





# **Disclosure Report of the Helaba Group in Accordance with the CRR**

**31 December 2019**



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# Preamble

## The Helaba Group

Landesbank Hessen-Thüringen (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 serves its clients in three functions: as a commercial bank, as a Sparkasse central bank and as a development bank.

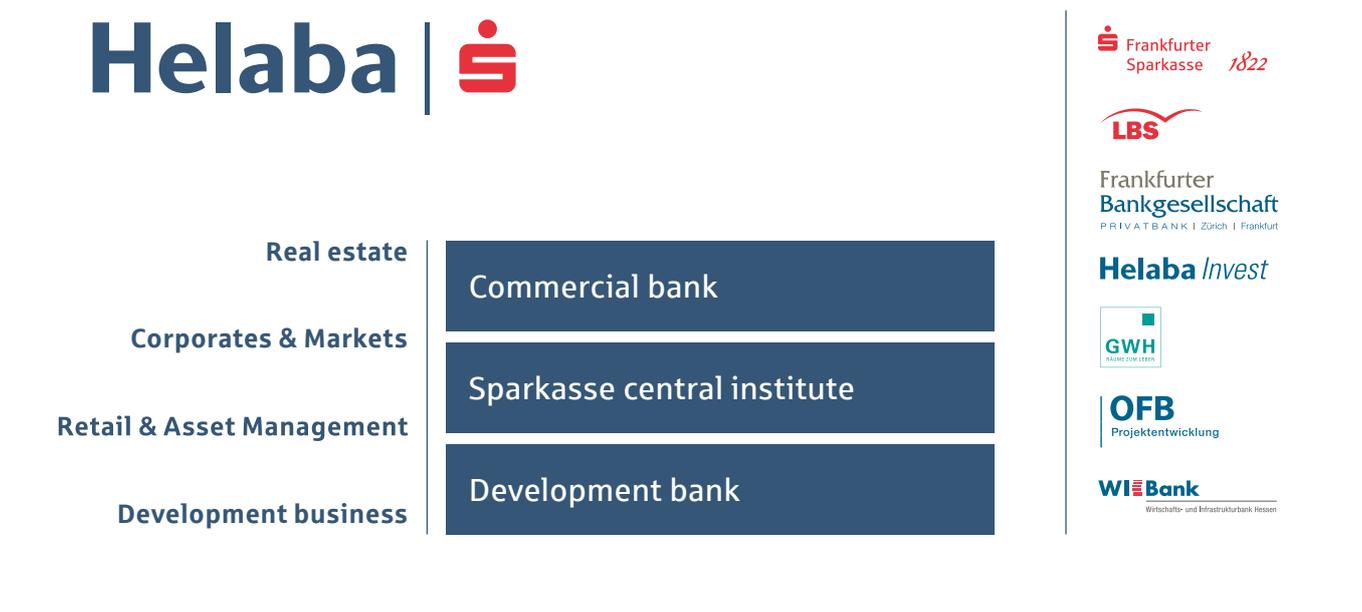
As a commercial bank, Helaba operates in Germany and abroad. The Bank's hallmarks include stable, long-term customer relationships. It works with companies, institutional clients, the public sector and municipal corporations.

Helaba is a Sparkasse central bank and S-Group bank for the Sparkassen in Hesse, Thuringia, North Rhine-Westphalia and Brandenburg and, therefore, for around 40% of all Sparkassen in Germany. It operates as a partner to the Sparkassen rather than as a competitor.

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. The foreign branches provide Helaba with access to the funding markets, particularly those markets based on the US dollar and pound sterling. The organisation also includes representative and sales offices, subsidiaries and affiliates.

Helaba's business model



## Disclosure Report

Helaba is the superordinate 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 2019. The supplementary provisions set out in Sections 10 and 10a of the German Banking Act (Kreditwesengesetz – KWG), the transitional provisions set out in Part 10 CRR and the regulatory and implementing standards, EBA guidelines and EBA Q&As of relevance to disclosure are also taken into account.

In January 2019, revised securitisation rules were introduced under Regulation (EU) 2017/2401, which amends the CRR. These rules change the calculation of risk-weighted assets (RWAs) for securitisation transactions that have been carried out since 1 January 2019. Subject to certain conditions, all securitisation transactions that existed prior to this date are subject to grandfathering provisions up to and including 31 December 2019 and continue to be backed by own funds in accordance with the CRR rules in force up to 31 December 2018.

Regulation (EU) 2019/876 (CRR II) introduces a large number of amendments, including various changes to the RWA framework for credit risk and to disclosure requirements. Most of these changes will come into force in June 2021. The regulation provides for transitional arrangements to be applied prior to June 2021 for some disclosure requirements. All references in the disclosure report to articles that already relate to CRR II are identified accordingly.

The frequency and scope of the Disclosure Report are based on the requirements specified in the EBA 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 have been issued quarterly since 2018. The report content required in accordance with the CRR has been expanded and made more specific by the EBA guidelines.

The "Guidelines on disclosure of non-performing and forborne exposures" (EBA/GL/2018/10) have superseded the "Guidance to banks on non-performing loans" issued by the European Central Bank (ECB) in March 2017. Disclosures in accordance with the latter were published for the first time as at 31 December 2018.

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
<b>Preamble</b>			
Overview of quantitative and qualitative requirements	x	–	–
<b>Risk Strategy and Risk Management</b>			
Article 435 section 1f CRR – Excerpt from Helaba's RAS	–	–	x
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
<b>Scope of Application</b>			
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
<b>Own Funds and Own Funds Structure</b>			
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: Equity exposures (simple risk-weight approach)	–	x	–
Capital ratios	–	x	–

Depending on the disclosure interval		
Helaba relevance	Use of materiality principle	Reference
x	–	Preamble section, Disclosure Report subsection
x	–	Risk Strategy and Risk Management section, Adequacy of Risk Management Arrangements and Risk Statement 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, Own funds structure subsection
x	–	Own Funds and Own Funds Structure section, Own funds structure subsection
Generally relevant, no qualifying items as at 31.12.2019	–	Own Funds and Own Funds Structure section, Own funds structure subsection
Generally relevant; no such specialised lending exposures as at 31.12.2019, 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, Own funds structure subsection
From 31.12.2019, the voluntary disclosure of capital ratios in table KM1 is dropped as a result of amendments to Article 13 CRR in relation to significant subsidiaries and the availability of ratios for the Helaba Group.	–	Own Funds and Own Funds Structure section, Own funds structure subsection

## Overview of quantitative and qualitative requirements

	Disclosure interval		
	Quarterly	Half-yearly	Annually
<b>Countercyclical Capital Buffer</b>			
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
<b>Leverage Ratio</b>			
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	–
<b>Liquidity Coverage Ratio (LCR)</b>			
EU LIQ1 – LCR	(x)	–	x
<b>Credit Risk – General disclosures</b>			
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	–

<b>Depending on the disclosure interval</b>		
<b>Helaba relevance</b>	<b>Use of materiality principle</b>	<b>Reference</b>
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
x	–	Leverage Ratio section
x	–	Leverage Ratio section
x	–	Leverage Ratio section
x	–	Leverage Ratio section
The total adjusted values are disclosed during the year to satisfy the requirements of EBA/GL/2016/11, section 27 (e)	–	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
From 31.12.2019, the template is superseded by disclosure in accordance with EBA GL/2018/10; the new disclosures are published in the “Non-Performing Exposures and Forbearance” section.	–	–

## Overview of quantitative and qualitative requirements

	Disclosure interval		
	Quarterly	Half-yearly	Annually
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	–
<b>Credit Risk – General disclosures on credit risk mitigation</b>			
EU CR3 – Credit risk mitigation techniques	–	x	–
	–	–	x
Article 453 CRR – Credit risk mitigation techniques by exposure class			
<b>Credit Risk – Credit risk and credit risk mitigation in the Standardised Approach</b>			
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
<b>Credit Risk – Credit risk and credit risk mitigation in the IRB Approach</b>			
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 – FIRB approach: Credit risk exposures by exposure class and PD range	–	x	–
EU CR6 – AIRB approach: 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

Depending on the disclosure interval		
Helaba relevance	Use of materiality principle	Reference
From 31.12.2019, the template is superseded by disclosure in accordance with EBA GL/2018/10; the new disclosures are published in the "Non-Performing Exposures and Forbearance" section.	–	–
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 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 31.12.2019	–	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
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
<b>Equity Investments in the Banking Book</b>			
Article 447 CRR – Type of equity investment instrument	–	–	x
<b>Counterparty credit risk (CCR)</b>			
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 and 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 CC	–	x	–
EU CCR2 – CVA capital charge	–	x	–
<b>Securitisations</b>			
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 vehicle	–	–	x
Article 449 CRR – Requirements for originators	–	–	x
<b>Market risk</b>			
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 relevance	Use of materiality principle	Reference
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	–	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 31.12.2019	–	Counterparty credit risk (CCR) section
Generally relevant, no qualifying items as at 31.12.2019	–	Counterparty credit risk (CCR) section
x	–	Counterparty credit risk (CCR) section
Generally relevant, no qualifying items as at 31.12.2019	–	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
<b>Interest Rate Risk in the Banking Book</b>	–	–	x
<b>Operational risk</b>	–	–	x
<b>Asset Encumbrance</b>			
Article 443 CRR – Assets	–	–	x
Article 443 CRR – Collateral received	–	–	x
Article 443 CRR – Sources of encumbrance	–	–	x
<b>Non-Performing Exposures and Forbearance</b>			
Template 1 – Credit quality of forborne exposures	–	x	–
Template 2 – Quality of forbearance	–	–	–
Template 3 – Credit quality of exposures by past due days	–	x	–
Template 4 – Impairment disclosures by FINREP counterparty sector	–	x	–
Template 5 – Credit quality of exposures by country	–	–	–
Template 6 – Credit quality of exposures by industry	–	–	–
Template 7 – Collateral and guarantees received, by FINREP counterparty sector	–	–	–
Template 8 – Changes in the stock of non-performing loans and advances	–	–	–
Template 9 – Foreclosed assets	–	x	–
Template 10 – Assets obtained by taking possession of collateral	–	–	–
<b>Qualitative / Other Disclosure Requirements</b>			
Article 13 CRR – Disclosure by significant subsidiaries	–	–	x
Article 435 CRR – Risk strategy and risk management; Article 435 section 1a CRR – Strategies and processes	–	–	x

Depending on the disclosure interval		
Helaba relevance	Use of materiality principle	Reference
x	–	Interest Rate Risk in the Banking Book section
x	–	Non-Financial Risk/Operational Risk section
x	–	Asset Encumbrance section
x	–	Asset Encumbrance section
x	–	Asset Encumbrance section
x	–	Non-Performing Exposures and Forbearance section
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
x	–	Non-Performing Exposures and Forbearance section
x	–	Non-Performing Exposures and Forbearance section
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
x	–	Non-Performing Exposures and Forbearance section
No disclosure requirement because Helaba has a gross NPL ratio of < 5 %	–	–
No Helaba subsidiaries are classified as large subsidiaries as defined under CRR II, as a result of which there is no longer a disclosure requirement for these subsidiaries in accordance with Article 13 CRR II		–
		The disclosures are included in the Annual Report (Group management report (Risk report, page 33 et seq.)). This disclosure report includes additional information.

