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	239	62	239	

Article 437 CRR – Disclosure of own funds (table based on Annex VI of Implementing Regulation (EU) No 1423/2013) in € m

	Common Equity Tier 1 capital: Instruments and reserves	**Amount at reporting date**	**Regulation (EU) No 575/2013 Article Reference**	**Full implementation of CRD IV/CRR**	**Notes**
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)					
82	– Current cap on AT1 instruments subject to phase out arrangements	421	484 (4), 486 (3) and (5)	–	
83	– Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	97	484 (4), 486 (3) and (5)	–	
84	– Current cap on T2 instruments subject to phase out arrangements	100	484 (5), 486 (4) and (5)	–	
85	– Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	–	484 (5), 486 (4) and (5)	–	

Rows 3a, 4, 5, 9, 11, 13, 15, 17, 18, 19, 20, 20a, 20b, 20c, 20d, 21, 22, 23, 24, 25, 25a, 25b, 27, 31, 32, 34, 35, 38, 39, 40, 41, 42, 48, 49, 50, 53, 54, 56, 67, 69, 70, 71, 74, 76, 78, 80, 81 are not applicable or not relevant in the Helaba Group and are not shown for reasons of clarity.
The regulatory adjustments to Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital are shown with a minus sign.

(a) Retained earnings does not include net income for 2018 attributable to the shareholders of the parent (€ 316 m) or the home savings protection fund (€ 11 m).
(b) See also Note (59) in the Notes to the Consolidated Financial Statements in the Annual Report for disclosures regarding the composition of accumulated other comprehensive income. The differences in the amounts for accounting and regulatory purposes resulted in particular from the measurement at fair value through other comprehensive income of equity investments not included in the basis of consolidation for regulatory purposes.
(c) This item includes the net income attributable to the shareholders of the parent under the consolidation group for commercial law purposes (€ 276 m) less foreseeable dividends (€ 90 m).
(d) This item includes gains or losses on liabilities measured at fair value that result from changes in the institution's own credit standing (Article 33 (1) (b) CRR) and fair value gains and losses arising from the institution's own credit risk related to derivative liabilities (Article 33 (1) (c) CRR).
(e) This position comprises silent participations that do not satisfy the equity requirements in accordance with IAS 32. These are reported in the statement of financial position under "Subordinated debt". The silent participations are included, on a transitional basis, as Additional Tier 1 capital in accordance with Article 484 (4) CRR, although they satisfy the requirements of Article 63 CRR (Tier 2 capital). The ineligible amount due to the upper limit defined in Article 486 (3) CRR is € 97 m.
(f) The Tier 2 capital comprises liabilities under profit participation rights and other subordinated liabilities. The Tier 2 capital also includes an amount of € 97 m from silent participations. This comprises amounts that exceeded the upper limits in Article 486 (3) CRR.
(g) Tier 2 instruments that constitute deductible holdings relating to financial sector entities in which a significant investment is held are reported on the statement of financial position under "Financial assets measured at amortised cost".
(h) The minority interests requirements in accordance with Article 81 et seq. CRR are not met.

Article 437 CRR – Reconciliation from the IFRS consolidated statement of financial position to the consolidated statement of financial position for regulatory purposes

in € m

Statement of financial position item	IFRS consolidated statement of financial position	Consolidated statement of financial position	Difference due to diffe-ring groups of consolidated companies	Note[1)]
	12.2018	**12.2018**		
I. Assets				
Cash on hand, demand deposits and overnight money balances with central banks and banks	7,342	7,200	–143	
Financial assets measured at amortised cost	106,755	107,374	619	
Trading assets	16,989	16,989	0	
Other financial assets mandatorily measured at fair value through profit or loss	3,911	4,451	540	
Financial assets designated voluntarily at fair value	377	377	0	
Positive fair values of hedging derivatives under hedge accounting	608	608	0	
Financial assets measured at fair value through other comprehensive income	22,494	23,747	1,253	
Shares in equity-accounted entities	45	4	–41	
Investment property	2,420	2	–2,418	
Property and equipment	438	422	–16	
Intangible assets	80	79	–1	
Income tax assets	593	569	–24	
thereof: Deferred income tax assets	490	466	–24	
thereof: Arising from differences that are not temporary	5	4	–1	
thereof: Arising from temporary differences	473	437	–36	
Non-current assets and disposal groups classified as held for sale	42	0	–42	
Other assets	874	297	–577	
Total assets	**162,968**	**162,119**	**–849**	

Article 437 CRR – Reconciliation from the IFRS consolidated statement of financial position to the consolidated statement of financial position for regulatory purposes

in € m

Statement of financial position item	IFRS consolidated statement of financial position	Consolidated statement of financial position	Difference due to differing groups of consolidated companies	Note[1]
	12.2018	12.2018		
II. Equity and liabilities				
Financial liabilities measured at amortised cost	125,222	123,881	−1,341	
thereof: Subordinated liabilities (subordinated capital)	2,837	2,837	0	
thereof: Profit participation rights	81	81	0	(f)
thereof: Amortised amount per Art. 64 CRR	–	32	32	
thereof: Difference between regulatory figures and statement of financial position	–	0	–	
thereof: Silent participations	562	562	0	(e), (f)
thereof: No longer eligible per Art. 78 CRR	–	15	15	
thereof: Amount expiring per Art. 486 CRR	–	97	97	
thereof: Difference between regulatory figures and statement of financial position	–	28	28	
thereof: Other subordinated liabilities	2,194	2,194	0	(f)
thereof: Amortised amount per Art. 64 CRR	–	42	42	
thereof: Difference between regulatory figures and statement of financial position	–	39	39	
Trading liabilities	12,763	12,764	1	
Negative fair values of non-trading derivatives	1,791	1,789	−2	
Financial liabilities designated voluntarily at fair value	11,480	11,480	0	
thereof: Subordinated liabilities (subordinated capital)	47	47	0	(f)
thereof: Difference between regulatory figures and statement of financial position	–	2	2	
Negative fair values of hedging derivatives under hedge accounting	490	490	0	
Provisions	2,087	2,032	−55	
Income tax liabilities	157	156	−1	
thereof: Deferred income tax liabilities	16	26	10	
Other liabilities	516	414	−102	
Equity	**8,462**	**9,113**	**652**	
Subscribed capital	2,509	2,509	0	
Capital reserves	1,546	1,546	0	
Regulatory Additional Tier 1 instruments	354	354	0	
Retained earnings	4,414	4,586	173	(a)
thereof: Attributable to shareholders	276	316	39	(c)
Accumulated other comprehensive income (OCI)	−360	116	476	(b)
Non-controlling interests	−1	2	3	(h)
Total equity and liabilities	**162,968**	**162,119**	**−849**	

[1] Explanations can be found in the Annex under “Disclosure of Own Funds”

Capital Adequacy

The table below shows the RWAs and own funds requirements broken down by risk type.

EU OV1 – Overview of RWAs

in € m

			RWAs		Own funds
			31.12.2018	**30.9.2018**	**31.12.2018**
	1	Credit risk (excluding CCR)	43,500	41,432	3,480
Article 438 (c), (d)	2	Of which standardised approach (CRSA)	4,740	4,617	379
Article 438 (c), (d)	3	Of which the foundation IRB (FIRB) approach	36,539	34,547	2,923
Article 438 (c), (d)	4	Of which the advanced IRB (AIRB) approach	1,075	1,090	86
Article 438 (d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	1,146	1,178	92
Article 107, Article 438 (c), (d)	6	Counterparty credit risk (CCR)	1,797	1,896	144
Article 438 (c), (d)	7	Of which mark to market	1,010	1,194	81
Article 438 (c), (d)	8	Of which original exposure	–	–	–
	9	Of which standardised approach	–	–	–
	10	Of which internal model method (IMM)	–	–	–
Article 438 (c), (d)	11	Of which contributions to the default fund of a CCP	111	–	9
Article 438 (c), (d)	12	Of which CVA	676	702	54
Article 438 (e)	13	Settlement risk	0	0	0
Article 449 (o), (i)	14	Securitisation exposures in the banking book (after the cap)	1,790	1,846	143
	15	Of which IRB approach	743	871	59
	16	Of which supervisory formula approach (SFA)	425	566	34
	17	Of which internal assessment approach (IAA)	314	300	25
	18	Of which standardised approach	1,047	975	84
Article 438 (e)	19	Market risk	3,551	3,540	284
	20	Of which standardised approach	1,581	1,393	126
	21	Of which internal model method (IMM)	1,970	2,146	158
Article 438 (e)	22	Large exposures	–	–	–
Article 438 (f)	23	Operational risk	3,557	3,557	285
	24	Of which basic indicator approach	–	–	–
	25	Of which standardised approach	3,557	3,557	285
	26	Of which advanced measurement approaches	–	–	–
Article 437 (2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250 % risk weight)	85	89	7
Article 500	28	Adjustment for Basel I floor	–	–	–
	29	**Total**	**54,281**	**52,360**	**4,342**

The following table (as at 31 December 2018) is provided in addition to the differentiated presentation of RWAs in accordance with the requirements in EBA/GL/2016/11 in order to ensure that the requirements of Article 438 CRR are satisfied in full.

Article 438 CRR – Overview of RWAs by exposure class in € m

	RWAs	Own funds requirement
Central governments or central banks	1,507	121
Institutions	3,340	267
Corporates	31,821	2,546
thereof: Specialised lending exposures	17,431	1,394
thereof: SME	1,793	143
thereof: Other	12,597	1,008
Retail	1,075	86
Secured by real estate	641	51
thereof: SME	153	12
thereof: Non-SME	488	39
Qualifying revolving	50	4
Other	384	31
thereof: SME	86	7
thereof: Non-SME	298	24
IRBA equity exposures	1,590	127
thereof: Simple risk-weight approach	1,146	92
Private equity exposures in sufficiently diversified portfolios (190 %)	1,007	81
Exchange traded equity exposures (290 %)	–	–
Other equity exposures (370 %)	140	11
thereof: PD/LGD approach	379	30
thereof: Risk-weighted equities	64	5
Other non-credit-obligation assets	438	35
Total IRB approach	**39,771**	**3,182**
Central governments or central banks	33	3
Regional governments or local authorities	14	1
Public-sector entities	255	20
Multilateral development banks	–	–
International organisations	–	–
Institutions	379	30
Corporates	2,136	171
Retail	94	8
Exposures secured by real estate	662	53
Exposures in default	97	8
Higher risk categories	17	1
Covered bonds	3	0
Exposures to institutions and corporates with a short-term credit rating	–	–
Collective investment undertakings (CIU)	–	–
Equity exposures	894	72
Other exposures	240	19
Total standardised approach (CRSA)	**4,825**	**386**
Total	**44,595**	**3,568**

There were no own funds requirements on the reporting date for trading book activities of the Helaba Group in relation to large exposures above the limits set out in Articles 395 to 401 CRR or equity investments in insurance companies that are not deducted from own funds in accordance with Article 49 (1) CRR.

The RWAs for default risks rose by approximately € 2 bn compared with the figure as at 30 September 2018; those for market risk remained virtually unchanged. The most significant changes in RWAs arose from an increase in the exposure classes Corporates – Specialised lending exposures (approximately € 1.25 bn) and Corporates – Other (approximately € 0.6 bn) in the IRB approach.

The increases in both IRB exposure classes were accounted for by traditional new business, mainly real estate business.

The table below shows the equity investment exposures in the simple risk-weight approach as specified in Article 155 (2) CRR. As at 31 December 2018, Helaba did not hold any specialised lending exposures based on the supervisory slotting criteria. For this reason, the table below is restricted to equity investments.

EU CR10 – IRB: Specialised lending and equities (simple risk-weight approach) in € m

Equity investments under the simple risk-weight approach						
Categories	**Basis of measurement (on-balance sheet)**	**Basis of-measurement (off-balance sheet)**	**Risk weighting**	**Exposure value**	**RWAs**	**Own funds requirement**
Private equity exposures in sufficiently diversified portfolios	414	115	190 %	530	1,007	81
Exchange-traded equity exposure	–	–	290 %	–	–	–
Other equity exposures	37	1	370 %	38	140	11
Total	**451**	**116**		**568**	**1,146**	**92**

The table below shows the capital ratios of the Helaba Group, Helaba Bank and the significant subsidiary FSP.

Capital ratios

	Total capital ratio in %	**Tier 1 capital ratio in %**	**CET1 capital ratio in %**
Helaba Group (IFRS)	20.6	16.4	14.9
Helaba Bank (HGB)	19.5	14.4	12.8
Frankfurter Sparkasse (HGB)	20.9	19.8	19.8

The Helaba Group has a comfortable capital position with a Tier 1 capital ratio of 16.4 % and a Common Equity Tier 1 capital ratio of 14.9 % as at 31 December 2018.

The RWA limits are derived on the basis of the own funds available and the appetite for risk defined by the Board of Managing Directors, in the form of target ratios, in accordance with the following principles:

- Risk adequacy
- Earnings adequacy
- Operationalisability
- Consistency

The RWA limits are allocated as part of the annual planning process. Planning proceeds in accordance with the business area strategy, the risk strategy and other provisions intended to ensure accurate alignment with customer and business requirements. The principal parameters of the operational planning process for the subsequent year are defined in the benchmark resolution adopted by the Board of Managing Directors. The profit centres plan elements including their business portfolios, new business, earnings, the regulatory expected loss (EL) resulting from the performance of the business and the RWAs during the central planning phase.

The results of the planning process for each unit are approved on the basis of an integrated earnings and risk assessment. An integrated overall plan comprising a volume plan, an earnings plan and a risk plan is adopted for each unit. The RWA limits are also enshrined as risk tolerance in the RAF. The Board of Managing Directors passes a corresponding resolution and the RWA limit allocations are then submitted to the Supervisory Board and Board of Public Owners for approval as part of the annual planning submissions for the financial year.

Risk-Bearing Capacity/ICAAP

Helaba uses its established procedures for quantifying and containing risks to ensure that all primary risks within the Helaba Group are always covered by risk cover pools and that its risk-bearing capacity is thus assured.

Against the backdrop of the consultation on ICAAP guidelines being conducted by European banking supervisors, Helaba carried out fundamental further development in 2017 of its risk-bearing capacity calculation. The previous calculation approaches determined at national level were replaced by the two ICAAP perspectives as specified in the guidelines. In the operational risk reporting system, the changeover was effected from the 2018 financial year.

In terms of concept, Helaba's lead risk-bearing capacity approach reflects the supervisory requirements for an ICAAP at institutions from an internal economic perspective. In other words, the calculation of risk-bearing capacity takes into account all risks that could jeopardise the continued existence of Helaba as a going concern from an internal economic perspective. The economic limitation and containment of risks is also based on ensuring risk-bearing capacity in accordance with this internal economic perspective. The risk tolerance and risk appetite related to the risk exposures in this perspective are specified in the risk appetite framework.

Risk-bearing capacity is determined in the internal economic perspective on the basis of a time frame of one year, and both risk exposures and risk cover pools are designed and quantified for this period.

The economic risk cover pools are calculated on the basis of own funds determined in accordance with IFRS financial reporting requirements, adjusted for economic correction factors. These factors ensure a loss absorption capacity comparable with regulatory CET1 capital.

In terms of risk, risk exposures for default risk, market risk, operational risk, business and real estate risk are included in the analysis for the internal economic perspective with a confidence level of 99.9 %. This approach is used to demonstrate that the economic risk cover pool is adequate enough – even if rare and serious loss scenarios should materialise – to ensure that the Bank can continue as a going concern on the basis of its own funds, i.e. without recourse to third-party funds.

The risk-bearing capacity assessment covering all risk types reveals that the existing risk cover pools once again exceeded the quantified risk exposures by a substantial margin at the end of 2018, underlining Helaba's conservative risk profile. As at the reporting date, Helaba had a capital buffer of € 4.6 bn in respect of its economic risk exposures.

In addition to an analysis of risk-bearing capacity for given reference dates, Helaba also regularly examines the effects of historical and hypothetical stress scenarios on risk-bearing capacity. These scenarios comprise a macroeconomic stress scenario and a scenario involving exceptional market dislocation based on the most extreme changes in parameters observed over the historical timeframe (normally, observed market turmoil occurring in a global financial crisis).

To complement the internal economic perspective as the lead approach for ensuring risk-bearing capacity in Pillar II, an analysis using the internal normative perspective is conducted quarterly. The internal normative perspective examines the impact of material Pillar II risks on regulatory ratios and on internal, capital-ratio-related targets in the risk appetite framework (RAF), assuming the continued existence of the Bank as a going concern. This analysis is conducted using various macroeconomic scenarios. Pillar II risks affect regulatory capital, both through profit and loss and through other comprehensive income, whereas Pillar I risk quantification is reflected in a change in RWAs.

The objective of this analysis is to ensure ongoing compliance with regulatory requirements and with the internal targets derived from the risk strategy and RAF. The capital ratios achieved under the simulated scenarios exceed the regulatory minimum requirements by a significant margin as well as the risk tolerance defined in the RAF.

Helaba additionally conducts three inverse stress tests to investigate what nature of event could jeopardise its continued existence. The associated scenarios, “minimum capital requirements not met” and “illiquid”, examine the implications of a variety of economic developments that could result in Helaba being unable to comply with the minimum capital requirements specified by the regulator or consuming its liquidity reserves. A reverse stress scenario is used in the internal economic perspective to analyse what events beyond the extreme market dislocation scenario would need to materialise to place the risk-bearing capacity of the Helaba Group in jeopardy. There is currently no indication of any of the scenarios described above becoming a reality.

In addition to the stress tests across risk types carried out as part of Helaba’s calculation of risk-bearing capacity and the overarching reverse stress tests, Helaba also carries out risk-type-specific stress tests for selected business activities and portfolios to ensure that it carries out continuous monitoring and is able to identify new threats, weaknesses and/or changes in the environment for its specific individual products and markets.

Other Protection Mechanisms

There are other protection mechanisms in addition to the risk cover pool. Helaba is a member of the Reserve Fund of the Landesbanken and Girozentralen and is thus included in the Sparkassen-Finanzgruppe’s protection scheme, which comprises the eleven regional Sparkasse support funds, the aforementioned reserve fund and the deposit security reserve fund of the Landesbausparkassen.

The most notable features of this protection scheme are the way that it safeguards the viability of the affiliated institutions, especially their liquidity and solvency, its risk monitoring system for the early detection of specific risk profiles and its use of a method based on risk parameters defined by the supervisory authorities to calculate the amounts to be paid into the protection scheme by the various institutions. The legally dependent LBS, the subsidiary FSP, and Frankfurter Bankgesellschaft (Deutschland) AG, which is a subsidiary of Frankfurter Bankgesellschaft (Schweiz) AG (which in turn is a subsidiary of Helaba), are also directly integrated into this protection scheme.

The Sparkassen-Finanzgruppe scheme includes a deposit guarantee scheme to protect qualifying deposits up to a value of € 100,000 per customer as well as safeguarding the viability of the affiliated institutions themselves. The deposits thus protected at the Helaba Group amount to € 16.0 bn in total (31 December 2017: € 15.6 bn). The German Federal Financial Supervisory Authority (BaFin) has recognised the Sparkassen-Finanzgruppe’s institutional protection scheme as a deposit guarantee scheme for the purposes of the German Deposit Guarantee Act (EinSiG).

Helaba and FSP are also affiliated to the Reserve Fund of the Sparkassen- und Giroverband Hessen-Thüringen under the terms of their Charters. The reserve fund provides further protection in the event of a default in addition to the nationwide Joint Liability Scheme. It covers the liabilities of Helaba and FSP to customers, including banks, insurance companies and other institutional investors, and their securitised liabilities. Liabilities that serve or have served at the institutions as components of own funds pursuant to Section 10 KWG, such as asset contributions of dormant shareholders, liabilities under profit participation rights and subordinated liabilities, are not covered irrespective of their remaining term. The total volume of the fund is equal to 0.5 % of the affiliated institutions’ total risk exposure amount as defined by article 92(3) CRR and stood at € 555 m at the end of 2018 (31 December 2017: € 518 m). The total contributions paid in cash as at the same date amounted to € 475 m (31 December 2017: € 442 m).

The Sparkassen- und Giroverband Hessen-Thüringen has undertaken to make up the shortfall between the amount actually paid in and the full amount should the fund be required before such time as the full amount has been contributed. Rheinischer Sparkassen- und Giroverband (RSGV) and Sparkassenverband Westfalen-Lippe (SVWL) have each also unilaterally set up an additional regional reserve fund for Helaba.

Development institution WIBank, which is organised as a dependent institution within Helaba, enjoys the direct statutory guarantee of the State of Hesse as regulated by law and as permitted under EU law on state aid.

Countercyclical Capital Buffer

The aim of the institution-specific countercyclical capital buffer is to limit excessive growth in lending by requiring the institution concerned to maintain an additional capital buffer comprising Common Equity Tier 1 capital.

In Germany, the value of the countercyclical capital buffer is specified by BaFin quarterly on the basis of analyses of macroeconomic data. The figure for Germany at 31 December 2018 was 0 %. A capital buffer higher than 0 % has been specified by the competent supervisory authorities in the United Kingdom, Hong Kong, Sweden, Norway, Iceland, Slovakia, the Czech Republic and Lithuania for those countries. If, in accordance with the definition specified in Article 140 (4) CRD, an institution has relevant credit exposures in other countries, the institution-specific countercyclical capital buffer is calculated as a weighted average of the domestic and foreign countercyclical capital buffers.

Pursuant to Article 440 CRR in conjunction with Delegated Regulation (EU) No 1555/2015, banks must disclose the geographical distribution of the credit exposures relevant to the calculation of the countercyclical capital buffer and the amount of their institution-specific countercyclical capital buffer. The main credit risk exposures are defined not on the basis of the extent of risk exposures in each country but encompass certain exposure classes and certain exposures in the trading book.

The following table shows the geographical distribution of the relevant credit exposures for which the geographical location has been determined in accordance with Delegated Regulation (EU) No 1152/2014. To keep the presentation clear and ensure only relevant information is shown, the data in the table is limited to countries that have specified a countercyclical capital buffer of greater than 0 % (column 120 in the table below) or whose weighted proportion of own funds requirements is 1 % or higher (column 110 in the table below). As at 31 December 2018, this resulted in a weighted proportion of the own funds requirements in respect of the relevant credit exposures of approximately 95 % for the countries shown. The limitation is in accordance with Article 432 CRR in conjunction with EBA guidelines EBA/GL/2014/14.

Article 440 CRR – Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

		General credit exposures		Trading book exposures		
		Exposure value for SA	**Exposure value for IRB**	**Sum of long and short positions of trading book exposures for SA**	**Value of trading book exposures for internal models**	**Exposure value for SA**
Row		**010**	**020**	**030**	**040**	**050**
010	**Breakdown by country**					
	Germany	6,762	47,436	2,502	–	730
	United States of America	437	10,709	479	–	453
	United Kingdom	47	5,181	442	–	–
	France	97	4,252	1,146	–	–
	Luxembourg	43	1,611	44	–	–
	The Netherlands	122	2,083	320	–	80
	Poland	0	1,337	15	–	–
	Austria	44	1,564	30	–	–
	Spain	52	686	675	–	–
	Ireland	20	1,376	18	–	–
	Switzerland	81	771	199	–	91
	Sweden	17	778	160	–	–
	Norway	1	300	204	–	–
	Czech Republic	–	276	0	–	–
	Hong Kong	16	133	–	–	–
	Slovakia	–	13	–	–	–
	Iceland	–	–	–	–	–
	Lithuania	–	–	0	–	–
	Other	183	3,241	1,581	–	–
020	**Total**	**7,923**	**81,746**	**7,813**	**–**	**1,354**

Article 440 CRR – Amount of the institution-specific countercyclical capital buffer

in € m

Row		**Column**
		010
010	Total risk exposure amount	54,281
020	Institution-specific countercyclical capital buffer rate	0.09
030	Institution-specific countercyclical capital buffer requirement	50

in € m

Securitisation exposures	Own funds requirements					
Exposure value for IRB	thereof: General credit exposures	thereof: Trading book exposures	thereof: Securitisation exposures	Total	Own funds requirements weights	Countercyclical capital buffer rate
060	**070**	**080**	**090**	**100**	**110**	**120**
3,273	1,685	24	87	1,795	0.53	0.00 %
846	485	6	38	528	0.16	0.00 %
337	194	8	2	204	0.06	1.00 %
425	165	20	2	188	0.06	0.00 %
–	95	4	–	98	0.03	0.00 %
–	73	6	5	83	0.02	0.00 %
–	72	0	–	73	0.02	0.00 %
–	71	0	–	71	0.02	0.00 %
4	32	10	–	42	0.01	0.00 %
–	42	0	–	42	0.01	0.00 %
–	28	3	6	36	0.01	0.00 %
242	27	2	1	30	0.01	2.00 %
–	11	3	–	14	0.00	2.00 %
46	11	–	0	11	0.00	1.00 %
–	5	–	–	5	0.00	1.88 %
–	0	–	–	0	0.00	1.25 %
–	–	–	–	–	0.00	1.25 %
–	–	–	–	–	0.00	0.50 %
314	151	18	2	171	0.05	0.00 %
5,487	**3,147**	**103**	**143**	**3,392**	**1.00**	

Leverage Ratio

In January 2015, the requirements for calculating the leverage ratio were redefined and issued by the European Commission in Commission Delegated Regulation (EU) 2015/62.

The leverage ratio is based on the relationship between Tier 1 capital and the unweighted total of all on-balance sheet and off-balance sheet asset items (including derivatives).

The disclosures have been published in accordance with Commission Implementing Regulation (EU) 2016/200 (disclosure of the leverage ratio). The table below presents the variables used to determine the leverage ratio taking account of the transitional provisions in accordance with Article 499 (1b) CRR.

Article 451 CRR – Leverage ratio in accordance with Delegated Act — in Mio. €

	Reference date	31.12.2018
	Entity name	Landesbank Hessen-Thüringen
	Level of application	Consolidated

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

		Applicable amount
1	Total assets as per published financial statements	162,968
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	–849
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013)	
4	Adjustments for derivative financial instruments	(3,178)
5	Adjustment for securities financing transactions (SFTs)	88
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	16,750
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	
EU-6b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(14) of Regulation (EU) No 575/2013)	
7	Other adjustments	1,170
8	Leverage ratio total exposure measure	174,608

Table LRCom: Leverage ratio common disclosure

		CRR leverage ratio exposures
	On-balance sheet exposures (excluding derivatives and SFTs)	
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	149,610
2	(Asset amounts deducted in determining Tier 1 capital)	(442)
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**149,167**
	Derivative exposures	
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	5,688
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	2,623
EU-5a	Exposure determined under Original Exposure Method	
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	
8	(Exempted CCP leg of client-cleared trade exposures)	
9	Adjusted effective notional amount of written credit derivatives	3,202
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(3,043)
11	**Total derivatives exposures (sum of lines 4 to 10)**	**8,469**
	SFT exposures	
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	133
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	
14	Counterparty credit risk exposure for SFT assets	89
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429b(4) and 222 of Regulation (EU) No 575/2013	
15	Agent transaction exposures	
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**222**
	Other off-balance sheet exposures	
17	Off-balance sheet exposures at gross notional amount	37,020
18	(Adjustments for conversion to credit equivalent amounts)	(20,270)
19	**Other off-balance sheet exposures (sum of lines 17 and 18)**	**16,750**
	Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)	
EU-19a	(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	
EU-19b	(Exposures exempted in accordance with Article 429(14) of Regulation (EU) No 575/2013 (on and off balance sheet))	
	Capital and total exposure measure	
20	**Tier 1 capital**	**8,883**
21	**Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**174,608**
	Leverage ratio	
22	**Leverage ratio**	**5.09 %**
	Choice on transitional arrangements and amount of derecognised fiduciary items	
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	

Table LRSpl: Split-up of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

		CRR leverage ratio exposures
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	149,610
EU-2	Trading book exposures	8,483
EU-3	Banking book exposures, of which:	141,126
EU-4	Covered bonds	6,323
EU-5	Exposures treated as sovereigns	39,268
EU-6	Exposures to regional governments, MDBs, international organisations and PSEs not treated as sovereigns	1,068
EU-7	Institutions	19,986
EU-8	Secured by mortgages of immovable properties	15,869
EU-9	Retail exposures	1,508
EU-10	Corporates	46,859
EU-11	Exposures in default	437
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	9,811

Description of the process for monitoring the risk of excessive leverage

Helaba takes the leverage ratio requirements into account in the optimisation of its business portfolio. Currently, banks must disclose the leverage ratio and report it to the supervisory authorities as an indicator for monitoring purposes. A mandatory minimum ratio of 3.0 % is expected to apply when the leverage ratio migrates to Pillar 1 of the three-pillar model of prudential supervision. The European Commission has still to decide on the details. The risk of excessive leverage is addressed by including the leverage ratio in the planning and control process. Based on the business and risk strategy, an internal target ratio is specified as an additional key performance indicator, supplementing the capital ratios, and the risk appetite and risk tolerance are determined such that Helaba manages its business using qualitative and quantitative guidelines, taking into account the limits it will have to comply with in the future. The change in leverage and the associated ratio is regularly monitored and reported so that corrective action can be taken as soon as possible in the event of unexpected changes. This ratio is one of the KPI components in the system for providing monthly information to the Board of Managing Directors and is specified as a key risk indicator in the RAF/RAS. This ensures that the ratio is enshrined in Helaba's holistic perspective and management of the business. In addition to ex-post analyses of the leverage ratio in the internal reporting system, future changes in the ratio and in the basis of measurement form an integral part of the Bank's internal planning process. It is included in the operational and multi-year planning, which is linked to business planning. Analyses of variances between actual and target are used to identify trends and/or any need for action. In addition to regular processes, ad hoc checks can be carried out to establish whether further investigations or adjustments to threshold values are required.

Description of the factors that impacted the disclosed leverage ratio during the reporting period

As at 31 December 2018, the leverage ratio had increased to 5.1 % (30 June 2018: 4.7 %). The total risk exposure amounted to € 174.6 bn, a decrease compared with the position as at 30 June 2018. The fall in the total risk exposure came about during the normal course of business, mainly as a result of a reduction in the volume of the ECB reserve available on a day-to-day basis. On the other hand, some of this decrease was offset by a rise in the total risk exposure in corporate finance and real estate lending. The changes were predominantly in on-balance sheet items.

Tier 1 capital as at 31 December 2018 had risen to € 8.9 bn (30 June 2018: € 8.5 bn). Please refer to "Own Funds and Own Funds Structure" in this report for further information on the changes in Tier 1 capital.

Liquidity Coverage Ratio (LCR)

The LCR is a regulatory measure of liquidity available at short notice and banks are required to comply with a specified minimum ratio. For Helaba, this requirement replaced the provisions of the German Liquidity Regulation (LiqV) with effect from 1 January 2018. In order to satisfy the minimum ratio of 100 %, a bank's available, liquid assets must, for a period of 30 days, be greater than the forecast cumulative net cash outflows in a serious stress scenario (which may assume, for example, the withdrawal of a certain level of customer deposits with a simultaneous loss of unsecured funding). The disclosures relating to the LCR are published in accordance with Article 435 CRR and EBA Guidelines EBA/GL/2017/01.

Helaba uses an internal liquidity adequacy assessment process (ILAAP) to ensure that it has adequate liquidity available at all times and that its short- and medium-term funding is sound. This process identifies, measures and monitors all material liquidity and funding risks and facilitates corrective action in good time to avoid a liquidity squeeze, where necessary. The process also includes liquidity stress tests, contingency planning and an independent validation of risk quantification methods. The Board of Managing Directors is responsible for ensuring that the ILAAP is underpinned by a robust system of governance. The ILAAP forms an integral component of the management framework.

The risk strategy is part of the ILAAP and, at least annually, is approved by the Board of Managing Directors before being submitted to the supervisory bodies for information purposes and discussion. As part of the risk appetite framework and again at least annually, the Board of Managing Directors also sets limits for appetite and tolerance in relation to liquidity and funding risks, translating into minimum LCRs for 2018 of 135 % and 120 % respectively. These lower limits are well above the regulatory requirements. In addition to the LCR, limits are also set for short-term liquidity risk, structural liquidity risk and market liquidity risk. The underlying models and assumptions are regularly validated and submitted to the Board of Managing Directors. The Board of Managing Directors is also responsible for designing and implementing the risk management system in the Helaba Group. In the liquidity adequacy statement resulting from the ILAAP, the Board of Managing Directors confirms that the liquidity and the systems, methods and processes are all adequate.

The Asset/Liability Management unit working in collaboration with the Money Markets Trading organisational unit within the Capital Markets unit is responsible for the entire management of liquidity and funding risks in all currencies relevant to Helaba. Independent monitoring is the responsibility of the Risk Controlling unit, which includes a validation unit that operates separately from methodology development. The third line of defence is Internal Audit. The aim is to establish a conservative risk profile for liquidity and funding risks. This is achieved and continuously monitored through a comprehensive system of limits.

The number one economic liquidity risk management priority is initially to ensure that the Helaba Group has adequate day-to-day (short-term) liquidity to meet its payment obligations. This also includes intraday liquidity. At operational level, short-term liquidity is managed by obtaining or investing funds in money markets, utilising facilities provided by the ECB or by making use of facilities offered by any other central banks to which Helaba enjoys direct access. A combined scenario with a four-stage traffic-light system is used to manage and monitor this liquidity. On the basis of stress test analyses, this system ensures each day that the liquidity level – in particular the free liquidity reserve – is adequate for the next 30 trading days. Helaba, as an entity whose securities are admitted to trading on a regulated market in the EU, must also hold a portfolio of highly liquid assets that can be liquidated at any time without any significant loss in value to cover liquidity requirements in heightened stress circumstances over a period of at least five working days. In addition, each month, Helaba determines one market-wide, one bank-specific and one combined stress scenario for a time horizon of one year and these scenarios are likewise subject to limits. The liquidity risk processes referred to above are complemented by reverse stress tests and are dovetailed with the calculation of risk-bearing capacity.

The main objective of medium-/long-term funding management (funding), which is the responsibility of the Asset/Liability Management unit, is to avoid cost risks when obtaining medium- and long-term funding (maturity-matched funding) and to limit dependency on short-term sources of funding. The activities to achieve both objectives are managed and monitored by using a detailed system of limits. The diversification of individual funding sources across certain types of products and investor groups, and access to the relevant markets, is continuously monitored and subject to threshold values.

The funding strategy is derived from Helaba's business model. The cornerstones are S-Group funding from the Sparkassen and/or Sparkassen (retail) customers, the sale of Pfandbriefe, the use of development funds, and wholesale funding, particularly from institutional clients. Helaba has a further direct retail funding base available at Group level in the form of FSP and LBS, as a result of which the sources of funding are well diversified. Helaba has complied with the relevant threshold values.

Market liquidity risk is measured monthly using the risk model for market risk based on a scaling of holding periods. In the case of securities, bid/offer spreads are analysed as an indicator of market liquidity. For the most part, the Capital Markets and Asset/Liability Management units enter into positions in markets that have sufficient liquidity, with the result that the vast majority of trading positions can be sold or closed at short notice.

Liquidity risk is regularly reported to the units responsible for its management as well as to the Risk Committee (whose members include all the members of the Board of Managing Directors) and the Supervisory Board. As at 31 December 2018, this risk reflected Helaba's excellent level of liquidity, a situation that was unchanged compared with the previous year. At the reporting date, the degree of limit utilisation in the individual scenarios used to measure short-term liquidity risk was well below the defined limits and in the most critical scenario came to 30 % for Helaba Bank and 32 % for the group analysis including FSP. The same also applies to the survival horizon, which hovered well above the internal early warning threshold. The structural liquidity requirements are satisfied in full. There are no significant market liquidity risks. Helaba has adhered to all limits, which are consistent with its business and risk strategies.

In the opinion of the Board of Managing Directors, Helaba's current liquidity resources are adequate in relation to the regulatory liquidity requirements, the business strategy and the Bank's underlying risk profile.

EU LIQ1 – LCR

in € m

		31.3.2018	30.6.2018	30.9.2018	31.12.2018
LCR Disclosure Template					
Scope of consolidation	Consolidated				
Currency and units	€ m	**Total unweighted value (average)**			
Quarter ending on		**31.3.2018**	**30.6.2018**	**30.9.2018**	**31.12.2018**
Number of data points used in the calculation of averages		**12**	**12**	**12**	**12**
		010	**020**	**030**	**040**
	HIGH-QUALITY LIQUID ASSETS				
1	Total high-quality liquid assets (HQLA)				
	CASH OUTFLOWS				
2	Retail deposits and deposits from small business customers, of which:	13,806	13,898	14,002	14,090
3	Stable deposits	9,573	9,622	9,662	9,690
4	Less stable deposits	4,041	4,098	4,167	4,234
5	Unsecured wholesale funding	26,282	27,267	27,877	27,998
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	4,126	4,363	4,622	4,743
7	Non-operational deposits (all counterparties)	17,648	18,556	19,369	19,571
8	Unsecured debt	4,508	4,348	3,886	3,684
9	Secured wholesale funding				
10	Additional requirements	18,903	18,761	18,707	18,624
11	Outflows related to derivative exposures and other collateral requirements	2,658	2,421	2,299	2,222
12	Outflows related to loss of funding on debt securities				
13	Credit and liquidity facilities	16,245	16,340	16,408	16,402
14	Other contractual funding obligations	534	1,168	1,942	2,664
15	Other contingent funding obligations	10,005	10,007	10,028	10,229
16	**TOTAL CASH OUTFLOWS**				
	CASH INFLOWS				
17	Secured lending (e.g. reverse repos)	15	21	26	34
18	Inflows from derecognised exposures	7,732	7,976	7,740	7,475
19	Other cash inflows	1,478	1,512	1,682	1,743
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries in which there are transfer restrictions or in which the transactions are denominated in non-convertible currencies)				
EU-19b	(Excess inflows from a related specialised credit institution)				
20	**TOTAL CASH INFLOWS**	**9,225**	**9,509**	**9,448**	**9,252**
EU-20a	**Fully exempt inflows**	**918**	**828**	**739**	**690**
EU-20b	**Inflows subject to a 90 % cap**				
EU-20c	**Inflows subject to a 75 % cap**	**8,306**	**8,681**	**8,709**	**8,562**
21	**Liquidity buffer**				
22	**TOTAL NET CASH OUTFLOWS**				
23	**Liquidity coverage ratio (%)**				

EU LIQ1 – LCR

in € m

LCR Disclosure Template Scope of consolidation: Consolidated Currency and units: € m		**Total weighted value (average)**			
Quarter ending on (DD Month YYYY)		**31.3.2018**	**30.6.2018**	**30.9.2018**	**31.12.2018**
Number of data points used in the calculation of averages		**12**	**12**	**12**	**12**
		050	**060**	**070**	**080**
	HIGH-QUALITY LIQUID ASSETS				
1	Total high-quality liquid assets (HQLA)	32,197	32,722	33,646	33,775
	CASH OUTFLOWS				
2	Retail deposits and deposits from small business customers, of which:	1,171	1,148	1,133	1,114
3	Stable deposits	479	481	483	485
4	Less stable deposits	501	489	477	465
5	Unsecured wholesale funding	18,176	19,098	19,450	19,662
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	1,088	1,154	1,233	1,271
7	Non-operational deposits (all counterparties)	12,580	13,596	14,331	14,707
8	Unsecured debt	4,508	4,348	3,886	3,684
9	Secured wholesale funding	5	6	10	11
10	Additional requirements	5,514	5,249	5,118	5,022
11	Outflows related to derivative exposures and other collateral requirements	2,658	2,421	2,299	2,222
12	Outflows related to loss of funding on debt securities				
13	Credit and liquidity facilities	2,856	2,828	2,819	2,800
14	Other contractual funding obligations	407	1,043	1,815	2,535
15	Other contingent funding obligations	431	431	432	442
16	**TOTAL CASH OUTFLOWS**	**25,704**	**26,975**	**27,958**	**28,786**
	CASH INFLOWS				
17	Secured lending (e.g. reverse repos)	14	13	7	3
18	Inflows from derecognised exposures	4,661	4,854	4,804	4,718
19	Other cash inflows	1,372	1,397	1,555	1,617
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries in which there are transfer restrictions or in which the transactions are denominated in non-convertible currencies)				
EU-19b	(Excess inflows from a related specialised credit institution)				
20	**TOTAL CASH INFLOWS**	**6,047**	**6,264**	**6,366**	**6,338**
EU-20a	**Fully exempt inflows**	**603**	**600**	**603**	**639**
EU-20b	**Inflows subject to a 90 % cap**				
EU-20c	**Inflows subject to a 75 % cap**	**5,444**	**5,664**	**5,764**	**5,698**
		TOTAL ADJUSTED VALUE			
21	**Liquidity buffer**	**32,197**	**32,722**	**33,646**	**33,775**
22	**TOTAL NET CASH OUTFLOWS**	**19,658**	**20,710**	**21,591**	**22,449**
23	**Liquidity coverage ratio (%)**	**164.02 %**	**158.45 %**	**156.37 %**	**150.84 %**

Credit Risk

General Disclosures

As at 31 December 2018, the Helaba Group's basis of measurement for credit risk after credit risk adjustments amounted to € 168,550 m.

Default risk exposures per exposure class are shown below with the average values on the quarterly reporting dates. To meet the requirements specified in EBA/GL/2016/11, disclosures related to securitisations are not included. These are covered in the "Securitisations" section. The figures include all companies comprising the group of consolidated companies for regulatory purposes in accordance with the KWG/CRR.

EU CRB-B – Types of credit exposure with average values based on the quarterly reporting dates — in € m

		a	b
		Basis of measurement at 31.12.2018	**Average basis of measurement over the reporting year**
1	Central governments or central banks	23,239	33,251
2	Institutions	17,102	16,752
3	Corporates	82,462	79,507
4	thereof: Specialised lending exposures	35,397	34,353
5	thereof: SME	4,067	4,011
	thereof: Other	42,997	41,142
6	Retail	5,575	5,527
7	Secured by real estate	3,600	3,581
8	thereof: SME	562	566
9	thereof: Non-SME	3,038	3,014
10	Qualifying revolving	806	810
11	Other	1,169	1,137
12	thereof: SME	244	241
13	thereof: Non-SME	926	896
14	IRBA equity exposures	823	730
	Other non-credit-obligation assets	524	445
15	**Total IRB approach**	**129,725**	**136,212**
16	Central governments or central banks	1,076	943
17	Regional governments or local authorities	15,393	12,565
18	Public-sector entities	3,306	3,729
19	Multilateral development banks	202	189
20	International organisations	369	425
21	Institutions	9,355	9,000
22	Corporates	4,225	4,197
23	thereof: SME	522	519
24	Retail	851	833
25	thereof: SME	20	18
26	Exposures secured by real estate	1,951	1,782
27	thereof: SME	572	504
28	Exposures in default	101	109

EU CRB-B – Types of credit exposure with average values based on the quarterly reporting dates in € m

		a	b
		Basis of measurement at 31.12.2018	**Average basis of measurement over the reporting year**
29	Higher risk categories	11	7
30	Covered bonds	343	336
31	Exposures to institutions and corporates with a short-term credit rating	–	–
32	Collective investment undertakings (CIU)	–	–
33	Equity exposures	1,390	1,346
34	Other exposures	251	263
35	**Total standardised approach (CRSA)**	**38,824**	**35,725**
36	**Total**	**168,550**	**171,937**

The tables below show the types of credit exposure by geography, industry and residual maturity.

To keep the presentation clear and ensure only relevant information is shown, the data in the table is limited to countries that, in terms of the basis of measurement before credit risk adjustments, together account for at least 95 % of the basis of measurement before credit risk adjustments in the Helaba Group.

EU CRB-C – Geographical breakdown of exposures — in € m

		a	b	c	d	e	f	g
								Basis of measurement
		Europe	Germany	Finland	France	Ireland	Luxem-bourg	The Nether-lands
1	Central governments or central banks	22,678	20,924	22	1,341	6	16	56
2	Institutions	12,964	1,661	485	2,750	7	94	1,143
3	Corporates	67,623	42,444	745	4,689	1,335	4,673	2,524
4	Retail	5,553	5,512	0	2	0	2	1
5	IRBA equity exposures	814	705	–	1	–	73	–
	Other non-credit-obligation assets	524	524	–	–	–	–	–
6	**Total IRB approach**	**110,157**	**71,770**	**1,251**	**8,783**	**1,348**	**4,858**	**3,724**
7	Central governments or central banks	1,032	533	24	20	–	1	–
8	Regional governments or local authorities	15,393	15,393	–	–	–	–	–
9	Public-sector entities	1,716	1,715	–	–	–	–	–
10	Multilateral development banks	17	–	–	–	–	17	–
11	International organisations	11	6	–	–	–	5	–
12	Institutions	9,188	8,240	19	41	0	8	34
13	Corporates	3,747	3,178	–	96	19	46	119
14	Retail	843	784	0	0	0	0	0
15	Exposures secured by real estate	1,951	1,880	–	–	–	0	0
16	Exposures in default	52	41	–	0	–	–	–
17	Higher risk categories	11	11	–	–	–	–	–
18	Covered bonds	343	331	0	1	0	–	3
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
21	Equity exposures	1,371	1,371	–	–	–	0	–
22	Other exposures	251	247	–	–	1	–	–
23	**Total standardised approach (CRSA)**	**35,925**	**33,731**	**44**	**158**	**20**	**76**	**156**
24	**Total**	**146,083**	**105,501**	**1,295**	**8,941**	**1,368**	**4,934**	**3,880**

[1] Exposures to supranational organisations

EU CRB-C – Geographical breakdown of exposures in € m

		h	i	j	k	l	m	n
		Basis of measurement						
		Norway	Austria	Poland	Sweden	Switzer-land	Spain	United Kingdom
1	Central governments or central banks	–	116	–	–	1	141	39
2	Institutions	806	350	44	1,618	632	86	1,986
3	Corporates	273	1,693	1,185	653	996	780	3,404
4	Retail	0	4	0	0	18	2	6
5	IRBA equity exposures	–	–	–	–	–	–	0
	Other non-credit-obligation assets	–	–	–	–	–	–	–
6	**Total IRB approach**	**1,080**	**2,163**	**1,229**	**2,271**	**1,647**	**1,009**	**5,436**
7	Central governments or central banks	–	36	18	–	316	–	50
8	Regional governments or local authorities	–	–	–	–	0	–	–
9	Public-sector entities	–	–	–	–	1	–	–
10	Multilateral development banks	–	–	–	–	–	–	–
11	International organisations	–	–	–	–	–	–	–
12	Institutions	19	0	–	33	63	–	728
13	Corporates	–	45	–	16	2	50	49
14	Retail	0	0	0	0	55	0	1
15	Exposures secured by real estate	–	–	–	–	71	–	0
16	Exposures in default	–	0	–	–	0	0	2
17	Higher risk categories	–	–	–	–	–	–	–
18	Covered bonds	1	1	0	1	–	2	–
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
21	Equity exposures	–	–	–	–	–	–	–
22	Other exposures	–	–	–	–	3	–	–
23	**Total standardised approach (CRSA)**	**20**	**83**	**18**	**50**	**512**	**52**	**829**
24	**Total**	**1,100**	**2,246**	**1,247**	**2,321**	**2,159**	**1,061**	**6,264**

[1] Exposures to supranational organisations

EU CRB-C – Geographical breakdown of exposures

in € m

		o	p	q	r	s	t	u
							Basis of measurement	
		Other	**North America**	Canada	United States of America	Other	**Australia and New Zealand**	**Asia**
1	Central governments or central banks	16	419	–	419	–	–	–
2	Institutions	1,301	3,436	1,604	1,832	–	574	112
3	Corporates	2,231	13,510	559	12,892	60	107	489
4	Retail	5	5	0	5	–	2	12
5	IRBA equity exposures	35	3	–	2	1	–	–
	Other non-credit-obligation assets	–	–	–	–	–	–	–
6	**Total IRB approach**	**3,589**	**17,374**	**2,164**	**15,149**	**61**	**683**	**614**
7	Central governments or central banks	34	34	–	34	–	–	10
8	Regional governments or local authorities	–	–	–	–	–	–	–
9	Public-sector entities	–	1,590	–	1,590	–	–	–
10	Multilateral development banks	–	–	–	–	–	–	–
11	International organisations	–	–	–	–	–	–	–
12	Institutions	3	138	65	74	–	27	1
13	Corporates	127	423	–	423	0	0	32
14	Retail	1	1	0	1	–	0	0
15	Exposures secured by real estate	0	0	–	0	–	–	0
16	Exposures in default	9	42	0	42	–	–	0
17	Higher risk categories	–	–	–	–	–	–	–
18	Covered bonds	2	–	–	–	–	0	–
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
21	Equity exposures	–	19	–	19	–	–	–
22	Other exposures	–	–	–	–	–	–	–
23	**Total standardised approach (CRSA)**	**176**	**2,247**	**65**	**2,182**	**0**	**27**	**43**
24	**Total**	**3,765**	**19,621**	**2,229**	**17,331**	**61**	**710**	**657**

[1] Exposures to supranational organisations

EU CRB-C – Geographical breakdown of exposures in € m

		v	w	x	y
					Basis of measurement
		Central and South America	**Africa**	**Other regions[1)]**	**Total**
1	Central governments or central banks	–	28	113	23,239
2	Institutions	9	7	–	17,102
3	Corporates	594	138	–	82,462
4	Retail	1	2	–	5,575
5	IRBA equity exposures	5	–	–	823
	Other non-credit-obligation assets	–	–	–	524
6	**Total IRB approach**	**610**	**175**	**113**	**129,725**
7	Central governments or central banks	–	0	–	1,076
8	Regional governments or local authorities	–	–	–	15,393
9	Public-sector entities	–	–	–	3,306
10	Multilateral development banks	–	–	185	202
11	International organisations	–	–	358	369
12	Institutions	0	0	–	9,355
13	Corporates	23	–	–	4,225
14	Retail	0	7	–	851
15	Exposures secured by real estate	–	0	–	1,951
16	Exposures in default	7	0	–	101
17	Higher risk categories	–	–	–	11
18	Covered bonds	–	–	–	343
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–
21	Equity exposures	–	–	–	1,390
22	Other exposures	–	–	–	251
23	**Total standardised approach (CRSA)**	**31**	**8**	**544**	**38,824**
24	**Total**	**640**	**182**	**657**	**168,549**

1) Exposures to supranational organisations

To meet the requirements specified in Article 442 e) CRR, the “SME” “of which” items have been added to the following table.

EU CRB-D – Concentration of exposures by industry

in € m

		a	b	c	d	e
						Basis of measurement
		Civil engineering, real estate and housing	**Data processing, telecommunication, media**	**Energy, utilities, waste disposal**	**Financial enterprises and insurance companies**	**Trade and services**
1	Central governments or central banks	–	–	–	–	–
2	Institutions	37	–	1,044	348	99
3	Corporates	34,279	3,219	8,671	11,093	7,889
	thereof: SME	2,086	40	178	375	953
4	Retail	110	66	3	40	614
	Secured by real estate	74	42	2	26	399
	thereof: SME	73	41	2	26	371
	Other	27	20	1	12	156
	thereof: SME	27	20	1	12	149
5	IRBA equity exposures	420	10	–	278	14
	Other non-credit-obligation assets	–	–	–	–	–
6	**Total IRB approach**	**34,846**	**3,295**	**9,718**	**11,759**	**8,616**
7	Central governments or central banks	–	–	–	–	–
8	Regional governments or local authorities	–	–	14	–	17
9	Public-sector entities	0	0	0	243	195
10	Multilateral development banks	–	–	–	185	–
11	International organisations	–	–	–	241	–
12	Institutions	–	–	–	3	–
13	Corporates	956	132	4	532	825
	thereof: SME	89	131	2	126	119
14	Retail	1	3	0	1	43
	thereof: SME	1	1	0	1	9
15	Exposures secured by real estate	1,565	0	2	18	76
	thereof: SME	515	–	2	0	53
16	Exposures in default	43	1	–	25	12
17	Higher risk categories	–	–	–	1	–
18	Covered bonds	–	–	–	–	–
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–
21	Equity exposures	1,261	–	23	5	0
22	Other exposures	0	–	–	–	5
23	**Total standardised approach (CRSA)**	**3,825**	**136**	**44**	**1,254**	**1,173**
24	**Total**	**38,671**	**3,431**	**9,762**	**13,013**	**9,789**

EU CRB-D – Concentration of exposures by industry — in € m

		f	g	h	i	j	k
							Basis of measurement
		Banks	**Public-sector entities, organisa-tions, services**	**Manufactu-ring**	**Transport (including vehicle manufactu-ring)**	**Other**	**Total**
1	Central governments or central banks	6,949	16,469	–	–	–179	23,239
2	Institutions	14,576	966	–	–	32	17,102
3	Corporates	9	51	7,805	8,875	571	82,462
	thereof: SME	–	5	269	47	115	4,067
4	Retail	–	0	51	25	4,666	5,575
	Secured by real estate	–	–	26	16	3,016	3,600
	thereof: SME	–	–	24	15	10	562
	Other	–	0	22	7	925	1,169
	thereof: SME	–	0	22	5	7	244
5	IRBA equity exposures	23	–	–	–	78	823
	Other non-credit-obligation assets	–	–	–	–	524	524
6	**Total IRB approach**	**21,556**	**17,487**	**7,856**	**8,901**	**5,691**	**129,725**
7	Central governments or central banks	395	151	–	–	530	1,076
8	Regional governments or local authorities	16	15,346	–	–	–	15,393
9	Public-sector entities	1,181	1,675	–	10	2	3,306
10	Multilateral development banks	17	–	–	–	–	202
11	International organisations	–	122	–	–	6	369
12	Institutions	8,586	–	–	–	766	9,355
13	Corporates	5	129	116	343	1,182	4,225
	thereof: SME	–	36	6	7	5	522
14	Retail	–	0	2	1	801	851
	thereof: SME	–	0	1	1	7	20
15	Exposures secured by real estate	–	1	0	0	290	1,951
	thereof: SME	–	–	–	–	3	572
16	Exposures in default	0	–	1	0	20	101
17	Higher risk categories	–	–	–	–	11	11
18	Covered bonds	330	–	–	–	13	343
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–
21	Equity exposures	–	–	–	–	100	1,390
22	Other exposures	13	2	–	–	230	251
23	**Total standardised approach (CRSA)**	**10,542**	**17,426**	**119**	**354**	**3,951**	**38,824**
24	**Total**	**32,099**	**34,913**	**7,975**	**9,255**	**9,643**	**168,549**

EU CRB-E – Maturity of exposures (on-balance sheet exposures) in € m

		a	b	c	d	e	f
							Basis of measurement
		Payable on demand	**≤ 1 year**	**> 1 year ≤ 5 years**	**> 5 years**	**No stated maturity**	**Total**
1	Central governments or central banks	7,061	2,250	3,928	9,612	–	22,851
2	Institutions	217	2,292	11,290	1,476	–	15,275
3	Corporates	1,102	6,600	25,614	23,548	0	56,865
4	Retail	83	103	541	3,694	–	4,421
5	IRBA equity exposures	–	–	78	–	632	710
	Other non-credit-obligation assets	91	12	312	–	109	524
6	**Total IRB approach**	**8,555**	**11,257**	**41,763**	**38,330**	**741**	**100,646**
7	Central governments or central banks	80	1	485	64	316	946
8	Regional governments or local authorities	111	728	2,005	9,647	–	12,491
9	Public-sector entities	25	677	769	211	–	1,682
10	Multilateral development banks	–	79	85	38	–	202
11	International organisations	0	31	130	208	–	369
12	Institutions	547	1,376	2,018	4,772	74	8,787
13	Corporates	25	461	1,757	1,298	5	3,546
14	Retail	11	124	217	265	5	622
15	Exposures secured by real estate	2	16	101	1,677	0	1,795
16	Exposures in default	20	51	10	11	0	92
17	Higher risk categories	–	–	11	–	1	11
18	Covered bonds	1	52	181	109	–	343
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–
21	Equity exposures	–	–	86	–	1,290	1,376
22	Other exposures	12	5	228	2	4	251
23	**Total standardised approach (CRSA)**	**835**	**3,603**	**8,082**	**18,301**	**1,693**	**32,514**
24	**Total**	**9,390**	**14,860**	**49,845**	**56,631**	**2,435**	**133,160**

To ensure that the requirements of Article 442 f) CRR are satisfied in full, the following table shows the off-balance sheet risk exposures by residual maturity and exposure class.

Art. 442 CRR – Types of credit exposure by residual maturity (off-balance-sheet exposures) in € m

	Basis of measurement					
	Payable on demand	**≤ 1 year**	**> 1 year ≤ 5 years**	**> 5 years**	**No stated maturity**	**Total**
Central governments or central banks	0	13	79	294	–	387
Institutions	3	776	1,032	16	–	1,827
Corporates	1,954	7,102	12,078	4,464	–	25,597
Retail	878	9	9	258	–	1,154
IRBA equity exposures	–	–	–	–	113	113
Other non-credit-obligation assets	–	–	–	–	–	–
Total IRB approach	**2,836**	**7,900**	**13,198**	**5,032**	**113**	**29,079**
Central governments or central banks	0	–	130	–	–	130
Regional governments or local authorities	75	–	–	2,827	–	2,902
Public-sector entities	1	2	1,620	0	–	1,624
Multilateral development banks	–	–	–	–	–	–
International organisations	–	–	–	–	–	–
Institutions	23	137	34	373	0	568
Corporates	5	19	349	306	0	679
Retail	195	5	1	28	0	229
Exposures secured by real estate	–	0	18	138	–	156
Exposures in default	0	6	3	0	–	9
Higher risk categories	–	–	–	–	–	–
Covered bonds	–	–	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–	–	–
Equity exposures	–	–	14	–	–	14
Other exposures	–	–	–	–	–	–
Total standardised approach (CRSA)	**299**	**169**	**2,169**	**3,673**	**1**	**6,311**
Total	**3,135**	**8,069**	**15,367**	**8,705**	**114**	**35,390**

Additional information relating to defaulted, past due and impaired exposures – similarly broken down by exposure class, industry and geography – is presented below to augment the data for the basis of measurement after credit risk adjustments. Transactions involving a customer with which a default event as defined in Article 178 CRR has occurred are designated as in default irrespective of the recognition of any credit risk adjustment. Transactions are deemed to be past due if they are more than 90 days in arrears and this has also been recorded as a default criterion in bank systems.

Helaba applies the three-stage IFRS 9 impairment model to the following financial instruments and measurement categories:

- Financial assets in the AC measurement category
- Debt instruments in the FVTOCI (recycling) measurement category
- Lease receivables
- Receivables in accordance with IFRS 15 (including contract assets)
- Loan commitments within the scope of IFRS 9 and financial guarantees not measured at fair value through profit or loss

In accordance with the expected credit loss model, a loss allowance is recognised in the amount of the expected credit loss for all financial instruments falling within this scope, depending on the allocation of the financial instrument concerned to the relevant stage in the model. Further details on the impairment model can be found in the Annual Report (Note (9) in the Notes to the Consolidated Financial Statements).

The following table also includes, in the CRSA in column a, a breakdown of the exposures in default by original exposure class (shown in italics) in accordance with EBA Q&A 2017_3481.

EU CR1-A – Credit quality of exposures by exposure class in € m

		a	b	c	d
		Basis of measurement before credit risk adjustments			
		Defaulted exposures	**Non-defaulted exposures**	**Specific credit risk adjustments**	**General credit risk adjustments**
1	Central governments or central banks	0	23,241	2	
2	Institutions	9	17,107	15	–
3	Corporates	551	82,177	266	–
4	thereof: Specialised lending exposures	238	35,283	124	–
5	thereof: SME	19	4,055	7	–
	thereof: Other	294	42,838	135	–
6	Retail	55	5,546	26	–
7	Secured by real estate	32	3,572	4	–
8	thereof: SME	0	562	0	–
9	thereof: Non-SME	32	3,010	4	–
10	Qualifying revolving	3	807	3	–
11	Other	20	1,168	18	–
12	thereof: SME	0	245	2	–
13	thereof: Non-SME	20	922	17	–
14	IRBA equity exposures	0	823	–	–
	Other non-credit-obligation assets	–	524	–	–
15	**Total IRB approach**	**615**	**129,419**	**309**	**–**
16	Central governments or central banks	–	1,076	0	–
17	Regional governments or local authorities	–	15,393	0	–
18	Public-sector entities	–	3,310	4	–
19	Multilateral development banks	–	202	–	–
20	International organisations	–	369	0	–
21	Institutions	0	9,355	0	–
22	Corporates	205	4,237	13	–
23	thereof: SME	–	522	0	–
24	Retail	36	854	2	–
25	thereof: SME	1	20	0	–
26	Exposures secured by real estate	0	1,951	0	–
27	thereof: SME	0	572	0	–
28	Exposures in default	241	–	140	–
29	Higher risk categories	–	11	–	–
30	Covered bonds	–	343	0	–
31	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
32	Collective investment undertakings (CIU)	–	–	–	–
33	Equity exposures	–	1,390	–	–
34	Other exposures	–	251	–	–
35	**Total standardised approach (CRSA)**	**241**	**38,742**	**159**	**–**
36	**Total**	**857**	**168,161**	**468**	**–**
37	thereof: Loans	756	108,645	384	–
38	thereof: Debt securities	–	24,156	15	–
39	thereof: Off-balance-sheet exposures	101	35,360	69	–

EU CR1-A – Credit quality of exposures by exposure class

in € m

		e	f	g
		Accumulated write-offs	**Change in credit risk adjustments compared with the prior period**	**Basis of measurement after credit risk adjustments (a+b-c-d)**
1	Central governments or central banks	–	–1	23,239
2	Institutions	–	–2	17,102
3	Corporates	254	–36	82,462
4	thereof: Specialised lending exposures	106	–16	35,397
5	thereof: SME	10	1	4,067
	thereof: Other	139	–21	42,997
6	Retail	25	1	5,575
7	Secured by real estate	16	–0	3,600
8	thereof: SME	1	0	562
9	thereof: Non-SME	15	–0	3,038
10	Qualifying revolving	3	0	806
11	Other	6	1	1,169
12	thereof: SME	1	0	244
13	thereof: Non-SME	5	1	926
14	IRBA equity exposures	–	–	823
	Other non-credit-obligation assets	–	–0	524
15	**Total IRB approach**	**280**	**–38**	**129,725**
16	Central governments or central banks	–	–0	1,076
17	Regional governments or local authorities	–	–0	15,393
18	Public-sector entities	–	–3	3,306
19	Multilateral development banks	–	–	202
20	International organisations	–	–0	369
21	Institutions	–	–0	9,355
22	Corporates	–	3	4,225
23	thereof: SME	–	–0	522
24	Retail	0	–0	851
25	thereof: SME	–	0	20
26	Exposures secured by real estate	–	0	1,951
27	thereof: SME	–	–0	572
28	Exposures in default	119	–2	101
29	Higher risk categories	–	–	11
30	Covered bonds	–	–0	343
31	Exposures to institutions and corporates with a short-term credit rating	–	–	–
32	Collective investment undertakings (CIU)	–	–	–
33	Equity exposures	–	–	1,390
34	Other exposures	–	–	251
35	**Total standardised approach (CRSA)**	**119**	**–2**	**38,824**
36	**Total**	**398**	**–40**	**168,549**
37	thereof: Loans	398	–41	109,017
38	thereof: Debt securities	–	–0	24,140
39	thereof: Off-balance-sheet exposures	–	1	35,392

EU CR1-B – Credit quality of exposures by industry | in € m

		a		b	c	d	e	f	g
		Basis of measurement before credit risk adjustments							Basis of measurement after credit risk adjustments
		Defaulted exposures	Defaulted exposures: Of which past due	Non-defaulted exposures	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	Change in credit risk adjustments compared with the prior period	(a+b-c-d)
1	Civil engineering, real estate and housing	333	203	38,573	226	–	228	8	38,679
2	Data processing, telecommunication, media	7	2	3,431	6	–	3	0	3,431
3	Energy, utilities, waste disposal	47	–	9,739	21	–	18	−12	9,765
4	Financial enterprises and insurance companies	82	41	12,977	39	–	30	−15	13,021
5	Trade and services	152	50	9,714	65	–	55	−7	9,801
6	Banks	9	9	32,104	14	–	–	−2	32,099
7	Public-sector entities, organisations, services	0	–	34,919	6	–	–	−2	34,913
8	Manufacturing	62	3	7,938	21	–	19	−7	7,979
9	Transport (including vehicle manufacturing)	103	26	9,202	45	–	38	−1	9,260
10	Other	61	38	9,565	25	–	7	−2	9,601
11	**Total**	**857**	**371**	**168,161**	**468**	**–**	**398**	**−40**	**168,549**

To keep the presentation clear and ensure only relevant information is shown, the data in the table is, similar to EU CRB-C (Geographical breakdown of exposures) limited to countries that, in terms of the basis of measurement before credit risk adjustments, together account for at least 95 % of the basis of measurement before credit risk adjustments in the Helaba Group.

EU CR1-C – Credit quality of exposures by geography

in € m

		a		b	c	d	e	f	g
		Basis of measurement before credit risk adjustments							Basis of measurement after credit risk adjustments
		Defaulted	Defaulted exposures: Of which past due	Non-defaulted exposures	Specific credit risk adjustments	General credit risk adjustments	Accumulated write-offs	Change in credit risk adjustments compared with the prior period	(a+b-c-d)
1	**Africa**	**5**	**0**	**179**	**2**	**–**	**0**	**0**	**182**
2	**Asia**	**0**	**0**	**657**	**0**	**–**	**–**	**0**	**657**
3	**Australia and New Zealand**	**–**	**–**	**711**	**1**	**–**	**–**	**–0**	**710**
4	**Europe**	**644**	**190**	**145,730**	**291**	**–**	**260**	**–35**	**146,083**
5	Germany	396	124	105,245	140	–	145	–24	105,501
6	Finland	–	–	1,297	2	–	–	–0	1,295
7	France	83	0	8,879	21	–	16	4	8,941
8	Ireland	46	–	1,334	12	–	11	–4	1,368
9	Luxembourg	30	30	4,942	38	–	33	2	4,934
10	The Netherlands	0	0	3,885	5	–	3	1	3,880
11	Norway	–	–	1,101	1	–	–	0	1,100
12	Austria	0	0	2,252	5	–	4	2	2,246
13	Poland	0	0	1,252	5	–	4	–0	1,247
14	Sweden	–	–	2,323	2	–	–	–0	2,321
15	Switzerland	0	0	2,161	3	–	1	0	2,159
16	Spain	13	0	1,052	4	–	4	–10	1,061
17	United Kingdom	38	36	6,268	42	–	36	–1	6,264
18	Other	37	0	3,738	10	–	3	–4	3,765
19	**North America**	**188**	**161**	**19,603**	**170**	**–**	**136**	**–1**	**19,621**
20	Canada	10	–	2,220	2	–	–	0	2,229
21	United States of America	177	161	17,321	168	–	136	–2	17,331
22	Other	–	–	62	0	–	–	–0	61
23	**Central and South America**	**20**	**19**	**625**	**4**	**–**	**3**	**–4**	**640**
24	**Other regions**	**–**	**–**	**657**	**0**	**–**	**–**	**–0**	**657**
25	**Total**	**857**	**371**	**168,161**	**468**	**–**	**398**	**–40**	**168,549**

The extent of the credit risk adjustments is determined on the basis of an assessment of the financial circumstances including the use of appropriate rating results and forecasts of going concern value or break-up value, and the measurement of collateral at the expected recovery value taking into account the time required for collateral recovery and appropriate recovery costs.