## Overview of quantitative and qualitative requirements

	Disclosure interval		
	Quarterly	Half-yearly	Annually
Article 435 section 1b CRR – Structure and organisation	–	–	x
Article 435 section 1c CRR – Scope and nature of risk reporting and measurement systems	–	–	x
Article 435 section 1d CRR – Hedging and mitigating risk	–	–	x
Article 435 section 1e CRR – Adequacy of risk management arrangements	–	–	x
Article 435 section 1f CRR – Concise risk statement	–	–	x
Article 435 sections 2a-c CRR – Members of the management body	–	–	x
Article 435 sections 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

Depending on the disclosure interval		
Helaba relevance	Use of materiality principle	Reference
x		<p>The disclosures are included in the Annual Report (“Entities involved” (page 38), “Principal risk monitoring areas” (page 38 et seq.), “Compliance” (page 40 et seq.) sections under “Risk management structure” within the “Risk report” in the group management report).</p> <p>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.</p>
x		<p>“Principal risk monitoring areas” in the “Risk strategy and risk management” section.</p>
x		<p>Strategies and processes to counter and mitigate risks” in the “Risk strategy and risk management” section.</p>
x		<p>Please refer to the “Responsibility of executive management” section under “Principles” within the “Risk report” in the group management report in the Helaba Group’s Annual Report (page 33) for information on declarations by the Board of Managing Directors regarding the adequacy of the risk management arrangements at Helaba.</p> <p>Supplementary information is set out in the disclosure report (Risk Strategy and Risk Management section, Adequacy of Risk Management Arrangements and Risk Statement subsection and Risk Management Process subsection)</p>
x		<p>In relation to Article 435 section 1f CRR, please refer to the group management report within the Annual Report, specifically the “Risk report” (initial passage) (page 33) in conjunction with the “Protection of assets” (page 33) and “Risk appetite framework” (page 34) sections under “Principles” and the “Risk types” section (page 35 et seq.) under “Risk classification”.</p>
x		<p>Risk Strategy and Risk Management section, Risk Management Structure, Members of the management bodies subsections</p>
x		<p>The disclosures are included in the Annual Report (“Entities involved” (page 38), “Principal risk monitoring areas” (page 38 et seq.), “Compliance” (page 40 et seq.) sections under “Risk management structure” within the “Risk report” in the group management report).</p> <p>This disclosure report includes additional information.</p>
x		<p>Information on the group of consolidated companies under IFRS may be found in the Annual Report (Note (2) (page 88 et seq.) in conjunction with Note (58) (page 253 et seq.) in the Notes to the Consolidated Financial Statements)</p>

## Overview of quantitative and qualitative requirements

	Disclosure interval		
	Quarterly	Half-yearly	Annually
Article 447 CRR – Exposures in equities	–	–	x
Article 450 CRR – Remuneration policy disclosures	–	–	x
Article 441 CRR – Indicators of global systemic importance			
Article 473 CRR in conjunction with EBA/GL/2018/01 – Disclosure of IFRS 9 transitional arrangements			
Section 26a KWG – Country by Country Reporting	–	–	x
Section 35 SAG – Financial Assistance Provided Within the Group	–	–	x

Article 13 CRR (as at 31 December 2018) 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. At Helaba, FSP was subject to the separate disclosure requirements because of its importance to the local market.

With the introduction of CRR II and under the transitional provisions in Article 13 CRR II of 27 June 2019, the new wording “large subsidiaries” applies in this regard. Under Article 4 (1) no. 147 in conjunction with no. 146 CRR II, FSP is not classified as a large subsidiary, with the result that the disclosure requirement under Article 13 CRR II no longer applies. As a consequence of this regulatory amendment, FSP has no longer published a separate disclosure report from 31 December 2019.

<b>Depending on the disclosure interval</b>		
<b>Helaba relevance</b>	<b>Use of materiality principle</b>	<b>Reference</b>
x		More detailed information on equity investment exposures is included in the Annual Report in Notes (2), (3), (40) of the Notes to the Consolidated Financial Statements, and in the group management report ("Changes to basis of consolidation" section (page 24) under "Financial Position and Financial Performance")
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		–
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		Disclosures can be found in the section Country-by-country reporting (page 272 et seq.) in accordance with Section 26a KWG in the Annual Report
x		The disclosures are included in the Annual Report (Note (47) in conjunction with Note (48) 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 largely included in the Annual Report (Group management report, Risk report section (page 33 et seq.)). In the disclosure report, supplementary information is provided in addition to details on the adequacy of the risk management arrangements and risk statement.

## Adequacy of Risk Management Arrangements and Risk Statement

In accordance with Article 435 (1e) and (1f) CRR, Helaba's Board of Managing Directors believes that its risk management arrangements are structured adequately with regard to the nature, scope and complexity of the business activities, the risk inherent in these activities, and the business and risk strategies of the Bank. The risk management arrangements have been approved by the Board of Managing Directors in accordance with the requirements imposed by the Charter, national and international law and the banking regulatory authorities. Helaba develops its risk management arrangements continuously to accommodate changing circumstances, new findings and newly introduced regulatory requirements in both national and international contexts. The risk management arrangements instituted consider all of the Bank's material risks and are adequate with regard to the institution's profile and strategy.

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" (page 37) within the "Risk report" in the group management report).

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.

Drafted in accordance with the requirements imposed by the law, the Charter and the banking regulatory authorities and with the Rules of Procedure for the Board of Managing Directors, the risk strategy lays down the principal elements of the approach adopted to dealing with risk, the objectives of risk containment and the measures employed to achieve these objectives within Helaba. The risk strategy covers all of the main Helaba Group business units (which includes the Helaba group of companies as defined by the KWG and the Capital Requirements Regula-

tion (CRR)). It covers all of the material business activities of the Helaba Group. All group companies are integrated into the groupwide risk management system.

Details of Helaba's business strategy, which forms the basis for the risk strategy, can be found in a separate document. Helaba's business strategy and risk strategy are integrally linked to the business strategy and risk strategy of Sparkassen-Finanzgruppe Hessen-Thüringen.

Helaba operates as a for-profit entity in line with the applicable provisions of the Charter and the Treaty of the Formation of a Joint Savings Banks Association Hesse-Thuringia. Careful consideration is given to the risks and opportunities arising from all exposures and business transactions. 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. The principal objectives of Helaba's risk strategy are to uphold the organisation's conservative risk profile and maintain risk-bearing capacity while ensuring that all regulatory requirements are satisfied.

Helaba defines the RAF as a holistic approach to risk containment. Factors known as RAF indicators are identified and then used to produce a complete description of the risk profile in material terms. The RAF indicators comprise indicators that apply across all risk types and others that are specific to particular risk types; they focus on regulatory and economic capital adequacy, the appropriateness of liquidity coverage and on the sustainability of earnings power. For each RAF indicator, the Board of Managing Directors specifies threshold values for risk appetite, risk tolerance and – where relevant – risk capacity; these values are used to convert the main risk strategy objectives into operational details as part of the planning. Risk appetite refers to the level of risk Helaba is prepared to assume to attain its strategic objectives. Risk tolerance indicates the level of variance from the risk appetite that Helaba is still prepared to tolerate in an unfavourable environment to reach its strategic objectives. On the basis of regulatory limits (where available), risk capacity specifies the maximum level of risk that Helaba can take on. The following table shows a selection of RAF indicators from Helaba's RAF relevant to risk management as at the reporting date:

Art. 435 Abs. 1f CRR – Excerpt from Helaba's RAS

	RAF indicators	31.12.2019	Appetite	Tolerance	Capacity
<b>ICAAP</b>					
Capital ratios	CET1 capital ratio in %	14.2	12.5	11.75	9.85
	Total capital ratio in % (phase-in)	19.0	16.0	15.25	13.35
	Leverage ratio in % (phase-in)	4.5	4.0	3.8	3.0
ICAAP	Risk exposure, Group in € m	3,084	4,350	4,860	–
<b>Financial data</b>					
Profitability	Return on equity in % (FINREP, projected for full year)	5.5	3.2	1.5	–
	Cost-income ratio in % (IFRS)	71.1	70.0	75.0	–
<b>Liquidity and funding risk</b>					
All risk types	LCR in %	225	125	120	100

For the purposes of the statement by the Board of Managing Directors on the adequacy of the risk management arrangements at Helaba pursuant to Article 435 (1e) CRR, please refer, in addition to the disclosures set out above, to the “Responsibility of executive management” section under “Principles” within the “Risk report” in the Group management report, which forms part of the Annual Report of the Helaba Group (page 33). In connection with the risk statement referred to above, see also the detailed description of the risks that are of significance for Helaba on page 35 et seq. of the Annual Report (“Risk types” section under “Risk classification” 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 Man-

aging 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 2019, the Board of Public Owners met on six 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 30 June 2019 have been as follows:

Art. 435 CRR — Mandates held by the members of the Board of Managing Directors (in accordance with Section 24 KWG)

31.12.2019			30.6.2019		
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	4	3
Thomas Groß	5	4	Thomas Groß	5	4
Dr. Detlef Hosemann	4	3	Dr. Detlef Hosemann	4	3
Hans-Dieter Kemler	4	4	Hans-Dieter Kemler	5	5
Christian Schmid	2	2	Christian Schmid	2	2
Dr. Norbert Schraad	0	0	Dr. Norbert Schraad	0	0

Until 30 June 2019, Helaba's Supervisory Board consisted of 36 members. In accordance with a resolution passed by the relevant bodies at Helaba, the number of members of the Supervisory Board was reduced from 36 to 27 on 1 July 2019. 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.

The table below shows the number of positions held by the ordinary members of Helaba's Supervisory Board on other executive or supervisory boards as at 1 July 2019 and 31 December 2019, taking into account the changes in the composition of the Supervisory Board on 1 July 2019. The options for privileged treatment available under Section 25d (3) KWG have been applied when determining the number of positions held.

## Art. 435 CRR – Mandates held by the members of the Supervisory Board

Members of the Board of Managing Directors	31.12.2019		1.7.2019	
	Number of executive functions	Number of supervisory functions	Number of executive functions	Number of supervisory functions
Frank Beck		1		1
Dr. Annette Beller	1	3	1	3
Christian Blechschmidt	1	2	1	2
Thorsten Derlitzki		1		1
Nancy Faeser <sup>1)</sup>		1		
Gerhard Grandke		4		4
Dr. Werner Henning		4		4
Günter Högner	1	2	1	2
Thorsten Kiwitz		1		1
Oliver Klink	1	1	1	1
Dr. Christoph Krämer	1	3	1	3
Christiane Kutil-Bleibaum		1		1
Annette Langner		1		1
Frank Lortz		2		2
Susanne Noll		1		1
Jürgen Pilgenröther		1		1
Birgit Sahliger-Rasper		1		1
Dr. Karl-Peter Schackmann-Fallis		2		2
Dr. Thomas Schäfer		3		3
Uwe Schmidt		1		1
Hartmut Schubert		1		1
Wolfgang Schuster		1		1
Thomas Sittner		1		1
Dr. Eric Tjarks	1	2	1	2
Dr. Heiko Wingenfeld		1		1
Alexander Wüerst	1	3	1	3
Arnd Zinnhardt	1	2	1	2

<sup>1)</sup> Member since 25 September 2019

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 2019, the Supervisory Board held six meetings; the Nomination Committee met five 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 12 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 indepen-

dence of the auditors and the services they provide. The Audit Committee, which has eleven members, held three meetings in 2019, one of which was a joint meeting 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 2019.

The Supervisory Board has also set up the following committees from among its members: an Investment Committee (one meeting in 2019), a Building Committee (two meetings) and a WlBank 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 Helaba'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 and risk-bearing capacity, on the status of the RAF indicators, recovery indicators (German Minimum Requirements for the Design of Recovery Plans, MaSan) and early warning indicators, and on compliance with portfolio limits to assist the Board of Managing Directors, particularly in the implementation and monitoring 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 Helaba's Board of Managing Directors and the Supervisory Board must be informed in writing about the Bank's risk situation 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.

The regular reporting at Helaba takes the form of the monthly global risk report and the quarterly global risk report, and the risk report covering the Pfandbrief business. The quarterly global risk report 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
- Counterparty default risk report (including monitoring of compliance with the portfolio limits)
- Market risk report
- Liquidity risk report
- Non-financial risk report (including operational risk in the narrow sense)
- Risk report on other key risk types (equity risk, business risk and real estate risk)
- Supplementary information report (overarching report usually prepared once annually)

The quarterly global risk report is submitted to the full Board of Managing Directors and is prepared in 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 2019.