Credit risk adjustments and direct write-offs are submitted for approval in the form of an application for an allowance for losses on loans and advances. The adequacy of the credit risk adjustment is reviewed regularly and adjustments are made where necessary. The credit risk adjustments for the Bank are recorded and updated in the central Credit Loss Database system. Detailed information on the calculation of the credit risk adjustment and the approval process is available in the form of an internal set of rules and regulations and can be found in Note (9) of the Notes to the Consolidated Financial Statements in the Annual Report.

The table below shows the past-due exposures according to FINREP, broken down by the number of days by which the exposure furthest past due is past due, and by customer.

EU CR1-D – Ageing of past-due exposures in € m

		a	b+c	d	e	f
		Basis of measurement before credit risk adjustments				
		≤ 30 days	**> 30 days ≤ 90 days**	**> 90 days ≤ 180 days**	**> 180 days ≤ 1 year**	**> 1 year**
1	Loans	345	9	5	79	33
2	Debt securities	–	–	–	–	–
3	**Total**	**345**	**9**	**5**	**79**	**33**

Table CR1-E shows the non-performing and forborne exposures according to FINREP, broken down by debt securities, loans and off-balance-sheet exposures. The cumulative changes in fair value in columns h to k are reported for the first time as a positive figure (with a plus sign) so that there is a standardised presentation of the figures within the report.

EU CR1-E – Non-performing and forborne exposures in € m

		a	b	c	d	e	f	g
		Gross carrying amount						
					Of which non-performing			
			Of which performing, past due > 30 days and ≤ 60 days	Of which performing forborne exposures		Of which defaulted	Of which impaired	Of which forborne exposures
010	Debt securities	22,098	–	–	5	5	–	–
020	Loans	115,742	2	704	780	779	757	519
030	Off-balance-sheet exposures	37,340	–	–	102	102	–	–

EU CR1-E – Non-performing and forborne exposures in € m

		h	i	j	k	l	m
		Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
		on non-performing exposures		on performing exposures			
			Of which forborne exposures		Of which forborne exposures	on non-performing exposures	Of which on forborne exposures
010	Debt securities	2		–	–	–	–
020	Loans	112	13	310	245	197	423
030	Off-balance-sheet exposures	22	–	28	–	1	–

The table below shows the changes in the credit risk adjustments over the reporting period 1 January 2018 to 13 December 2018. To ensure that requirements of Article 442 i) CRR are satisfied in full, the changes are also shown for off-balance sheet risk exposures. In contrast to the presentation of data in tables CR1-B (Credit quality of exposures by industry) and CR1-C (Credit quality of exposures by geography), these tables also include data on securitisation exposures.

The allocation of the credit risk adjustments to the categories of change has been amended as at the 31 December 2018 reporting date to improve the accuracy in the presentation. In connection with the rules and regulations applied from 1 January 2018 in accordance with IFRS 9, stage transfers (which represent a change in the expected credit loss due to changes in risk parameters) are shown under the new item "Changes in loss allowances due to stage transfers". These were previously reported under "Additions" or "Reversals". To provide comparability with the disclosures as at 30 June 2018, the information below also includes a table for this reporting date taking into account the amended classification. In accordance with EBA/GL/2016/11, paragraph 33, Helaba therefore ensures that the disclosures are consistent (coherent, clear and meaningful) over time.

EU CR2-A – Changes in the stock of general and specific credit risk adjustments (on-balance sheet) in € m

		a	b
		Specific credit risk adjustments	**General credit risk adjustments**
1	**Opening balance**	**544**	**–**
2	Additions	137	–
3	Reversals	212	–
	Changes in credit risk adjustment due to stage transfers	31	–
4	Utilisations	80	–
5	Transfers between types of credit risk adjustment	–	–
6	Impact of exchange rate differences	7	–
7	Impact of consolidation effects	–	–
8	Other adjustments	–8	–
9	**Closing balance**	**419**	**–**
10	Recoveries on loans and advances previously written off	8	–
11	Direct write-offs	7	–

Article 442 CRR – Changes in the stock of general and specific credit risk adjustments (off-balance sheet risk exposures) in € m

	Specific credit risk adjustments	General credit risk adjustments
Opening balance	**50**	**–**
Additions	34	–
Reversals	47	–
Changes in credit risk adjustment due to stage transfers	14	–
Utilisations	–	–
Transfers between types of credit risk adjustment	–	–
Impact of exchange rate differences	–1	–
Impact of consolidation effects	–	–
Other adjustments	1	–
Closing balance	**50**	**–**
Recoveries on loans and advances previously written off	–	–
Direct write-offs	–	–

EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities (on-balance sheet risk exposures) in € m

		Basis of measurement before credit risk adjustments
1	**Opening balance**	**713**
2	New defaults	178
3	Recoveries	66
4	Direct write-offs	2
5	Other adjustments	–57
6	**Closing balance**	**765**

The information in the tables above according to FINREP relates to the 31 December 2018 reporting date and comprises the amounts of the credit risk adjustments under IFRS based on the group of consolidated companies for regulatory purposes.

EU CR2-A – Changes in the stock of general and specific credit risk adjustments (on-balance sheet risk exposures) as at 30 June 2018 in € m

		a	b
		Specific credit risk adjustments	General credit risk adjustments
1	**Opening balance**	**542**	**–**
2	Additions	64	–
3	Reversals	91	–
	Changes in credit risk adjustment due to stage transfers	11	–
4	Utilisations	49	–
5	Transfers between types of credit risk adjustment	–	–
6	Impact of exchange rate differences	5	–
7	Impact of consolidation effects	0	–
8	Other adjustments	–2	–
9	**Closing balance**	**481**	**–**
10	Recoveries on loans and advances previously written off	6	–
11	Direct write-offs	1	–

The quantitative information on the credit risk adjustments under IFRS that is included in the disclosures pursuant to the CRR differs from the credit risk adjustments in the consolidated accounts under IFRS due to differences between the group of consolidated companies for regulatory purposes and the group of consolidated companies for accounting purposes.

General Disclosures on Credit Risk Mitigation

Like the creditworthiness of borrowers or counterparties, the collateral arrangements (or general risk mitigation techniques) available are of major importance when determining the adequacy of own funds to cover default risks. Helaba takes the following collateral instruments into account for regulatory purposes in the context of credit risk mitigation techniques insofar as the instruments concerned comply with the requirements of the CRR:

- unfunded credit protection (e.g. guarantees and sureties)
- mortgage security (e.g. charges over real estate)
- financial collateral (e.g. assigned or pledged securities, cash collateral)
- ships and aircraft as other physical collateral (e.g. registered ship or aircraft mortgages)
- assignment of receivables as collateral (e.g. assignment of trade receivables as collateral)

FSP, as an institution within the Helaba Group, takes the same collateral instruments into account – ships and aircraft excepted – when calculating its own funds requirements.

The systems for measuring and managing collateral are set out in the Helaba Group's organisational guidelines. The Lending Principles lay down basic rules as to the types and scope of collateral instruments permitted and define measures against which the monetary value of these instruments can be assessed. The monetary value of collateral has to be reviewed accordingly prior to every loan decision and on a continuous and ad hoc basis during the term of the loan. The assessment of the recoverability of collateral is generally based on fair values. External valuations are used in principle provided that they have demonstrably been performed by an expert third party and are subjected to an internal bank plausibility check.

The measurement approach, the review and the regular measurement of the collateral provided form a mandatory part of the opinion to be rendered by Credit Risk Management. The stated values of collateral arrangements are reviewed by Credit Risk Management, annually in ordinary cases and at shorter intervals in the case of critical exposures, in the course of the loan monitoring and review process and are adapted as necessary if factors of relevance for valuation have changed.

The market fluctuation concept for commercial and residential real estate markets, which is permitted as a statistical method in relation to regulatory charge relief for commercial and residential real estate loans, is also used in the context of the Bank's internal monitoring and review processes to monitor real estate collateral. As regards ships and aircraft, certain asset types are subject to internal market fluctuation monitoring.

The collateral provided is administered in an application system that meets all of the requirements under the CRR in order to use credit risk mitigation techniques to release regulatory capital. When determining the eligibility of collateral for regulatory purposes, collateral values are reduced by the markdowns specified in regulatory requirements. In the case of mortgage collateral and other physical collateral (in particular ships and aircraft), the markdown in accordance with Article 230 CRR is approximately 29 %; the markdown for assigned receivables is 20 %.

Helaba currently has no involvement with nth-to-default credit derivatives. The necessary conditions for the recognition of guarantees, unfunded credit protection and credit derivatives are reviewed and, if they are met, the collateral is recognised as mitigating the credit risk under the CRR.

Guarantees provided by public-sector entities with investment-grade ratings represent the largest item (76.9 %) in the unfunded credit protection class in the context of regulatory credit risk mitigation in accordance with the CRR. Guarantors from the banking sector with investment-grade ratings constitute a further large block (15.7 %).

Concentration risks affecting collateral based on real estate and guarantees represent another risk parameter of particular interest to Helaba, which reviews these risks on the basis of regular analyses. The Collateral Management System provides dedicated analysis options for real estate and real estate portfolios. Financial collateral is generally of lesser importance for Helaba as far as concentration risk is concerned (with the exception of cash deposits at third-party banks). As at 31 December 2018 there are no concentration risks in terms of individual guarantors or individual properties.

Helaba employs close-out netting for derivatives. Close-out netting is a bilateral netting arrangement under which all transactions falling under the arrangement are netted by close-out in the event of the counterparty defaulting (for example as a result of insolvency). This method, unlike novation netting, also enables transactions involving different maturities and currencies to be netted. Netting is carried out using the method specified in Article 298 (1) c) CRR. The basic necessary condition for recognition in respect of risk mitigation is compliance with the requirements of Articles 295 et seq. CRR. This means that derivatives are only netted with a counterparty if (1) there is a bilateral netting agreement with the counterparty (e.g. in accordance with ISDA, DRV, etc.) and corresponding clearing rules apply, and (2) the agreement has been notified in writing to the competent authority (previously Deutsche Bundesbank, now ECB), and (3) the agreement has been confirmed as legally enforceable by appropriate legal opinion. The Legal Database Information System (LeDIS) is used to monitor legal enforceability on an ongoing basis.

The deduction of collateral within the scope of collateral management is also used for derivatives at Helaba. This involves entering into collateral agreements (standardised collateral arrangements recognised by the supervisory authorities) with counterparties, in the form of credit support annexes to netting master agreements, or using clearing rules so that counterparty default risks from derivatives can be covered by transferring title to liquid funds and securities. The transfer here does not constitute the provision of collateral in contractual terms (as in the case of the conventional contract of pledge), but rather a settlement to cover an outstanding balance after the netting of receivables and liabilities from transactions. The basic necessary condition for recognition is compliance with the requirements of Articles 196, 206 and 220 CRR in conjunction with a related interpretation by the EBA (netting of negative market values and collateral provided). Helaba does not avail itself of on-balance sheet netting arrangements.

EU CR3 – Credit risk mitigation techniques — in € m

		a	b	c	d	e	f
		Basis of measurement (unsecured)	**Basis of measurement (secured)**	**thereof: Exposures secured by guarantees**	**thereof: Exposures secured by financial collateral**	**thereof: Exposures secured by credit derivatives**	**thereof: Exposures secured by physical/other collateral**
1	Loans	82,636	26,381	4,291	1,808	–	20,282
2	Debt securities	23,917	224	162	–	–	62
	Off-balance-sheet exposures	33,742	1,650	852	152	–	646
3	**Total**	**140,294**	**28,255**	**5,304**	**1,961**	**–**	**20,990**
4	Of which defaulted	413	111	11	4	–	96

In contrast to EU CR3 (Credit risk mitigation techniques), the following table shows the applied credit risk mitigation techniques in accordance with Article 453 f) and g) CRR, including the securitisation exposure classes in the CRSA/IRB approach and counterparty credit risk exposures.

Article 453 CRR – Credit risk mitigation techniques by exposure class

in € m

	Exposures secured by guarantees	Exposures secured by financial collateral	Exposures secured by credit derivatives	Exposures secured by physical/other collateral
Central governments or central banks	86	1,238	–	–
Institutions	553	170	–	4
Corporates	3,359	519	–	16,219
thereof: Specialised lending exposures	720	110	–	8,213
thereof: SME	83	105	–	2,070
thereof: Other	2,557	304	–	5,935
Retail	17	152	–	2,973
Secured by real estate	2	102	–	2,973
thereof: SME	0	1	–	468
thereof: Non-SME	2	102	–	2,505
Qualifying revolving	–	–	–	0
Other	15	49	–	0
thereof: SME	8	7	–	0
thereof: Non-SME	7	42	–	0
IRBA equity exposures	–	–	–	–
thereof: Simple risk-weight approach	–	–	–	–
thereof: PD/LGD approach	–	–	–	–
thereof: Risk-weighted equities	–	–	–	–
Other non-credit-obligation assets	–	–	–	–
Securitisation exposures	–	123	–	–
Total IRB approach	**4,016**	**2,202**	**–**	**19,196**
Central governments or central banks	–	–	–	–
Regional governments or local authorities	–	–	–	–
Public-sector entities	18	36	–	–
Multilateral development banks	–	–	–	–
International organisations	–	–	–	–
Institutions	19	448	–	–
Corporates	1,489	536	–	–
thereof: SME	477	0	–	–
Retail	353	265	–	–
thereof: SME	2	0	–	–
Exposures secured by real estate	0	–	–	1,951
thereof: SME	0	–	–	572
Exposures in default	9	1	–	–
Higher risk categories	–	–	–	–
Covered bonds	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–
Equity exposures	–	508	–	–
Other exposures	–	–	–	–
Securitisation exposures	–	350	–	–
Total standardised approach (CRSA)	**1,889**	**2,144**	**–**	**1,951**
Total	**5,905**	**4,347**	**–**	**21,147**

Assigned endowment insurance policies are also taken into account as collateral. Under the CRR, endowment insurance policies assigned as collateral for IRB transactions are classified as other physical collateral. If they are used as collateral for CRSA exposures, they are treated in the same way as guarantees and therefore shown in the above table under guarantees.

Credit Risk and Credit Risk Mitigation in the Standardised Approach

Helaba calculates the own funds requirements for default risk exposures under the standardised approach (CRSA) using exclusively external ratings from Standard & Poor's and Moody's Investors Service (the latter only in FSP). The two rating agencies are nominated for all CRSA exposure classes. When calculating the own funds requirements in relation to securitisations, reference is made to other agencies as well, as explained in greater detail in the section "Securitisations".

When applying credit assessments of issues to exposures, an issue rating is assigned to each transaction if one is available. If no issue rating is available, the issuer rating is used. If no issuer rating is available, the country of domicile rating is applied in the case of churches and institutions. If no issuer or country of domicile rating is available, Helaba investigates the possibility of applying long-term ratings of other issues to short- and long-term exposures with the borrower. External ratings are mapped to the CRR rating grades using the standard classification published by the EBA.

EU CR4 – EU CR4 – Standardised approach: Credit risk exposure and CRM effects by exposure class — in € m

		a	b	c	d	e	f
		Basis of measurement		**Exposure value**		**RWAs and RWA density**	
	Exposure classes	**On balance sheet**	**Off balance sheet**	**On balance sheet**	**Off balance sheet**	**RWAs**	**RWA density in %**
1	Central governments or central banks	946	130	946	130	33	3.03
2	Regional governments or local authorities	12,491	2,902	13,822	1,566	14	0.09
3	Public-sector entities	1,682	1,624	1,728	811	255	10.06
4	Multilateral development banks	202	–	202	11	–	0.00
5	International organisations	369	–	369	–	–	0.00
6	Institutions	8,787	568	9,011	215	357	3.87
7	Corporates	3,546	679	2,049	195	2,096	93.39
8	Retail	622	229	114	5	93	77.69
9	Exposures secured by real estate	1,795	156	1,795	86	662	35.18
10	Exposures in default	92	9	83	7	97	108.48
11	Higher risk categories	11	–	11	–	17	150.00
12	Covered bonds	343	–	343	–	3	0.90
13	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
14	Collective investment undertakings (CIU)	–	–	–	–	–	–
15	Equity exposures	1,376	14	1,371	–	894	65.22
16	Other exposures	251	–	251	–	240	95.53
17	**Total**	**32,514**	**6,311**	**32,097**	**3,026**	**4,761**	**13.55**

The tables below show the CRSA exposure value before and after collateral provided. The Comprehensive Method in accordance with Article 223 CRR is applied for financial collateral in the great majority of cases. Helaba also avails itself of Article 113 CRR to exempt default risk exposures to companies belonging to the same group or members of the same institutional protection system permanently from the IRB Approach and to treat them instead as CRSA exposures.

EU CR5 – Standardised approach: Credit risk exposure value by exposure class and risk weight (after credit risk mitigation) in € m

		Risk weighting								
	Exposure classes	**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**
1	Central governments or central banks	881	–	–	–	19	–	–	–	–
2	Regional governments or local authorities	15,318	–	–	–	70	–	–	–	–
3	Public-sector entities	1,323	–	–	–	1,176	–	40	–	–
4	Multilateral development banks	213	–	–	–	–	–	–	–	–
5	International organisations	369	–	–	–	–	–	–	–	–
6	Institutions	7,445	1,283	–	0	115	–	380	–	–
7	Corporates	5	–	–	–	96	44	33	–	–
8	Retail	0	–	–	–	–	–	–	–	101
9	Exposures secured by real estate	–	–	–	–	–	1,838	40	–	–
10	Exposures in default	1	–	–	–	–	–	–	–	–
11	Higher risk categories	–	–	–	–	–	–	–	–	–
12	Covered bonds	317	–	–	21	5	–	–	–	–
13	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
14	Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–	–
15	Equity exposures	490	–	–	–	–	–	–	–	–
16	Other exposures	1	–	–	–	13	–	–	–	–
17	**Total standardised approach exposure value after credit risk mitigation**	**26,363**	**1,283**	**–**	**21**	**1,493**	**1,882**	**493**	**–**	**101**

EU CR5 – Standardised approach: Credit risk exposure value by exposure class and risk weight (after credit risk mitigation) in € m

		Risk weighting								
	Exposure classes	**100 %**	**150 %**	**250 %**	**370 %**	**1,250 %**	**Other**	**Deducted**	**Total**	**Of which unrated**
1	Central governments or central banks	0	–	–	–	–	176	–	1,075	1
2	Regional governments or local authorities	–	–	–	–	–	1	–	15,389	2,461
3	Public-sector entities	–	–	–	–	–	–	–	2,539	2,220
4	Multilateral development banks	–	–	–	–	–	–	–	213	185
5	International organisations	–	–	–	–	–	–	–	369	151
6	Institutions	0	–	–	–	–	4	–	9,226	8,128
7	Corporates	1,317	–	–	–	–	749	–	2,244	176
8	Retail	18	–	–	–	–	–	–	119	–
9	Exposures secured by real estate	3	–	–	–	–	–	–	1,881	21
10	Exposures in default	71	18	–	–	–	–	–	90	–
11	Higher risk categories	–	11	–	–	–	–	–	11	–
12	Covered bonds	–	–	–	–	–	–	–	343	304
13	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
14	Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–	–
15	Equity exposures	873	–	8	–	–	–	–	1,371	–
16	Other exposures	237	–	–	–	–	–	–	251	–
17	**Total standardised approach exposure value after credit risk mitigation**	**2,520**	**29**	**8**	**–**	**–**	**930**	**–**	**35,123**	**13,649**

The additional details in the following table are included to meet the requirement in Article 444 e) CRR for a comparative presentation of exposure values before and after credit risk mitigation.

Article 444 CRR – Standardised approach: Credit risk exposure value by exposure class and risk weight (before credit risk mitigation) in € m

	Risk weighting								
Exposure classes	**0 %**	**2 %**	**4 %**	**10 %**	**20 %**	**35 %**	**50 %**	**70 %**	**75 %**
Central governments or central banks	881	–	–	–	19	–	–	–	–
Regional governments or local authorities	13,834	–	–	–	70	–	–	–	–
Public-sector entities	1,258	–	–	–	1,195	–	40	–	–
Multilateral development banks	202	–	–	–	–	–	–	–	–
International organisations	369	–	–	–	–	–	–	–	–
Institutions	7,184	1,283	–	0	151	–	381	–	–
Corporates	5	–	–	–	7	0	33	–	–
Retail	0	–	–	–	–	–	–	–	550
Exposures secured by real estate	–	–	–	–	–	1,838	40	–	–
Exposures in default	0	–	–	–	–	–	–	–	–
Higher risk categories	–	–	–	–	–	–	–	–	–
Covered bonds	317	–	–	21	5	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–	–
Equity exposures	0	–	–	–	–	–	–	–	–
Other exposures	1	–	–	–	13	–	–	–	–
Total standardised approach exposure value before credit risk mitigation	**24,051**	**1,283**	**–**	**21**	**1,460**	**1,838**	**494**	**–**	**550**

Article 444 CRR – Standardised approach: Credit risk exposure value by exposure class and risk weight (before credit risk mitigation) in € m

	Risk weight							
Exposure classes	**100 %**	**150 %**	**250 %**	**370 %**	**1,250 %**	**Other**	**Deducted**	**Total**
Central governments or central banks	0	–	–	–	–	176	–	1,075
Regional governments or local authorities	–	–	–	–	–	1	–	13,905
Public-sector entities	–	–	–	–	–	–	–	2,493
Multilateral development banks	–	–	–	–	–	–	–	202
International organisations	–	–	–	–	–	–	–	369
Institutions	0	–	–	–	–	4	–	9,003
Corporates	3,103	–	–	–	–	749	–	3,897
Retail	85	–	–	–	–	–	–	635
Exposures secured by real estate	3	–	–	–	–	–	–	1,881
Exposures in default	71	28	–	–	–	–	–	99
Higher risk categories	–	11	–	–	–	–	–	11
Covered bonds	–	–	–	–	–	–	–	343
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–
Equity exposures	1,381	–	8	–	–	–	–	1,390
Other exposures	237	–	–	–	–	–	–	251
Total standardised approach exposure value before credit risk mitigation	**4,881**	**39**	**8**	**–**	**–**	**930**	**–**	**35,555**

Credit Risk and Credit Risk Mitigation in the IRB Approach

In December 2006, Helaba received approval from the German Federal Financial Supervisory Authority (BaFin) to use the Foundation Internal Ratings-Based (FIRB) Approach as specified in the German Solvency Regulation (Solvabilitätsverordnung – SolvV); this approval covered both the Helaba Group and Helaba Bank. The parameters laid down in the Foundation Approach for internal ratings have been applied for both regulatory capital backing and internal management purposes since 1 January 2007. The approval of the rating model for aircraft finance in December 2010 marked the completion of the regulatory audits in relation to the use of the internal rating models for the FIRBA and thus the full delivery of the IRBA implementation plan. The AIRB Approach has been applied for the retail portfolio of FSP since the second quarter of 2008. In 2013, LBS became the first Bausparkasse to gain permission to use the "LBS-Kunden-Scoring" rating model and the LGD model devised by Sparkassen Rating- und Risikosysteme GmbH (S-Rating) in the AIRB Approach for retail exposures.

Helaba Bank (excluding LBS and WIBank) uses internal rating models for all material portfolios. A total of 14 rating models are available for measuring IRB Approach exposures. These methods make it possible to measure the Bank's credit risks against a uniform standard and express the rating result using a uniform scale. All but one of these models are maintained and refined in collaboration with other Landesbanken and Sparkassen. Helaba works together in this connection with Rating Service Unit GmbH & Co. KG (RSU) at Landesbank level and with S-Rating, both of which are companies providing internal rating models in accordance with the CRR. The remaining rating model has been developed for portfolios for which no pooling project has been initiated. The rating models are based on statistical models and classify loan exposures by probability of default using a 25-point cardinal master scale.

The rating models are based on two different methods:

- Scorecard method
  A scorecard (or scoring) method allocates scores to certain customer characteristics (quantitative and qualitative) using a mathematical/statistical analysis with the aim of determining an overall score that can be used as a measure of credit standing. The scores determined in this way are then converted into ratings using a calibration function. Warning indicators and liability scenarios are included in the method to complement the risk assessment.
- Simulation method
  Simulation methods are mainly used to classify risk arising in connection with asset finance. These rating models generate scenarios for future cash flow trends, which are then used to determine a rating and probability of default based on loan-to-value and debt service coverage with the help of a default test that distinguishes between performing and non-performing loan situations. Qualitative factors and warning indicators are added to the quantitative risk assessment.

The use of the rating models is governed by detailed internal specifications plus supplementary application guidelines issued by pooling service providers RSU and S-Rating. The latter are also incorporated as appropriate into the internal procedural instruction system. External credit assessments are mapped to the internal rating scale or reviewed by RSU in a process that is updated every year in order to ensure equivalence between internal ratings and external credit assessments.

a) The application of the rating models in the Bank's operating processes and the functioning of the models are continuously monitored and then also validated in an annual process. The rating model application and the functioning of the models is monitored monthly in standardised processes by the unit at the Bank responsible for model development. This monitoring focuses on compliance with process requirements and on the level of appropriate risk differentiation and calibration of the models, taking particular account of override behaviour. Defined quality criteria are used as a basis both for informing the Risk Committee of the Board of Managing Directors about particular trends and for determining certain activities or courses of action, which may also lead to an ad hoc validation.
b) The annual process for validating the rating models (quantitatively and qualitatively) is the responsibility of the Independent Validation group within the Risk Controlling unit. The validation is based on comprehensive quantitative analyses of the rated portfolio using historical and current data and on qualitative user feedback provided during the ongoing utilisation of the models and at regular user meetings. A structured approach is used to consolidate the findings from the validation process to arrive at an assessment of the appropriateness of the rating model in question. Depending on the findings obtained from the quantitative and qualitative validation process, any identified weaknesses are documented and measures initiated to eliminate the weaknesses. Before any action is implemented, modifications to the rating models to eliminate identified weaknesses or to improve rating model attributes are evaluated on the basis of a model change policy, which includes the relevant regulatory requirements and is enshrined in internal operating procedures, and then subjected to the specified acceptance processes in accordance with the defined criteria. Similar validation activities are also carried out at FSP, where an independent validation function has been established in the Risk Controlling department.

   As regards the pooling models used by the Bank, the Helaba processes described above are coordinated with the corresponding processes used by pooling service providers RSU and S-Rating. The separation between Model Development and Independent Validation, which has already been completed internally at Helaba, has now also been completed at the pooling service providers in terms of design. In this context, Helaba ensures that the main findings from the internal application of the models are made available to the pooling service providers so that the information can be taken into account in the central validation and maintenance processes. For their part, the pooling service providers make available to Helaba – in standardised processes and appropriate infrastructure – all the information and data that Helaba needs to carry out the internal validation. A key role is also played by the evidence of the representative nature of the results at pooling level for Helaba's portfolio forming an integral component of the validity assessment of the models used.
c) The Risk Committee of the Board of Managing Directors is kept regularly informed of the status of model validity and any model adjustment measures that have been initiated. This is reported annually in an overview of all the models used and on an ongoing basis by virtue of the fact that the Risk Committee is integrated into the process for approving model adjustments in accordance with the model change policy. The "Validation and Models for Default Risk" management group has been set up to support Helaba management in these reporting and authorisation processes. The results from the validation and further development processes are regularly presented to the group in detail. This forms the basis for a critical assessment, any recommenda-

tion for the Risk Committee, and approval. The members of this management group are the heads of division in the lending units that utilise the models at Helaba (front office/back office).

Helaba has developed a Rating Map, providing an overview of the approved rating models, sub-modules, definition criteria and areas of application to help assign exposures and debtors to rating models. The table below shows the Rating Map with the rating models and their assignment to borrowers/exposures in simplified form. The table also shows the use of the rating models in the regulatory exposure classes, although the regulatory exposure classes in the Helaba Group are determined and allocated in an automated downstream process after the ratings are created. This process takes into account information on the rating model applied as well as debtor-specific criteria. In this context the requirement on the assignment of exposure classes satisfies Article 112 et seq. (CRSA) and Article 147 (IRBA) CRR. Other than in the case of securitisations, external credit assessments are not used in calculating the regulatory own funds for transactions handled in accordance with the IRBA.

Art. 452 CRR – Overview of approved IRB approach rating models in use at Helaba Bank (excluding LBS and WIBank)

Borrower/exposure	**Rating model**	**Method**	**Origin of the model**
Countries and central, regional and local authorities in Germany	Country and Transfer Risks	Scorecard	Pool model
Central, regional and local authorities outside Germany	International Public Finance	Scorecard	Pool model
Large/multinational corporations, public-sector enterprises (municipal corporations) in Germany and abroad	Corporates Rating	Scorecard	Pool model
Small and mid-sized domestic companies	DSGV Standard Rating	Scorecard	Pool model
Commercial domestic real estate business	DSGV Real Estate Business Rating	Simulation	Pool model
Banks, financial services institutions, financial companies	Bank Rating	Scorecard	Pool model
Insurance companies	Insurance Companies Rating	Scorecard	Pool model
Leasing companies, special purpose vehicles (SPV) for real estate leasing	Leasing Rating	Scorecard	Pool model
Special purpose vehicles (SPV) for project finance	Project Finance Rating	Simulation	Pool model
Special purpose vehicles (SPV) for ship finance	Ship Finance Rating	Simulation	Pool model
International commercial real estate business	International Commercial Real Estate	Simulation	Pool model
Special purpose vehicles (SPV) for aircraft finance	Aircraft Finance Rating	Simulation	Pool model
Securitisations in accordance with Article 259 (4) CRR with no external rating	Internal Assessment Approach (IAA) for Securitisations	Scorecard	Helaba development
Leveraged finance	Leveraged Finance Rating	Scorecard	Pool mode

[1] Entities that individually constitute SMEs but belong to a corporate group with sales revenue of more than € 50 m.
[2] No separate IRB approach rating model has been registered for equity exposures. In the PD/LGD approach, treatment is on the basis of the specified IRBA rating models.

	IRB exposure classes						
	Central governments or central banks	Institutions	Corporates – SME	Corporates – Specialised lending exposures	Corporates – Other	Equity exposures	Securitisation exposures
	x	x			x		
	x	x					
	x	x	x[1]		x	x[2]	
		x	x		x	x[2]	
				x	x	x[2]	
	x	x			x	x[2]	
					x		
				x	x		
				x			
				x			
				x		x[2]	
				x			
							x
				x		x[2]	

The following sections describe the models used in each exposure class and their scope of application.

Central governments or central banks exposure class

At Helaba, country and transfer risk is measured using a special rating model. The core points are the economic situation, the political environment and domestic and foreign trade trends in each country. The country and transfer risk rating model is used to classify loans and advances to borrowers allocated to the "Central governments or central banks" IRB exposure class in accordance with Article 147 (3) CRR in conjunction with Article 115 (2), Article 115 (4), Article 116 (4), Article 117 (2) and Article 118 CRR.

The rating model currently in use was developed at pooling level by RSU in collaboration with the Landesbanken. The development followed a statistical approach (comparison with external ratings and taking into account internal default history). Expert assessments were also included to ensure that the results from the models were economically plausible.

The (further) development of the rating model is also being carried out by RSU in cooperation with the Landesbanken. The (further) development is based on a data pool from many different institutions. The data pool mainly consists of data from institutions' internal systems, such as input values and default experience over time. The analyses forming part of the regular maintenance and validation at pooling level are provided by RSU.

At FSP and LBS, the standardised approach (CRSA) is used for these exposures.

Institutions exposure class

The rating model for institutions is used to classify all borrowers allocated to the "Institutions" IRB exposure class in accordance with Article 147 (4) CRR and taking into account the following Articles of the CRR: Article 4 (1) sentences 1, 2, 3, Article 115 (2) and (4), Article 116 (4), Article 117 and Article 119 (5). The objective of the rating model for institutions is to measure the default risk arising from banks worldwide. The application of the model is limited to rated institutions in which most of the operations consist of typical banking activities (application of the term "bank" in substance). It is therefore intended that this rating model should also be used for bank holding companies, savings and loan associations, government financing agencies, finance/financial companies and financial service providers regardless of legal structure if most of their operations consist of typical banking activities. The institutions rating model is also used to rate institutions that are de facto banks on the basis that most of their operations consist of typical banking activities even though they may not have a banking licence. Another important factor is that the model is only used to rate institutions that are subject to supervision and that therefore operate in a regulated environment.

In accordance with Article 107 (3) CRR, non-EU investment firms, banks, exchanges and clearing houses are allocated to the "Institutions" exposure class if they are subject to prudential and supervisory requirements that are at least equivalent to those applied in the EU. If such prudential and supervisory requirements are not equivalent, these institutions are classified as corporates.

The rating model currently in use was developed at pooling level by RSU in collaboration with the Landesbanken. The development followed a statistical approach (comparison with internal default history and with external ratings). Expert assessments were also included to ensure that the results from the models were economically plausible.

The (further) development of the rating model is also being carried out by RSU in cooperation with the Landesbanken. The (further) development is based on a data pool from many different institutions. The data pool mainly consists of data from institutions' internal systems, such as input values and default experience over time. The analyses forming part of the regular maintenance and validation at pooling level are provided by RSU.

At FSP, the ratings for these exposures are taken from the ratings determined by Helaba. At LBS, the standardised approach (CRSA) is used for these exposures.