After the global 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 Board of Managing Directors must regularly inform the Supervisory Board about the material content of the risk report in a suitable manner. 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 global 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 global risk report, a reduced-scope risk report is submitted monthly on the month-end closing date. In addition to regular reporting, event-driven ad-hoc reports are produced, if material risks occur or relevant or defined thresholds are reached or exceeded.

### **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 (RAF)" section (page 34) 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 (VR-RKA) 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 deemed to be necessary if, in addition to defined events, there is a red light in the traffic-light warning system for critical scenarios or in the relevant indicators from the recovery plan as shown in the risk dashboard. An ad hoc review of the risk strategy is also deemed to be necessary if there is a red light in the traffic-light warning system for critical scenarios in respect of at least one RAF indicator.

The Board of Managing Directors ensures that the risk strategy is implemented at Helaba Bank (including LBS and WIBank) and in the Group companies. Compliance with the general and sub-risk strategies, and with the risk strategy objectives and risk containment KPIs, is continuously monitored, generally by the relevant units. Appropriate rules and regulations – especially in relation to the approval of deviations from the risk strategies – are set out in Helaba’s internal operating procedures.

The implementation of, and compliance with, risk strategy objectives and the risk containment KPIs is continuously monitored by the Board of Managing Directors using the regular risk reports. 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. 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” (page 38 et seq.) 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.

Non-financial risk is inherent in Helaba’s business: the business activities specified in the business strategy involve non-financial risk and it is therefore not possible to pursue these business activities without some exposure to non-financial risk.

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. This also includes intraday 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 Sparkasse (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 18 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. A further 16 companies are excluded

from the scope of consolidation for regulatory purposes in accordance with Section 31 KWG in conjunction with Article 19 CRR.

Compared with the position as at 30 September 2019, RAMIBA Verwaltung GmbH has been added to the scope of consolidation for regulatory purposes.

Group of consolidated companies for regulatory purposes (overview)

Regulatory treatment	Number and type of companies
Full consolidation	<b>18 companies</b> 12 financial institutions 1 asset management company 3 banks 1 investment firm 1 provider of ancillary services
Proportional consolidation	–
Excluded from the scope of consolidation for regulatory purposes	<b>16 companies</b> 15 financial institutions 1 provider of ancillary services

Of the subsidiary enterprises included in the scope of prudential consolidation under the KWG, 18 companies are fully consolidated in the consolidated accounts under IFRS. 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 (47) in conjunction with Note (48) 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).

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

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, Frankfurt am Main	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, Frankfurt am Main	Equity method
G & O Baufeld Alpha 2. BA GmbH & Co. KG, Frankfurt am Main	Equity method
GOB Dritte E & A Grundbesitz GmbH, Frankfurt am Main	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
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
RAMIBA Verwaltung GmbH, Pullach	Full consolidation
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
GWH WohnWertInvest Deutschland II, 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
AIRE Eschborn FS2 Verwaltungs GmbH, Monheim am Rhein	Equity method
Airport Office One GmbH & Co. KG, Frankfurt am Main	Full consolidation
BHT Baugrund Hessen-Thüringen GmbH, Kassel	Full consolidation
CORDELIA Verwaltungsgesellschaft mbH, Pullach	Full consolidation
CP Campus Projekte GmbH, Frankfurt am Main	Equity method

	b	c	d		e	f	
	Method of regulatory consolidation						
	Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR	Neither consolidated nor deducted		Deducted <sup>1)</sup>	Description of the entity
					thereof: Risk weighting		
	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
	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			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	x		Special fund
				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

Entity name	Method of accounting consolidation
Dritte OFB Friedrichstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation
Dritte OFB PE 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, Frankfurt am Main	Full consolidation
FHP Friedenauer Höhe Dritte GmbH & Co. KG, Berlin	Full consolidation
FHP Friedenauer Höhe Erste GmbH & Co. KG, Berlin	Full consolidation
FHP Friedenauer Höhe Fünfte GmbH & Co. KG, Berlin	Full consolidation
FHP Friedenauer Höhe Projekt GmbH, Berlin	Full consolidation
FHP Friedenauer Höhe Sechste GmbH & Co. KG, Berlin	Full consolidation
FHP Friedenauer Höhe Vierte GmbH & Co. KG, Berlin	Full consolidation
FHP Friedenauer Höhe Zweite GmbH & Co. KG, Berlin	Full consolidation
G & O Alpha Projektentwicklungs-GmbH & Co. KG, Frankfurt am Main	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
GLZS GmbH & Co. KG, Frankfurt am Main	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 Komplementär I. GmbH, Frankfurt am Main	Full consolidation
GWH Projekt Braunschweig I GmbH & Co. KG, Frankfurt am Main	Full consolidation
GWH Projekt I. GmbH & Co. KG, Frankfurt am Main	Full consolidation
GWH WertInvest GmbH, Frankfurt am Main	Full consolidation

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

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

Entity name	Method of accounting 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
Haus am Brüsseler Platz 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
HP Holdco LLC, Wilmington, USA	Full consolidation
HTB Grundstücksverwaltungsgesellschaft mbH, Frankfurt am Main	Full consolidation
Kalypso Projekt GmbH & Co. KG, 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 Main GmbH & Co. KG, Neu-Isenburg	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 Rüdeshheim GmbH & Co. KG, Frankfurt am Main	Equity method
OFB Bleidenstraße GmbH & Co. KG, Frankfurt am Main	Full consolidation
OFB Projektentwicklung GmbH, Frankfurt am Main	Full consolidation
OFB Schiersteiner Berg GmbH & Co. KG, 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 Wilhelmstraße Wiesbaden GmbH & Co. KG, Frankfurt am Main	Equity method
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
Systemo 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

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

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

Entity name	Method of accounting 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
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

<sup>1)</sup> 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 (table EU LI1) and a reconciliation from the balance sheet carrying amount to the exposure amount for regulatory purposes (table EU LI2) 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).

Table EU LI2 shows an overall reconciliation to the net exposure used in market risk because of the different calculation methods for the own funds requirements for market risk in the standardised approach and because of the internal model used to calculate the own funds requirements for general interest rate risk.

b	c	d		e	f	
Method of regulatory consolidation						
Full consolidation	Proportional consolidation	Exempted in acc. with Art. 19 CRR	Neither consolidated nor deducted		Deducted <sup>1)</sup>	Description of the entity
				thereof: Risk weighting		
			x			Other undertaking
			x			Other undertaking
			x			Other undertaking
			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
<b>Assets</b>		
Cash on hand and demand deposit balances with central banks and banks	14.555	14.479
Financial assets measured at amortised cost	130.326	130.878
Debt securities	–	–
Loans and advances to banks	16.649	16.634
Loans and advances to customers	113.677	114.244
Trading assets	19.304	19.304
Financial assets measured at fair value (not held for trading)	37.316	39.509
Investment property	2.509	2
Income tax assets	719	694
Other assets	2.299	1.307
<b>Total assets</b>	<b>207.028</b>	<b>206.175</b>
<b>Equity and liabilities</b>		
Financial liabilities measured at amortised cost	155.364	153.712
Deposits and loans from banks	35.560	33.880
Deposits and loans from customers	59.830	59.744
Securitised liabilities	59.715	59.889
Other financial liabilities	259	199
Trading liabilities	18.473	18.476
Financial liabilities measured at fair value (not held for trading)	21.465	21.449
Provisions	2.465	2.407
Income tax liabilities	153	154
Other liabilities	398	342
Equity	8.710	9.635
<b>Total equity and liabilities</b>	<b>207.028</b>	<b>206.175</b>

in € m

	c	d	e	f	g
	Credit risk	CCR	Securitisation exposures	Market risk	Not subject to capital requirement or subject to capital deduction
	14.473	–	–	957	6
	123.489	0	7.389	47.469	–
	–	–	–	–	–
	16.634	0	–	2.817	–
	106.855	–	7.389	44.651	–
	143	14.900	–	1.632	4.261
	29.293	10.095	18	12.863	104
	2	–	–	–	–
	694	–	–	38	–
	1.204	–	0	21	103
	<b>169.299</b>	<b>24.994</b>	<b>7.407</b>	<b>62.980</b>	<b>4.475</b>
	–	60	–	35.333	153.652
	–	60	–	16.395	33.820
	–	0	–	11.512	59.743
	–	–	–	7.425	59.889
	–	–	–	1	199
	–	13.853	–	2.595	4.623
	–	10.418	0	8.921	11.031
	39	–	0	44	2.368
	–	–	–	6	154
	–	–	–	47	342
	–	–	–	–	9.635
	<b>39</b>	<b>24.330</b>	<b>1</b>	<b>46.946</b>	<b>181.805</b>

## 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	Securiti- sation exposures	Market risk <sup>1)</sup>
<b>1 Total assets: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS (as per template LI1)</b>	<b>264,680</b>	<b>169,299</b>	<b>24,994</b>	<b>7,407</b>	<b>62,980</b>
2 Total liabilities: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS (as per template LI1)	71,315	39	24,330	1	46,946
3 Net amount: carrying amounts under the scope of regulatory consolidation of the Helaba Group in accordance with IFRS	193,364	169,261	664	7,406	16,034
4 Off-balance-sheet exposures	37,429	36,528	–	900	–
5 Differences due to the application of credit conversion factors (CCFs)	15,989	15,989	–	–	–
6 Measurement differences	363	16	347	0	0
7 Differences due to the application of credit risk adjustments	32	31	–	1	–
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)	12,180	–	12,177	3	–
9 Differences due to prudential filters – calculation of additional valuation adjustments (AVAs) for financial instruments measured at fair value	–	–	–	–	–
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	5,459	–	–	–	–8,707
11 Other differences	–5,495	–5,096	7	–410	–
<b>12 Exposure amount considered for regulatory purposes (excluding CRM effects)</b>	<b>215,615</b>	<b>184,752</b>	<b>13,195</b>	<b>7,900</b>	<b>7,327</b>

<sup>1)</sup> 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 2019. The determination of limits for risk-weighted assets is also reported.

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.

KM1 – The Helaba Group in figures

in € m

	31.12.2019	30.9.2019	30.6.2019	31.3.2019	31.12.2018
<b>Composition of own funds for regulatory purposes</b>					
1 Common Equity Tier 1 capital	8,483	8,367	8,468	8,075	8,108
thereof: Regulatory adjustments	-660	-745	-646	-581	-509
Additional Tier 1 capital	670	670	670	670	775
thereof: Regulatory adjustments	-20	-20	-20	-20	-20
2 Tier 1 capital	9,153	9,037	9,138	8,744	8,883
Tier 2 capital	2,229	2,275	2,318	2,357	2,288
thereof: Regulatory adjustments	-12	-14	-14	-14	-14
3 Own funds, total	11,382	11,312	11,456	11,101	11,171
<b>Total risk exposure amount</b>					
4 Total RWAs	59,779	60,424	58,194	55,363	54,281
<b>Capital ratios</b>					
5 Common Equity Tier 1 (CET1) capital ratio in %	14.19	13.85	14.55	14.58	14.94
6 Tier 1 capital ratio in %	15.31	14.96	15.70	15.79	16.36
7 Total capital ratio in %	19.04	18.72	19.69	20.05	20.58
<b>Additional Pillar 2 capital requirements (P2R)</b>					
Additional SREP CET1 capital requirement in %	1.75	1.75	1.75	1.75	1.75
Additional SREP AT1 capital requirement in %	-	-	-	-	-
Additional SREP T2 capital requirement in %	-	-	-	-	-
Total SREP capital requirement in % (TSCR)	9.75	9.75	9.75	9.75	9.75
<b>Capital buffers</b>					
8 Capital conservation buffer in %	2.50	2.50	2.50	2.50	1.88
9 Institution-specific countercyclical capital buffer in %	0.12	0.12	0.09	0.10	0.09
10 Buffer for global/other systemically important institutions in %	1.00	1.00	1.00	1.00	0.66
11 Institution-specific buffer requirement in % (rows 8 + 9 + 10)	3.62	3.62	3.59	3.60	2.63
12 CET1 capital available for the buffers in % (expressed as a percentage of the total risk exposure amount)	9.31	8.96	9.70	9.79	10.36
<b>Leverage ratio</b>					
13 Leverage ratio total exposure measure	205,434	216,101	214,156	190,352	174,608
14 Leverage ratio in %	4.46	4.18	4.27	4.59	5.09

Common Equity Tier 1 capital rose by approximately € 115 m compared with the figure as at 30 September 2019, to € 8,483 m. This increase was mainly attributable to the inclusion of the net profit for the second half of the year less planned dividends and to the lower capital deduction arising from the comparison between recognised allowances and expected losses. Some of this positive effect on Common Equity Tier 1 capital was offset by the fall in accumulated other comprehensive income in the second half of the year.

Total own funds as at 31 December 2019 increased by approximately € 70 m compared with 30 September 2019 as a result of negative effects due to the residual maturity amortisation on Tier 2 capital instruments.

Common Equity Tier 1 capital rose by € 375 m compared with the figure as at 31 December 2018. Capital rose in particular as a result of the inclusion of net profit for the year after the deduction of expected dividends, and the change in accumulated other comprehensive income, which was positive for the 2019 financial year as a whole.

The smaller rise in own funds of approximately € 211 m is due to the impact from residual maturity amortisation on Tier 2 capital instruments.

The Helaba Group had a comfortable capital position as at 31 December 2019, consisting of a Tier 1 capital ratio of 15.31 % and a Common Equity Tier 1 capital ratio of 14.19 %. As at the disclosure reporting date, these ratios also meant that the Group satisfied the additional Pillar II capital requirement (P2R) and capital guidance (P2G) arising from the ECB's Supervisory Review and Evaluation Process (SREP).

The additional Pillar II capital requirements and capital recommendation specified in the SREP decision for 2020 are unchanged compared with 2019. Owing to the extraordinary circumstances resulting from COVID-19, the ECB envisages the maintenance of the Pillar II capital requirement in 2020 not exclusively in Common Equity Tier 1, as to date, but in part in the form of additional Tier 1 capital and Tier 2 capital.

## 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.

Art. 437 CRR – Disclosure of own funds (table based on Annex IV of Implementing Regulation (EU) No. 1423/2013)

in € m

	Amount at reporting date	Regulation (EU) No 575/2013 Article Reference	Notes
<b>Common Equity Tier 1 capital: Instruments and reserves</b>			
1	4,055	26 (1), 27, 28, 29	
	2,509	EBA list 26 (3)	
2	4,472	26 (1) (c)	(a)
3	228	26 (1)	(b)
5a	388	26 (2)	(c)
<b>6</b>	<b>9,143</b>	<b>Sum of rows 1 to 5a</b>	
<b>Common Equity Tier 1 (CET1) capital: regulatory adjustments</b>			
7	-242	34, 105	
8	-100	36 (1) (b), 37	
10	-3	36 (1) (c), 38	
12	-43	36 (1) (d), 40, 159	
14	-88	33 (1) (b)	(d)
16	-108	36 (1) (f), 42	
	-77		(e)
<b>28</b>	<b>-660</b>	Sum of rows 7 to 20a, 21, 22 and 25a to 27	
<b>29</b>	<b>8,483</b>	Sum of row 6 and row 28	
<b>Additional Tier 1 (AT1) capital: instruments</b>			
30	374	51, 52	
33	316	486 (3)	(f)
<b>36</b>	<b>690</b>	Sum of rows 30, 33 and 34	
<b>Additional Tier 1 (AT1) capital: instruments</b>			
37	-20	52 (1) (b), 56 (a), 57	
<b>43</b>	<b>-20</b>	Sum of rows 37 to 42	
<b>44</b>	<b>670</b>	Sum of row 36 and row 43	
<b>45</b>	<b>9,153</b>	Sum of row 29 and row 44	
<b>Tier 2 (T2) capital: instruments and provisions</b>			
46	2,241	62, 63	(g)
47	-	486 (4)	

Art. 437 CRR – Disclosure of own funds (table based on Annex IV 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	Notes
<b>51</b>	<b>Tier 2 (T2) capital before regulatory adjustments</b>	<b>2,241</b>		
<b>Tier 2 (T2) capital: regulatory adjustments</b>				
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans	-7	63 (b) (i), 66 (a), 67	
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	(h)
<b>57</b>	<b>Total regulatory adjustments to Tier 2 (T2) capital</b>	<b>-12</b>	Sum of rows 52 to 56	
<b>58</b>	<b>Tier 2 (T2) capital</b>	<b>2,229</b>	Sum of row 51 and row 57	
<b>59</b>	<b>Total capital (TC = T1 + T2)</b>	<b>11,382</b>	Sum of row 45 and row 58	
<b>60</b>	<b>Total risk weighted assets</b>	<b>59,779</b>		
<b>Capital ratio and buffers</b>				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	14.19 %	92 (2) (a)	
62	Tier 1 (as a percentage of total risk exposure amount)	15.31 %	92 (2) (b)	
63	Total capital (as a percentage of total risk exposure amount)	19.04 %	92 (2) (c)	
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)	8.12 %	CRD 128, 129, 130, 131, 133	
65	of which: capital conservation buffer requirement	2.50 %		
66	of which: countercyclical buffer requirement	0.12 %		
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	1.00 %		
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	9.31 %	CRD 128	
<b>Amounts below the thresholds for deduction (before risk weighting)</b>				
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)	324	36 (1) (h), 46, 45, 56 (c), 59, 60, 66 (c), 69, 70	
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)	66	36 (1) (i), 45, 48	
75	Deferred tax assets arising from temporary differences (amount below 10 % threshold, net of related tax liability where the conditions in Article 38 (3) are met)	548	36 (1) (c), 38, 48	
<b>Applicable caps on the inclusion of provisions in Tier 2</b>				
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	74	62	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	270	62	
<b>Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)</b>				

## Art. 437 CRR – Disclosure of own funds (table based on Annex IV 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	Notes
82 – Current cap on AT1 instruments subject to phase out arrangements	316	484 (4), 486 (3) and (5)	
83 – Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	202	484 (4), 486 (3) 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, 84, 85 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 2019 attributable to the shareholders of the parent (€ 513 m) or the home savings protection fund (€ 11 m).
- (b) See also Note (35) 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 (€ 478 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) The irrevocable payment obligations to the Single Resolution Board (SRB) and deposit guarantee schemes are reported under the other deductions from Common Equity Tier 1 capital. Helaba has elected to utilise the option to make some of the annual contribution in the form of an irrevocable payment undertaking backed in full by cash collateral.
- (f) This item comprises silent participations, which are reported in the statement of financial position under subordinated liabilities (subordinated capital). The silent participations are included, on a transitional basis, as Additional Tier 1 capital in accordance with the CRR and they satisfy the requirements of Article 63 CRR as amended 23 June 2013 (Tier 2 capital). The ineligible amount due to the upper limit defined in Article 486 (3) CRR is € 202 m.
- (g) The Tier 2 capital comprises liabilities under profit participation rights and other subordinated liabilities. The Tier 2 capital also includes an amount of € 202 m from silent participations (see (f)). This comprises amounts that exceeded the upper limits in Article 486 (3) CRR.
- (h) 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".
- (i) The minority interests requirements in accordance with Article 81 et seq. CRR are not met.

## Art. 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 for regulatory purposes	Difference due to differing groups of consolidated companies	Note <sup>1)</sup>
	31.12.2019	31.12.2019		
<b>I. Assets</b>				
Cash on hand, demand deposits and overnight money balances with central banks and banks	14,555	14,480	-75	
Financial assets measured at amortised cost	130,326	130,879	553	
Trading assets	19,304	19,304	0	
Other financial assets mandatorily measured at fair value through profit or loss	8,433	9,129	696	
Financial assets designated voluntarily at fair value	3,978	3,978	0	
Positive fair values of hedging derivatives under hedge accounting	1,102	1,102	0	
Financial assets measured at fair value through other comprehensive income	23,803	25,300	1,497	
Shares in equity-accounted entities	48	0	-48	
Investment property	2,509	2	-2,507	
Property and equipment	653	623	-30	
Intangible assets	101	100	-1	
Income tax assets	719	694	-25	
thereof: Deferred income tax assets	558	534	-24	
thereof: Arising from differences that are not temporary	12	8	-4	
thereof: Arising from temporary differences	499	478	-21	
Non-current assets and disposal groups classified as held for sale	81	13	-68	
Other assets	1,416	572	-844	
<b>Total assets</b>	<b>207,028</b>	<b>206,175</b>	<b>-853</b>	

## Art. 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 for regulatory purposes	Difference due to differing groups of consolidated companies	Note <sup>1)</sup>
	31.12.2019	31.12.2019		
<b>II. Equity and liabilities</b>				
Financial liabilities measured at amortised cost	155,364	153,712	-1,652	
thereof: Subordinated liabilities (subordinated capital)	2,824	2,824	0	
thereof: Profit participation rights	81	81	0	(g)
thereof: Amortised amount per Art. 64 CRR	-	49	49	
thereof: Difference between regulatory figures and statement of financial position	-	0	0	
thereof: Silent participations	546	546	0	(f), (g)
thereof: Amount expiring per Art. 486 CRR	-	202	202	
thereof: Difference between regulatory figures and statement of financial position	-	28	28	
thereof: Other subordinated liabilities	2,196	2,196	0	(g)
thereof: Amortised amount per Art. 64 CRR	-	191	191	
thereof: Difference between regulatory figures and statement of financial position	-	42	42	
Trading liabilities	18,473	18,476	3	
Negative fair values of non-trading derivatives	6,759	6,743	-16	
Financial liabilities designated voluntarily at fair value	12,799	12,799	0	
thereof: Subordinated liabilities (subordinated capital)	47	47	0	(g)
thereof: Amortised amount per Art. 64 CRR	-	2	2	
thereof: Difference between regulatory figures and statement of financial position	-	2	2	
Negative fair values of hedging derivatives under hedge accounting	1,907	1,907	0	
Provisions	2,465	2,407	-58	
Income tax liabilities	153	154	1	
thereof: Deferred income tax liabilities	9	30	21	
Other liabilities	398	342	-56	
<b>Equity</b>	<b>8,710</b>	<b>9,635</b>	<b>925</b>	
Subscribed capital	2,509	2,509	0	
Capital reserves	1,546	1,546	0	
Regulatory Additional Tier 1 instruments	354	354	0	
Retained earnings	4,788	4,996	208	(a)
thereof: Attributable to shareholders	478	513	35	(c)
Accumulated other comprehensive income (OCI)	-488	228	716	(b)
Non-controlling interests	1	2	1	(i)
<b>Non-controlling interests</b>	<b>207,028</b>	<b>206,175</b>	<b>-853</b>	

<sup>1)</sup> Explanations can be found in the table "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 requirement	
		31.12.2019	30.9.2019	31.12.2019	
	1	Credit risk (excluding CCR)	49,505	49,314	3,960
Article 438(c), (d)	2	Of which standardised approach (CRSA)	5,793	6,056	463
Article 438(c), (d)	3	Of which the foundation IRB (FIRB) approach	41,422	41,015	3,314
Article 438(c), (d)	4	Of which the advanced IRB (AIRB) approach	1,117	1,098	89
Article 438(d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	1,174	1,145	94
Article 107, Article 438(c), (d)	6	Counterparty credit risk (CCR)	2,114	2,739	169
Article 438(c), (d)	7	Of which mark to market	1,355	1,817	108
Article 438(c), (d)	8	Of which original exposure	–	–	–
Article 438(c), (d)	9	Of which standardised approach	–	–	–
	10	Of which internal model method (IMM)	–	–	–
	11	Of which contributions to the default fund of a CCP	48	78	4
Article 438(c), (d)	12	Of which CVA	712	844	57
Article 438(e)	13	Settlement risk	0	0	0
Article 449(o), (i)	14	Securitisation exposures in the banking book (after the cap)	1,699	1,762	136
	15	Of which IRB approach	631	655	51
	16	Of which supervisory formula approach (SFA)	356	389	28
	17	Of which internal assessment approach (IAA)	262	316	21
	18	Of which standardised approach	999	1,025	80
		Of which risk-weighted credit risk exposures: securitisation exposures (revised securitisation rules)	68	82	5
		Of which SEC-IRBA	–	–	–
		Of which SEC-ERBA (including SEC-IAA)	38	65	3
		Of which SEC-SA	30	18	2
Article 438(e)	19	Market risk	3,006	3,145	240
	20	Of which standardised approach	1,312	1,866	105
	21	Of which internal model method (IMM)	1,694	1,279	136
Article 438(e)	22	Large exposures	–	–	–
Article 438(f)	23	Operational risk	3,397	3,397	272
	24	Of which basic indicator approach	–	–	–
	25	Of which standardised approach	3,397	3,397	272
	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)	58	68	5
Article 500	28	Adjustment for Basel I floor	–	–	–
	<b>29</b>	<b>Total</b>	<b>59,779</b>	<b>60,424</b>	<b>4,782</b>

The securitisation exposures in accordance with the revised securitisation rules (EU regulation amending the CRR (Regulation (EU) 2017/2401)) are reported as a separate “thereof” item under “Securitisation exposures in the banking book (after the cap)”.