Corporates exposure class

The rating systems for corporate customers classify borrowers allocated to the "Corporates" IRB exposure class in accordance with Article 147 (7) CRR. A large part of the portfolio is subject to the corporates rating model. It is used to rate major domestic customers with consolidated revenue of € 50 m or more (FSP: more than € 500 m) and all international corporate customers. Domestic borrowers with revenue of less than € 50 m (FSP: € 500 m or less) are rated with the DSGV standard rating system, as are those customers whose relationship is managed by Sparkassen as part of the S-Group business. Institutions that are assessed using the rating system for insurance companies are also assigned to the "Corporates" exposure class. The objective of the insurance company rating system is to assess the default risk arising in connection with insurance companies. For this purpose, insurance companies are also deemed to include those companies (including comprehensive financial services providers) in which most of the income is derived from typical insurance activities. Information on the differences in the procedure used at FSP is provided further down.

The "Corporates" exposure class is subdivided into three sub-classes: "Corporates – Specialised lending exposures", "Corporates – SMEs" and "Corporates – Other". If exposures fall within the scope of the rules described below for the first two exposure sub-classes, then they are assigned to the sub-class concerned. Other exposures are allocated to the "Corporates – Other" exposure sub-class.

The rating models currently in use were developed at pooling level by RSU and S-Rating in collaboration with the Landesbanken and Sparkassen. The development followed a statistical approach (depending on data availability, comparison with internal default history and with external ratings). Expert assessments were also included to ensure that the results from the models were economically plausible.

The (further) development of the rating models is also being carried out by RSU and S-Rating in cooperation with the Landesbanken and Sparkassen. The (further) development is based on a data pool from many different institutions. The data pool mainly consists of data from institutions' internal systems, such as input values and default experience over time. The analyses forming part of the regular maintenance and validation at pooling level are provided by RSU and S-Rating.

Corporates exposure class: Specialised lending exposures subclass

The rating systems for specialised lending exposures classify borrowers allocated to the "Corporates – Specialised lending exposures" IRB exposure class in accordance with Article 147 (8) CRR. These exposures form a subclass within the "Corporates" exposure class.

In the case of project finance, ratings are normally based on the cash flow or the user/recipient of the project output. One of the factors that distinguishes project finance from other specialised lending exposures is that the cash flows are generated from a narrowly defined activity rather than from a number of business strategies pursued in parallel. The simulation-based rating model is based on an economic model that reflects the connections between cause and effect. Cash flows, project value and specific transaction details are used as key risk drivers in the simulation. The results from the simulation are transformed, calibrated and then adjusted with the help of qualitative factors.

The specialised lending exposure subclass also includes real estate lending in which the debt is serviced exclusively from the income generated from the financed asset in the form of rent, lease payments or sale proceeds.

If the financed real estate is located outside Germany, the rating model developed for this scenario is based on the entire international commercial real estate finance business. The simulation-based rating model is based on an economic model that reflects the connections between cause and effect. Cash flows, asset value and specific transaction details are used as key risk drivers in the simulation. The results from the simulation are transformed, calibrated and then adjusted with the help of qualitative factors. The real estate lending segment also uses the "Real estate business rating" model, which covers commercial real estate finance business involving real estate located in Germany. The model is applied in the same way as the models described above. FSP operates real estate lending business exclusively in Germany.

Further models used in this segment are those applied in respect of aircraft finance and shipping finance (not at FSP); the scope of these models includes financing provided for a special purpose vehicle (SPV) closely related to the financed asset. All of the financing falling within the scope of the rating models used for aircraft and shipping finance is allocated to the specialised lending exposures subclass. These simulation-based rating models are based on an economic model that reflects the connections between cause and effect. In the model used for shipping finance, cash flows, asset value and specific transaction details are used as the main risk drivers, whereas in the case of aircraft finance, the cash flows are not the main source of risk. In the latter scenario, asset values, the probability of airline default and specific transaction details are used as the principal risk drivers in the simulation.

Corporates exposure class: SME subclass

Article 147 (5) a) ii) in conjunction with Article 501 CRR specifies that the customer's (consolidated) annual revenue must be used as the size indicator (SME threshold).

In accordance with the regulatory requirement, a business is classified as an SME if its annual revenue is greater than 0 and no more than € 50 m.

Equity exposure class

Depending on the nature of the equity investment, it is generally possible to use the same rating models as those described for the exposure classes above. No separate IRB approach rating model has been registered for equity exposures. Action is taken to ensure that the equity investments can be clearly identified in systems and allocated to the "Equity" exposure class in accordance with Article 147 (6) CRR. FSP measures its equity investments using standardised CRR risk weights in the IRB portfolio.

Securitisation exposure class

The IAA rating model is generally used for securitisation exposures in the IRB approach. Further details can be found in the "Securitisations" section.

One exception is finance with structural elements similar to securitisation. The rating models for real estate or project finance are used to rate these arrangements in the same way as financing of a similar nature.

The following rating models are used in the business areas served by FSP.

Article 452 CRR – Overview of approved IRB approach rating models in use at FSP

Borrower/exposure	**Rating models**	**Method**	**Origin of the model**
Small and mid-sized domestic companies	DSGV Standard Rating/KKR	Scorecard	Pool model
Commercial domestic real estate business	DSGV Real Estate Business Rating	Simulation	Pool model
Private customers, retail business	Sparkassen – Customer Scoring	Scorecard	Pool model
Banks, financial services institutions, finance companies	LBR Bank Rating	Scorecard	Pool model
Large/multinational corporations, public-sector enterprises (municipal corporations) in Germany and abroad	LBR Corporates Rating	Scorecard	Pool model
Leasing companies, special purpose vehicles (SPV)	LBR Leasing Rating	Scorecard	Pool model

In addition to the LBR ratings already described above, the following models are also applied, mainly in the "Corporates" and "Retail" exposure classes:

In the "Corporates" exposure class, ratings are determined for the commercial real estate lending business (e.g. real estate developers, investors or persons of independent means) using the Sparkassen real estate business rating system "Sparkassen-ImmobiliengeschäftsRating".

This rating system enables Sparkassen to provide their customers with the best possible level of support in connection with the financing of commercial real estate. In this context, commercial real estate is property in connection with which the servicing of the associated debt is to be covered by the income generated from the property (e.g. rent or disposal proceeds). The analysis of the income-generating potential of the real estate covers an extended period.

In the Sparkassen-ImmobiliengeschäftsRating system, the analysis focuses on the property concerned as the borrower's sole or predominant source of income. The model uses a process consisting of up to four stages to analyse both risk aspects relating to the customer or entity themselves and risk associated with their investment properties.

								AIRB exposure classes				
	IRB exposure classes							Retail				
	Central governments or central banks	Institutions	Corporates – SME	Corporates – Specialised lending exposures	Corporates – Other	Equity exposures	Securitisation exposures	Secured by real estate	thereof: SME	Qualifying revolving	Other retail	thereof: SME
		x	x		x			x	x	x	x	x
		x	x		x							
			x		x			x	x	x	x	x
	x	x			x							
		x			x							
					x							

To ensure that all real estate customers are properly rated, the Sparkassen-ImmobiliengeschäftsRating system must reflect their various strategies. A distinction is made between three customer groups:

- Investors
- Residential real estate companies
- Real estate developers

There are also different levels according to complexity, with various routes to the rating itself, depending on type of customer and value of lending, from the full four-stage process to the considerably more straightforward real estate compact rating (“ImmobilienKompaktRating”).

The other rating models referred to are used in the “Retail” exposure class and also, for relevant customers with an exposure value in excess of the retail business limit of € 750 thousand, in the “Corporates” exposure class.

The rating models for retail exposures classify borrowers allocated to the “Retail” AIRB exposure class in accordance with Article 147 (5) CRR. The “Retail” exposure class is subdivided into four subclasses: “Retail – Secured by real estate”, “Retail – Qualifying revolving exposures”, “Retail – SME” and “Other retail”. If exposures fall within the scope of the rules for the first three exposure sub-classes, then they are assigned to the sub-class concerned. Other exposures are allocated to the “Other retail” exposure sub-class.

A large part of the portfolio is subject to the “Sparkassen-KundenScoring” (“Sparkassen Customer Scoring”) rating model. This model is used to rate non-independent retail customers in connection with retail home finance, consumer credit, overdrafts and credit cards.

The “SR KundenScoring” system makes use of information on the customer’s individual product use, his/her personal data, previous payment history and details available from third parties. Based on the customer’s individual circumstances and the scoring approach, the system aggregates the various scores to determine a specific overall score for each customer.

The “SR-KundenkompaktRating” (“SR Customer Compact Rating”) and “SR-StandardRating” (“SR Standard Rating”) models are also used. The SR-StandardRating model is used to produce ratings for business start-ups, the self-employed and small business borrowers with revenue up to € 500 m.

The Sparkassen standard rating has a modular structure. An initial check is carried out to establish what information is already known about a business and can be fed into the calculation of the rating. This information can be subdivided into a number of categories: financial rating, qualitative factors, account history, warning signals, liability scheme, default information. If information for any of these categories is not available in relation to a business, it is disregarded when determining the rating.

In certain circumstances, existing business customers may be rated with the completely electronic Sparkassen-KundenkompaktRating (KKR) system.

This fully automated model provides the customer advisor at the Sparkasse with a rapid credit quality assessment based on a number of factors, including the course of the business relationship to date. The KKR also highlights changes in account use or in the repayment of loans, thereby indicating possible changes in credit quality.

The KKR is suitable for customers who have a lending volume that falls within the scope specified by the bank concerned (maximum total exposure of € 250 thousand) and who have had a business relationship with the bank for at least six months. The credit rating is based on figures that are calculated on a fully automated basis each month.

The KKR can take into account financial products already used by the customer, customer information and previous payment history. For some time, the system has also been able to include information from a standard rating determined in the past. Depending on the extent to which the data is up to date and available, various data groups (modules) each comprising a number of attributes are assessed. The assessment process involves the allocation of scores, which are then aggregated.

In FSP’s AIRB portfolio, i.e. in the “Retail” exposure class, FSP also applies its own LGD estimates and its own credit conversion factors (CCFs) in accordance with Article 151 (7) CRR. An integrated system is used for collecting loss data. This constitutes a largely automated process for capturing, managing and analysing loss data.

Loss data must be collected when borrowers are in default, i.e. in arrears or completely insolvent. This includes all information relating to cash flows after the default of the borrower or after the borrower is able to exit default status. This base data can be used to estimate recovery, collection and reverse credit migration ratios. It is also used to calculate the risk costs of future transactions.

The loss data for individual institutions is collected in a loss data pool for the whole of the Sparkassen-Finanzgruppe throughout Germany. As a result, all institutions have access to a representative, statistically validated estimate of loss ratios – even for segments that some individual institutions would find impossible to analyse for statistical purposes because of insufficient data.

For the purposes of the LGD estimate, probabilities are assessed for both recovery and workout scenarios. In the case of the workout scenario, collateral recovery rates and collection rates for unsecured portions of lending are estimated. This procedure takes into account cash flows after default up to the conclusion of the workout process, a period that could cover several years.

The CCF expresses the proportion of an as yet unutilised commitment that will have been drawn down at the time of default. This is calibrated on the basis of the collected loss data by observing the additional drawdowns of agreed but unused facilities in the twelve months prior to a default.

FSP calculates the RWAs for its retail business using the parameters PD, LGD and CCF, which it estimates itself.

The rating systems currently in use were developed at pooling level by S-Rating in collaboration with the institutions in the Sparkassen-Finanzgruppe. The development followed a statistical approach because, in the case of the “Retail” exposure class, it could generally be assumed that the necessary data would be available. Expert assessments were also included to ensure that the results from the models were plausible from both banking and economic perspectives.

The (further) development of the rating systems is also being carried out by S-Rating in cooperation with the institutions in the Sparkassen-Finanzgruppe. The (further) development is based on a data pool from virtually all the institutions in the Sparkassen-Finanzgruppe. The data pool comprises data almost exclusively from the internal systems of the institutions concerned. This data includes, for example, customer data, customer account data, default experience over time and data from workout processes in connection with non-performing loans. The analyses forming part of the regular maintenance and validation at pooling and institution levels are provided by S-Rating in close collaboration with FSP.

Application of regulatory minimum PDs

The CRR requires the application of a minimum PD in the PD/LGD approach for exposures in the "Institutions", "Corporates" and "Equity" exposure classes. A minimum PD of 0.03 % is applied in respect of institutions and corporates. In the case of equity investments, the minimum PD is between 0.09 % and 1.25 % in the PD/LGD approach.

At FSP, a minimum PD of 0.03 % is applied in all exposure classes.

The following rating method is applied at LBS.

Article 452 CRR – Overview of approved IRB approach rating models in use at LBS

				AIRB exposure classes				
				Retail				
Borrower/ exposure	**Rating models**	**Method**	**Origin of the model**	**Secured by real estate**	**thereof: SME**	**Qualifying revolving**	**Other retail**	**thereof: SME**
Retail	LBS Customer Scoring	Scorecard	Pool model	x			x	

LBS makes use of the "LBS-Kunden-Scoring" (LBS Customer Scoring) method devised by S-Rating to evaluate the home finance loans assigned to retail exposures. The assessment of creditworthiness applied here takes account of patterns of behaviour typical for home loan and savings products as well as the customer features considered in the Sparkasse methods, such as length of employment, sector and the like. As at 31 December 2018, LBS had achieved coverage of 99.0 % (RWAs) and 99.7 % (exposure value).

The input parameters and results of the regulatory own funds calculation are integrated into internal management activities at the divisions. Management in the divisions proceeds using a multi-level contribution margin accounting system in which standard risk costs for expected losses and imputed capital costs for the capital requirement are considered.

The table below shows the following for IRB exposures: basis of measurement, exposure value, RWAs, EL and credit risk adjustments in accordance with the CRR, including various averages, such as the average probability of default (mean PD). The "Retail" exposure classes are AIRB exposures; the other exposure classes are FIRB exposures. The following two disclosure items are not required in the table, but are necessary to ensure that the requirements under Article 452 d) CRR are satisfied in full: the exposure value of the securitisation exposures under the IRB approach amounted to € 5,487 m as at the reporting date; the exposure value of other non-credit-related assets was € 524 m.

EU CR6 – IRB approach: Credit risk exposures by exposure class and PD range

		a	b	c	d	e
Exposure classes	**PD band**	**Basis of measurement (on-balance sheet)**	**Basis of measurement (off-balance sheet)**	**Average CCF for off-balance-sheet exposures in %**	**Exposure value**	**Average PD in %**
Central governments or central banks	0.00 to <0.15	22,397	359	76.99	25,299	0.00
	0.15 to <0.25	–	–	–	–	–
	0.25 to <0.50	0	–	–	0	0.39
	0.50 to <0.75	–	–	–	–	–
	0.75 to <2.50	0	–	–	0	1.98
	2.50 to <10.00	0	28	75.00	1	6.67
	10.00 to <100.00	456	0	0	455	20.00
	100.00 (Default)	0	–	–	0	100.00
Subtotal		**22,853**	**387**	**76.83**	**25,756**	**0.36**
Institutions	0.00 to <0.15	14,462	1,566	70.48	15,453	0.04
	0.15 to <0.25	361	43	70.07	391	0.17
	0.25 to <0.50	131	51	65.32	164	0.33
	0.50 to <0.75	167	65	31.56	44	0.59
	0.75 to <2.50	1	9	44.51	5	1.25
	2.50 to <10.00	36	21	42.62	11	4.55
	10.00 to <100.00	121	74	73.05	10	19.13
	100.00 (Default)	9	0	75.00	3	100.00
Subtotal		**15,289**	**1,828**	**68.61**	**16,080**	**0.09**
Corporates – Specialised lending exposures	0.00 to <0.15	11,194	1,452	67.98	11,972	0.08
	0.15 to <0.25	4,170	326	68.94	4,333	0.17
	0.25 to <0.50	7,713	1,236	74.44	8,647	0.31
	0.50 to <0.75	2,903	1,302	68.64	3,611	0.59
	0.75 to <2.50	2,963	1,477	72.74	3,921	1.21
	2.50 to <10.00	381	–	–	376	3.84
	10.00 to <100.00	166	1	75.00	86	13.24
	100.00 (Default)	224	13	29.19	228	100.00
Subtotal		**29,714**	**5,807**	**70.68**	**33,175**	**1.11**

in € m

f	g	h	i	j	k	l
Number of obligors	**Average LGD in %**	**Average maturity**	**RWAs**	**RWA density in %**	**EL**	**Credit risk adjustments**
1,236	46.07	2.50	356	1.41	0	
–	–	–	–	–	–	
1	45.00	2.50	0	65.69	0	
–	–	–	–	–	–	
1	45.00	2.50	1	121.32	0	
3	45.00	2.50	2	178.19	0	
35	0.01	2.50	1,148	252.53	0	
1	45.00	2.50	–	–	0	
1,277	**45.26**	**2.50**	**1,507**	**5.85**	**0**	**2**
312	32.32	2.50	2,634	17.04	2	
16	41.79	2.50	208	53.31	0	
19	31.48	2.50	77	46.87	0	
11	43.96	2.50	40	92.24	0	
12	45.00	2.50	6	120.72	0	
20	45.00	2.50	17	154.96	0	
36	45.00	2.50	24	249.14	1	
1	45.00	2.50	–	–	2	
427	**32.60**	**2.50**	**3,006**	**18.69**	**5**	**15**
389	42.19	2.50	3,153	26.34	4	
126	42.70	2.50	1,769	40.82	3	
252	43.06	2.50	4,840	55.97	12	
96	43.96	2.50	2,799	77.51	9	
95	42.50	2.50	3,813	97.23	20	
17	42.72	2.50	517	137.57	6	
5	43.59	2.50	183	213.50	5	
21	44.24	2.50	–	–	101	
1,001	**42.74**	**2.50**	**17,074**	**51.47**	**161**	**124**

EU CR6 – IRB approach: Credit risk exposures by exposure class and PD range

		a	b	c	d	e
Exposure classes	**PD band**	**Basis of measurement (on-balance sheet)**	**Basis of measurement (off-balance sheet)**	**Average CCF for off-balance-sheet exposures in %**	**Exposure value**	**Average PD in %**
Corporates – SME	0.00 to <0.15	671	331	69.43	899	0.08
	0.15 to <0.25	455	47	64.48	482	0.17
	0.25 to <0.50	798	149	53.75	888	0.33
	0.50 to <0.75	397	83	72.25	454	0.59
	0.75 to <2.50	727	134	70.21	843	1.23
	2.50 to <10.00	119	46	80.37	94	3.97
	10.00 to <100.00	62	37	23.12	70	17.33
	100.00 (Default)	13	6	87.18	18	100.00
Subtotal		**3,241**	**833**	**65.44**	**3,748**	**1.38**
Corporates – Other	0.00 to <0.15	14,963	12,591	50.45	20,759	0.07
	0.15 to <0.25	2,435	2,372	59.97	3,839	0.17
	0.25 to <0.50	3,588	2,466	65.68	5,050	0.30
	0.50 to <0.75	696	756	67.64	1,230	0.59
	0.75 to <2.50	858	472	65.02	975	1.35
	2.50 to <10.00	122	176	61.12	143	3.88
	10.00 to <100.00	1,228	116	54.42	544	19.03
	100.00 (Default)	236	58	74.30	278	100.00
Subtotal		**24,126**	**19,006**	**54.86**	**32,818**	**1.35**
Retail – Secured by real estate, SME	0.00 to <0.15	136	8	64.30	141	0.08
	0.15 to <0.25	43	1	66.27	43	0.17
	0.25 to <0.50	132	7	71.06	137	0.32
	0.50 to <0.75	50	3	71.75	52	0.59
	0.75 to <2.50	113	5	69.43	116	1.28
	2.50 to <10.00	36	1	64.66	37	4.24
	10.00 to <100.00	28	1	70.20	29	19.06
	100.00 (Default)	0	–	–	0	100.00
Subtotal		**537**	**25**	**68.22**	**554**	**1.71**

in € m

f	g	h	i	j	k	l
Number of obligors	**Average LGD in %**	**Average maturity**	**RWAs**	**RWA density in %**	**EL**	**Credit risk adjustments**
703	39.54	2.50	182	20.20	0	
389	41.01	2.50	156	32.39	0	
797	35.59	2.50	346	39.01	1	
326	38.12	2.50	260	57.38	1	
560	38.70	2.50	631	74.85	4	
116	41.45	2.50	100	106.08	2	
444	38.32	2.50	117	166.89	5	
23	42.95	2.50	–	–	8	
3,358	**38.47**	**2.50**	**1,792**	**47.82**	**21**	**7**
1,103	43.09	2.50	5,115	24.64	6	
319	44.22	2.50	1,654	43.08	3	
436	43.61	2.50	2,783	55.10	7	
158	42.89	2.50	906	73.68	3	
186	43.59	2.50	1,010	103.62	6	
58	43.36	2.50	201	140.90	2	
905	22.44	2.50	675	124.05	23	
84	46.44	2.50	–	–	131	
3,249	**42.99**	**2.50**	**12,343**	**37.61**	**181**	**135**
1,013	30.16	2.50	7	4.69	0	
288	30.91	2.50	4	9.01	0	
777	31.27	2.50	20	14.38	0	
245	32.91	2.50	12	23.13	0	
616	31.99	2.50	44	37.42	0	
218	32.18	2.50	28	77.04	1	
203	30.94	2.50	39	135.65	2	
1	24.79	2.50	–	–	0	
3,361	**31.31**	**2.50**	**153**	**27.64**	**3**	**0**

EU CR6 – IRB approach: Credit risk exposures by exposure class and PD range

		a	b	c	d	e
Exposure classes	**PD band**	**Basis of measurement (on-balance sheet)**	**Basis of measurement (off-balance sheet)**	**Average CCF for off-balance-sheet exposures in %**	**Exposure value**	**Average PD in %**
Retail – Secured by real estate, non-SME	0.00 to <0.15	1,247	26	78.25	1,267	0.06
	0.15 to <0.25	423	3	83.83	425	0.17
	0.25 to <0.50	720	11	86.06	729	0.31
	0.50 to <0.75	125	1	88.74	126	0.59
	0.75 to <2.50	320	3	92.40	323	1.30
	2.50 to <10.00	95	2	95.76	97	3.89
	10.00 to <100.00	34	0	96.12	34	18.28
	100.00 (Default)	32	0	100.00	32	100.00
Subtotal		**2,996**	**46**	**82.60**	**3,034**	**1.68**
Retail – Qualifying revolving	0.00 to <0.15	9	614	64.15	403	0.04
	0.15 to <0.25	3	33	64.04	24	0.17
	0.25 to <0.50	7	36	64.51	30	0.32
	0.50 to <0.75	6	20	64.72	19	0.59
	0.75 to <2.50	17	29	65.93	36	1.29
	2.50 to <10.00	9	10	67.85	16	4.10
	10.00 to <100.00	3	10	66.34	10	20.26
	100.00 (Default)	2	0	98.02	3	100.00
Subtotal		**56**	**753**	**64.33**	**541**	**1.12**
Retail – Other, SME	0.00 to <0.15	18	42	62.69	45	0.08
	0.15 to <0.25	8	9	65.84	13	0.17
	0.25 to <0.50	23	25	63.38	39	0.32
	0.50 to <0.75	11	9	66.94	17	0.59
	0.75 to <2.50	33	23	67.76	48	1.35
	2.50 to <10.00	17	8	67.83	22	4.31
	10.00 to <100.00	10	11	61.51	17	18.81
	100.00 (Default)	0	0	50.00	0	100.00
Subtotal		**119**	**127**	**64.46**	**200**	**2.49**

in € m

f	g	h	i	j	k	l
Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %	EL	Credit risk adjustments
11,018	29.87	2.50	63	4.99	0	
3,712	30.61	2.50	50	11.71	0	
7,002	28.98	2.50	125	17.11	1	
2,032	20.78	2.50	25	19.43	0	
4,127	19.93	2.50	104	32.08	1	
1,390	23.56	2.50	68	70.64	1	
428	20.33	2.50	39	113.12	1	
357	32.62	2.50	15	45.84	10	
30,066	**28.04**	**2.50**	**488**	**16.07**	**14**	**4**
109,830	63.30	2.50	7	1.82	0	
6,896	63.07	2.50	1	6.11	0	
8,487	63.07	2.50	3	9.94	0	
5,896	63.11	2.50	3	16.13	0	
12,196	63.71	2.50	10	29.26	0	
7,662	63.70	2.50	11	66.03	0	
3,302	62.99	2.50	13	137.01	1	
828	76.95	2.50	1	27.90	2	
155,097	**63.37**	**2.50**	**50**	**9.22**	**4**	**3**
1,209	62.79	2.50	5	10.46	0	
316	64.45	2.50	3	19.12	0	
710	62.63	2.50	11	27.69	0	
293	64.85	2.50	7	41.08	0	
676	64.83	2.50	28	58.30	0	
438	61.18	2.50	16	71.46	1	
1,414	61.43	2.50	18	106.03	2	
2	25.29	2.50	0	0.33	0	
5,058	**63.24**	**2.50**	**86**	**43.04**	**3**	**2**

EU CR6 – IRB approach: Credit risk exposures by exposure class and PD range

		a	b	c	d	e
Exposure classes	**PD band**	**Basis of measurement (on-balance sheet)**	**Basis of measurement (off-balance sheet)**	**Average CCF for off-balance-sheet exposures in %**	**Exposure value**	**Average PD in %**
Retail – Other, non-SME	0.00 to <0.15	225	77	84.29	290	0.07
	0.15 to <0.25	96	29	85.89	120	0.17
	0.25 to <0.50	187	52	87.19	233	0.32
	0.50 to <0.75	62	14	88.67	74	0.59
	0.75 to <2.50	106	17	92.31	122	1.25
	2.50 to <10.00	35	10	93.47	44	4.03
	10.00 to <100.00	9	2	77.26	10	20.79
	100.00 (Default)	18	2	100.00	20	100.00
Subtotal		**738**	**204**	**86.77**	**915**	**2.98**
IRBA equity exposures – PD/LGD approach	0.00 to <0.15	43	–	–	43	0.09
	0.15 to <0.25	10	–	–	10	0.17
	0.25 to <0.50	29	–	–	29	0.39
	0.50 to <0.75	–	–	–	–	–
	0.75 to <2.50	148	–	–	148	1.68
	2.50 to <10.00	–	–	–	–	–
	10.00 to <100.00	0	–	–	0	20.00
	100.00 (Default)	0	–	–	0	100.00
Subtotal		**230**	**0**	**–**	**230**	**1.16**
IRBA equity exposures – simple risk-weighted approach		451	116	100.00	568	–
IRBA equity exposures – risk-weighted equities		26	–	–	26	–
Total		**100,377**	**29,133**	**60.21**	**117,644**	**0.91**

in € m

f	g	h	i	j	k	l
Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %	EL	Credit risk adjustments
9,325	63.73	2.50	35	12.22	0	
3,695	62.25	2.50	29	24.18	0	
8,172	58.83	2.50	80	34.20	0	
4,473	51.60	2.50	32	42.77	0	
7,014	48.03	2.50	67	54.97	1	
2,321	53.21	2.50	35	80.05	1	
832	53.88	2.50	13	120.17	1	
923	69.41	2.50	7	32.20	14	
36,755	**58.71**	**2.50**	**298**	**32.54**	**18**	**17**
6	65.00	5.00	28	65.64	0	
1	65.00	5.00	6	60.97	0	
–	65.00	5.00	27	92.46	0	
–	–	–	–	–	–	
5	65.00	5.00	319	214.82	2	
–	–	–	–	–	–	
2	65.00	5.00	0	403.70	0	
1	65.00	5.00	0	437.50	0	
15	**65.00**	**5.00**	**379**	**165.13**	**2**	**–**
103	2.52	2.50	1,146	201.97	5	–
16	17.44	2.50	64	250.00	–	–
239,783	**41.51**	**2.50**	**38, 387**	**32.63**	**417**	**309**

The exposure-weighted average PD by region and exposure class is also shown as well as, additionally for the retail portfolio, the exposure-weighted average LGD.

Article 452 CRR – Average PD by country, FIRB

Exposure classes	Countries/regions	Average PD in %
Central governments or central banks	Africa	9.65
	Asia	–
	Australia and New Zealand	–
	Europe	0.33
	North America	0.01
	Central and South America	–
Institutions	Africa	3.24
	Asia	1.12
	Australia and New Zealand	0.03
	Europe	0.07
	North America	0.04
	Central and South America	89.30
Corporates – Specialised lending exposures	Africa	100.00
	Asia	0.31
	Australia and New Zealand	9.48
	Europe	1.32
	North America	0.44
	Central and South America	0.93
Corporates – SME	Africa	100.00
	Asia	0.97
	Australia and New Zealand	0.17
	Europe	1.37
	North America	0.31
	Central and South America	0.88
Corporates – Other	Africa	10.00
	Asia	1.12
	Australia and New Zealand	9.04
	Europe	1.38
	North America	0.32
	Central and South America	0.59
IRBA equity exposures	Africa	–
	Asia	–
	Australia and New Zealand	–
	Europe	1.16
	North America	–
	Central and South America	–

Article 452 CRR – Retail portfolio average PD/LGD by country, AIRB

Exposure classes	Countries/regions	Average PD in %	Average LGD in %
Retail – Secured by real estate, SME	Africa	–	–
	Asia	0.03	24.79
	Australia and New Zealand	–	–
	Europe	1.71	31.31
	North America	–	–
	Central and South America	–	–
Retail – Secured by real estate, non-SME	Africa	0.66	26.39
	Asia	0.88	32.52
	Australia and New Zealand	3.65	33.78
	Europe	1.66	28.03
	North America	3.27	31.22
	Central and South America	0.28	24.79
Retail – Qualifying revolving	Africa	0.85	61.41
	Asia	0.47	62.99
	Australia and New Zealand	0.08	65.34
	Europe	1.13	63.37
	North America	0.17	64.02
	Central and South America	0.16	60.03
Retail – Other, SME	Africa	–	–
	Asia	4.73	68.21
	Australia and New Zealand	–	–
	Europe	2.47	63.26
	North America	20.00	36.25
	Central and South America	–	–
Retail – Other, non-SME	Africa	7.05	68.71
	Asia	0.71	64.53
	Australia and New Zealand	0.80	66.82
	Europe	2.98	58.65
	North America	0.92	66.26
	Central and South America	25.67	72.17

The quality of the PD/LGD approach is demonstrated below through differentiated data per exposure class and PD band. The exposure classes shown are based on the following RWA coverage by IRB-recognised rating modules.

RWA coverage by exposure classes

Exposure classes	**RWA coverage by recognised IRBA rating models in %**
Central governments or central banks	99.94
Institutions	99.99
Corporates – Specialised lending exposures	100.00
Corporates – SME	100.00
Corporates – Other	99.57
Retail – Secured by real estate, SME	100.00
Retail – Secured by real estate, non-SME	97.44
Retail – Qualifying revolving	98.54
Retail – Other, SME	100.00
Retail – Other, non-SME	98.17
IRBA equity exposures	32.55[1]

[1] Lower RWA coverage through use of the simple risk-weight approach in addition to the PD/LGD approach

The changes in RWAs for credit risk exposures under the IRB Approach between 30 September 2018 and 31 December 2018 are presented below.

EU CR8 – RWA flow statements of credit risk exposures under the IRB Approach in € m

		a	**b**
		RWAs	**Own funds requirement**
1	**RWAs at previous quarter-end**	**36,886**	**2,951**
2	Asset size	2,145	172
3	Asset quality	−96	−8
4	Model updates/changes	−165	−13
5	Methodology and policy changes	–	–
6	Acquisitions and disposals	–	–
7	Foreign exchange movements	57	5
8	Other	−2	−0
9	**RWAs at the end of the current quarter**	**38,824**	**3,106**

In the table above, the changes in RWAs are broken down for each of the key RWA drivers:

- Asset size: changes in the carrying amount due, among other factors, to new or discontinued business or changes in the portfolio
- Asset quality: changes related to credit ratings and credit risk mitigation
- Model updates: model adjustments to internal rating methods
- Methodology and policy changes: new regulatory requirements, discontinuation of transitional provisions and the like
- Acquisitions and disposals: changes based on the group of consolidated companies for regulatory purposes
- Foreign exchange movements: changes in exchange rates for foreign currency transactions
- Other: includes all other changes that cannot be attributed to the categories above

The foreign exchange movement arose principally from transactions in US dollars and sterling.