The following table (as at 31 December 2019) 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.

## Art. 438 CRR – Overview of RWAs by exposure class

in €m

	RWAs	Own funds requirement
FIRB – Central governments or central banks	1,895	152
FIRB – Institutions	3,800	304
FIRB – Corporates	35,890	2,871
thereof: Specialised lending exposures	18,462	1,477
thereof: SME	2,060	165
thereof: Other	15,367	1,229
AIRB – Retail	1,117	89
Secured by real estate	624	50
thereof: SME	160	13
thereof: Non-SME	464	37
Qualifying revolving	39	3
Other	454	36
thereof: SME	96	8
thereof: Non-SME	358	29
IRBA equity exposures	1,661	133
thereof: Simple risk-weight approach	1,174	94
Private equity exposures in sufficiently diversified portfolios (190 %)	1,151	92
Exchange traded equity exposures (290 %)	–	–
Other equity exposures (370 %)	23	2
thereof: PD/LGD approach	436	35
thereof: Risk-weighted equities	51	4
Other non-credit-obligation assets	633	51
<b>Total IRB approach</b>	<b>44,996</b>	<b>3,600</b>
Central governments or central banks	26	2
Regional governments or local authorities	14	1
Public-sector entities	237	19
Multilateral development banks	–	–
International organisations	–	–
Institutions	344	27
Corporates	2,138	171
Retail	140	11
Exposures secured by real estate	654	52
Exposures in default	38	3
Higher risk categories	891	71
Covered bonds	2	0
Exposures to institutions and corporates with a short-term credit rating	–	–
Collective investment undertakings (CIU)	26	2
Equity exposures	1,160	93
Other exposures	253	20
<b>Total standardised approach (CRSA)</b>	<b>5,923</b>	<b>474</b>
<b>Total</b>	<b>50,918</b>	<b>4,073</b>

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.

The total RWAs declined by around € 645 m compared with the previous quarter. Of this total decrease, €374 m was attributable to default risk, € 139 m to market risk and € 132 m to the CVA.

The decline in default risk arose mainly because of maturing business, repayments and rating improvements. The impact was primarily evident in the IRB exposure class “Corporates – Specialised lending exposures” (down by € 419 m) and in the CRSA exposure classes “Corporates” (down by € 272 m) and “Institutions” (down by € 246 m). Some of the decline was offset by new business, notably in the IRB exposure class “Central governments or central banks” (up by € 406 m).

The decline in market risk was predominantly attributable to specific interest rate risk (down by € 292 m) and currency risk (down by €263 m). The decrease in specific interest rate risk was caused by rating improvements.

The CVA went down mainly due to greater cover provided under enforceable collateral agreements.

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 2019, 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: Equity exposures (simple risk-weight approach)

in € m

Categories	Basis of measurement (on-balance sheet)	Basis of measurement (off-balance sheet)	Risk weight	Exposure value	RWAs	Own funds requirement
Private equity exposures in sufficiently diversified portfolios	433	173	190 %	606	1,151	92
Exchange-traded equity exposures	–	–	290 %	–	–	–
Other equity exposures	6	–	370 %	6	23	2
<b>Total</b>	<b>439</b>	<b>173</b>		<b>612</b>	<b>1,174</b>	<b>94</b>

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.

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 economic internal perspective. The risk tolerance and risk appetite related to the risk exposures in this perspective are specified in the RAF.

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 (including equity 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 resources, i.e. without recourse to third-party funds.

The risk-bearing capacity assessment covering all risk types reveals that the existing risk cover pools at the end of 2019 once again exceeded the quantified risk exposures by a substantial margin, underlining Helaba's conservative risk profile. As at the reporting date, Helaba had a capital buffer of € 4.3 bn in respect of its economic risk exposures (31 December 2018: € 4.6 bn).

Helaba regularly examines the effects of historical and hypothetical stress scenarios on risk-bearing capacity as well as analysing risk-bearing capacity for given reference dates. These scenarios comprise macroeconomic stress scenarios and a scenario involving exceptional market dislocation based on the most extreme changes in parameters observed over the historical time frame (usually observed market dislocation occurring in a global financial crisis).

To complement the economic internal perspective as the lead approach for ensuring risk-bearing capacity in Pillar II, an analysis using the normative internal perspective is conducted quarterly. The internal normative perspective examines how the primary Pillar II risks affect the regulatory ratios in accounting terms and the internal objectives for capital ratios in the context of the RAF for the institution 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 CET1 capital ratio by a significant margin.

Helaba additionally conducts a number of reverse stress tests to investigate what nature of idiosyncratic or market-wide events could jeopardise its continued existence as a going concern. The analyses focus on the regulatory minimum capital requirements, the available liquidity reserves and economic risk-bearing capacity in the internal economic perspective. 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 € 16.4 bn in total (31 December 2018: € 16.0 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 € 606 m at the end of 2019 (31 December 2018: € 555 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 macro-economic data. The figure for Germany at 31 December 2019 was 0%. A capital buffer higher than 0% has been specified by the competent supervisory authorities in Bulgaria, the Czech Republic, Denmark, France, Iceland, Ireland, Lithuania, Norway, Slovakia, Sweden, Hong Kong and the United Kingdom 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) 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 2019, 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.

## Art. 440 CRR – Geographical distribution of credit risk exposures relevant to the calculation of the countercyclical capital buffer

Row	General credit exposures		Trading book exposures		Exposure value for SA	
	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		
	010	020	030	040		
<b>010</b>	<b>Breakdown by country</b>					
	Germany	7,313	51,173	2,515	–	795
	United States of America	452	11,505	498	–	506
	United Kingdom	48	5,812	513	–	–
	France	69	4,596	757	–	–
	The Netherlands	125	2,490	230	–	48
	Luxembourg	42	2,107	5	–	–
	Poland	0	1,559	42	–	–
	Austria	124	1,227	3	–	–
	Ireland	79	1,384	6	–	–
	Spain	51	774	726	–	–
	Switzerland	137	860	86	–	98
	Sweden	21	720	147	–	–
	Denmark	14	237	101	–	–
	Czech Republic	8	220	1	–	–
	Norway	6	214	225	–	–
	Hong Kong	12	115	–	–	–
	Slovakia	–	55	2	–	–
	Bulgaria	6	12	–	–	–
	Lithuania	3	–	6	–	–
	Iceland	–	–	–	–	–
	Other	1,094	3,892	1,224	–	–
<b>020</b>	<b>Total</b>	<b>9,602</b>	<b>88,949</b>	<b>7,086</b>	<b>–</b>	<b>1,446</b>

## Art. 440 CRR – Amount of the institution-specific countercyclical capital buffer

in € m

Row	Column	
	<b>010</b>	
<b>010</b>	Total risk exposure amount	59,779
<b>020</b>	institution-specific countercyclical capital buffer rate in %	0.12
<b>030</b>	Institution-specific countercyclical capital buffer requirement	74

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	
3,281	1,929	24	73	2,026	0.53	0.00 %	
884	566	7	41	615	0.16	0.00 %	
717	234	5	4	243	0.06	1.00 %	
519	181	11	6	198	0.05	0.25 %	
–	100	4	3	107	0.03	0.00 %	
–	99	0	–	99	0.03	0.00 %	
–	76	1	–	77	0.02	0.00 %	
–	66	0	–	66	0.02	0.00 %	
–	57	–	–	57	0.01	1.00 %	
–	36	11	–	47	0.01	0.00 %	
–	34	1	6	42	0.01	0.00 %	
229	24	2	1	27	0.01	2.50 %	
–	12	2	–	13	0.00	1.00 %	
47	10	–	0	10	0.00	1.50 %	
–	4	3	–	8	0.00	2.50 %	
–	4	–	–	4	0.00	2.00 %	
–	3	–	–	3	0.00	1.50 %	
–	2	–	–	2	0.00	0.50 %	
–	0	–	–	0	0.00	1.00 %	
–	–	–	–	–	0.00	1.75 %	
379	172	14	2	188	0.05	0.00 %	
<b>6,055</b>	<b>3,609</b>	<b>86</b>	<b>137</b>	<b>3,832</b>	<b>1.00</b>		

# 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.

## Art. 451 CRR Leverage Ratio – Disclosure Template

in € m

	Reference date	31.12.2019
	Reference date Entity name	Landesbank Hessen-Thüringen
	Level of application	Consolidated

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

	<b>Applicable amount</b>
1 Total assets as per published financial statements	207,028
2 Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	–853
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	(10,383)
5 Adjustment for securities financing transactions (SFTs)	279
6 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	18,470
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	(9,107)
<b>8 Leverage ratio total exposure measure</b>	<b>205,434</b>

Table LRCom: Leverage ratio common disclosure

	<b>CRR leverage ratio exposures</b>	
<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	177,871
2	(Asset amounts deducted in determining Tier 1 capital)	(146)
<b>3</b>	<b>Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)</b>	<b>177,725</b>
<b>Derivative exposures</b>		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	5,941
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	2,844
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	1,513
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(1,354)
<b>11</b>	<b>Total derivatives exposures (sum of lines 4 to 10)</b>	<b>8,944</b>
<b>SFT exposures</b>		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	16
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	
14	Counterparty credit risk exposure for SFT assets	279
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)	
<b>16</b>	<b>Total securities financing transaction exposures (sum of lines 12 to 15a)</b>	<b>295</b>
<b>Other off-balance sheet exposures</b>		
17	Off-balance sheet exposures at gross notional amount	37,558
18	(Adjustments for conversion to credit equivalent amounts)	(19,087)
<b>19</b>	<b>Other off-balance sheet exposures (sum of lines 17 and 18)</b>	<b>18,470</b>
<b>Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)</b>		
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))	
<b>Capital and total exposure measure</b>		
<b>20</b>	<b>Tier 1 capital</b>	<b>9,153</b>
<b>21</b>	<b>Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)</b>	<b>205,434</b>
<b>Leverage ratio</b>		
<b>22</b>	<b>Leverage ratio</b>	<b>4.46 %</b>
<b>Choice on transitional arrangements and amount of derecognised fiduciary items</b>		
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)

		<b>CRR leverage ratio exposures</b>
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	177,871
EU-2	Trading book exposures	7,594
EU-3	Banking book exposures, of which:	170,278
EU-4	Covered bonds	6,521
EU-5	Exposures treated as sovereigns	58,311
EU-6	Exposures to regional governments, MDBs, international organisations and PSEs not treated as sovereigns	2,283
EU-7	Institutions	18,618
EU-8	Secured by mortgages of immovable properties	16,158
EU-9	Retail exposures	1,614
EU-10	Corporates	54,877
EU-11	Exposures in default	364
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	11,531

### 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 % will apply when the leverage ratio migrates to Pillar 1 of the three-pillar model of prudential supervision (from mid-2021). 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 2019, the leverage ratio had increased to 4.5% (30 June 2019: 4.3%). The total risk exposure amounted to € 205.4 bn, a decrease compared with the position as at 30 June 2019. 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 reserves available on a day-to-day basis. Some of the decrease was offset by a rise in exposures to regional governments. The changes were predominantly in on-balance sheet items.