EU CR9 – FIRB: Back-testing of PD per exposure class

a	b	c	d	e
Exposure classes	**PD band**	**External rating equivalent[1)]**	**Average PD in %**	**Average PD by obligors in %**
Central governments or central banks	0.00 to <0.15	–	0.00	0.00
	0.15 to <0.25	–	–	–
	0.25 to <0.50	–	–	–
	0.50 to <0.75	–	–	–
	0.75 to <2.50	–	0.89	0.89
	2.50 to <10.00	–	3.98	5.43
	10.00 to <100.00	–	20.00	20.00
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**0.36**	**0.35**
Institutions	0.00 to <0.15	–	0.04	0.05
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.30
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	0.89	1.22
	2.50 to <10.00	–	4.44	4.36
	10.00 to <100.00	–	19.98	18.33
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**0.09**	**0.09**
Corporates – Specialised lending exposures	0.00 to <0.15	–	0.08	0.08
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.32
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.17	1.05
	2.50 to <10.00	–	3.95	3.74
	10.00 to <100.00	–	13.23	16.54
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.11**	**1.10**
Corporates – SME	0.00 to <0.15	–	0.09	0.09
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.34	0.32
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.23	1.24
	2.50 to <10.00	–	3.75	3.73
	10.00 to <100.00	–	17.56	19.12
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.38**	**1.41**

	f	g	h	i
Number of obligors		Defaulted obligors in the reporting period	Of which new obligors	Historical annual default rate in %[2)]
Previous year	Current year			
1,291	1,236	0	0	0.00
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
0	1	0	0	0.00
3	3	0	0	0.00
38	35	0	0	0.00
1	1	0	0	0.00
1,333	**1,277**	**0**	**0**	**0.00**
295	347	0	0	0.00
19	18	0	0	0.00
21	21	0	0	0.00
4	11	0	0	0.00
20	12	0	0	1.25
17	20	0	0	0.00
40	36	1	0	2.57
1	1	0	0	0.00
417	**466**	**1**	**0**	**0.00**
418	390	1	1	0.39
143	126	0	0	1.14
271	256	2	0	0.52
68	96	0	0	0.15
112	95	1	0	1.41
19	17	2	0	6.66
15	5	0	0	7.60
33	21	0	0	0.00
1,079	**1,006**	**6**	**1**	**0.70**
550	707	0	0	0.10
362	393	1	1	0.07
821	805	1	1	0.15
341	329	1	1	0.20
606	565	4	3	0.58
104	121	5	5	5.81
351	445	4	4	1.54
36	23	9	1	0.00
3,171	**3,388**	**25**	**16**	**0,40**

EU CR9 – FIRB: Back-testing of PD per exposure class

a	b	c	d	e
Exposure classes	**PD band**	**External rating equivalent[1)]**	**Average PD in %**	**Average PD by obligors in %**
Corporates – Other	0.00 to <0.15	–	0.07	0.07
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.31	0.31
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.21	1.25
	2.50 to <10.00	–	3.79	3.68
	10.00 to <100.00	–	19.39	20.00
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.36**	**1.37**
IRBA equity exposures – PD/LGD approach	0.00 to <0.15	–	0.11	0.11
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.39	0.39
	0.50 to <0.75	–	–	–
	0.75 to <2.50	–	1.27	1.31
	2.50 to <10.00	–	–	–
	10.00 to <100.00	–	20.00	20.00
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**0.90**	**0.92**
Total		**–**	**0.87**	**0.87**

1) Only needs to be reported if Article 180 1f) CRR applied. This article is not applied at Helaba.
2) The historical default rate is calculated for 5 years and is based on borrowers who were in the portfolio at the beginning of a calendar year.

f		g	h	i
Number of obligors		**Defaulted obligors in the reporting period**	**Of which new obligors**	**Historical annual default rate in %[2)]**
Previous year	**Current year**			
1,153	1,200	1	1	0.05
295	345	0	0	0.03
529	486	4	1	1.28
167	172	1	0	1.49
283	199	6	3	1.16
49	60	0	0	2.81
974	906	2	2	0.60
115	98	29	3	0.46
3,565	**3,466**	**42**	**10**	**0.35**
0	6	0	0	0.00
1	1	0	0	0.00
0	0	0	0	0.00
–	–	–	–	–
1	5	1	0	0.98
–	–	–	–	–
1	2	0	0	0.00
1	1	0	0	0.00
4	**15**	**1**	**0**	**0.64**
9,569	**9,618**	**53**	**27**	**0.32**

EU CR9 – AIRB: Back-testing of PD per exposure class

a	b	c	d	e
Exposure classes	**PD band**	**External rating equivalent[1)]**	**Average PD in %**	**Average PD by obligors in %**
Exposure classes	0.00 to <0.15	–	0.08	0.07
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.32
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.28	1.31
	2.50 to <10.00	–	4.23	4.27
	10.00 to <100.00	–	19.06	19.09
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.71**	**1.72**
Retail – Secured by real estate, SME	0.00 to <0.15	–	0.06	0.06
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.31	0.31
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.33	1.29
	2.50 to <10.00	–	3.82	3.99
	10.00 to <100.00	–	17.32	18.91
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.68**	**1.69**
Retail – Qualifying revolving	0.00 to <0.15	–	0.04	0.04
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.32
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.29	1.31
	2.50 to <10.00	–	4.10	4.45
	10.00 to <100.00	–	20.26	22.40
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**1.13**	**1.18**
Retail – Other, SME	0.00 to <0.15	–	0.08	0.07
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.33
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.35	1.31
	2.50 to <10.00	–	4.31	4.31
	10.00 to <100.00	–	18.81	20.51
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**2.50**	**2.63**

	f	g	h	i
Number of obligors				
Previous year	Current year	Defaulted obligors in the reporting period	Of which new obligors	Historical annual default rate in %[2]
879	1,013	0	0	0.05
261	288	0	0	0.00
750	777	0	0	0.08
264	245	0	0	0.00
677	616	4	0	0.63
296	218	7	0	1.83
208	203	12	0	4.84
1	1	1	0	0.00
3,336	**3,361**	**24**	**0**	**0.54**
11,281	11,018	3	0	0.02
3,892	3,712	4	0	0.08
7,421	7,002	11	0	0.12
2,308	2,032	3	0	0.26
4,336	4,127	31	2	0.76
1,308	1,201	31	1	2.48
722	617	100	2	16.03
419	357	0	0	23.54
31,687	**30,066**	**183**	**5**	**0.64**
110,932	109,830	32	2	0.03
5,996	6,896	10	2	0.16
8,837	8,487	33	1	0.26
5,305	5,896	36	6	0.44
14,384	12,196	219	27	1.08
6,063	7,662	215	11	2.70
4,284	3,302	196	7	3.69
616	828	5	0	0.00
156,417	**155,097**	**746**	**56**	**0.28**
1,103	1,209	0	0	0.00
293	316	0	0	0.00
694	710	2	0	0.27
307	293	4	0	0.54
676	676	5	0	0.82
441	438	28	3	3.84
1,292	1,414	63	11	3.45
3	2	1	0	0.00
4,809	**5,058**	**103**	**14**	**1.00**

EU CR9 – AIRB: Back-testing of PD per exposure class

a	b	c	d	e
Exposure classes	**PD band**	**External rating equivalent**[1]	**Average PD in %**	**Average PD by obligors in %**
Retail – Other, non-SME	0.00 to <0.15	–	0.07	0.07
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.32	0.33
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.27	1.24
	2.50 to <10.00	–	3.99	4.35
	10.00 to <100.00	–	20.16	25.68
	100.00 (Default)	–	100.00	100.00
Subtotal		**–**	**2.99**	**3.07**
Total		**–**	**1.89**	**1.92**

[1] Only needs to be reported if Article 180 1f) CRR applied. This article is not applied at Helaba.
[2] The historical default rate is calculated for 5 years and is based on borrowers who were in the portfolio at the beginning of a calendar year.

f		g	h	i
Number of obligors				
Previous year	Current year	Defaulted obligors in the reporting period	Of which new obligors	Historical annual default rate in %[2)]
10,128	9,326	8	1	0.04
4,011	3,695	4	0	0.21
8,270	8,172	19	0	0.31
4,565	4,473	32	1	0.48
7,166	7,014	98	5	1.31
1,891	2,146	83	5	4.09
1,126	1,007	135	1	11.16
868	923	0	0	14.03
38,025	**36,756**	**379**	**13**	**0.96**
234,274	**230,338**	**1,435**	**88**	**0.66**

EU CR9 – AIRB: Back-testing of LGD per exposure class

in € m

Exposure classes	LGD band	Average LGD	Collateral value	Expected loss	LGD for the last year	Historical LGD
Retail – Secured by real estate, SME	0.00 to 15.00	–	–	–	–	–
	15.00 to 30.00	25.27	351	1	0.05	1.50
	30.00 to 45.00	35.62	100	1	0.00	0.19
	45.00 to 60.00	50.55	17	0	0.00	6.77
	60.00 to 75.00	66.34	1	0	2.87	12.62
	75.00 to 90.00	–	–	–	–	–
	90.00 to 100.00	–	–	–	–	–
Retail – Secured by real estate, non-SME	0.00 to 15.00	14.54	212	1	2.49	2.49
	15.00 to 30.00	23.75	1,856	5	2.75	3.71
	30.00 to 45.00	35.49	441	4	2.87	3.54
	45.00 to 60.00	50.42	76	2	1.59	8.03
	60.00 to 75.00	65.94	6	2	8.09	14.33
	75.00 to 90.00	85.14	0	1	57.69	40.82
	90.00 to 100.00	91.34	–	0	72.97	75.98
Retail – Qualifying revolving	0.00 to 15.00	–	–	–	–	–
	15.00 to 30.00	24.79	0	0	0.00	0.00
	30.00 to 45.00	38.07	0	0	0.00	0.00
	45.00 to 60.00	52.12	0	0	55.95	54.33
	60.00 to 75.00	65.02	–	2	65.64	44.83
	75.00 to 90.00	82.76	–	1	54.05	40.95
	90.00 to 100.00	90.31	–	0	84.74	85.47
Retail – Other, SME	0.00 to 15.00	–	–	–	–	–
	15.00 to 30.00	25.16	8	0	6.39	8.17
	30.00 to 45.00	32.90	6	0	3.87	21.35
	45.00 to 60.00	55.78	1	0	61.45	46.81
	60.00 to 75.00	67.91	0	3	22.63	51.28
	75.00 to 90.00	–	–	–	–	–
	90.00 to 100.00	–	–	–	–	–
Retail – Other, non-SME	0.00 to 15.00	14.54	4	0	0.00	0.00
	15.00 to 30.00	21.46	9	0	9.51	1.63
	30.00 to 45.00	34.60	33	2	15.30	17.21
	45.00 to 60.00	55.47	0	1	32.10	34.31
	60.00 to 75.00	68.13	0	6	45.91	41.09
	75.00 to 90.00	84.63	0	7	63.93	60.76
	90.00 to 100.00	90.18	–	2	62.00	59.11
Total		**38.87**	**3,123**	**43**	**15.87**	**15.22**

EU CR9 – AIRB: Back-testing of CCF per exposure class in € m

	31.12.2018		
Exposure classes	**Basis of measurement of off-balance-sheet exposures**	**Average CCF**	**Exposure value of off-balance-sheet exposures**
Retail – Secured by real estate, SME	25	68.22	17
Retail – Secured by real estate, non-SME	46	82.60	38
Retail – Qualifying revolving	753	64.33	484
Retail – Other, SME	127	64.46	82
Retail – Other, non-SME	204	86.77	177
Total	**1,155**	**69.12**	**798**

EU CR9 – AIRB: Back-testing of CCF per exposure class in € m

	31.12.2017		
Exposure classes	**Basis of measurement of off-balance-sheet exposures**	**Average CCF**	**Exposure value of off-balance-sheet exposures**
Retail – Secured by real estate, SME	24	68.92	17
Retail – Secured by real estate, non-SME	36	82.20	29
Retail – Qualifying revolving	755	64.25	485
Retail – Other, SME	141	63.37	90
Retail – Other, non-SME	185	86.44	160
Total	**1,142**	**68.40**	**781**

EU CR9 – AIRB: Back-testing of CCF per exposure class in € m

	31.12.2016		
Exposure classes	**Basis of measurement of off-balance-sheet exposures**	**Average CCF**	**Exposure value of off-balance-sheet exposures**
Retail – Secured by real estate, SME	31	61.14	19
Retail – Secured by real estate, non-SME	33	81.18	27
Retail – Qualifying revolving	769	63.35	487
Retail – Other, SME	122	55.90	68
Retail – Other, non-SME	197	86.09	169
Total	**1,151**	**66.90**	**770**

The table below compares actual losses and expected losses (EL) for portfolios handled under the IRBA as at 31 December 2018 and as at the same date in the two previous years. Actual losses are defined as the sum of the utilisation of specific loan loss allowances and provisions, plus direct write-offs, less recoveries on loans and advances previously written off. The EL shown is the EL calculated in accordance with the stipulations of the IRB Approach for the portfolio of loans not in default (excluding securities and derivatives).

Actual losses rose by approximately € 31 m from 31 December 2016 to 31 December 2017. These changes resulted primarily from the utilisation of specific loan loss allowances in ship finance in the "Corporates – Specialised lending exposures" exposure class, and in real estate and ship finance in the "Corporates – Other" exposure class. The EL fell marginally over the same period by approximately € 15 m. The decrease affected exposures in the three "Corporates" IRB exposure classes more or less equally. Between 31 December 2017 and 31 December 2018, the actual losses fell by around € 234 m, whereas the expected loss rose by € 12 m. Approximately € 5 m of the EL increase was attributable to the end of the grandfathering for equity investments as at 1 January 2018; the remainder was distributed over various exposure classes. The fall in actual losses was largely the result of the reduction in the non-performing shipping portfolio, which had been initiated in prior years and was for the most part completed in 2018, and the continuation in the favourable economic conditions with low default rates by historical standards. This effect is evident in the Corporates – Specialised lending exposures and Corporates – Other exposure classes.

Article 452 CRR – Actual losses versus expected loss in lending business in € m

	31.12.2018		31.12.2017		31.12.2016	
Exposure classes	**Losses**	**Expected loss**	**Losses**	**Expected loss**	**Losses**	**Expected loss**
Central governments or central banks	0	0	0	0	0	0
Institutions	0	2	0	2	0	2
Corporates	44	121	276	117	245	130
thereof: Specialised lending exposures	28	60	204	58	182	61
thereof: SME	0	13	0	12	3	17
thereof: Other	15	48	72	46	60	52
Retail	1	16	2	14	2	16
thereof: Secured by real estate	0	7	0	6	1	8
thereof: SME	0	3	0	3	0	3
thereof: Qualifying revolving	0	2	0	2	0	2
thereof: Other	0	7	1	6	1	6
thereof: SME	0	3	0	3	0	2
IRBA equity exposures	0	7	0	2	0	0
Total	**44**	**146**	**278**	**134**	**247**	**149**

Equity Investments in the Banking Book

Helaba's equity investments portfolio contains both strategic and operating equity investments. Strategic equity investments here are corporate relationships established first and foremost not in pursuit of profit through the particular relationship in and of itself but rather for reasons of business policy or business area positioning or similar (with immediate financing concerns never a key factor). The strategic equity investments are broken down into primary and other strategic equity investments. All equity investments associated with lending and/or credit substitutes, in contrast, are classified as operating equity investments. This also applies in respect of equity investments held indirectly through subsidiaries.

Companies to be fully consolidated or accounted for using the equity method in accordance with IFRS are included in the consolidated financial statements with their contributions in accordance with the accounting method shown in the "Outline of the differences in the scopes of consolidation" table. Holdings in companies that are not consolidated are accounted for under IFRS at fair value.

The recoverability of the equity investments portfolio as held is monitored continuously by the relevant front office units and all of Helaba's direct equity investments are subjected to a standard impairment test for the purposes of the annual financial statements, taking into account the principle of materiality. Risk classification for equity investments using a traffic signal method is carried out as part of this testing. Selected equity investments are remeasured twice a year, on 30 June and 31 December.

For regulatory purposes, an exposure value of € 2,194 m is reported in the "Equity investments" exposure class. Exposures reported under the exposure class "higher risk categories" are included in the section entitled Credit Risk.

Article 447 CRR – Type of equity investment instrument

in € m

	Exposure value, on balance sheet	**Exposure value, off balance sheet**
Exchange-traded equity exposures	44	–
Private equity exposures in sufficiently diversified portfolios	432	115
Other equity exposures	1,602	1
Total	**2,078**	**116**

The PD/LGD approach is generally used at Helaba for equity investments. The IRBA simple risk-weighting method is used for equity investments if no rating has been approved for IRBA purposes.

Total unrealised gains and losses amounted to € 467.6 m as at 31 December 2018. As at the reporting date, there were no latent remeasurement gains or losses or other amounts of this nature included in Common Equity Tier 1 capital. For more detailed information on equity investment exposures, please refer to Notes (4) – (8), (17), (28) and (31) et seq. of the Notes to the Consolidated Financial Statements in the Annual Report.

Counterparty Credit Risk (CCR)

The counterparty credit risk exposure resulting from derivatives amounted to € 7,855 m at 31 December 2018. This exposure is calculated using the mark-to-market method only.

EU CCR1 – Analysis of CCR exposure by approach (excluding exposures to CCPs) in € m

		a	b	c	d	e	f	g
		Notional	**Replace-ment cost/ current market[1)]**	**Potential future credit exposure[1)]**	**Effective expected positive exposure (EEPE)**	**Multiplier**	**Exposure value**	**RWAs**
1	Mark to market		11,106	1,827			7,167	989
2	Original exposure	–					–	–
3	Standardised method		–			–	–	–
4	Internal model method (for derivatives and SFTs)			–	–	–	–	–
5	Of which securities financing transactions (SFTs)			–	–	–	–	–
6	Of which derivatives and long settlement transactions			–	–	–	–	–
7	Of which from contractual cross-product netting			–	–	–	–	–
8	Financial collateral simple method (for SFTs)						–	–
9	Financial collateral compre-hensive method (for SFTs)						–	–
10	VaR for SFTs						–	–
11	**Total**							**989**

[1] Shown for positive fair values

In the standardised approach, the distribution of the counter-party credit risk exposure (before/after credit risk mitigation) by exposure class and risk weight is as follows:

EU CCR3 – Standardised approach: CCR exposures by regulatory portfolio and risk (after credit risk mitigation) in € m

		Risk weight						
	Exposure classes	**0 %**	**2 %**	**4 %**	**10 %**	**20 %**	**35 %**	**50 %**
1	Central governments or central banks	–	–	–	–	–	–	–
2	Regional governments or local authorities	–	–	–	–	–	–	–
3	Public-sector entities	172	–	–	–	–	–	–
4	Multilateral development banks	–	–	–	–	–	–	–
5	International organisations	–	–	–	–	–	–	–
6	Institutions	1,386	646	–	–	44	–	0
7	Corporates	0	–	–	–	–	–	–
8	Retail	–	–	–	–	–	–	–
	Exposures secured by real estate	–	–	–	–	–	–	–
	Exposures in default	–	–	–	–	–	–	–
	Higher risk categories	–	–	–	–	–	–	–
	Covered bonds	–	–	–	–	–	–	–
9	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
	Equity exposures	–	–	–	–	–	–	–
10	Other exposures	–	–	–	–	–	–	–
11	**Total standardised approach exposure value after credit risk mitigation**	**1,558**	**646**	**–**	**–**	**44**	**–**	**0**

EU CCR3 – Standardised approach: CCR exposures by regulatory portfolio and risk (after credit risk mitigation) in € m

		Risk weight						
	Exposure classes	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1,250%**
1	Central governments or central banks	–	–	–	–	–	–	–
2	Regional governments or local authorities	–	–	–	–	–	–	–
3	Public-sector entities	–	–	–	–	–	–	–
4	Multilateral development banks	–	–	–	–	–	–	–
5	International organisations	–	–	–	–	–	–	–
6	Institutions	–	–	–	–	–	–	–
7	Corporates	–	–	40	–	–	–	–
8	Retail	–	2	0	–	–	–	–
	Exposures secured by real estate	–	–	–	–	–	–	–
	Exposures in default	–	–	–	–	–	–	–
	Higher risk categories	–	–	–	–	–	–	–
	Covered bonds	–	–	–	–	–	–	–
9	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
	Equity exposures	–	–	–	–	–	–	–
10	Other exposures	–	–	–	–	–	–	–
11	**Total standardised approach exposure value after credit risk mitigation**	**–**	**2**	**40**	**–**	**–**	**–**	**–**

EU CCR3 – Standardised approach: CCR exposures by regulatory portfolio and risk (after credit risk mitigation) in € m

	Exposure classes	Other	Capital deduction	Total	Of which unrated
1	Central governments or central banks	–	–	–	–
2	Regional governments or local authorities	–	–	–	–
3	Public-sector entities	–	–	172	–
4	Multilateral development banks	–	–	–	–
5	International organisations	–	–	–	–
6	Institutions	–	–	2,076	15
7	Corporates	–	–	41	41
8	Retail	–	–	2	2
	Exposures secured by real estate	–	–	–	–
	Exposures in default	–	–	–	–
	Higher risk categories	–	–	–	–
	Covered bonds	–	–	–	–
9	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
	Collective investment undertakings (CIU)	–	–	–	–
	Equity exposures	–	–	–	–
10	Other exposures	–	–	–	–
11	**Total standardised approach exposure value after credit risk mitigation**	**–**	**–**	**2,290**	**58**

The additional details in the following table are included to meet the requirement in Article 444 e) CRR for a comparative presentation of exposure values before and after credit risk mitigation.

Article 444 CRR – Standardised approach: CCR exposures by regulatory portfolio and risk (before credit risk mitigation)

Exposure classes	**0 %**	**2 %**	**4 %**	**10 %**	**20 %**	**35 %**	**50 %**
Central governments or central banks	–	–	–	–	–	–	–
Regional governments or local authorities	–	–	–	–	–	–	–
Public-sector entities	207	–	–	–	–	–	–
Multilateral development banks	–	–	–	–	–	–	–
International organisations	–	–	–	–	–	–	–
Institutions	1,007	646	–	–	211	–	25
Corporates	43	–	–	–	–	–	–
Retail	–	–	–	–	–	–	–
Exposures secured by real estate	–	–	–	–	–	–	–
Exposures in default	–	–	–	–	–	–	–
Higher risk categories	–	–	–	–	–	–	–
Covered bonds	–	–	–	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–	–	–	–
Equity exposures	–	–	–	–	–	–	–
Other exposures	–	–	–	–	–	–	–
Total standardised approach exposure value before credit risk mitigation	**1,257**	**646**	**–**	**–**	**211**	**–**	**25**

in € m

							Risk weight		
70 %	75 %	100 %	150 %	250 %	370 %	1,250 %	Other	Capital deduction	Total
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	207
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	1,889
–	–	95	–	–	–	–	–	–	138
–	99	0	–	–	–	–	–	–	99
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	**99**	**95**	**–**	**–**	**–**	**–**	**–**	**–**	**2,334**

The distribution of counterparty credit risk exposure in the IRB approach by exposure class and PD band is as follows:

EU CCR4 – FIRB approach: CCR exposures by portfolio and PD scale

		a	b
Exposure classes	**PD band**	**Exposure value**	**Average PD in %**
Central governments or central banks	0.00 to <0.15	2,957	0.00
	0.15 to <0.25	–	–
	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)	–	–
Subtotal		**2,957**	**0.00**
Institutions	0.00 to <0.15	914	0.06
	0.15 to <0.25	190	0.17
	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)	–	–
Subtotal		**1,104**	**0.08**
Corporates – Specialised lending exposures	0.00 to <0.15	353	0.07
	0.15 to <0.25	24	0.17
	0.25 to <0.50	284	0.35
	0.50 to <0.75	41	0.59
	0.75 to <2.50	55	0.91
	2.50 to <10.00	8	3.12
	10.00 to <100.00	–	–
	100.00 (Default)	3	100.00
Subtotal		**768**	**0.73**
Corporates – SME	0.00 to <0.15	0	0.09
	0.15 to <0.25	2	0.17
	0.25 to <0.50	0	0.28
	0.50 to <0.75	–	–
	0.75 to <2.50	–	–
	2.50 to <10.00	–	–
	10.00 to <100.00	–	–
	100.00 (Default)	–	–
Subtotal		**3**	**0.18**

in € m

c	d	e	f	g
Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %
112	45.00	2.50	0	0.01
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
112	**45.00**	**2.50**	**0**	**0.01**
59	45.00	2.50	249	27.28
3	45.00	2.50	85	44.71
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
62	**45.00**	**2.50**	**334**	**30.28**
92	43.99	2.50	89	25.18
29	41.28	2.50	9	39.46
88	44.17	2.50	174	61.35
16	44.04	2.50	31	77.44
18	36.18	2.50	41	75.74
4	44.78	2.50	11	136.56
–	–	–	–	–
2	45.00	2.50	–	–
249	**43.43**	**2.50**	**357**	**46.48**
1	45.00	2.50	0	28.38
2	45.00	2.50	1	34.01
3	45.00	2.50	0	44.27
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
6	**45.00**	**2.50**	**1**	**34.78**

EU CCR4 – FIRB approach: CCR exposures by portfolio and PD scale

		a	b
Exposure classes	**PD band**	**Exposure value**	**Average PD in %**
Corporates – Other	0.00 to <0.15	546	0.08
	0.15 to <0.25	62	0.17
	0.25 to <0.50	97	0.30
	0.50 to <0.75	18	0.59
	0.75 to <2.50	4	0.98
	2.50 to <10.00	3	2.96
	10.00 to <100.00	3	20.00
	100.00 (Default)	1	100.00
Subtotal		**734**	**0.31**
IRBA equity exposures	**Subtotal**	**–**	**–**
Total		**5.565**	**0.16**

EU CCR4 – AIRB approach: CCR exposures by portfolio and PD scale

		a	b
Exposure classes	**PD band**	**Exposure value**	**Average PD in %**
Retail – Secured by real estate, SME	**Subtotal**	**–**	**–**
Retail – Secured by real estate, non-SME	**Subtotal**	**–**	**–**
Retail – Qualifying revolving	**Subtotal**	**–**	**–**
Retail – Other, SME	**Subtotal**	**–**	**–**
Retail – Other, non-SME	0.00 to <0.15	0	0.07
	0.15 to <0.25	–	–
	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)	–	–
Subtotal		**0**	**0.07**
Total		**0**	**0.07**

Helaba does use credit derivatives to protect counterparty credit risk exposures as part of its risk mitigation efforts, but such products account for only a small proportion of its overall collateral arrangements. There were no exposures collateralised with credit derivatives on the reporting date.

The following table shows exposures in the banking book that mitigate credit risk. As at 31 December 2018, there were no credit derivative transactions in connection with intermediation activities as specified in Article 439 h) CRR.

in € m

c	d	e	f	g
Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %
132	44.34	2.50	146	26.67
39	45.00	2.50	27	43.44
46	44.57	2.50	52	53.10
5	45.00	2.50	15	79.13
11	45.00	2.50	4	96.32
1	45.00	2.50	4	135.68
26	45.00	2.50	8	252.53
3	45.00	2.50	–	–
263	**44.45**	**2.50**	**254**	**34.60**
–	**–**	**–**	**–**	**–**
692	**44.71**	**2.50**	**946**	**17.00**

in € m

c	d	e	f	g
Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %
–	**–**	**–**	**–**	**0.00**
–	**–**	**–**	**–**	**0.00**
–	**–**	**–**	**–**	**0.00**
–	**–**	**–**	**–**	**0.00**
1	64.25	2.50	0	12.96
–	–	–	–	0.00
–	–	–	–	0.00
–	–	–	–	0.00
–	–	–	–	0.00
–	–	–	–	0.00
–	–	–	–	0.00
–	–	–	–	0.00
1	**64.25**	**2.50**	**0**	**12.96**
1	**64.25**	**2.50**	**0**	**12.96**

EU CCR6 – Overview of credit derivatives exposures in € m

	a	b	c
	Credit derivative hedges		
Own portfolio	**Protection bought**	**Protection sold**	**Other credit derivatives**
Notionals			
Single-name credit default swaps (CDSs)	–	–	–
Index credit default swaps (CDSs)	–	–	–
Total return swaps	–	–	–
Credit options	–	–	–
Other credit derivatives	–	–	10,000
Total notionals	**–**	**–**	**10,000**
Fair values			
Positive fair value (asset)	**–**	**–**	**0**
Negative fair value (liability)	**–**	**–**	**0**

Capital is allocated internally to default risks from derivatives in accordance with the capital allocation process explained in the section "Own Funds and Own Funds Structure". Derivative exposures with each counterparty are limited as part of the internal counterparty-specific default risk containment and monitoring processes. Since the beginning of 2017, risk exposures for derivatives on a transaction-by-transaction basis have been determined using an internal derivatives measurement method. Helaba does not avail itself of the possibility of taking into account interactions/correlation effects between the risk types as a way of mitigating risk.

Since October 2012, Helaba has cleared its OTC interest rate derivatives business through LCH.Clearnet in London. Since July 2017, CDS transactions have been cleared through a clearing member of ICI Europe. The requirements arising from the European Market Infrastructure Regulation (EMIR) are therefore being satisfied. In order to expand business activities with customers and counterparties, Helaba has also been a clearing member for OTC interest rate derivatives at Eurex since September 2017.

The following table shows Helaba's exposures to central counterparties (CCPs).

EU CCR8 – Exposures to CCPs

in € m

		a	b
		Exposure value	**RWAs**
1	**Exposures to qualified CCPs (total)**		**145**
2	Exposures for trades with qualified CCPs (excluding initial margin and default fund contributions), of which	688	21
3	(i) OTC derivatives	624	12
4	(ii) Exchange-traded derivatives	28	2
5	(iii) Securities financing transactions (SFTs)	37	7
6	(iv) Contractual cross-product netting	–	–
7	Insolvency-protected (segregated) initial margin	–	
8	Not insolvency-protected (not segregated) initial margin	637	13
9	Prefunded default fund contributions[1]	65	111
10	Alternative calculation of own funds requirements for exposures		–
11	**Exposures to non-qualified CCPs (total)**		**–**
12	Exposures for trades with non-qualified CCPs (excluding initial margin and default fund contributions), of which	–	–
13	(i) OTC derivatives	–	–
14	(ii) Exchange-traded derivatives	–	–
15	(iii) Securities financing transactions (SFTs)	–	–
16	(iv) Contractual cross-product netting	–	–
17	Insolvency-protected (segregated) initial margin	–	
18	Not insolvency-protected (not segregated) initial margin	–	–
19	Prefunded default fund contributions[1]	–	–
20	Unfunded default fund contributions	–	–

[1] In contrast to the previous year, capital backing for the prefunded default fund contribution in accordance with Article 308 (4) CRR.

The net exposure is calculated daily for each individual counterparty and compared with the accepted value of the collateral provided. Collateral netting is conducted taking into account the exemptions and minimum transfer amounts that have been contractually defined subject to the creditworthiness of the counterparty. Exposures are protected with cash collateral. The relevant collateral amounts are calculated automatically in an application system that obtains the contract parameters from a contract database and the necessary market values directly from the trading system in which they are maintained.

Processes and procedures are detailed in full in a Collateral Policy. The Helaba Best Practice contains the standard clauses approved at Helaba for collateral agreements (eligible collateral, haircuts, etc.).

EU CCR5-A – Impact of netting and collateral held on exposure values | in € m

		a	b	c	d	e
		Positive fair value before netting	**Effects of netting**	**Positive fair value after netting**	**Collateral held**	**Positive fair value after netting and collateral held (net credit exposure)**
1	Derivatives and long settlement transactions	13,798	8,053	5,745	1,833	3,912
2	Securities financing transactions	–	–	–	–	–
3	Contractual cross-product netting	–	–	–	–	–
4	**Total**	**13,798**	**8,053**	**5,745**	**1,833**	**3,912**

EU CCR5-B – Composition of collateral for exposures to CCR | in € m

	a	b	c	d	e	f
	Collateral used in derivatives and long settlement transactions				**Collateral used in SFTs**	
	Fair value of collateral received		**Fair value of posted collateral**[1]			
	Insolvency-protected	**Not insolvency-protected**	**Insolvency-protected**	**Not insolvency-protected**	**Fair value of collateral received**	**Fair value of posted collateral**
Cash contribution in €	1,779	–	–	3,321	–	–
Cash contribution in other currencies	131	–	–	–	–	–
Debt securities, central governments, Germany	–	–	–	186	–	–
Debt securities, central governments, other countries	–	–	–	451	–	–
Debt securities, central governments, other public authorities	–	–	–	–	–	–
Debt securities, corporates	–	–	–	–	–	–
Equity securities, corporates	–	–	–	–	–	–
Other	–	–	–	–	–	–
Total	**1,911**	**–**	**–**	**3,958**	**–**	**–**

[1] The furnished collateral is offset against the associated negative fair values of derivatives and the remaining amount is backed by own funds.

The additional amount of collateral to be provided by Helaba in he event of a possible rating downgrade is simulated at regular intervals on the basis of the contract parameters. If the amount concerned is found to be significant in terms of Helaba's liquidity management, it can then be included accordingly in bank-wide liquidity risk scenarios. Currently, however, the amounts involved, which are associated primarily with a reduction in the minimum transfer amounts (MTA) for Helaba, remain negligible.

Own funds requirements for credit valuation adjustment (CVA) risk are calculated in accordance with Article 381 CRR. This article defines credit valuation adjustment as an adjustment to the mid-market valuation of the portfolio of transactions with a counterparty. This adjustment reflects the current market value of the credit risk of the counterparty to the institution, but does not reflect the current market value of the credit risk of the institution to the counterparty.

EU CCR2 – CVA capital charge

in € m

		a	b
		Exposure value	**RWAs**
1	CVA risk subject to the advanced method	–	–
2	(i) VaR component (including the multiplier)	–	–
3	(ii) sVaR component (including the multiplier)	–	–
4	CVA risk subject to the standardised method	1,101	676
EU4	CVA risk based on the original exposure method	–	–
5	Total CVA risk	1,101	676

Securitisations

Objectives and scale of securitisation exposures and functions performed

Helaba engages in securitisation business primarily in order to provide attractive finance options for its target customers. It does not purchase asset-backed securities outside of its target customer business. Helaba has yet to securitise any of its own assets, meaning that it has so far performed the functions of investor and sponsor (the OPUSALPHA and OPUSDELTA own special purpose vehicles) but not that of originator. In its securitisation business, Helaba invests primarily in credit products, provides liquidity facilities for its own special purpose vehicles and purchases assets from target customers. It assumes no risks in connection with securitisation activities outside of the risk types indicated in the "Risk Strategy and Risk Management" section. No implicit support as defined in Article 248 CRR has been provided.

Methods used to calculate the risk-weighted exposure amounts including types of securitisation exposure

The approaches employed by Helaba in order to ensure compliance with regulatory own funds requirements in respect of securitisation transactions are set out below. Also shown are the asset types included in the securitisation portfolio under each of the approaches at 31 December 2018.

The new securitisation framework in accordance with Regulation (EU) 2017/2401 came into force on 1 January 2019. Helaba has elected to make use of the regulation's transitional rules for 2019, whereby the previous securitisation approaches in accordance with the CRR may continue to be applied up to and including 31 December 2019 for the existing business as at 31 December 2018, subject to certain provisos.

Article 449 CRR – Approaches used for securitisation transactions

Approach	Securitisation approach	Asset type
CRSA	Risk concentration rate with average risk weight	Trade receivables
		Consumer credit
		Other
	Qualifying liquidity facilities	Currently not applicable
	Second-loss or better ABCP positions	Currently not applicable
IRB	Ratings-based approach	Residential real estate
		Other
	Internal Assessment Approach (IAA)	Trade receivables
		Lease receivables
		Loans to corporates
	Loans to corporates	Currently not applicable
	Supervisory Formula Approach (SFA)	Trade receivables
		Lease receivables
		Loans to corporates
		Other

Except for securitisation exposures at FSP, securitisations with underlying assets from the retail sector were handled using CRSA variants as at 31 December 2018. For all other securitisation transactions, the IRB Approach risk weight is determined using the applicable methods insofar as they fall within the scope of application. Helaba does not avail itself of the fallback solution for qualifying liquidity facilities that is permitted under the CRR.

Helaba uses the following rating agencies, which were recognised by BaFin for risk weighting in connection with bank regulation in June 2007:

- Standard & Poor's
- Moody's Investors Service
- Fitch Ratings

These rating agencies are used for all of the asset types referred to above.

Processes employed to monitor changes in securitisation exposures and their recoverability

A defined process documented in the internal procedural instruction system ensures that all relevant data and documents of significance – especially such data and documents relating to the monitoring of how changes in the securitised assets affect the recoverability of the securitisation exposures – are procured, analysed and evaluated promptly on a continuous basis both prior to any investment in a securitisation and for existing exposures.

The front office unit concerned is in principle responsible for procuring the necessary data and additional information, which is then assessed by the organisational unit responsible for credit processing. The office whose approval is required under the standard process verifies the adequacy of the analysis and evaluation in the course of deciding whether or not to approve the transaction.

Should data and additional information of significance for the analysis and evaluation of the securitisation be unavailable, new investments may not be made and existing exposures may not be maintained. The data and additional information procured, the assessment results and, where applicable, the decisions made and/or measures adopted in the context of the assessment are documented with a full audit trail in the credit file.

The same process applies analogously to resecuritisation exposures.

Quantitative disclosures concerning securitisation exposures

The tables below show the total volume of the Helaba Group's securitisation exposures (in its role as investor and sponsor) in the banking book and in the trading book broken down by underlying asset type and risk weight band. As at 31 December 2018, there were no resecuritisation exposures in the portfolio.

Article 449 CRR – Total volume of securitisation exposures by asset type — in € m

			Securitisations						
			Residential real estate	**Current trade receivables**	**Lease receivables**	**Loans to corporates**	**Consumer credit**	**Other**	**Total**
Own special purpose vehicles	Banking book	On balance sheet	–	759	598	219	–	350	1,926
		Off balance sheet	–	174	343	205	–	58	780
	Trading book	Derivatives	–	–	–	5	–	–	5
Liquidity lines for ABCP programmes/EETC financing for third-party special purpose vehicles	Banking book	Off balance sheet	–	–	56	144	–	–	199
Other securitisation exposures (e.g. purchases of target customer receivables)	Banking book	On balance sheet	–	2,447	293	482	597	158	3,976
		Off balance sheet	–	361	12	0	6	22	401
	Trading book	Derivate	–	–	1	1	–	–	3
Securities	Trading book	On balance sheet	8	–	–	–	–	16	24
Total			**8**	**3,740**	**1,303**	**1,057**	**602**	**604**	**7,314**

Article 449 CRR – Total volume of securitisation exposures by risk weight band

		Securitisations		
Risk weight band		**Total volume**	**Own funds requirement, SA**	**Own funds requirement, IRB**
≤10 %	Banking book	4,614	0	24
	Trading book	8	–	0
>10 % to <20 %	Banking book	998	–	10
	Trading book	–	–	–
≥20 % to <50 %	Banking book	88	–	2
	Trading book	–	–	–
≥50 % to <100 %	Banking book	1,561	84	9
	Trading book	–	–	–
≥100 % to <850 %	Banking book	35	–	4
	Trading book	–	–	–
≥850 % to <1,250 %	Banking book	–	–	–
	Trading book	–	–	–
1,250 %/Capital deduction	Banking book	10	0	10
	Trading book	–	–	–
Total		**7,314**	**84**	**59**

Material changes in the securitisation positions as compared with the previous year are the result of new business with target customers.

Helaba acts as sponsor for the securitisation special purpose vehicles OPUSALPHA and OPUSDELTA. The portfolio of OPUSALPHA, a special purpose vehicle for a hybrid ABCP programme, consists partly of receivables that have been purchased by customers and partly of asset-backed securities. OPUSDELTA is a credit-financed special purpose vehicle through which receivables from goods and services are securitised.

The table below shows the nature and extent of Helaba's securitisation exposures in respect of its own special purpose vehicles as investor or sponsor. All of the exposures apart from interest rate and currency swaps are banking book exposures.

Article 449 CRR – Total volume of securitisation exposures in respect of own special purpose vehicles in € m

			Securitisations						
			Residential real estate	**Current trade receivables**	**Lease receivables**	**Loans to corporates**	**Consumer credit**	**Other**	**Total**
Sponsor	Banking book	On balance sheet	–	759	430	219	–	350	1,759
		Off balance sheet	–	174	343	205	–	58	780
	Trading book	Derivatives	–	–	–	5	–	–	5
Total			**–**	**933**	**773**	**430**	**–**	**408**	**2,543**

Internal assessment models (IAA)

Helaba has two internal assessment models, both of which are based on the related methodology of rating agency Standard & Poor's.

The scope of application encompasses securitisations and purchases of a company's receivables from the sale of products or the provision of services ("trade") and also other securitisations and purchases of loans and lease receivables (including transactions with a small proportion of outstanding receivables).

The model used to assess trade receivables looks initially at the risks arising from the underlying portfolio and the transaction-specific payment guarantee structures. The portfolio default risks are calculated here by a method analogous to that used by Standard & Poor's. The risk associated with the payment guarantee structures and major individual borrowers and credit insurance arrangements is estimated, moreover, and the commingling risk and dilution risk are considered via expert appraisals.

The model used for loans and lease receivables analyses the risks of the portfolio and transaction-specific payment guarantee structures and also the seller risk, which is essentially dominated by the servicer risk. The portfolio default risks are determined on the basis of monthly or annual default rates using the corresponding Standard & Poor's stress factors. The risk associated with the payment guarantee structures and major individual borrowers is also analysed. The seller risk is determined by means of a flat-rate estimate of the servicer risk in combination with the rating of the seller.

The regulatory capital charge is calculated with reference to the internal assessment approach if the transaction belongs to an ABCP programme and the underlying asset type is subject to the IRB approach. The internal assessment models are also applied in the context of the internal lending process. This applies to transactions in ABCP programmes and non-ABCP programmes in which the underlying asset type is subject to the Standardised Approach at Helaba. In the case of transactions that do not belong to an ABCP programme and in which the underlying asset type is subject at Helaba to the IRBA, the one-year loss disregarding credit enhancements can be determined using the internal assessment model for use in calculating KIRB. The regulatory own funds requirement is then ascertained under the SFA.

Helaba has implemented the mechanisms detailed below in relation to the use of the internal assessment model and the verification of its suitability.

Helaba implements the rating method with the same IT environment used for its other internal rating systems, so here too compliance with all process-related requirements, such as the application of the double verification principle, is assured.

- Initial processing is handled by the front office unit in the case of new business involving complex financing arrangements and by Credit Risk Management (CRM) in the case of business with existing customers and more straightforward financing arrangements.
- Responsibility for follow-up processing in the case of new business rests with whichever of CRM and the front office unit did not perform initial processing. CRM always handles follow-up processing in the case of business with existing customers.
- The subsequent technical release of the rating in LB-Rating simultaneously determines the default rating grade and is always performed by CRM.

The independent validation unit within Risk Controlling performs and documents a validation of the two internal assessment models using the proprietary validation concept annually in order to verify their suitability. This process includes a comparison of the current Helaba methodology with the related publications from Standard & Poor's as well as discussions with the Group's own analysts. The results are subject to review by Internal Audit.

The internal assessment model for trade receivables assigns the portfolio risk for this asset type with reference to the relevant stress factors published by Standard & Poor's. Similarly, the internal assessment model for loans and lease receivables makes use of the relevant set of stress factors published in respect of receivables from automobile loans and automobile leasing as well as equipment leasing.

Market Risk

Standardised Method

Although the Helaba Group uses the internal model to calculate the regulatory own funds requirements for general interest rate risk, it relies on the standardised method to calculate the RWAs and the own funds requirements for its other market risks in the trading book.

EU MR1 – Market risk in accordance with the standardised method | in € m

		a	b
		RWAs	**Own funds requirement**
	Simple products		
1	Interest rate risk (general and specific)	1,264	101
2	Equity risk (general and specific)	26	2
3	Currency risk	279	22
4	Commodity risk	5	0
	Options		
5	Simplified approach	–	–
6	Delta-plus method	–	–
7	Scenario approach	6	1
8	Securitisation (specific risk)	–	–
9	**Total**	**1,581**	**126**

Internal Model

All market risks are quantified every day using a money-at-risk (MaR) method backed up by stress tests and sensitivity analyses. The MaR specifies what is deemed, with a certain confidence level, to be the upper threshold of the potential loss of a portfolio or position due to market fluctuations within a prescribed holding period.

Helaba calculates the regulatory own funds required for the general interest rate risk using an internal model in accordance with the CRR for Helaba Bank. This model, which consists of the risk measurement systems $MaRC^2$ (linear interest rate risk) and ELLI (interest rate option risk), has been approved by the banking supervisor.

EU MR2-A – Market risk under the IMA

in € m

		a	b
		RWAs	**Own funds requirement**
1	**VaR** (the higher of a) and b))	**694**	**56**
a)	Previous day's VaR (Article 365 (1) CRR (VaRt-1))		17
b)	Average of the daily VaR on each of the preceding 60 business days (Article 365 (1) CRR) (VaRavg) x multiplication factor (mc) in accordance with Article 366 CRR		56
2	**sVaR** (the higher of a) and b))	**1,276**	**102**
a)	Latest sVaR (Article 365 (2) CRR (sVaRt-1))		31
b)	Average of the daily sVaR on each of the preceding 60 business days (Article 365 (2) CRR) (sVaRavg) x multiplication factor (ms) in accordance with Article 366 CRR		102
3	Incremental risk charge – **IRC** (the higher of a) and b))	–	–
a)	Most recent IRC value (additional default and migration risks, calculated in accordance with Articles 370 and 371 CRR)		–
b)	Average of the IRC value over the preceding 12 weeks		–
4	**Comprehensive risk measure** (higher of values a, b and c)	–	–
a)	Most recent risk measure number for the correlation trading portfolio (Article 377 CRR)		–
b)	Average of the risk measure number for the correlation trading portfolio over the preceding 12 weeks		–
c)	8 % of the own funds requirement in the standardised approach for the most recent risk measure number for the correlation trading portfolio (Article 338 (4) CRR)		–
5	**Other**	**–**	**–**
6	**Total**	**1,970**	**158**

The changes in RWAs under the internal model between 30 September 2018 and 31 December 2018 are presented below.

EU MR2-B – Market risk under the IMA

in € m

		a	b	c	d	e	f	g
		VaR	**sVaR**	**IRC**	**Internal model for correlation trading activities**	**Other**	**RWAs**	**Own funds requirement**
1	**RWAs at previous quarter-end**	**770**	**1,377**	**–**	**–**	**–**	**2,146**	**172**
1a	Regulatory adjustments[1]	530	935	–	–	–	1,466	117
1b	RWAs at previous quarter-end (end of the day)	239	441	–	–	–	681	54
2	Movement in risk levels	–49	–43	–	–	–	–92	–7
3	Model updates/changes	–	–	–	–	–	–	–
4	Methodology and policy changes	–	–	–	–	–	–	–
5	Acquisitions and disposals	–	–	–	–	–	–	–
6	Foreign exchange movements	–0	–0	–	–	–	–0	–0
7	Other	23	–10	–	–	–	13	1
8a	RWAs at current quarter-end (end of the day)	213	388	–	–	–	602	48
8b	Regulatory adjustments[1]	481	887	–	–	–	1,369	109
8	**RWAs at the end of the current quarter**	**694**	**1,276**	**–**	**–**	**–**	**1,970**	**158**

[1] Shows the difference between previous quarter RWAs and previous quarter RWAs (end of day), and current RWAs and current RWAs (end of day).

The changes in RWAs compared with the previous quarter are mainly attributable to changes in exposures in normal trading activities and to other effects. The other effects include changes attributable to movements in market interest rates, which decreased during the fourth quarter of 2018, regular monthly updates of the statistical parameters for the MaR as well as a switch in the periods used for the crisis scenario in the stressed MaR.

The linear interest rate risk is measured on the basis of a variance-covariance approach, while the interest rate option risk is calculated using a Monte Carlo simulation. Country- and rating-dependent government, financials and corporate yield curves are also used alongside swap and Pfandbrief curves for evaluation purposes in the context of linear risk measurement. Both risk measurement systems are based on the same statistical parametrisation laid down by the banking supervisor (one-tailed confidence level of 99 %, holding period of ten trading days, historical observation period of one year), which is used for both regulatory purposes and internal management. Historically observed values (with equal weightings) are factored into the calculation of the statistical parameters, which are updated monthly. A mixed approach comprising relative and absolute changes is used to model the risk factors. The ten-day MaR is calculated directly, i.e. without applying any scaling. Helaba also uses the same methodology to determine a stressed MaR (money-at-risk in a crisis scenario). The stressed MaR reflects the risk from the present exposure using risk parameters (volatilities, correlations) from the most significant one-year stress period in the past – currently those from the crisis in the eurozone in 2012. The table below shows the trading book interest rate risks for Helaba Bank for the second half of financial year 2018.

EU MR3 – IMA values for trading portfolios

		a
VaR (10 day 99 %)		
1	Maximum value	23.6
2	Average value	18.5
3	Minimum value	15.4
4	Value on reporting date	17.1
Stressed VaR, sVaR (10 day 99 %)		
5	Maximum value	36.6
6	Average value	33.3
7	Minimum value	30.6
8	Value on reporting date	31.1
Incremental risk charge, IRC (99.9 %)		
9	Maximum value	–
10	Average value	–
11	Minimum value	–
12	Value on reporting date	–
Internal model for correlation trading activities		
13	Maximum value	–
14	Average value	–
15	Minimum value	–
16	Value on reporting date	–

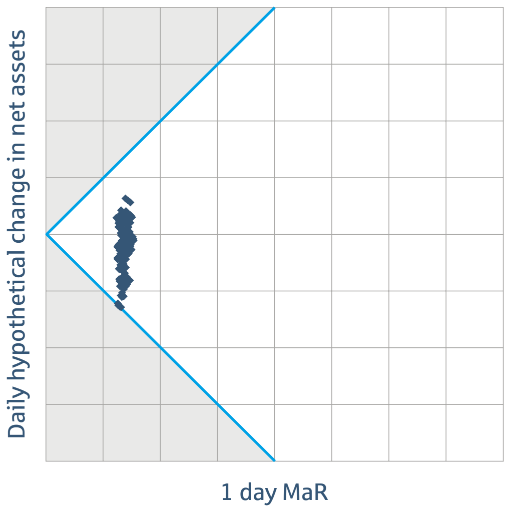
The decline in the MaR as at 31 December 2018 compared with the figure as at 30 June 2018 is attributable to changes in exposures during normal trading activities and to the regular updating of the risk parameters. The change in the stressed MaR during the second half of 2018 is mainly attributable to changes in exposures.

Back-testing and validation

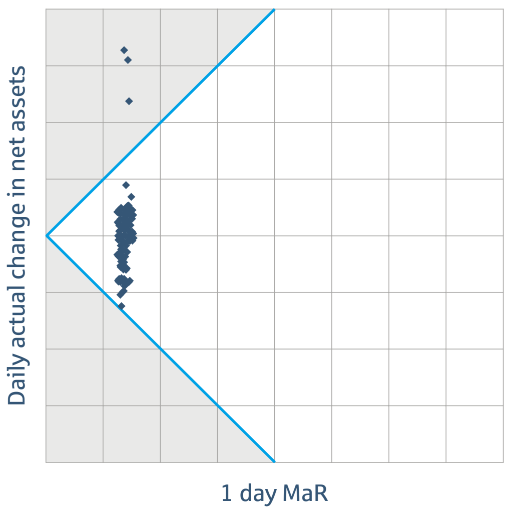
Clean and dirty back-testing is carried out daily to review the predictive quality of the risk models. The data used in these procedures is verified to ensure it is of the requisite quality. The procedures involve determining the MaR figure for a holding period of one trading day with a one-tailed confidence level of 99 % and a historical observation period of one year. This forecast risk amount is then compared against the hypothetical (clean) and actual (dirty) change in net assets. The hypothetical change in net assets represents the change in the value of the portfolio over one trading day for an unchanged position and on the basis of new market prices. This figure only takes into account valuation-related effects that can be attributed to interest rate risk. The actual change in value also takes into account effects from portfolio changes and valuation effects not attributable to interest rate risk. Any case in which the decrease in the net value of the trading book exceeds the potential risk figure constitutes a back-testing outlier.

The regulatory back-testing of Helaba's internal model for general interest rate risk, which consists of the model components MaRC² and ELLI, produced no negative outliers in the second half of 2018. The following charts show the results from clean and dirty back-testing for the entire internal model approved by the banking supervisor (figures in € m).

EU MR4 – Clean back-testing of the internal model



EU MR4 – Dirty back-testing of the internal model



The appropriateness of the internal market risk model is continuously reviewed during the course of regular operations and also annually in a comprehensive model validation process. Ad hoc validations are additionally carried out, if required. The annual and any ad hoc model validations are the responsibility of an independent unit that is separate from model development. The validations comprise qualitative and quantitative analyses of key aspects of the model. These procedures include analyses of the data, parameters and key assumptions used in the model. Changes to models resulting from the model validation process are implemented in accordance with a model change policy that has been submitted to the banking supervisor. The main findings from the model validation process are reported to the Risk Committee.

Stress tests

A proper analysis of the effects of extraordinary but not unrealistic market situations requires the use of stress tests in addition to the daily risk measurement routine. Various portfolios are remeasured regularly under the assumption of extreme market scenarios. Unless specific banking regulatory provisions apply, the portfolios selected for stress testing and the frequency of the stress tests depend on the level of exposure (materiality) and the existence of any risk concentrations. Stress tests are carried out daily on Helaba's options book.

The results of the stress tests are included in market risk reporting to the Board of Managing Directors and are taken into consideration in the limit allocation process. Methods available for use in stress testing include historical simulation, Monte Carlo simulation, a modified variance-covariance approach and a variety of scenario calculations – including those based on the main components of the correlation matrix. Helaba also performs stress tests to simulate extreme spread changes. The stress tests for market risks are supplemented by inverse stress tests and stress tests across risk types conducted in the course of Helaba's calculation of risk-bearing capacity.

Measurement of trading book exposures

When selecting the measurement method for financial instruments, the Helaba Group distinguishes between those financial instruments that can be measured directly using prices quoted in an active market and those measured using standard valuation techniques. In this process, of all the markets to which Helaba has access, the market with the highest level of activity is generally assumed to be the relevant market (primary market). If no primary market can be determined for individual financial instruments, the most favourable market is selected.

The fair value of financial instruments listed in active markets is determined on the basis of quoted prices. A market is deemed to be active if, for relevant or similar financial instruments, there are market prices that satisfy minimum requirements, particularly in relation to price spread and trading volume. The minimum requirements are specified by Helaba and subject to a regular review.

In the case of financial instruments for which there are no prices on an active market on the reference date or in respect of which no prices for comparable financial instruments on active markets can be determined, the fair value is determined using generally accepted standard valuation techniques. The financial instruments are measured on the basis of the cash flow structure, taking into account estimated future cash flows, discount rates and volatility. These approaches use modelling techniques such as the discounted cash flow method or established option pricing models. Models with greater differentiation that use more detailed inputs such as correlations are used for more complex financial instruments.

The inputs for the models are usually observable in the market. If no market information is available for the required model inputs, these are derived from other relevant information sources, such as prices for similar transactions or historical data.

Adjustments may be required in some cases, and these adjustments form an additional part of the measurement process. Depending on the complexity of the financial instrument involved, the use of a model to measure a financial instrument could involve some uncertainty in the selection of a suitable model, for example regarding the numeric implementation or the parametrisation/calibration of the model. When measuring a financial instrument using fair value principles, this uncertainty is taken into account by applying model adjustments, which can be subdivided into deficiency adjustments and complexity adjustments.

The purpose of a deficiency adjustment is to reflect model-related measurement uncertainty. Model uncertainty arises if a financial instrument is measured using a model that is uncommon (or no longer common) or if there is a lack of clarity caused by an inadequate calibration process or by the technical implementation. Complexity adjustments are taken into account if there is no market consensus regarding the model to be used or the parametrisation for the model cannot be clearly derived from the market data. The problems in such cases are referred to as model risk. The measurement markdowns resulting from the various adjustments are taken into account in the form of a model reserve.

Generally speaking, derivatives are currently measured in front-office systems on a risk-free basis. In other words, it is specifically assumed that the counterparties involved will remain in place until the contractual maturity of the outstanding transactions. The CVA reflects the imputed loss risk to which Helaba believes it is exposed in respect of its counterparty, based on a positive fair value from Helaba's perspective. If the counterparty were to default, it would only be possible to recover a fraction of the fair value of the outstanding transactions in any insolvency or liquidation process (recovery rate). The exposure over time is estimated using a Monte Carlo simulation. A debit value adjustment (DVA) mirrors the CVA and is defined as that imputed part of a negative fair value (from Helaba's perspective) that would be lost if the counterparty were to default. The CVA and DVA amounts are taken into account in the form of a measurement adjustment.

A funding valuation adjustment (FVA) is necessary to ensure that the measurement of derivative financial instruments takes into account the funding costs implied by the market. Funding costs are incurred in connection with the replicated hedging of unsecured customer derivatives with secured hedging derivatives in the interbank market. Whereas the volume to be funded is derived from an exposure simulation, the funding rates are set in line with the Euro Interbank Offered Rate (Euribor). Similar to a CVA/DVA, there are two types of FVA. A funding benefit adjustment (FBA) is applied in the case of a negative exposure, and a funding cost adjustment (FCA) for a positive exposure.

The inclusion of adjustments takes into account the requirements for prudent valuation.

The valuation process is subject to continuous validation and control. In the trading business, part of the process of measuring exposures independently of the trading activity is to ensure that the methods, techniques and models used for the measurement are appropriate. New measurement models are generally subject to comprehensive initial validation before they are used for the first time. The models are then regularly reviewed depending on materiality, the extent to which they are established in the market and on the complexity of the model in question. Ad hoc reviews are also carried out if, for example, significant changes are made to the model. A process of independent verification is carried out to ensure that the inputs used for measuring the financial instruments are in line with the market. Risk Controlling is responsible for this process, which is referred to as independent price verification.

Articles 104 and 105 CRR are taken into account in the measurement of trading book positions.

Risk containment

Helaba manages market risks for the trading book and the banking book as part of its overall bank management. Clearly defined responsibilities and business processes that also encompass exposures in the trading book create the foundations for effectively limiting and managing those exposures. The subsidiaries are integrated into the containment process as part of Group-wide risk management according to a graduated system based on the risk inventory process in line with the specific business activities involved. Attention in this area focuses principally on subsidiaries FSP and Frankfurter Bankgesellschaft (Schweiz) AG. Market risks are quantified using Helaba's own methods.

Trading activities focus for strategic purposes on customer-driven business, which is supported by a demand-led product range. Responsibility for containing trading book exposures rests with the Capital Markets unit, while the Asset/Liability Management unit has responsibility for funding and for the management of the interest rate and liquidity risks in the banking book. The own issues repurchase portfolio belonging to the trading book also falls under the jurisdiction of the Asset/Liability Management unit. Risk containment is generally performed using portfolio-specific macrohedges supplemented with microhedges (back-to-back, for example for hedging complex, structured products). All trading book activities giving rise to a general interest rate risk are included in the internal model in accordance with the CRR using the MaR and stressed MaR figures. The liquidity of exposures is assessed by monitoring the holding period for securities and by analysing market activity relevant to trading book exposures (see section on measuring trading book exposures).

Limitation of market risks

Helaba employs a uniform limit structure to limit market risks. The process through which limits are allocated, and specifically the procedure for setting the limits for risk-bearing capacity, involves the Risk and Credit Committee of the Supervisory Board as well as the Bank's internal committees.

Acting through the Asset/Liability Management Committee, the Board of Managing Directors allocates limits to the risk-relevant divisions and to the various types of market risk within the scope of the overall limit for market risk. In addition separate limits are defined for the trading book and the banking book. Responsibility for the onward allocation of limits to Helaba's subordinate organisational units and its various sites rests with the divisions to which a limit has been assigned. Stop-loss limits and volume limits are also used independently in the trading units to limit market risk.

Risk monitoring

The Risk Controlling unit is responsible for identifying, quantifying and monitoring market risks. This responsibility includes checking transactions for market conformity and determining the economic profit or loss as well as risk quantification. In addition, the reconciliation statement with external Accounting is prepared.

Continuous functional and technical development of the methods and systems used and intensive data entry play a key role in ensuring that Helaba's market risks are recorded properly. A special process owned by the New Products Committee has to be completed whenever a new product is introduced. New products must be incorporated correctly into the required systems for position recording, processing, profit or loss determination, risk quantification, accounting and reporting before they can gain authorisation.

A comprehensive reporting regime ensures that the relevant members of the Board of Managing Directors and the position-keeping units are notified daily of the risk figures calculated and the economic profit and loss generated on the basis of current market prices. Information about the current risk and earnings situation is in addition provided weekly to the entire Board of Managing Directors and the Asset/Liability Management Committee and monthly to the Risk Committee. Any breach of a defined limit triggers the escalation process to limit and reduce the associated risks.

Interest Rate Risk in the Banking Book

The interest rate risks in Helaba's banking book consist mainly of positions taken by Asset/Liability Management, which is responsible for funding and for the management of the interest rate and liquidity risks in the banking book, and the net balance of non-interest-bearing funds. Helaba employs the MaR approach used for the trading book for the daily mapping of the interest rate risks in the banking book. Contractual agreements and the interest rates fixed for positions or products are generally taken into account. However variable-rate products at FSP, such as savings and sight deposits, are not subject to a specified fixed interest rate or fixed capital commitment period, so fictional maturities determined with a moving averages model are used for containment activities in respect of the relevant interest rate risk.

The quantification of interest rate risks in the banking book is also subject to regulatory requirements, which stipulate a risk computation based on standardised interest shocks. The computation examines the effects of a change of ± 200 basis points in interest rates in line with the requirements of the banking supervisor. Such an interest rate shock would have caused a negative change in the value of the banking book for the Helaba Group at year-end 2018 of € 501 m, the lion's share of it from a loss of € 480 m on euro exposures. The remaining loss of € 21 m would have been attributable to foreign currencies, with the US dollar accounting for € 5 m, the Canadian dollar € 7 m, the Swiss franc € 5 m and the pound sterling € 4 m. With a view to improving clarity in the presentation of figures, the listing of individual currencies is limited to those that individually account for at least 5 % and those that are necessary to cover at least 95 % of the total foreign currency share. Helaba determines the effect of interest shocks in accordance with the requirements of BaFin Circular 7/2018, which superseded the previous Circular 11/2011 in 2018. The impact from an interest rate shock is also determined in accordance with the EBA guidelines on the management of interest rate risk arising from non-trading activities (EBA/GL/2015/08).

Operational Risk

Principles of risk containment

In accordance with regulatory requirements, Helaba has adopted an integrated approach for managing operational risk. This approach is used to identify, manage and monitor operational risk.

At Helaba, the containment of operational risk is segregated from the monitoring of this risk on both a solid-line and dotted-line basis. Risk management is accordingly a local responsibility discharged by Helaba's individual units, which are supported in this task by central containment units. Central responsibility for operational risk monitoring rests with the Risk Controlling unit.

Tools

Helaba uses the standardised method to calculate the adequacy of its own funds for regulatory purposes.

Operational risks are contained and monitored using a risk management system that identifies, records and presents risks and losses in a structured manner. This makes it possible to compare and cross-check risks and loss data systematically and contain them with appropriate measures.

Operational risks are classified systematically with reference to Helaba's proprietary risk model, which is based on the Basel event categories. The view of risk used for internal risk assessment purposes is thus fully congruent with that of the regulator. The quantification methodology is based on a modelling approach that encompasses internal and external losses plus risk scenarios created by the business units and plausibility-checked by the Risk Controlling unit.

Technical assistance to help facilitate the management of operational risk is provided in the form of a web-based application that supports local data access and a central database along with a central application for risk reporting.

Asset Encumbrance

Encumbered assets are broadly speaking all of those assets to which the institution would not have unrestricted access in the event of a possible insolvency. Assets that are pledged, for example, or that serve as collateral for other transactions are always considered to be encumbered assets.

Helaba's funding strategy aims for a diversified funding mix. In 2018, asset encumbrance was mainly a factor in connection with Pfandbrief issuance and development business, as was also the case in previous years. The excess cover in the cover funds above and beyond the applicable legal requirements ensures substantial room for manoeuvre with issues. The median level of the cover funds was € 34.8 bn and accounted for around two thirds of asset encumbrance in the Group. Retained Pfandbriefe arose from market-making and had a median volume of € 0.1 bn. They were not used for funding purposes or in connection with other asset encumbrance and led to a pro rata reduction in the figure reported for encumbered assets.

Encumbrance is also relevant in the context of derivative and repo transactions. Helaba generally only enters into such transactions under standard market master agreements/collateral agreements. In this case, there are only small differences between assets pledged or transferred as collateral and the underlying sources of encumbrance, caused mainly by standard measurement markdowns. Within the Helaba Group, the transactions referred to above are concentrated at Helaba Bank and are primarily denominated in euros. Again, there were no significant year-on-year changes in 2018.

The carrying amount of unencumbered assets also includes a small amount relating to items that could only be subject to limited encumbrance. These items primarily consist of the positive fair values of derivatives, intangible assets and deferred taxes.

Article 443 CRR – Assets

in € m

		Carrying amount of encumbered assets		Fair value of encumbered assets	
			thereof: Theoretically eligible as extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA)		**thereof: Theoretically eligible as extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA)**
		010	030	040	050
010	**Assets of reporting institution**	**50,495**	**2,897**		
030	Equity instruments				
040	Debt securities	5,472	2,897	5,472	2,897
050	thereof: Covered bonds	447	441	447	441
060	thereof: Asset-backed securities				
070	thereof: Issued by governments	2,140	2,136	2,140	2,136
080	thereof: Issued by financial institutions	3,304	587	3,303	587
090	thereof: Issued by non-financial institutions	44	29	44	29
120	Other assets	44,725			
121	thereof: Cover pool assets	34,815			

Article 443 CRR – Assets

in € m

		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
			thereof: Extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA)		thereof: Extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA
		060	080	090	100
010	**Assets of reporting institution**	**115,143**	**11,911**		
030	Equity instruments	1,860		1,873	
040	Debt securities	22,562	11,911	22,562	11,911
050	thereof: Covered bonds	5,376	5,323	5,376	5,323
060	thereof: Asset-backed securities	29	–	29	–
070	thereof: Issued by governments	4,490	4,411	4,490	4,411
080	thereof: Issued by financial institutions	17,367	7,415	17,367	7,415
090	thereof: Issued by non-financial institutions	248	63	248	63
120	Other assets	90,705			
121	thereof: Cover pool assets				

Article 443 CRR – Collateral received

in € m

		Fair value of encumbered collateral received or own debt securities issued		Unencumbered – Fair value of collateral received or own debt securities issued available for encumbrance	
			thereof: Theoretically eligible as extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA)		thereof: Extremely high-quality liquid assets (EHQLA) or high-quality liquid assets (HQLA)
		010	030	040	060
130	**Collateral received by reporting institution**	**953**	**489**	**6,505**	**6,493**
140	Callable loans				
150	Equity instruments				
160	Debt securities	489	489	6,505	6,493
170	thereof: Covered bonds	14	14	2,034	2,007
180	thereof: Asset-backed securities				
190	thereof: Issued by governments	361	361	3,698	3,698
200	thereof: Issued by financial institutions	128	128	2,803	2,785
210	thereof: Issued by non-financial institutions			14	12
220	Loans and advances other than callable loans	503			
230	Other collateral received				
240	Own debt securities issued other than own covered bonds and ABSs			366	
241	Own covered bonds, and ABSs issued but not yet pledged as collateral			113	
250	Assets, collateral received and own debt securities issued		3,386		

Article 443 CRR – Sources of encumbrance

in € m

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and encumbered ABSs
		010	030
010	**Carrying amount of selected financial liabilities**	**46,700**	**49,995**
011	thereof: Cover pool assets	26,622	34,815

Non-Performing Exposures and Forbearance

Background

On the basis of the ECB's "Guidance to banks on non-performing loans" (Annex 7, chapters 4-7) issued in March 2017, additional disclosures on non-performing exposures and forbearance are now required in the disclosure report and annual report. Unless otherwise stated, definitions and data are based on the FINREP reporting requirements in accordance with Regulation (EU) 2015/534.

The NPL ratio for the Helaba Group (in accordance with EBA risk indicator code AQT_3.2) was 0.67 % as at 31 December 2018. As in the previous year, therefore, Helaba fell below the German average published in the context of the 2018 EU-wide transparency exercise, which at 1.7 % (as at 30 June 2018) was already very low by European standards.