Tier 1 capital as at 31 December 2019 had risen to € 9.2 bn (30 June 2019: € 9.1 bn). Please refer to “Own Funds and Own Funds Structure” in this report for further information on the changes in Tier 1 capital.

Overall the change in the leverage ratio arose from the performance of the business and the associated management. For further information on key external factors in the economic and financial environment that had an impact on business performance, business policy decisions and therefore indirectly on the leverage ratio, please refer to the “Economic report” within the Group management report on page 20 et seq. of the Annual Report.

# 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. 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 and consists of both economic and normative perspectives.

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 RAF, and again at least annually, the Board of Managing Directors also sets limits for appetite and tolerance in relation to liquidity and funding risks, the aim of which is to ensure an adequate level of liquidity at Group level. Minimum LCR thresholds of 125 % (risk appetite) and 120 % (risk tolerance) were set for 2019; these levels were much higher than the minimum ratios under the regulatory requirements. The LCR is determined at both Group and Helaba Bank levels. 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 and at Helaba Bank. In addition, it is responsible for implementing the risk policy throughout the Group and for drawing up a risk strategy consistent with the business strategy. The objective is to identify risk in the Helaba Group at the earliest possible stage, although a fundamental requirement is that each subsidiary is itself responsible for ensuring its own solvency, limiting potential cost risks associated with funding and complying with regulatory liquidity requirements. The general parameters

for liquidity risk monitoring and control at credit institutions within Helaba are closely coordinated with the parent company. The Risk Committee, which includes all members of the Board of Managing Directors, receives regular reports on the liquidity and funding risks in the Group's main entities. 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. Based on the CRR definition, the US dollar is the sole significant foreign currency used in the Helaba Group. Cross-currency swaps and a highly liquid buffer are used to manage currency mismatches. 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. 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 sub-

ject 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. The Bank uses a historical look-back approach (HLBA) to determine potential additional collateral outflows in connection with secured derivative exposures. In this approach, the Bank uses a transaction history over a number of years, including the financial crisis from 2008, in its internal monitoring and control processes.

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 and the Supervisory Board. As at 31 December 2019, this risk reflected the Helaba Group's and Helaba Bank's excellent level of liquidity, a situation that was unchanged compared with the previous year. WIBank is directly linked to the management of Helaba Bank. As in the case of Helaba Bank, the stress scenarios at FSP, Frankfurter Bankgesellschaft (Schweiz) AG and LBS were also more than covered as at the reporting date of 31 December 2019, with the result that the groupwide stress scenarios up to one year (market-wide, bank-specific, combined) and the survival horizon were covered to the same extent as at Helaba Bank. 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, the Helaba Group's and Helaba Bank's current liquidity resources are adequate in relation to the regulatory liquidity requirements, the business strategy, the Bank's underlying risk profile and expected liquidity requirements.

EU LIQ1 – LCR

in € m

Scope of consolidation Currency and units	Consolidated € m	Total unweighted value (average)			
Quarter ending on		31.3.2019	30.6.2019	30.9.2019	31.12.2019
<b>Number of data points used in the calculation of averages</b>		<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
		<b>010</b>	<b>020</b>	<b>030</b>	<b>040</b>
<b>HIGH-QUALITY LIQUID ASSETS</b>					
1	Total high-quality liquid assets (HQLA)				
<b>CASH OUTFLOWS</b>					
2	Retail deposits and deposits from small business customers, of which:	14,192	14,254	14,206	14,167
3	Stable deposits	9,729	9,780	9,830	9,899
4	Less stable deposits	4,297	4,310	4,218	4,110
5	Unsecured wholesale funding	27,820	27,762	28,471	28,306
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	4,921	4,913	5,029	4,744
7	Non-operational deposits (all counterparties)	19,596	19,372	19,624	19,860
8	Unsecured debt	3,303	3,477	3,818	3,702
9	Secured wholesale funding				
10	Additional requirements	18,526	18,554	18,806	19,149
11	Outflows related to derivative exposures and other collateral requirements	2,172	2,200	2,486	2,910
12	Outflows related to loss of funding on debt securities				
13	Credit and liquidity facilities	16,354	16,354	16,320	16,239
14	Other contractual funding obligations	3,096	2,939	2,622	2,284
15	Other contingent funding obligations	10,474	10,869	12,739	17,690
<b>16</b>	<b>TOTAL CASH OUTFLOWS</b>				
<b>CASH INFLOWS</b>					
17	Secured lending (e.g. reverse repos)	53	57	62	59
18	Inflows from derecognised exposures	7,384	7,148	7,317	8,108
19	Other cash inflows	2,280	2,495	2,601	2,868
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)				
<b>20</b>	<b>TOTAL CASH INFLOWS</b>	<b>9,717</b>	<b>9,700</b>	<b>9,980</b>	<b>11,035</b>
<b>EU-20a</b>	<b>Fully exempt inflows</b>	<b>545</b>	<b>370</b>	<b>211</b>	<b>50</b>
<b>EU-20b</b>	<b>Inflows subject to a 90 % cap</b>				
<b>EU-20c</b>	<b>Inflows subject to a 75 % cap</b>	<b>9,172</b>	<b>9,330</b>	<b>9,769</b>	<b>10,985</b>
<b>21</b>	<b>Liquidity buffer</b>				
<b>22</b>	<b>TOTAL NET CASH OUTFLOWS</b>				
<b>23</b>	<b>Liquidity coverage ratio (%)</b>				

EU LIQ1 – LCR

in € m

Scope of consolidation Currency and units	Consolidated € m	Total weighted value (average)			
Quarter ending on		31.3.2019	30.6.2019	30.9.2019	31.12.2019
<b>Number of data points used in the calculation of averages</b>		<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
		<b>050</b>	<b>060</b>	<b>070</b>	<b>080</b>
<b>HIGH-QUALITY LIQUID ASSETS</b>					
1	Total high-quality liquid assets (HQLA)	33,619	35,204	36,273	37,251
<b>CASH OUTFLOWS</b>					
2	Retail deposits and deposits from small business customers, of which:	1,110	1,111	1,097	1,087
3	Stable deposits	486	489	492	495
4	Less stable deposits	458	459	448	435
5	Unsecured wholesale funding	19,497	19,442	19,942	19,868
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	1,318	1,311	1,328	1,250
7	Non-operational deposits (all counterparties)	14,876	14,654	14,796	14,916
8	Unsecured debt	3,303	3,477	3,818	3,702
9	Secured wholesale funding	13	13	9	8
10	Additional requirements	4,961	4,971	5,234	5,619
11	Outflows related to derivative exposures and other collateral requirements	2,172	2,200	2,486	2,910
12	Outflows related to loss of funding on debt securities				
13	Credit and liquidity facilities	2,789	2,771	2,748	2,709
14	Other contractual funding obligations	2,967	2,807	2,489	2,150
15	Other contingent funding obligations	454	474	477	448
<b>16</b>	<b>TOTAL CASH OUTFLOWS</b>	<b>29,002</b>	<b>28,818</b>	<b>29,248</b>	<b>29,180</b>
<b>CASH INFLOWS</b>					
17	Secured lending (e.g. reverse repos)	1	1	1	
18	Inflows from derecognised exposures	4,695	4,603	4,716	5,458
19	Other cash inflows	2,164	2,389	2,502	2,768
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)				
<b>20</b>	<b>TOTAL CASH INFLOWS</b>	<b>6,860</b>	<b>6,993</b>	<b>7,219</b>	<b>8,226</b>
<b>EU-20a</b>	<b>Fully exempt inflows</b>	<b>545</b>	<b>370</b>	<b>211</b>	<b>50</b>
<b>EU-20b</b>	<b>Inflows subject to a 90 % cap</b>				
<b>EU-20c</b>	<b>Inflows subject to a 75 % cap</b>	<b>6,316</b>	<b>6,624</b>	<b>7,008</b>	<b>8,175</b>
<b>TOTAL ADJUSTED VALUE</b>					
<b>21</b>	<b>Liquidity buffer</b>	<b>33,619</b>	<b>35,204</b>	<b>36,273</b>	<b>37,251</b>
<b>22</b>	<b>TOTAL NET CASH OUTFLOWS</b>	<b>22,141</b>	<b>21,825</b>	<b>22,029</b>	<b>20,954</b>
<b>23</b>	<b>Liquidity coverage ratio (%)</b>	<b>152.51</b>	<b>161.82</b>	<b>165.00</b>	<b>179.41</b>

# Credit Risk

## General Disclosures

As at 31 December 2019, the Helaba Group's basis of measurement for credit risk after credit risk adjustments amounted to € 199,799 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 guidelines 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 31.12.2019	Average basis of measurement over the reporting year
1 Central governments or central banks	44,970	39,101
2 Institutions	18,226	17,802
3 Corporates	89,472	87,546
4 thereof: Specialised lending exposures	36,723	36,677
5 thereof: SME	4,308	4,254
thereof: Other	48,440	46,615
6 Retail	5,849	5,735
7 Secured by real estate	3,650	3,621
8 thereof: SME	611	605
9 thereof: Non-SME	3,039	3,016
10 Qualifying revolving	801	805
11 Other	1,397	1,308
12 thereof: SME	280	273
13 thereof: Non-SME	1,117	1,036
14 IRBA equity exposures	917	907
Other non-credit-obligation assets	711	651
<b>15 Total IRB approach</b>	<b>160,145</b>	<b>151,742</b>

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

in € m

	a	b
	Basis of measurement at 31.12.2019	Average basis of measurement over the reporting year
16 Central governments or central banks	1,023	5,857
17 Regional governments or local authorities	14,863	18,196
18 Public-sector entities	3,223	3,725
19 Multilateral development banks	284	286
20 International organisations	336	341
21 Institutions	9,629	9,254
22 Corporates	4,535	4,467
23 thereof: SME	462	467
24 Retail	832	1,419
25 thereof: SME	25	23
26 Exposures secured by real estate	1,954	1,918
27 thereof: SME	499	513
28 Exposures in default	48	91
29 Higher risk categories	669	434
30 Covered bonds	307	328
31 Exposures to institutions and corporates with a short-term credit rating	–	–
32 Collective investment undertakings (CIU)	26	25
33 Equity exposures	1,663	1,654
34 Other exposures	262	280
<b>35 Total standardised approach (CRSA)</b>	<b>39,655</b>	<b>48,277</b>
<b>36 Total</b>	<b>199,799</b>	<b>200,018</b>