The ECB guidance does not limit the disclosure requirements if NPL/NPE ratios are low. Helaba has therefore disclosed the required information in full.

As at the reporting date of 31 December 2019, an additional disclosure requirement for non-performing exposures and forbearance will need to be satisfied on the basis of EBA/GL/2018/10; this adds to and fleshes out some of the requirements in the ECB guidance.

To keep the presentation clear and ensure only relevant information is shown, the data in the tables is limited to countries and industries that together account for at least 95 % of the primary figures shown in the tables. The limitation follows the methodology applied in accordance with Article 432 CRR in conjunction with EBA guidelines EBA/GL/2014/14.

The quantitative information included in the disclosures on the basis of FINREP differs from that in the IFRS consolidated financial statements due to differences between the prudential scope of consolidation and the group of consolidated companies for accounting purposes.

Forbearance Disclosures

Deferred or renegotiated loans and advances are determined in accordance with the definition of forborne exposures issued by the European Banking Authority (EBA). A forborne exposure refers to debt instruments in connection with which forbearance action has been applied. Such action includes concessions or restructuring as a result of existing or anticipated financial difficulties on the part of the debtor. Forbearance action includes any rights agreed upon at contract inception enabling the debtor to amend the credit terms if such amendments are due to (pending) financial difficulties of the debtor. Before a contract may be classified as forborne, concessions to the debtor must have been made.

For every forbearance action, Helaba verifies whether a default event has occurred regarding the respective debt instrument. If the forbearance action led to a default event, the respective instrument is designated as "non-performing forborne" and transferred to stage 3. If the objective evidence of impairment no longer applies, the instrument may be remedied. The objective evidence of impairment no longer applies as soon as the default event is over. Simultaneously, an internally established period of good conduct applies, taking regulatory requirements into account. During the period of good conduct, exposures remain in stage 3. If the forbearance action does not lead to a default event, the instrument is designated as "performing forborne".

If the forbearance measure does not trigger a default event, the instrument is classified as performing forborne and transferred to stage 2 on the basis of the qualitative transfer criterion. If the debt instrument recovers during the period of good conduct to the extent that it is no longer deemed an exposure subject to workout and no longer constitutes a significant increase in credit risk on the basis of the quantitative transfer criterion, it is transferred from stage 2 to stage 1.

Template NPE 1 – Credit quality of forborne exposures

	Performing			
		Of which past due		Of which past due
Loans and advances	**704**	**2**	**519**	**518**
Central banks	–	–	–	–
General government	–	–	–	–
Credit institutions	–	–	–	–
Other financial corporations	–		57	57
Non-financial corporations	684	0	451	451
NACE code				
F Construction	4	–	160	160
L Real estate activities	397	–	105	105
H Transportation and storage	118	–	54	54
S Other service activities	21	0	47	47
P Education	1	–	44	44
C Manufacturing	7	–	23	23
D Electricity, gas, steam and air-conditioning supply	136	–	15	15
Other	0	0	3	3
Regions				
Belgium	37	–	–	–
Germany	231	0	138	138
France	64	–	55	55
Ireland	21	–	44	44
Italy	22	–	–	–
Luxembourg	145	–	–	–
Malta	21	–	–	–
Marshall Islands	38	–	–	–
Spain	79	–	–	–
United States of America	12	–	160	160
United Kingdom	–	–	36	36
Other	14	–	18	18
Households	19	2	10	10
Debt securities	**–**	**–**	**–**	**–**
Debt instruments other than financial assets held for trading	**704**	**2**	**519**	**518**
Loan commitments given	**2**		**27**	**27**
Total	**706**	**2**	**546**	**545**

Gross carrying amount of forborne exposures	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions on forborne exposures			
Non-performing		Non-performing		
Of which impaired	Performing		Of which accumulated negative changes in fair value due to credit risk	Collateral received and financial guarantees received on forborne exposures
518	**13**	**245**	**–**	**423**
–	–	–	–	30
–	–	–	–	–
–	–	–	–	–
57	–	33	–	5
451	13	210	–	395
160	1	118	–	0
105	8	18	–	260
54	1	29	–	128
47	1	39	–	2
44	0	–	–	–
23	1	2	–	1
15	0	2	–	5
3	0	2	–	0
–	0	–	–	34
138	1	53	–	241
55	6	3	–	52
44	1	–	–	–
–	0	–	–	–
–	2	–	–	–
–	1	–	–	20
–	0	–	–	35
–	0	–	–	–
160	1	118	–	7
36	–	35	–	–
18	0	2	–	7
10	0	2	–	22
–	**–**	**–**	**–**	**–**
518	**13**	**245**	**–**	**423**
26	**0**	**14**	**–**	
544	**13**	**258**	**–**	**423**

Because of the concentration of forborne exposures in the FIN-REP counterparty sector “non-financial corporations”, these exposures are shown in a further breakdown by region and NACE code (industry). In this case, the presentation has been restricted, as described in the “Background” section.

NPE 2 – Quality of forbearance in € m

	Gross carrying amount of forborne exposures
Having been forborne more than once	73
Having been forborne more than twice	–
Loans and advances for which forbearance measures have been granted but for which, thereafter, a new default has occurred in the last twelve months	0

The table contains the breakdown of forborne exposures by number of forbearance measures granted in the past and by repeat defaults occurring in the last twelve months (based on the cure period of at least twelve months).

NPE 3 – Age structure of forborne exposures in € m

	Forbearance measures granted the pastw			
	≤ 3 months	**>3 – ≤ 6 months**	**>6 – ≤ 12 months**	**> 12 months**
Gross carrying amount of forborne exposures	392	67	281	512
Of which performing	307	2	194	203
Of which non-performing	85	64	87	309

The forborne exposures as at the reporting date are broken down by the various periods since forbearance measures were granted.

NPE 4 – Impact of the forbearance measures granted in the past 6/12/24 months on net present value in € m

	Forbearance measures granted the past		
	6 months	**12 months**	**24 months**
Net present value of original contract cash flows	453	276	505
Net present value of contract cash flows for which forbearance measures granted	453	276	505
Description of discounting method applied	Present value calculated by discounting future cash flows using the original contractual effective interest rate.		

The impact of the forbearance measures granted in the past 6/12/24 months on the net present value of forborne risk exposures is presented. The only measures granted had little or no impact on net present value.

NPE, Impairment and Write-Offs

Exposures are allocated to the non-performing exposure category if they satisfy at least one of the following criteria:

- a material exposure is more than 90 days past due,
- an exposure is unlikely to be repaid in full without the recovery of collateral.

Regardless of these criteria, exposures deemed to be defaulted in accordance with article 178 of the CRR are always classified as non-performing exposures. The same materiality threshold relating to the 90 day past due criterion is applied to both default events in accordance with the CRR and non-performing exposures. An exposure is considered material if it exceeds either an absolute threshold of € 100 or 2.5 % of the overall credit line (in accordance with Section 16 of the German Solvency Regulation (Solvabilitätsverordnung, SolvV). A financial asset is classified as past due if the party to the agreement fails to make the contractually agreed (partial) payments in respect of the financial instrument on time. The past due period begins on the day after the due date of the contractually agreed partial payment.

Besides the indicators listed in Article 178 of the CRR, the following indicators are used to identify exposures that will probably not be fully redeemed: ban on business operations issued by a supervisory authority, rating-related terminations, or the borrower's loss of regular sources of income.

In 2018, Helaba harmonised the internal application of the terms "non-performing exposures" and "default event" in line with Article 178 of the CRR. The harmonisation of the objective evidence with the regulatory definition of a default event also ensures that the requirements match the criteria for the allocation of an exposure to stage 3. However, in individual cases, this standardised approach may no longer apply where Helaba grants substantial modifications or issues new financial instruments to defaulted borrowers who are already in a period of good conduct. New business is allocated to stage 1 unless it has to be classified as a POCI asset. Please refer to Note (9) for information on the classification of instruments as POCI assets.

Furthermore, if a POCI asset recovers, this may lead to differences between non-performing exposures and financial instruments in default. POCI assets are always reported as non-performing exposures in accordance with regulatory requirements.

For further qualitative disclosures that are not included in the disclosure report, please refer to the Notes to the Consolidated Financial Statements in the Annual Report (Note (7), "Loss allowances" section, Note (9), "Modifications" section and Note (72), "Non-performing exposures and forbearance" section).

Disclosures on the impairment policy in relation to non-performing exposures, in particular

- triggering circumstances for impairment losses and threshold values that are taken into account when a loss event arises,
- significant expectations and assumptions taken into account when determining collective loss allowances,
- the policy in relation to the reversal of impairment losses, and
- sensitivity analyses in relation to changes in key assumptions

can also be found in the Annual Report (Note (9) in the Notes to the Consolidated Financial statements).

NPE 5 – Credit quality of exposures by past due days

	Performing			
		Of which not past due or past due ≤30 days	Of which past due >30 days ≤90 days	
Loans and advances	**114,962**	**114,960**	**2**	**780**
Central banks	6,613	6,613	–	–
General government	21,927	21,927	–	0
Credit institutions	11,710	11,710	–	7
Other financial corporations	10,197	10,197	–	75
Non-financial corporations	57,139	57,138	0	593
Households	7,378	7,376	2	105
Debt securities	**22,093**	**22,093**	**–**	**5**
Central banks	–	–	–	–
General government	5,867	5,867	–	–
Credit institutions	15,478	15,478	–	–
Other financial corporations	550	550	–	5
Non-financial corporations	198	198	–	–
Off-balance-sheet exposures	**37,238**			**102**
Central banks	–			–
General government	5,517			–
Credit institutions	1,244			0
Other financial corporations	6,350			6
Non-financial corporations	22,709			92
Households	1,418			3
Total	**174,293**	**137,053**	**2**	**886**

The table shows performing, performing but past due, and non-performing exposures. The non-performing exposures are broken down by past due age structure, by classification as unlikely to pay (UTP) and by status as impaired and/or defaulted. Figures are presented in a breakdown by exposure class.

The following table shows individual and collective loss allowances for performing and non-performing exposures, broken down by exposure class, industry and geographic region.

The differential amount between the two columns "Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions" and "Of which individual credit risk adjustments" is accounted for by accumulated negative changes in fair value that do not constitute individual credit risk adjustments.

in € m

	Gross carrying amount							
	Non-performing							
	Of which UTP	Of which past due ≤90 days	Of which past due >90 days ≤180 days	Of which past due >180 days ≤1 year	Of which past due >1 year ≤5 years	Of which past due >5 years	Of which defaulted	Of which impaired
	475	**14**	**5**	**79**	**33**	**175**	**780**	**757**
	–	–	–	–	–	–	–	–
	0	–	–	–	–	–	0	0
	1	6	–	–	–	–	7	7
	58	–	–	16	0	–	75	65
	351	3	1	57	19	162	593	580
	64	5	3	6	14	13	105	104
	5	**–**	**–**	**–**	**–**	**–**	**5**	**–**
	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–
	5	–	–	–	–	–	5	–
	–	–	–	–	–	–	–	–
							102	**–**
							–	–
							–	–
							0	–
							6	–
							92	–
							3	–
	480	**14**	**5**	**79**	**33**	**175**	**886**	**757**

NPE 6 – Individual and collective impairment by FINREP counterparty sector in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Of which individual impairment	Of which collective impairment		Of which individual impairment	Of which collective impairment
Loans and advances	**112**	**80**	**32**	**310**	**305**	**–**
Central banks	–	–	–	–	–	–
General government	0	0	0	0	0	–
Credit institutions	0	0	0	0	–	–
Other financial corporations	3	3	0	36	33	–
Non-financial corporations	99	67	32	247	244	–
Households	9	9	0	28	28	–
Debt securities	**2**	**2**	**–**	**–**	**–**	**–**
Central banks	–	–	–	–	–	–
General government	0	0	–	–	–	–
Credit institutions	2	2	–	–	–	–
Other financial corporations	0	0	–	–	–	–
Non-financial corporations	0	0	–	–	–	–
Off-balance-sheet exposures	**22**	**22**		**28**	**28**	
Central banks	–	–		–	–	
General government	0	0		–	–	
Credit institutions	0	0		0	0	
Other financial corporations	1	1		0	0	
Non-financial corporations	19	19		27	27	
Households	2	2		1	1	
Total	**136**	**104**	**32**	**338**	**333**	**–**

NPE 7 – Individual and collective impairment by industry

in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Of which individual impairment	Of which collective impairment		Of which individual impairment	Of which collective impairment
Loans and advances	**112**	**80**	**32**	**310**	**305**	**–**
C Manufacturing	10	6	4	20	19	–
D Electricity, gas, steam and air-conditioning supply	7	5	2	4	4	–
F Construction	3	2	1	120	120	–
G Wholesale and retail trade; repair of motor vehicles and motorcycles	2	1	1	3	3	–
H Transportation and storage	9	8	1	29	29	–
J Information and communication	2	1	1	2	2	–
K Financial and insurance activities	10	5	5	35	32	–
L Real estate activities	53	39	14	26	23	–
M Professional, scientific and technical activities	1	1	1	4	4	–
N Administrative and support service activities	3	2	1	2	2	–
S Other service activities	2	2	0	39	39	–
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	7	7	0	23	23	–
Other	3	1	1	2	2	–
Debt securities	**2**	**2**	**–**	**–**	**–**	**–**
K Financial and insurance activities	2	2	–	–	–	–
Other	0	0	–	–	–	–
Off-balance-sheet exposures	**22**	**22**		**28**	**28**	
C Manufacturing	6	6		11	11	
D Electricity, gas, steam and air-conditioning supply	1	1		0	0	
F Construction	1	1		11	11	
G Wholesale and retail trade; repair of motor vehicles and motorcycles	2	2		0	0	
H Transportation and storage	0	0		0	0	
K Financial and insurance activities	2	2		1	1	
L Real estate activities	6	6		1	1	
M Professional, scientific and technical activities	1	1		3	3	

NPE 7 – Individual and collective impairment by industry

in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Of which individual impairment	Of which collective impairment		Of which individual impairment	Of which collective impairment
O Public administration and defence; compulsory social security	1	1		–	–	
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	2	2		0	0	
Other	–	–		1	1	
Total	**136**	**104**	**32**	**338**	**333**	**–**

NPE 8 – Individual and collective impairment by country

in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Of which individual impairment	Of which collective impairment		Of which individual impairment	Of which collective impairment
Loans and advances	**112**	**80**	**32**	**310**	**305**	**–**
Germany	44	34	10	112	111	–
France	12	9	3	5	5	–
Greece	1	1	–	–	–	–
Isle of Man	1	1	0	–	–	–
Ireland	2	2	0	0	0	–
Jersey	1	1	0	–	–	–
Luxembourg	13	11	2	28	28	–
Malta	1	1	–	0	–0	–
Marshall Islands	1	1	0	–	–	–
The Netherlands	2	1	1	0	0	–
Austria	3	2	1	0	0	–
Poland	2	1	1	0	0	–
Switzerland	1	1	0	0	0	–
Spain	1	1	0	2	2	–
United States of America	16	8	8	118	118	–
United Kingdom	5	3	2	35	34	–
Other	6	2	4	10	7	–
Debt securities	**2**	**2**	**–**	**–**	**–**	**–**
Australia	0	0	–	–	–	–
Denmark	0	0	–	–	–	–
Germany	0	0	–	–	–	–
Finland	0	0	–	–	–	–
France	0	0	–	–	–	–
Canada	0	0	–	–	–	–
The Netherlands	0	0	–	–	–	–
Sweden	0	0	–	–	–	–
United States of America	0	0	–	–	–	–
United Kingdom	1	1	–	–	–	–
Other	0	0	–	–	–	–
Off-balance-sheet exposures	**22**	**22**		**28**	**28**	
Germany	16	16		18	18	
France	1	1		–	–	
Ireland	0	0		0	0	
Canada	0	0		0	0	

NPE 8 – Individual and collective impairment by country

in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Of which individual impairment	Of which collective impairment		Of which individual impairment	Of which collective impairment
Cuba	0	0		0	0	
Luxembourg	1	1		–	–	
The Netherlands	0	0		0	0	
Switzerland	0	0		0	0	
United States of America	2	2		10	10	
United Kingdom	0	0		–	–	
Other	0	0		0	0	
Total	**136**	**104**	**32**	**338**	**333**	**–**

Helaba determines impairment for all assets on the basis of an expected loss model. The tables below show impairment broken down by performing and non-performing exposures, together with the associated accumulated impairment and the relevant impairment expense by stage. The breakdown is also shown by exposure class, industry and geographical region.

The disclosures also present the amount of the accumulated written-off exposures, the amount of the exposures written off in the reporting period, together with the impact from these write-offs on the impairment amount and on the income statement, broken down by exposure class, industry and geographical region.

NPE 9 – Performing and non-performing exposures and related provisions by FINREP counterparty sector | in € m

	Gross carrying amount[1]					
			Performing			Non-performing
		Stage 1	Stage 2		Stage 2	Stage 3
Loans and advances	**114,962**	**104,100**	**3,416**	**780**	**–**	**757**
Loans and advances	6,613	–	–	–	–	–
General government	21,927	21,609	81	0	–	0
Credit institutions	11,710	11,179	34	7	–	7
Other financial corporations	10,197	10,061	56	75	–	65
Non-financial corporations	57,139	54,380	2,737	593	–	580
Households	7,378	6,871	508	105	–	104
Debt securities	**22,093**	**21,969**	**–**	**5**	**–**	**–**
Central banks	–	–	–	–	–	–
General government	5,867	5,746	–	–	–	–
Credit institutions	15,478	15,475	–	–	–	–
Other financial corporations	550	550	–	5	–	–
Non-financial corporations	198	198	–	–	–	–
Off-balance-sheet exposures	**37,238**	**33,571**	**744**	**102**	**–**	**97**
Central banks	–	–	–	–	–	–
General government	5,517	4,423	0	–	–	–
Credit institutions	1,244	1,153	40	0	–	0
Other financial corporations	6,350	6,185	82	6	–	6
Non-financial corporations	22,709	20,462	560	92	–	89
Households	1,418	1,347	62	3	–	3
Total	**174,293**	**159,640**	**4,160**	**887**	**–**	**854**

[1] The gross carrying amount reported for the "performing" and "non-performing" columns includes the IFRS categories to which the IFRS 9 impairment model is not applied.

NPE 9 – Performing and non-performing exposures and related provisions by FINREP counterparty sector in € m

	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
	Of which performing exposures – accumulated impairment and provisions			Of which non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
		Stage 1	Stage 2		Stage 2	Stage 3
Loans and advances	**112**	**47**	**65**	**310**	**–**	**305**
Loans and advances	–	–	–	–	–	–
General government	0	0	0	0	–	0
Credit institutions	0	0	0	–	–	–
Other financial corporations	3	3	0	36	–	33
Non-financial corporations	99	41	58	247	–	244
Households	9	3	7	28	–	28
Debt securities	**2**	**2**	**–**	**–**	**–**	**–**
Central banks	–	–	–	–	–	–
General government	0	0	–	–	–	–
Credit institutions	2	2	–	–	–	–
Other financial corporations	0	0	–	–	–	–
Non-financial corporations	0	0	–	–	–	–
Off-balance-sheet exposures	**22**	**11**	**12**	**28**	**–**	**28**
Central banks	–	–	–	–	–	–
General government	0	0	0	–	–	–
Credit institutions	0	0	0	0	–	0
Other financial corporations	1	1	0	1	–	1
Non-financial corporations	19	9	10	27	–	27
Households	2	1	1	1	–	1
Total	**136**	**60**	**77**	**338**	**–**	**333**

[1] The gross carrying amount reported for the "performing" and "non-performing" columns includes the IFRS categories to which the IFRS 9 impairment model is not applied.

NPE 10 – Performing and non-performing exposures and related provisions by industry

	Performing			
		Stage 1	Stage 2	
Loans and advances	**114,962**	**104,100**	**3,416**	**780**
C Manufacturing	4,177	4,245	23	70
D Electricity, gas, steam and air-conditioning supply	4,915	4,691	172	35
E Water supply; sewerage, waste management and remediation activities	2,842	2,756	26	–
F Construction	582	487	88	160
G Wholesale and retail trade; repair of motor vehicles and motorcycles	1,297	1,284	7	6
H Transportation and storage	6,568	6,116	366	57
J Information and communication	2,987	2,938	1	5
K Financial and insurance activities	27,798	21,101	134	83
L Real estate activities	29,996	27,537	1,876	150
M Professional, scientific and technical activities	1,321	1,300	3	16
N Administrative and support service activities	1,643	1,618	77	5
O Public administration and defence; compulsory social security	21,516	21,375	80	0
P Education	463	440	1	44
Q Human health and social work activities	1,158	1,133	8	3
S Other service activities	1,130	993	122	51
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	6,264	5,787	431	89
Other	305	299	4	6
Debt securities	**22,093**	**21,969**	**–**	**5**
K Financial and insurance activities	17,650	17,649	–	5
O Public administration and defence; compulsory social security	4,068	3,944	–	–
Other	375	376	–	0
Off-balance-sheet exposures	**37,238**	**33,571**	**744**	**102**
B Mining and quarrying	45	13	32	–
C Manufacturing	6,341	6,016	136	50
D Electricity, gas, steam and air-conditioning supply	3,099	3,057	93	12
E Water supply; sewerage, waste management and remediation activities	494	489	3	–
F Construction	610	629	16	11
G Wholesale and retail trade; repair of motor vehicles and motorcycles	1,051	987	55	1
H Transportation and storage	1,636	1,574	41	0
J Information and communication	2,213	2,200	0	2
K Financial and insurance activities	7,255	7,966	124	6
L Real estate activities	5,471	4,103	174	3
M Professional, scientific and technical activities	835	826	4	11
N Administrative and support service activities	400	393	3	0
O Public administration and defence; compulsory social security	5,594	3,219	0	–
P Education	30	35	0	2
Q Human health and social work activities	450	449	2	–

in € m

Gross carrying amount[1)]		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
Non-performing		Of which performing exposures – accumulated impairment and provisions			Of which non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
Stage 2	Stage 3		Stage 1	Stage 2		Stage 2	Stage 3
–	**757**	**112**	**47**	**65**	**310**	**–**	**305**
–	69	10	5	6	20	–	19
–	34	7	3	3	4	–	4
–	–	1	0	1	–	–	–
–	160	3	1	2	120	–	120
–	5	2	1	1	3	–	3
–	56	9	2	7	29	–	29
–	4	2	1	1	2	–	2
–	78	10	3	6	35	–	32
–	137	53	24	29	26	–	23
–	15	1	1	1	4	–	4
–	5	3	1	2	2	–	2
–	0	1	0	1	0	–	0
–	44	0	0	0	0	–	0
–	3	1	0	0	2	–	2
–	50	2	1	2	39	–	39
–	88	7	2	5	23	–	23
–	9	0	2	0	2	–	2
–	**–**	**2**	**2**	**–**	**–**	**–**	**–**
–	–	2	2	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	**97**	**22**	**11**	**12**	**28**	**–**	**28**
–	–	0	0	0	–	–	–
–	49	6	2	3	11	–	10
–	12	1	1	0	0	–	0
–	–	0	0	0	–	–	–
–	9	1	0	1	11	–	11
–	1	2	1	1	0	–	0
–	0	1	0	0	0	–	0
–	2	0	0	0	1	–	1
–	6	2	1	1	1	–	1
–	3	6	2	4	1	–	1
–	11	1	0	0	3	–	3
–	0	0	0	0	0	–	0
–	–	1	0	1	–	–	–
–	1	0	0	0	0	–	0
–	–	0	0	0	–	–	–

NPE 10 – Performing and non-performing exposures and related provisions by industry

	Performing			
		Stage 1	**Stage 2**	
R Arts, entertainment and recreation	36	35	0	0
S Other service activities	241	221	19	0
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	1,414	1,334	41	3
Other	23	25	1	1
Total	**174,293**	**159,640**	**4,160**	**887**

[1] The gross carrying amount reported for the "performing" and "non-performing" columns includes the IFRS categories to which the IFRS 9 impairment model is not applied.

NPE 11 – Performing and non-performing exposures and related provisions by country

	Performing			
		Stage 1	**Stage 2**	
Loans and advances	**114,962**	**104,100**	**3,416**	**780**
Denmark	66	64	1	16
Germany	79,307	71,259	1,472	346
France	4,283	4,025	185	85
Guernsey	1,459	1,446	35	0
Ireland	1,285	1,208	56	43
Cayman Islands	1,523	1,522	4	0
Cuba	1,223	913	307	0
Luxembourg	3,258	2,997	208	31
Slovenia	799	818	1	0
Spain	739	634	97	14
United States of America	10,754	9,821	480	162
United Kingdom	4,971	4,675	98	38
Other	5,295	4,719	472	45
Debt securities	**22,093**	**21,969**	**–**	**5**
Australia	497	497	–	0
Belgium	107	107	–	0
Denmark	574	574	–	0
Germany	7,566	7,443	–	4
Finland	484	484	–	0

in € m

Gross carrying amount[1]		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
Non-performing		Of which performing exposures – accumulated impairment and provisions			Of which non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
Stage 2	Stage 3		Stage 1	Stage 2		Stage 2	Stage 3
–	0	0	0	0	0	–	0
–	0	0	0	0	0	–	0
–	3	2	1	1	0	–	0
–	0	0	3	0	0	–	0
–	**854**	**136**	**60**	**77**	**338**	**–**	**333**

in € m

Gross carrying amount[1]		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
Non-performing		Of which performing exposures – accumulated impairment and provisions			Of which non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
Stage 2	Stage 3		Stage 1	Stage 2		Stage 2	Stage 3
–	**757**	**112**	**47**	**65**	**310**	**–**	**305**
–	6	0	0	0	3	–	3
–	344	44	20	24	112	–	111
–	84	12	3	9	5	–	5
–	0	3	1	2	0	–	0
–	43	2	0	2	0	–	0
–	0	2	1	1	0	–	0
–	0	2	0	1	0	–	0
–	30	13	9	4	28	–	28
–	0	1	1	0	0	–	0
–	14	1	0	1	2	–	2
–	162	16	4	12	118	–	118
–	36	5	2	3	35	–	34
–	38	10	4	6	7	–	7
–	**–**	**2**	**2**	**–**	**–**	**–**	**–**
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–

NPE 11 – Performing and non-performing exposures and related provisions by country

			Performing	
		Stage 1	Stage 2	
France	3,055	3,055	–	0
Canada	1,550	1,550	–	0
Luxembourg	262	262	–	0
The Netherlands	1,022	1,022	–	0
Norway	775	775	–	0
Sweden	1,189	1,189	–	0
United States of America	1,399	1,399	–	0
United Kingdom	2,730	2,730	–	–
Other	882	882	–	0
Off-balance-sheet exposures	**37,238**	**33,571**	**744**	**102**
Denmark	19	19	0	1
Germany	21,429	20,914	536	74
France	1,443	1,492	18	–
Guernsey	8	8	–	4
Ireland	259	257	1	2
Canada	391	480	0	10
Luxembourg	1,346	1,407	5	–
The Netherlands	958	1,017	0	–
Austria	605	601	0	–
Sweden	456	454	0	–
Switzerland	481	541	1	0
Spain	285	272	12	–
United States of America	7,327	3,878	140	11
United Kingdom	1,020	1,067	25	1
Other	1,211	1,165	5	0
Total	**174,293**	**159,640**	**4,160**	**887**

[1] The gross carrying amount reported for the “performing” and “non-performing” columns includes the IFRS categories to which the IFRS 9 impairment model is not applied.

in € m

Gross carrying amount[1)		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					
Non-performing		Of which performing exposures – accumulated impairment and provisions			Of which non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
Stage 2	**Stage 3**		**Stage 1**	**Stage 2**		**Stage 2**	**Stage 3**
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	–	0	0	–	–	–	–
–	**97**	**22**	**11**	**12**	**28**	**–**	**28**
–	1	0	0	0	–	–	–
–	71	16	7	9	17	–	17
–	–	1	1	1	–	–	–
–	4	0	0	–	–	–	–
–	1	0	0	0	0	–	0
–	10	0	0	0	0	–	0
–	–	1	1	0	–	–	–
–	–	0	0	0	0	–	0
–	–	0	0	0	–	–	–
–	–	0	0	0	–	–	–
–	0	0	0	0	0	–	0
–	–	0	0	0	–	–	–
–	9	2	1	2	11	–	11
–	1	0	0	0	–	–	–
–	0	0	0	0	0	–	0
–	**854**	**136**	**60**	**77**	**338**	**–**	**333**

NPE 12 – Write-offs by time since classification as NPE

in € m

	Write-offs in the last reporting period				
		Time since classification as NPE			
		≤ 1 year	> 1 year ≤ 2 years	> 2 years ≤ 5 years	> 5 years
Loans and advances	7	1	1	4	1
Debt securities	–	–	–	–	–
Total	**7**	**1**	**1**	**4**	**1**

The table presents the amounts of the exposures written off in the reporting period, broken down by the time since classification of the exposures as non-performing.

The following tables show cash collected in respect of non-performing exposures that has been obtained from borrower repayments and receipts from the recovery of collateral (plus bailout acquisitions), the allocation of this cash to the payment of interest and repayment of principal, and the amount of the interest accrued in respect of non-performing exposures.

The payments received and recognised are also broken down by FINREP counterparty sector, region and NACE code (industry).

NPE 13 – Cash collections in respect of non-performing exposures

in € m

	Amounts allocated to payments of interest	Amounts allocated to repayments of principal	Total
Cash collections in respect of non-performing exposures (including bailout acquisitions)			298
Of which from borrower repayments	10	96	106
Of which from collateral recovery (plus bailout acquisitions)	4	188	192
Amount of interest accrued in respect of non-performing exposures			**10**

NPE 14 – Cash collections in respect of non-performing exposures, by FINREP counterparty sector

in € m

	Cash collections in respect of non-performing exposures (including bailout acquisitions)
Central banks	–
General government	0
Credit institutions	–
Other financial corporations	54
Non-financial corporations	211
Households	34
Total	**298**

NPE 15 – Cash collections in respect of non-performing exposures, by industry

in € m

	Cash collections in respect of non-performing exposures (including bailout acquisitions)
H Transportation and storage	136
K Financial and insurance activities	54
C Manufacturing	37
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	19
L Real estate activities	15
D Electricity, gas, steam and air-conditioning supply	10
M Professional, scientific and technical activities	9
U Activities of extraterritorial organisations and bodies	6
Other	12
Total	**298**

NPE 16 – Cash collections in respect of non-performing exposures, by country in € m

	Cash collections in respect of non-performing exposures (including bailout acquisitions)
Germany	205
Cayman Islands	24
Cyprus	19
Malta	10
Spain	10
United Kingdom	10
United States of America	6
Mexico	5
Other	10
Total	**298**

Collateral Valuation

The following tables set out the collateral and guarantees held for performing and non-performing exposures, broken down by exposure class, industry and geographical region. The internal collateral value is reported, taking into account recovery rates.

NPE 17 – Collateral and guarantees received, by FINREP counterparty sector in € m

	Performing		Non-performing	
	Collateral received	Guarantees received	Collateral received	Guarantees received
Loans and advances	**34,124**	**4,561**	**177**	**21**
Central banks	–	–	–	–
General government	43	364	–	–
Credit institutions	0	286	–	5
Other financial corporations	2,486	136	9	2
Non-financial corporations	25,902	3,382	115	4
Households	5,693	393	53	9
Debt securities	**–**	**–**	**–**	**–**
Off-balance-sheet exposures	**1,432**	**425**	**1**	**0**
Central banks	–	–	–	–
General government	–	9	–	–
Credit institutions	0	1	–	0
Other financial corporations	3	69	–	–
Non-financial corporations	1,388	326	1	0
Households	40	20	0	0
Total	**35,556**	**4,986**	**178**	**21**

NPE 18 – Collateral and guarantees received, by industry

in € m

	Performing		Non-performing	
	Collateral received	Guarantees received	Collateral received	Guarantees received
Loans and advances	**34,124**	**4,561**	**177**	**21**
A Agriculture, forestry and fishing	4	3	0	1
C Manufacturing	87	158	7	1
D Electricity, gas, steam and air-conditioning supply	6	560	–	0
E Water supply; sewerage, waste management and remediation activities	2	423	–	–
H Transportation and storage	1,871	690	23	0
I Accommodation and food service activities	15	10	2	0
K Financial and insurance activities	3,043	466	9	10
L Real estate activities	21,692	510	80	0
N Administrative and support service activities	542	58	1	0
O Public administration and defence; compulsory social security	1,171	1,115	–	–
Q Human health and social work activities	150	133	0	0
S Other service activities	497	87	2	0
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	4,161	174	45	7
Other	884	174	6	1
Debt securities	**–**	**–**	**–**	**–**
Off-balance-sheet exposures	**1,432**	**425**	**1**	**0**
C Manufacturing	4	15	1	0
D Electricity, gas, steam and air-conditioning supply	0	52	–	–
E Water supply; sewerage, waste management and remediation activities	0	39	–	–
F Construction	7	1	0	–
G Wholesale and retail trade; repair of motor vehicles and motorcycles	6	2	0	–
H Transportation and storage	79	64	0	–
I Accommodation and food service activities	1	1	0	–
K Financial and insurance activities	128	43	–	–
L Real estate activities	910	47	–	–
N Administrative and support service activities	23	5	–	–
O Public administration and defence; compulsory social security	49	104	–	–
Q Human health and social work activities	6	12	–	–
S Other service activities	21	8	–	–
T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	175	16	0	–
Other	24	14	0	0
Total	**35,556**	**4,986**	**178**	**21**

NPE 19 – Collateral and guarantees received, by country

in € m

	Performing		Non-performing	
	Collateral received	**Guarantees received**	**Collateral received**	**Guarantees received**
Loans and advances	**34,124**	**4,561**	**177**	**21**
Egypt	–	127	–	–
Germany	18,746	3,420	110	14
Finland	367	–	–	–
France	1,299	48	60	–
Greece	–	101	–	–
Ireland	429	340	–	–
Jersey	420	–	–	–
Luxembourg	2,187	–	–	–
The Netherlands	617	–	–	–
Austria	371	–	–	–
Poland	858	–	–	–
Russian Federation	–	194	–	–
Sweden	306	–	–	–
Turkey	–	43	–	–
United States of America	6,552	100	–	–
United Kingdom	436	–	–	–
Other	1,536	187	7	7
Debt securities	**–**	**–**	**–**	**–**
Off-balance-sheet exposures	**1,432**	**425**	**1**	**0**
Germany	746	376	1	0
Ireland	257	1	–	–
Japan	95	–	–	–
Cayman Islands	247	–	–	–
Switzerland	3	–	0	0
United States of America	31	32	–	–
Other	52	16	–	0
Total	**35,556**	**4,986**	**178**	**21**

For the most relevant collateralised NPE portfolios (corporate finance and commercial real estate), the table shows the non-performing exposures, the collateral (based on the latest valuation in each case), the expected net present value from the exposure (taking into account the period until disposal and the costs incurred until disposal) and the loss allowances by type of asset and time since classification of the exposure as non-performing.