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	44,492	41,780	41	1,181	3	16	56
2	Institutions	14,306	2,392	440	3,055	23	95	1,147
3	Corporates	73,419	45,631	883	4,917	1,374	5,298	2,951
4	Retail	5,823	5,783	0	3	0	2	1
5	IRBA equity exposures	910	696	–	0	5	142	–
	Other non-credit-obligation assets	711	711	–	–	–	–	–
<b>6</b>	<b>Total IRB approach</b>	<b>139,661</b>	<b>96,994</b>	<b>1,364</b>	<b>9,155</b>	<b>1,405</b>	<b>5,553</b>	<b>4,154</b>
7	Central governments or central banks	907	365	25	21	–	–	0
8	Regional governments or local authorities	14,863	14,863	–	–	–	–	–
9	Public-sector entities	1,989	1,748	–	0	–	–	–
10	Multilateral development banks	15	–	–	–	–	15	–
11	International organisations	5	–	–	–	–	5	–
12	Institutions	9,505	9,208	17	52	0	5	33
13	Corporates	4,159	2,608	2	68	82	42	130
14	Retail	826	786	0	0	–	0	0
15	Exposures secured by real estate	1,954	1,878	–	–	–	–	0
16	Exposures in default	26	20	–	0	–	–	–
17	Higher risk categories	378	378	–	–	–	–	–
18	Covered bonds	307	299	0	1	–	–	1
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	26	25	–	–	1	–	–
21	Equity exposures	1,645	1,645	–	–	–	–	–
22	Other exposures	262	258	–	–	0	–	–
<b>23</b>	<b>Total standardised approach (CRSA)</b>	<b>36,868</b>	<b>34,081</b>	<b>44</b>	<b>143</b>	<b>84</b>	<b>68</b>	<b>164</b>
<b>24</b>	<b>Total</b>	<b>176,529</b>	<b>131,074</b>	<b>1,409</b>	<b>9,299</b>	<b>1,489</b>	<b>5,621</b>	<b>4,318</b>

## 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	–	1,274	–	–	4	85	36
2	Institutions	741	301	65	1,650	422	137	2,153
3	Corporates	133	1,461	1,460	670	1,041	982	3,895
4	Retail	0	2	0	0	20	2	5
5	IRBA equity exposures	–	–	–	–	–	–	0
	Other non-credit-obligation assets	–	–	–	–	–	–	–
<b>6</b>	<b>Total IRB approach</b>	<b>874</b>	<b>3,038</b>	<b>1,525</b>	<b>2,320</b>	<b>1,487</b>	<b>1,207</b>	<b>6,089</b>
7	Central governments or central banks	–	36	18	–	333	0	68
8	Regional governments or local authorities	–	–	–	–	0	0	–
9	Public-sector entities	–	0	–	–	1	–	–
10	Multilateral development banks	–	–	–	–	–	–	–
11	International organisations	–	–	–	–	–	–	–
12	Institutions	–	–	–	33	61	–	76
13	Corporates	6	130	–	20	52	49	47
14	Retail	0	0	0	0	38	0	1
15	Exposures secured by real estate	–	–	–	–	75	–	–
16	Exposures in default	–	–	–	0	0	0	1
17	Higher risk categories	–	–	–	–	–	–	–
18	Covered bonds	1	1	0	1	–	1	–
19	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20	Collective investment undertakings (CIU)	–	–	–	–	–	–	–
21	Equity exposures	–	–	–	–	0	–	–
22	Other exposures	–	–	–	–	3	–	–
<b>23</b>	<b>Total standardised approach (CRSA)</b>	<b>6</b>	<b>168</b>	<b>18</b>	<b>54</b>	<b>564</b>	<b>52</b>	<b>192</b>
<b>24</b>	<b>Total</b>	<b>881</b>	<b>3,206</b>	<b>1,543</b>	<b>2,374</b>	<b>2,051</b>	<b>1,258</b>	<b>6,281</b>

## 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	Central and South America	Australia and New Zealand
1 Central governments or central banks	16	362	–	362	–	–	–
2 Institutions	1,686	3,287	1,792	1,495	–	9	524
3 Corporates	2,723	14,456	547	13,847	63	711	146
4 Retail	4	9	1	8	–	1	2
5 IRBA equity exposures	65	3	–	2	1	4	–
Other non-credit-obligation assets	–	–	–	–	–	–	–
<b>6 Total IRB approach</b>	<b>4,495</b>	<b>18,117</b>	<b>2,340</b>	<b>15,713</b>	<b>64</b>	<b>725</b>	<b>672</b>
7 Central governments or central banks	41	89	78	11	–	–	–
8 Regional governments or local authorities	0	–	–	–	–	–	–
9 Public-sector entities	239	1,234	–	1,234	–	–	–
10 Multilateral development banks	–	–	–	–	–	–	–
11 International organisations	–	–	–	–	–	–	–
12 Institutions	20	95	41	54	–	0	28
13 Corporates	921	247	74	166	7	60	7
14 Retail	1	1	0	1	–	0	0
15 Exposures secured by real estate	0	0	–	0	–	–	–
16 Exposures in default	5	20	–	20	–	3	–
17 Higher risk categories	–	291	–	291	–	–	–
18 Covered bonds	2	–	–	–	–	–	–
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	–	–	–
21 Equity exposures	–	18	–	18	–	–	–
22 Other exposures	–	–	–	–	–	–	–
<b>23 Total standardised approach (CRSA)</b>	<b>1,230</b>	<b>1,994</b>	<b>193</b>	<b>1,794</b>	<b>7</b>	<b>63</b>	<b>35</b>
<b>24 Total</b>	<b>5,724</b>	<b>20,111</b>	<b>2,533</b>	<b>17,508</b>	<b>71</b>	<b>788</b>	<b>706</b>

## EU CRB-C – Geographical breakdown of exposures

in € m

	v	w	x	y
	<b>Basis of measurement</b>			
	<b>Asia</b>	<b>Africa</b>	<b>Other regions<sup>1)</sup></b>	<b>Total</b>
1 Central governments or central banks	–	28	88	44,970
2 Institutions	97	4	–	18,226
3 Corporates	509	230	–	89,472
4 Retail	13	2	–	5,849
5 IRBA equity exposures	–	–	–	917
Other non-credit-obligation assets	–	–	–	711
<b>6 Total IRB approach</b>	<b>619</b>	<b>263</b>	<b>88</b>	<b>160,145</b>
7 Central governments or central banks	25	2	–	1,023
8 Regional governments or local authorities	–	–	–	14,863
9 Public-sector entities	–	–	–	3,223
10 Multilateral development banks	–	–	269	284
11 International organisations	–	–	331	336
12 Institutions	1	0	–	9,629
13 Corporates	56	6	–	4,535
14 Retail	0	5	–	832
15 Exposures secured by real estate	–	–	–	1,954
16 Exposures in default	0	–	–	48
17 Higher risk categories	–	–	–	669
18 Covered bonds	–	–	–	307
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	26
21 Equity exposures	–	–	–	1,663
22 Other exposures	–	–	–	262
<b>23 Total standardised approach (CRSA)</b>	<b>83</b>	<b>13</b>	<b>599</b>	<b>39,655</b>
<b>24 Total</b>	<b>702</b>	<b>276</b>	<b>687</b>	<b>199,799</b>

<sup>1)</sup> 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				
	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air-conditioning supply	Water supply, sewerage, waste management and remediation activities
1 Central governments or central banks	–	–	–	–	–
2 Institutions	–	–	–	705	386
3 Corporates	24	258	11,926	8,181	1,204
thereof: SME	2	50	201	80	55
4 Retail	6	0	53	1	2
Secured by real estate	4	–	28	0	1
thereof: SME	4	–	28	0	1
Other	2	–	22	1	1
thereof: SME	1	–	21	1	1
5 IRBA equity exposures	–	–	–	–	–
Other non-credit-obligation assets	–	–	–	–	–
<b>6 Total IRB approach</b>	<b>31</b>	<b>258</b>	<b>11,979</b>	<b>8,887</b>	<b>1,592</b>
7 Central governments or central banks	–	–	–	–	–
8 Regional governments or local authorities	–	–	–	–	55
9 Public-sector entities	–	–	–	–	0
10 Multilateral development banks	–	–	–	–	–
11 International organisations	–	–	–	–	–
12 Institutions	–	–	–	–	–
13 Corporates	0	28	34	65	1
thereof: SME	–	–	6	0	1
14 Retail	0	0	2	0	0
thereof: SME	0	0	1	0	0
15 Exposures secured by real estate	0	–	0	1	–
thereof: SME	0	–	–	1	–
16 Exposures in default	0	0	1	–	–
17 Higher risk categories	–	–	–	–	–
18 Covered bonds	–	–	–	–	–
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	–
21 Equity exposures	–	–	–	–	–
22 Other exposures	–	–	–	–	–
<b>23 Total standardised approach (CRSA)</b>	<b>1</b>	<b>28</b>	<b>37</b>	<b>67</b>	<b>56</b>
<b>24 Total</b>	<b>32</b>	<b>286</b>	<b>12,016</b>	<b>8,954</b>	<b>1,648</b>

## EU CRB-D – Concentration of exposures by industry

in € m

	f	g	h	i	j	k
	Basis of measurement					
	Construc- tion	Wholesale and retail trade; repair of motor ve- hicles and motorcycles	Trans- portation and storage	Accommo- dation and food service activities	Information and commu- nication	Financial and insurance activities
1 Central governments or central banks	–	–	–	–	–	12,402
2 Institutions	–	–	–	0	–	15,752
3 Corporates	1,469	2,064	6,356	69	4,334	11,056
thereof: SME	85	120	40	47	37	475
4 Retail	113	125	28	53	73	45
Secured by real estate	53	74	17	35	43	30
thereof: SME	52	72	16	33	42	29
Other	53	39	8	14	25	12
thereof: SME	25	39	8	13	25	12
5 IRBA equity exposures	–	–	–	–	9	461
Other non-credit-obligation assets	–	–	–	–	–	78
<b>6 Total IRB approach</b>	<b>1,582</b>	<b>2,189</b>	<b>6,385</b>	<b>123</b>	<b>4,416</b>	<b>39,793</b>
7 Central governments or central banks	–	–	–	–	–	677
8 Regional governments or local authorities	–	–	–	–	–	–
9 Public-sector entities	–	–	9	88	0	1,344
10 Multilateral development banks	–	–	–	–	–	284
11 International organisations	–	–	–	–	–	212
12 Institutions	–	–	–	–	–	9,629
13 Corporates	291	9	369	0	54	966
thereof: SME	1	4	3	–	12	109
14 Retail	0	2	0	0	3	1
thereof: SME	0	1	0	0	2	1
15 Exposures secured by real estate	7	0	1	0	0	16
thereof: SME	6	–	–	–	–	0
16 Exposures in default	20	1	0	0	0	9
17 Higher risk categories	–	–	–	–	–	3
18 Covered bonds	–	–	–	–	–	307
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	–	26
21 Equity exposures	–	–	–	–	–	105
22 Other exposures	–	–	–	–	–	245
<b>23 Total standardised approach (CRSA)</b>	<b>318</b>	<b>12</b>	<b>380</b>	<b>89</b>	<b>57</b>	<b>13,824</b>
<b>24 Total</b>	<b>1,900</b>	<b>2,200</b>	<b>6,764</b>	<b>212</b>	<b>4,473</b>	<b>53,618</b>