NPE 20 – Collateralised NPE portfolios

in € m

					Collateralised NPE portfolio, corporate finance	**Collateralised NPE portfolio, commercial real estate**	
Type of collateral	**Gross carrying amount**	**Collateral and guarantees received**	**Expected net present value**	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**	**Time since classification as NPE (weighted in years)**	**Gross carrying amount**	**Collateral and guarantees received**
Guarantees	3	2	3	0	2.37	–	–
Residential real estate	2	2	2	0	5.99	1	1
Commercial real estate	12	10	11	1	2.11	135	92
Financial collateral	1	1	1	0	0.63	–	–
Other collateral	66	28	37	29	3.46	0	0
Uncollateralised exposures							
Total	**84**	**42**	**53**	**30**	**3.27**	**136**	**92**

NPE 20 – Collateralised NPE portfolios

in € m

			Collateralised NPE portfolio, corporate finance					**Collateralised NPE portfolio, commercial real estate**
Type of collateral	**Expected net present value**	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**	**Time since classification as NPE (weighted in years)**	**Gross carrying amount**	**Collateral and guarantees received**	**Expected net present value**	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**	**Time since classification as NPE (weigted in years)**
Guarantees	–	–	–	28	21	27	1	1.11
Residential real estate	1	0	2.46	42	41	41	2	2.98
Commercial real estate	121	15	1.19	147	105	132	15	1.27
Financial collateral	–	–	–	4	3	3	0	1.25
Other collateral	0	–	2.24	68	29	38	30	3.45
Uncollateralised exposures				598		308	290	2.56
Total	**122**	**15**	**1.20**	**887**	**199**	**549**	**338**	**2.34**

As at the reporting date there were no foreclosed assets in accordance with Annex 7, chapter 7, no. 3 of the ECB guidance.

Annex

Key Features of the Capital Instruments

This overview ("Key features of the capital instruments") has been prepared by Landesbank Hessen-Thüringen Girozentrale solely for the purpose of compliance with the disclosure requirements set out in "COMMISSION IMPLEMENTING REGULATION (EU) No 1423/2013 of 20 December 2013 laying down implementing technical standards with regard to disclosure of own funds requirements for institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council".

The publication of this specific data constitutes neither an offer nor a recommendation to purchase securities or other instruments.

Key features of the capital instruments		Instrument 1	Instrument 2	Instrument 3
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	n.a.	n.a.	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1
5	Post-transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Share capital (amount excluding capital reserves)	Capital reserves	Subordinated AT1 bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	589	1,920	354
9	Par value of instrument (issue currency, in m)	589	1,920	354
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	589	1,920	354
9a	Issue price	n.a.	n.a.	100.00 %
9b	Redemption price	n.a.	n.a.	n.a.
10	Accounting classification	Paid-up share capital	Paid-up share capital	Regulatory Additional Tier 1 instruments
11	Original issue date	01.07.1992/01.01.2001/01.07.2012	30.12.1998/06.12.2011/09.12.2011	19.12.18
12	Perpetual or dated	Perpetual	Perpetual	Perpetual
13	Original maturity date	No maturity	No maturity	No maturity
14	Issuer call subject to prior supervisory approval	No	No	Yes
15	Optional call date and redemption amount	n.a.	n.a.	19.12.2028/100.00 %
16	Later call dates, if applicable	n.a.	n.a.	19.12. every 10 yrs. min. 30-day notice period
	Coupons/dividends			
17	Fixed or floating dividend/coupon	n.a.	n.a.	Floating
18	Coupon rate and any related index	n.a.	n.a.	3.8610 %/ICE 10-year Euro mid-swap rate
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	Fully discretionary	Fully discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary	Fully discretionary	Fully discretionary
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	n.a.	n.a.	Yes
31	If write-down: write-down trigger(s)	Absorption of share of loss as CET1 instrument	Absorption of share of loss as CET1 instrument	CET1 capital ratio < 5.125 %
32	If write-down: full or partial	Full or partial	Full or partial	Full or partial
33	If write-down: permanent/temporary/n.a.	Absorption of share of loss as CET1 instrument	Absorption of share of loss as CET1 instrument	Temporary
34	If temporary write-down: reversal mechanism	n.a.	n.a.	Write-up from net income from year (in proportion to and ranked pari passu with other instruments of the same class)
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks ahead of all others in absorption of share of loss	Ranks ahead of all others in absorption of share of loss	Ranks behind subordinated liabilities (i.e. satisfied after all creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

	Key features of the capital instruments	Instrument 4	Instrument 5	Instrument 6
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen via Main Capital Funding Limited Partnership	Landesbank Hessen-Thüringen via Main Capital Funding II Limited Partnership
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	DE000A0E4657	DE000A0G18M4
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Additional Tier 1	Additional Tier 1	Additional Tier 1
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Silent participation	Silent participation – packaged in bearer bond –	Silent participation – packaged in bearer bond –
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	18	250	250
9	Par value of instrument (issue currency, in m)	18	250	250
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	18	250	250
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	n.a.	n.a.	n.a.
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	14.12.01	02.06.05	01.12.06
12	Perpetual or dated	Perpetual	Perpetual	Perpetual
13	Original maturity date	No maturity	No maturity	No maturity
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	31.12.2024/Carrying amount as at call date (repayment after financial statements adopted)	31.12.2021/Nominal amount	31.12.2021/Nominal amount
16	Later call dates, if applicable	31.12. every 10 yrs. 2-yr. notice period	31.12. each yr. 2-yr. notice period only if carrying amount=nom. amount	31.12. each yr. 2-yr. notice period only if carrying amount=nom. amount
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Floating	Fixed	Fixed
18	Coupon rate and any related index	2.4990 %/EUR swap interest rate	5.5000 %	5.7500 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Partially discretionary	Partially discretionary	Partially discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	Yes	Yes	Yes
31	If write-down: write-down trigger(s)	Net loss for the year	Indirect – net loss for the year	Indirect – net loss for the year
32	If write-down: full or partial	Full or partial	Full or partial	Full or partial
33	If write-down: permanent/temporary/n.a.	Temporary	Temporary	Temporary
34	If temporary write-down: reversal mechanism	Write-up from net income from year (in proportion to the other instruments concerned of the same class)	Indirect – write-up from net income from year (in proportion to the other instruments concerned of the same class)	Indirect – write-up from net income from year (in proportion to the other instruments concerned of the same class)
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind subordinated liabilities (i.e. satisfied after all creditors)	Ranks behind subordinated liabilities (i.e. satisfied after all creditors)	Ranks behind subordinated liabilities (i.e. satisfied after all creditors)
36	Non-compliant transitioned features	Yes	Yes	Yes
37	If yes, specify non-compliant features	See feature 20a	See feature 20a	See feature 20a

[1] No portions of an issue have been reclassified to a lower level.

	Instrument 7	Instrument 9	Instrument 9	Instrument 10	Instrument 11
	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	DE000HLB88G7
	German law	German law	German law	German law	German law
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
	Profit participation rights without certificate	Profit participation rights without certificate	Profit participation rights without certificate	Profit participation rights without certificate	Profit-participation certificate
	12	6	18	1	12
	20	10	30	1	20
	EUR	EUR	EUR	EUR	EUR
	20	10	30	1	20
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	n.a.	n.a.	n.a.	n.a.	n.a.
	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
	12.05.06	29.05.06	01.06.06	12.06.06	12.06.06
	Dated	Dated	Dated	Dated	Dated
	31.12.21	31.12.21	31.12.21	31.12.21	31.12.21
	Yes	Yes	Yes	Yes	Yes
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Fixed	Fixed	Fixed	Fixed	Fixed
	5.3000 %	5.1225 %	5.1750 %	5.2100 %	5.2200 %
	No	No	No	No	No
	Partially discretionary	Partially discretionary	Partially discretionary	Partially discretionary	Partially discretionary
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	No	No	No	No	No
	Cumulative	Cumulative	Cumulative	Cumulative	Cumulative
	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Yes	Yes	Yes	Yes	Yes
	Net accumulated loss	Net accumulated loss	Net accumulated loss	Net accumulated loss	Net accumulated loss
	Full or partial	Full or partial	Full or partial	Full or partial	Full or partial
	Temporary	Temporary	Temporary	Temporary	Temporary
	Write-up from net income from year (in proportion to the other instruments concerned of the same class)	Write-up from net income from year (in proportion to the other instruments concerned of the same class)	Write-up from net income from year (in proportion to the other instruments concerned of the same class)	Write-up from net income from year (in proportion to the other instruments concerned of the same class)	Write-up from net income from year (in proportion to the other instruments concerned of the same class)
	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 12	Instrument 13	Instrument 14
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	XS0128218327	XS0128429619
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated bond	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	7	52	20
9	Par value of instrument (issue currency, in m)	10	52	20
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	52	20
9a	Issue price	100.00 %	99,79 %	99,68 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	19.09.06	23.04.01	03.05.01
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	19.09.22	23.04.41	03.05.41
14	Issuer call subject to prior supervisory approval	No	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Floating	Floating
18	Coupon rate and any related index	4.4425 %	0.0762 %/Euribor	0.0720 %/Euribor
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1) No portions of an issue have been reclassified to a lower level.

Instrument 15	Instrument 16	Instrument 17	Instrument 18	Instrument 19
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
XS0128429619	XS0132805762	XS0130374183	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated bond	Subordinated bond	Subordinated bond	Subordinated loan	Subordinated loan
30	15	30	27	15
30	15	30	30	15
EUR	EUR	EUR	EUR	EUR
30	15	30	30	15
99,84 %	100,05 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
14.05.01	18.07.01	01.06.01	10.07.13	12.07.13
Dated	Dated	Dated	Dated	Dated
03.05.41	18.07.31	01.06.31	10.07.23	12.02.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Floating	Floating	Fixed	Fixed	Fixed
0.0720 %/Euribor	0.1510 %/Euribor	6.2500 %	4.2600 %	4.3200 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 20	Instrument 21	Instrument 22
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	10	20	5
9	Par value of instrument (issue currency, in m)	10	20	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	20	5
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	11.07.13	15.07.13	11.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	11.07.28	15.07.27	11.07.23
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.6800 %	4.6300 %	4.2500 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 23	Instrument 24	Instrument 25	Instrument 26	Instrument 27
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
5	5	5	21	5
5	5	5	23	5
EUR	EUR	EUR	EUR	EUR
5	5	5	23	5
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
15.07.13	12.07.13	11.07.13	17.07.13	17.07.13
Dated	Dated	Dated	Dated	Dated
15.07.26	12.07.24	11.07.23	17.07.23	17.07.23
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
4.5300 %	4.3500 %	4.2400 %	4.1200 %	4.1800 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 28	Instrument 29	Instrument 30
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	9	7	14
9	Par value of instrument (issue currency, in m)	10	8	14
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	8	14
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	12.07.13	15.07.13	23.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	12.07.23	17.07.23	22.07.33
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2000 %	4.1800 %	4.7000 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1)] No portions of an issue have been reclassified to a lower level.

Instrument 31	Instrument 32	Instrument 33	Instrument 34	Instrument 35
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
75	6	2	8	9
82	6	2	9	10
EUR	EUR	EUR	EUR	EUR
82	6	2	9	10
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
19.07.13	17.07.13	24.07.13	24.07.13	25.07.13
Dated	Dated	Dated	Dated	Dated
19.07.23	17.07.28	24.07.26	24.07.23	25.07.23
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
4.2000 %	4.6000 %	4.4000 %	4.1000 %	4.1300 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 36	Instrument 37	Instrument 38
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	6	19	3
9	Par value of instrument (issue currency, in m)	6	20	3
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	6	20	3
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	31.07.13	31.07.13	29.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	31.07.28	31.07.28	31.07.23
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.5900 %	4.6300 %	4.2300 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1)] No portions of an issue have been reclassified to a lower level.

Instrument 39	Instrument 40	Instrument 41	Instrument 42	Instrument 43
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	DE000HLB0WG6	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan
69	23	15	18	5
75	25	15	20	5
EUR	EUR	EUR	EUR	EUR
75	25	15	20	5
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
31.07.13	14.08.13	05.08.13	02.08.13	02.08.13
Dated	Dated	Dated	Dated	Dated
31.07.23	14.08.23	05.08.33	02.08.23	02.08.30
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
4.2500 %	4.2600 %	4.7300 %	4.2650 %	4.7500 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 44	Instrument 45	Instrument 46
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	DE000HLB0WH4	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated bond	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	23	9	9
9	Par value of instrument (issue currency, in m)	25	10	10
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	25	10	10
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	15.08.13	09.08.13	29.08.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	15.08.23	09.08.23	29.08.23
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2300 %	4.2800 %	4.4200 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1)] No portions of an issue have been reclassified to a lower level.

Instrument 47	Instrument 48	Instrument 49	Instrument 50	Instrument 51
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
DE000HLB0WJ0	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
5	4	9	5	5
5	5	10	5	5
EUR	EUR	EUR	EUR	EUR
5	5	10	5	5
100.00 %	100.00 %	99,92 %	99,78 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
04.09.13	05.09.13	23.09.13	26.09.13	04.10.13
Dated	Dated	Dated	Dated	Dated
04.09.23	05.09.33	22.09.23	26.09.23	04.10.23
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Currently fixed, subsequently floating	Fixed	Fixed	Fixed
4.4200 %	5.0000 %/EUR swap interest rate	4.4300 %	4.4000 %	4.3500 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 52	Instrument 53	Instrument 54
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	10	2	2
9	Par value of instrument (issue currency, in m)	10	2	2
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	2	2
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	04.10.13	09.10.13	09.10.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	04.10.23	09.10.23	09.10.23
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.3400 %	4.4000 %	4.4000 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1) No portions of an issue have been reclassified to a lower level.

Instrument 55	Instrument 56	Instrument 57	Instrument 58	Instrument 59
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	DE000HLB02N4	DE000HLB0WK8	DE000HLB0WL6	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated bond	Subordinated bond	Subordinated bond	Subordinated loan
6	202	5	5	5
6	215	5	5	5
EUR	EUR	EUR	EUR	EUR
6	215	5	5	5
100.00 %	98,06 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
28.10.13	06.11.13	01.11.13	01.11.13	04.11.13
Dated	Dated	Dated	Dated	Dated
28.10.24	06.11.23	01.11.23	01.11.23	04.11.33
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Floating	Fixed	Fixed
4.4150 %	4.0000 %	1.9910 %/Euribor	4.3000 %	4.8750 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	**Instrument 60**	**Instrument 61**	**Instrument 62**
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	1	5	1
9	Par value of instrument (issue currency, in m)	1	5	1
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	5	1
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	05.11.13	06.11.13	13.11.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	05.11.24	06.11.23	13.11.23
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.4150 %	4.1900 %	4.2700 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

	Instrument 63	Instrument 64	Instrument 65	Instrument 66	Instrument 67
	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
	German law	German law	German law	German law	German law
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
	5	5	5	10	30
	5	5	5	10	30
	EUR	EUR	EUR	EUR	EUR
	5	5	5	10	30
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
	28.11.13	11.12.13	11.12.13	17.01.14	23.01.14
	Dated	Dated	Dated	Dated	Dated
	28.11.23	11.12.23	11.12.23	17.01.24	23.01.34
	Yes	Yes	Yes	Yes	Yes
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Fixed	Fixed	Fixed	Fixed	Fixed
	4.2100 %	4.2850 %	4.2650 %	4.3400 %	4.6300 %
	No	No	No	No	No
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	No	No	No	No	No
	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 68	Instrument 69	Instrument 70
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	7	39	5
9	Par value of instrument (issue currency, in m)	7	39	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	7	39	5
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	06.02.14	06.02.14	12.02.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	06.02.26	06.02.34	12.02.29
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.1000 %	4.4700 %	4.3400 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 71	Instrument 72	Instrument 73	Instrument 74	Instrument 75
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
11	5	11	20	25
10	5	10	20	25
EUR	EUR	EUR	EUR	EUR
10	5	10	20	25
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
06.03.14	11.03.14	13.03.14	21.03.14	15.04.14
Dated	Dated	Dated	Dated	Dated
06.03.34	11.03.24	13.03.34	21.12.29	15.04.24
Yes	Yes	Yes	Yes	Yes
06.03.2024/Nominal amount	n.a.	13.03.2024/Nominal amount	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
4.6800 %	3.8800 %	4.7000 %	4.3000 %	3.6300 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 76	Instrument 77	Instrument 78
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	DE000HLB4L07
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	10	1	20
9	Par value of instrument (issue currency, in m)	10	1	20
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	1	20
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	09.05.14	13.05.14	23.05.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	09.05.34	13.05.24	23.05.24
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Floating
18	Coupon rate and any related index	4.2300 %	3.6350 %	1.6430 %/Euribor
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 79	Instrument 80	Instrument 81	Instrument 82	Instrument 83
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	DE000HLB4L15	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan
8	25	10	3	19
8	25	10	3	20
EUR	EUR	EUR	EUR	EUR
8	25	10	3	20
100.00 %	100.00 %	100,04 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
03.06.14	05.06.14	10.06.14	12.06.14	01.08.14
Dated	Dated	Dated	Dated	Dated
03.06.24	05.06.24	10.06.24	12.06.34	01.08.24
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Floating
3.3100 %	3.3500 %	3.3000 %	4.0100 %	1.7424 %/EUR swap interest rate
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 84	Instrument 85	Instrument 86
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	30	3	5
9	Par value of instrument (issue currency, in m)	30	3	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	30	3	5
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	25.08.14	26.08.14	27.08.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	01.07.25	26.08.24	27.08.29
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.0000 %	2.9050 %	3.2650 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

	Instrument 87	Instrument 88	Instrument 89	Instrument 90	Instrument 91
	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
	German law	German law	German law	German law	German law
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
	30	5	15	20	5
	30	5	15	20	5
	EUR	EUR	EUR	EUR	EUR
	30	5	15	20	5
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
	03.09.14	10.09.14	19.09.14	02.10.14	02.10.14
	Dated	Dated	Dated	Dated	Dated
	03.09.29	10.09.26	19.09.33	02.10.34	02.10.24
	Yes	Yes	Yes	Yes	Yes
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Fixed	Fixed	Fixed	Fixed	Fixed
	3.1500 %	3.0300 %	3.5600 %	3.4550 %	2.8100 %
	No	No	No	No	No
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	No	No	No	No	No
	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 92	Instrument 93	Instrument 94
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	DE000HLB1V32
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	2	5	50
9	Par value of instrument (issue currency, in m)	2	5	50
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	2	5	50
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	29.10.14	11.11.14	18.11.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	29.10.24	11.11.24	18.11.24
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	2.7000 %	2.7150 %	2.6900 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 95	Instrument 96	Instrument 97	Instrument 98	Instrument 99
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
DE000HLB1KN5	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
97	3	5	5	5
100	3	5	5	5
EUR	EUR	EUR	EUR	EUR
100	3	5	5	5
97,97 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
19.11.14	12.12.14	30.01.15	30.01.15	24.02.15
Dated	Dated	Dated	Dated	Dated
19.11.24	12.06.25	30.01.25	30.01.25	24.02.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
2.5000 %	2.6200 %	2.3700 %	2.3700 %	2.3750 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 100	Instrument 101	Instrument 102
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	3	3	5
9	Par value of instrument (issue currency, in m)	3	3	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	3	3	5
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	10.03.15	10.03.15	01.04.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	10.03.25	10.03.25	01.04.30
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	2.3700 %	2.3700 %	2.4000 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

	Instrument 103	Instrument 104	Instrument 105	Instrument 106	Instrument 107
	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	DE000HLB09P4
	German law	German law	German law	German law	German law
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
	Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated bond
	20	5	14	10	10
	20	5	14	10	10
	EUR	EUR	EUR	EUR	EUR
	20	5	14	10	10
	100.00 %	100.00 %	100.00 %	100.00 %	99,53 %
	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
	10.04.15	14.04.15	15.04.15	21.05.15	16.06.15
	Dated	Dated	Dated	Dated	Dated
	10.04.25	14.04.26	15.04.25	21.05.35	16.06.25
	Yes	Yes	Yes	Yes	Yes
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Fixed	Fixed	Fixed	Fixed	Fixed
	2.2050 %	2.2200 %	2.1950 %	3.0000 %	2.7500 %
	No	No	No	No	No
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	No	No	No	No	No
	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.
	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
	No	No	No	No	No
	n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 108	Instrument 109	Instrument 110
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	DE000HLB13N1	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated bond	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	44	5	47
9	Par value of instrument (issue currency, in m)	45	5	47
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	45	5	47
9a	Issue price	98,00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	24.06.15	30.06.15	14.07.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	24.06.25	30.06.25	14.07.25
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	2.0000 %	2.8600 %	3.0650 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1) No portions of an issue have been reclassified to a lower level.

Instrument 111	Instrument 112	Instrument 113	Instrument 114	Instrument 115
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
5	12	10	5	5
5	12	10	5	5
EUR	EUR	EUR	EUR	EUR
5	12	10	5	5
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
14.07.15	14.07.15	15.07.15	15.07.15	15.07.15
Dated	Dated	Dated	Dated	Dated
14.07.31	14.07.25	15.07.30	14.07.28	14.07.28
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.5000 %	3.1800 %	3.4500 %	3.5500 %	3.5500 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 116	Instrument 117	Instrument 118
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	DE000HLB0908	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated bond	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	3	5	10
9	Par value of instrument (issue currency, in m)	3	6	10
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	3	6	10
9a	Issue price	100.00 %	99,92 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	16.07.15	21.07.15	21.07.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	16.07.25	21.07.25	21.07.25
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.2000 %	3.2000 %	3.1200 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 119	Instrument 120	Instrument 121	Instrument 122	Instrument 123
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
12	10	2	10	12
13	10	2	10	12
EUR	EUR	EUR	EUR	EUR
13	10	2	10	12
99,99 %	100.00 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
24.07.15	24.07.15	28.07.15	31.07.15	31.07.15
Dated	Dated	Dated	Dated	Dated
24.07.25	24.07.25	28.07.25	31.07.30	31.07.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.0900 %	3.0850 %	3.0250 %	3.4000 %	3.0400 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 124	Instrument 125	Instrument 126
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	2	5	2
9	Par value of instrument (issue currency, in m)	2	5	2
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	2	5	2
9a	Issue price	99,80 %	100.00 %	99,82 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	03.08.15	05.08.15	06.08.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	03.08.27	05.08.30	06.08.30
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1900 %	3.3800 %	3.2750 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 127	Instrument 128	Instrument 129	Instrument 130	Instrument 131
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
7	2	1	10	5
7	2	1	10	5
EUR	EUR	EUR	EUR	EUR
7	2	1	10	5
99,42 %	99,80 %	100.00 %	100.00 %	99,79 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
12.08.15	11.08.15	11.08.15	12.08.15	25.08.15
Dated	Dated	Dated	Dated	Dated
12.08.30	12.08.30	11.08.25	12.08.25	25.08.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.3400 %	3.3750 %	3.0300 %	3.0250 %	2.9200 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 132	Instrument 133	Instrument 134
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	DE000HLB1AH8	Bilateral agreement with no third-party reference	DE000HLB1AJ4
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated bond	Subordinated loan	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	5	5	5
9	Par value of instrument (issue currency, in m)	5	5	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	5	5
9a	Issue price	100.00 %	100.00 %	99,53 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	02.09.15	02.09.15	08.09.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	02.09.30	02.09.30	08.09.25
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.3400 %	3.3300 %	3.0300 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1] No portions of an issue have been reclassified to a lower level.

Instrument 135	Instrument 136	Instrument 137	Instrument 138	Instrument 139
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
12	1	3	3	5
13	1	3	3	5
EUR	EUR	EUR	EUR	EUR
13	1	3	3	5
99,91 %	97,82 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
08.09.15	23.09.15	24.09.15	29.09.15	29.09.15
Dated	Dated	Dated	Dated	Dated
08.09.26	23.09.25	24.09.29	29.09.25	29.09.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.1900 %	2.7500 %	3.3400 %	3.1700 %	3.1600 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

Key features of the capital instruments		Instrument 140	Instrument 141	Instrument 142
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	XS1306576726
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	67	10	40
9	Par value of instrument (issue currency, in m)	67	10	40
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	67	10	40
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	01.10.15	01.10.15	21.10.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	01.10.25	01.10.35	21.10.30
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Fixed	Floating
18	Coupon rate and any related index	3.1500 %	3.7240 %	1.6050 %/Euribor
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1) No portions of an issue have been reclassified to a lower level.

Instrument 143	Instrument 144	Instrument 145	Instrument 146	Instrument 147
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
5	4	1	10	5
5	4	1	10	5
EUR	EUR	EUR	EUR	EUR
5	4	1	10	5
99,75 %	100.00 %	99,70 %	100.00 %	99,13 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
14.10.15	16.10.15	21.10.15	23.10.15	28.10.15
Dated	Dated	Dated	Dated	Dated
14.10.30	16.10.25	21.10.30	23.10.25	28.10.30
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Floating	Fixed
3.5300 %	3.1700 %	3.4700 %	1.9060 %/Euribor	3.4000 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 148	Instrument 149	Instrument 150
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
3	Law applicable to the instrument	German law	German law	German law
	Regulatory treatment			
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated loan	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	16	15	1
9	Par value of instrument (issue currency, in m)	17	15	1
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	17	15	1
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	02.11.15	04.11.15	10.11.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	31.10.25	04.11.25	10.11.25
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.	n.a.
	Coupons/dividends			
17	Fixed or floating dividend/coupon	Fixed	Floating	Fixed
18	Coupon rate and any related index	3.0400 %	1.9120 %/Euribor	3.1350 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.	n.a.
30	Write-down features	No	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No	No
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

[1)] No portions of an issue have been reclassified to a lower level.

Instrument 151	Instrument 152	Instrument 153	Instrument 154	Instrument 155
Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference	Bilateral agreement with no third-party reference
German law	German law	German law	German law	German law
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
2	5	0	10	10
2	5	1	10	10
EUR	EUR	EUR	EUR	EUR
2	5	1	10	10
100.00 %	99,49 %	99,00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
10.11.15	17.11.15	18.11.15	19.11.15	02.12.15
Dated	Dated	Dated	Dated	Dated
10.11.25	17.11.25	18.11.25	19.11.25	02.12.25
Yes	Yes	Yes	Yes	Yes
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.1400 %	3.0500 %	3.0000 %	3.1000 %	3.0250 %
No	No	No	No	No
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
No	No	No	No	No
Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
No	No	No	No	No
n.a.	n.a.	n.a.	n.a.	n.a.

	Key features of the capital instruments	Instrument 156	Instrument 157
1	Issuer	Landesbank Hessen-Thüringen Girozentrale, AöR	Landesbank Hessen-Thüringen Girozentrale, AöR
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Bilateral agreement with no third-party reference	DE000HLB2DM0
3	Law applicable to the instrument	German law	German law
	Regulatory treatment		
4	CRR transitional provisions: Instrument category[1)]	Tier 2	Tier 2
5	Post-transitional CRR rules	Tier 2	Tier 2
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo
7	Instrument type	Subordinated loan	Subordinated bond
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	3	162
9	Par value of instrument (issue currency, in m)	3	166
	Issue currency	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	3	166
9a	Issue price	100.00 %	99,00 %
9b	Redemption price	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost
11	Original issue date	02.12.15	18.11.15
12	Perpetual or dated	Dated	Dated
13	Original maturity date	02.12.25	18.11.25
14	Issuer call subject to prior supervisory approval	Yes	Yes
15	Optional call date and redemption amount	n.a.	n.a.
16	Later call dates, if applicable	n.a.	n.a.
	Coupons/dividends		
17	Fixed or floating dividend/coupon	Fixed	Fixed
18	Coupon rate and any related index	3.0400 %	3.0000 %
19	Existence of a dividend stopper	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory
21	Existence of a step up or other incentive to redeem	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible
24	If convertible: conversion trigger(s)	n.a.	n.a.
25	If convertible: full or partial	n.a.	n.a.
26	If convertible: conversion rate	n.a.	n.a.
27	If convertible: conversion obligatory or optional	n.a.	n.a.
28	If convertible: instrument type to be converted into	n.a.	n.a.
29	If convertible: issuer of instrument to be converted into	n.a.	n.a.
30	Write-down features	No	No
31	If write-down: write-down trigger(s)	n.a.	n.a.
32	If write-down: full or partial	n.a.	n.a.
33	If write-down: permanent/temporary/n.a.	n.a.	n.a.
34	If temporary write-down: reversal mechanism	n.a.	n.a.
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)	Ranks behind non-subordinated liabilities (i.e. satisfied after all senior unsecured creditors)
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	n.a.	n.a.

[1)] No portions of an issue have been reclassified to a lower level.

List of Abbreviations

Abbreviation	Definition
ABCP	Asset-backed commercial paper
ABS	Asset-backed securities
AC	Amortised cost
AIRB	Advanced IRB
AT1	Additional Tier 1 capital
BaFin	German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)
BCBS	Basel Committee on Banking Supervision
CCF	Credit conversion factor
CCP	Central counterparty
CCR	Counterparty credit risk
CDS	Credit default swap
CET1	Common Equity Tier 1 capital
CIU	Collective investment undertakings (CRSA exposure class)
COREP	Common solvency ratio reporting
CRD	Capital Requirements Directive (CRD IV)
CRM	Credit Risk Management
CRR	Capital Requirements Regulation
CRSA	Credit Risk Standardised Approach
CVA	Credit valuation adjustment
DRV	German Master Agreement
DSGV	German Savings Banks Association
DVA	Debit value adjustment
EBA	European Banking Authority
ECB	European Central Bank
EL	Expected loss
ELLI	Risk measurement system (interest rate option risk)
EMIR	European Market Infrastructure Regulation
Euribor	Euro Interbank Offered Rate
FBA	Funding benefit adjustment
FCA	Funding cost adjustment
FINREP	Financial reporting
FIRB	Foundation IRB
FSP	Frankfurter Sparkasse
FVA	Funding valuation adjustment
FVOCI	Fair value through other comprehensive income
FVTOCI	Fair value through other comprehensive income
FVTPL	Fair value through profit or loss
HGB	German Commercial Code (Handelsgesetzbuch)
IAA	Internal Assessment Approach for Securitisations
IAS	International Accounting Standards
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IMA	Internal models for market risk
Income statement	Income statement

Abbreviation	Definition
IRB	Internal Ratings-Based (Approach) (FIRB/AIRB)
ISDA	International Swaps and Derivatives Association
KIRB	The capital charge for the underlying portfolio had it not been securitised, including the expected loss
KKR	Customer Compact Rating (Kunden Kompakt Rating)
KPI	Key performance indicator
KWG	German Banking Act (Kreditwesengesetz)
LBR/LB Rating	Landesbanken Rating
LBS	Landesbausparkasse
LCR	Liquidity Coverage Ratio
LeDIS	Legal Database Information System
LGD	Loss Given Default
LoD	Lines of Defense
LTP	Liquidity transfer pricing system
MAC clause	Material adverse change clause
MaR/VaR	Money-at-risk
MaRC²	Risk measurement system (linear interest rate risk)
MaRisk	German Minimum Requirements for Risk Management
MaSan	German Minimum Requirements for the Design of Recovery Plans
MTA	Minimum transfer amounts
NACE codes	Statistical classification of economic activities in the European Community
NPL/NPE	Non-performing loans/non-performing exposures
NSFR	Net Stable Funding Ratio
O-SIIs	Other systemically important institutions
OTC	Over-the-counter
PD	Probability of default
RAF	Risk appetite framework
RAS	Risk appetite statement
RSGV	Rheinischer Sparkassen- und Giroverband
RSU	Rating Service Unit GmbH & Co. KG
RWA	Risk-weighted assets
SAG	German Recovery and Resolution Act
SFA	Supervisory Formula Approach
SFTs	Securities financing transactions
SME	Small and medium-sized enterprises
SolvV	German Solvency Regulation
SPV	Special purpose vehicle
S-Rating	Sparkassen Rating- und Risikosysteme GmbH
sMaR/sVaR	Stress money-at-risk / stress value-at-risk
SVWL	Sparkassenverband Westfalen-Lippe
T1	Tier 1 capital (T1 = CET1 + AT1)
T2	Tier 2 capital
TC	Total capital (TC = T1 + T2)
VR-RKA	Supervisory Board Risk and Credit Committee

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Concept and design

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