## EU CRB-D – Concentration of exposures by industry

in € m

	l	m	n	o	p	q
	Basis of measurement					
	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence; compulsory social security	Education	Human health and social work activities
1 Central governments or central banks	–	–	–	32,568	–	–
2 Institutions	–	–	33	1,223	–	126
3 Corporates	34,263	2,497	2,499	120	514	1,187
thereof: SME	2,178	286	336	10	7	100
4 Retail	59	269	64	0	11	79
Secured by real estate	39	188	37	–	6	51
thereof: SME	39	167	36	–	6	49
Other	17	57	22	0	3	18
thereof: SME	17	52	22	0	3	18
5 IRBA equity exposures	429	6	11	–	–	–
Other non-credit-obligation assets	–	–	–	–	–	–
<b>6 Total IRB approach</b>	<b>34,751</b>	<b>2,772</b>	<b>2,608</b>	<b>33,912</b>	<b>525</b>	<b>1,392</b>
7 Central governments or central banks	–	–	–	346	–	–
8 Regional governments or local authorities	–	–	–	14,793	–	–
9 Public-sector entities	11	–	0	1,632	0	131
10 Multilateral development banks	–	–	–	–	–	–
11 International organisations	–	–	–	124	–	–
12 Institutions	–	–	–	–	–	–
13 Corporates	79	433	645	1,122	24	324
thereof: SME	92	7	5	141	22	13
14 Retail	7	3	17	0	0	2
thereof: SME	7	3	2	0	0	1
15 Exposures secured by real estate	1,595	1	3	0	–	8
thereof: SME	439	0	2	–	–	7
16 Exposures in default	0	2	1	–	0	0
17 Higher risk categories	666	–	–	–	–	–
18 Covered bonds	–	–	–	–	–	–
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	–	–
21 Equity exposures	1,555	2	0	–	–	–
22 Other exposures	–	–	11	–	–	–
<b>23 Total standardised approach (CRSA)</b>	<b>3,913</b>	<b>441</b>	<b>678</b>	<b>18,017</b>	<b>24</b>	<b>464</b>
<b>24 Total</b>	<b>38,663</b>	<b>3,213</b>	<b>3,286</b>	<b>51,928</b>	<b>549</b>	<b>1,856</b>

## EU CRB-D – Concentration of exposures by industry

in € m

	r	s	t	u	v
	<b>Basis of measurement</b>				
	<b>Arts, entertainment and recreation</b>	<b>Other service activities</b>	<b>Activities of house- holds as employers; undifferentiated goods and services- producing activities of households for own use</b>	<b>Other</b>	<b>Total</b>
1 Central governments or central banks	–	–	–	–	44,970
2 Institutions	–	2	–	–	18,226
3 Corporates	157	946	347	–	89,472
thereof: SME	16	182	3	–	4,308
4 Retail	28	41	4,798	–	5,849
Secured by real estate	16	22	3,005	–	3,650
thereof: SME	16	22	–	–	611
Other	9	15	1,080	–	1,397
thereof: SME	8	14	–	–	280
5 IRBA equity exposures	–	0	–	–	917
Other non-credit-obligation assets	–	–	–	633	711
<b>6 Total IRB approach</b>	<b>184</b>	<b>990</b>	<b>5,145</b>	<b>633</b>	<b>160,145</b>
7 Central governments or central banks	–	–	–	–	1,023
8 Regional governments or local authorities	–	15	–	–	14,863
9 Public-sector entities	–	8	–	–	3,223
10 Multilateral development banks	–	–	–	–	284
11 International organisations	–	–	–	–	336
12 Institutions	–	–	–	–	9,629
13 Corporates	41	37	12	–	4,535
thereof: SME	26	20	2	–	462
14 Retail	1	33	759	–	832
thereof: SME	1	3	2	–	25
15 Exposures secured by real estate	–	60	260	–	1,954
thereof: SME	–	41	2	–	499
16 Exposures in default	2	0	12	–	48
17 Higher risk categories	–	–	–	–	669
18 Covered bonds	–	–	–	–	307
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	26
21 Equity exposures	–	–	–	–	1,663
22 Other exposures	–	–	–	7	262
<b>23 Total standardised approach (CRSA)</b>	<b>44</b>	<b>153</b>	<b>1,043</b>	<b>7</b>	<b>39,655</b>
<b>24 Total</b>	<b>228</b>	<b>1,143</b>	<b>6,188</b>	<b>640</b>	<b>199,799</b>

## EU CRB-E – Art. 442 CRR – 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	11,565	3,295	7,485	22,178	–	44,523
2 Institutions	336	2,921	11,334	2,056	–	16,648
3 Corporates	1,113	7,264	28,420	25,147	–	61,943
4 Retail	80	88	584	3,858	–	4,610
5 IRBA equity exposures	–	–	87	–	657	744
Other non-credit-obligation assets	140	13	449	–	110	711
<b>6 Total IRB approach</b>	<b>13,234</b>	<b>13,581</b>	<b>48,359</b>	<b>53,239</b>	<b>767</b>	<b>129,180</b>
7 Central governments or central banks	344	27	96	66	333	867
8 Regional governments or local authorities	30	743	1,689	9,940	–	12,402
9 Public-sector entities	90	419	859	569	–	1,937
10 Multilateral development banks	–	–	163	121	–	284
11 International organisations	0	30	196	110	–	336
12 Institutions	1,372	1,321	1,649	4,774	58	9,175
13 Corporates	52	435	1,236	2,356	2	4,081
14 Retail	20	121	139	291	6	577
15 Exposures secured by real estate	0	17	110	1,629	0	1,756
16 Exposures in default	6	21	5	10	0	42
17 Higher risk categories	–	–	516	–	1	517
18 Covered bonds	0	4	190	113	–	307
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	26	–	–	26
21 Equity exposures	–	–	88	–	1,561	1,649
22 Other exposures	10	–	234	–	19	262
<b>23 Total standardised approach (CRSA)</b>	<b>1,923</b>	<b>3,137</b>	<b>7,196</b>	<b>19,979</b>	<b>1,980</b>	<b>34,215</b>
<b>24 Total</b>	<b>15,157</b>	<b>16,718</b>	<b>55,556</b>	<b>73,218</b>	<b>2,746</b>	<b>163,395</b>

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

	a	b	c	d	e	f
	<b>Basis of measurement</b>					
	<b>Payable on demand</b>	<b>≤ 1 year</b>	<b>&gt; 1 year ≤ 5 years</b>	<b>&gt; 5 years</b>	<b>No stated maturity</b>	<b>Total</b>
1 Central governments or central banks	1	31	85	330	–	447
2 Institutions	5	1,015	543	15	–	1,578
3 Corporates	2,477	5,309	14,073	5,669	–	27,528
4 Retail	874	8	39	318	–	1,239
5 IRBA equity exposures	–	–	–	–	173	173
Other non-credit-obligation assets	–	–	–	–	–	–
<b>6 Total IRB approach</b>	<b>3,356</b>	<b>6,363</b>	<b>14,741</b>	<b>6,332</b>	<b>173</b>	<b>30,965</b>
7 Central governments or central banks	0	0	156	–	–	156
8 Regional governments or local authorities	75	–	–	2,386	–	2,461
9 Public-sector entities	32	364	875	16	–	1,287
10 Multilateral development banks	–	–	–	–	–	–
11 International organisations	–	–	–	–	–	–
12 Institutions	20	91	37	307	0	455
13 Corporates	7	80	113	254	0	454
14 Retail	201	9	15	31	0	256
15 Exposures secured by real estate	–	1	17	180	–	198
16 Exposures in default	0	5	0	1	–	6
17 Higher risk categories	–	–	150	2	–	152
18 Covered bonds	–	–	–	–	–	–
19 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–
20 Collective investment undertakings (CIU)	–	–	–	–	–	–
21 Equity exposures	–	–	14	–	–	14
22 Other exposures	–	–	–	–	–	–
<b>23 Total standardised approach (CRSA)</b>	<b>334</b>	<b>549</b>	<b>1,378</b>	<b>3,177</b>	<b>1</b>	<b>5,439</b>
<b>24 Total</b>	<b>3,690</b>	<b>6,913</b>	<b>16,119</b>	<b>9,509</b>	<b>173</b>	<b>36,404</b>

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 (37) 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		Specific credit risk adjustments	General credit risk adjustments
		Defaulted exposures	Non-defaulted exposures		
1	Central governments or central banks	–	44,972	2	–
2	Institutions	10	18,231	14	–
3	Corporates	432	89,305	265	–
4	thereof: Specialised lending exposures	193	36,618	87	–
5	thereof: SME	17	4,299	9	–
	thereof: Other	222	48,387	169	–
6	Retail	57	5,817	26	–
7	Secured by real estate	35	3,619	4	–
8	thereof: SME	0	611	0	–
9	thereof: Non-SME	35	3,009	4	–
10	Qualifying revolving	3	801	3	–
11	Other	20	1,396	19	–
12	thereof: SME	0	282	2	–
13	thereof: Non-SME	20	1,114	17	–
14	IRBA equity exposures	0	917	–	–
	Other non-credit-obligation assets	–	711	–	–
<b>15</b>	<b>Total IRB approach</b>	<b>499</b>	<b>159,952</b>	<b>306</b>	<b>–</b>
16	Central governments or central banks	–	1,023	0	–
17	Regional governments or local authorities	–	14,863	0	–
18	Public-sector entities	–	3,226	2	–
19	Multilateral development banks	–	284	–	–
20	International organisations	–	336	0	–
21	Institutions	–	9,629	0	–
22	Corporates	192	4,540	5	–
23	thereof: SME	0	462	0	–
24	Retail	30	834	2	–
25	thereof: SME	1	25	0	–
26	Exposures secured by real estate	–	1,954	0	–
27	thereof: SME	–	500	0	–
28	Exposures in default	222	0	173	–
29	Higher risk categories	–	675	6	–
30	Covered bonds	–	307	0	–
31	Exposures to institutions and corporate with a short-term credit rating	–	–	–	–
32	Collective investment undertakings (CIU)	–	26	–	–
33	Equity exposures	–	1,663	–	–
34	Other exposures	–	262	–	–
<b>35</b>	<b>Total standardised approach (CRSA)</b>	<b>222</b>	<b>39,622</b>	<b>190</b>	<b>–</b>
<b>36</b>	<b>Total</b>	<b>721</b>	<b>199,575</b>	<b>496</b>	<b>–</b>
37	thereof: Loans	643	137,120	422	–
38	thereof: Debt securities	–	26,066	12	–
39	thereof: Off-balance-sheet exposures	78	36,388	62	–

## 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	44,970
2 Institutions	–	4	18,226
3 Corporates	266	–11	89,472
4 thereof: Specialised lending exposures	72	7	36,723
5 thereof: SME	16	–0	4,308
thereof: Other	178	–18	48,440
6 Retail	60	–2	5,849
7 Secured by real estate	24	–1	3,650
8 thereof: SME	6	–0	611
9 thereof: Non-SME	18	–1	3,039
10 Qualifying revolving	13	–0	801
11 Other	24	–1	1,397
12 thereof: SME	7	–0	280
13 thereof: Non-SME	17	–1	1,117
14 IRBA equity exposures	–	–	917
Other non-credit-obligation assets	–	–	711
<b>15 Total IRB approach</b>	<b>326</b>	<b>–8</b>	<b>160,145</b>
16 Central governments or central banks	–	0	1,023
17 Regional governments or local authorities	–	–0	14,863
18 Public-sector entities	–	1	3,223
19 Multilateral development banks	–	–	284
20 International organisations	–	0	336
21 Institutions	–	–0	9,629
22 Corporates	–	0	4,535
23 thereof: SME	–	0	462
24 Retail	0	–0	832
25 thereof: SME	0	–0	25
26 Exposures secured by real estate	–	0	1,954
27 thereof: SME	–	0	499
28 Exposures in default	142	34	48
29 Higher risk categories	–	3	669
30 Covered bonds	–	–0	307
31 Exposures to institutions and corporate with a short-term credit rating	–	–	–
32 Collective investment undertakings (CIU)	–	–	26
33 Equity exposures	–	–	1,663
34 Other exposures	–	–	262
<b>35 Total standardised approach (CRSA)</b>	<b>142</b>	<b>38</b>	<b>39,655</b>
<b>36 Total</b>	<b>469</b>	<b>30</b>	<b>199,799</b>
37 thereof: Loans	469	17	137,342
38 thereof: Debt securities	–	3	26,054
39 thereof: Off-balance-sheet exposures	–	10	36,404

## 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	Agriculture, forestry and fishing	1	1	31	0	–	0	–0	32
2	Mining and quarrying	0	0	287	0	–	–	0	286
3	Manufacturing	119	26	11,975	78	–	62	35	12,016
4	Electricity, gas, steam and air-conditioning supply	17	–	8,953	16	–	15	–3	8,954
5	Water supply, sewerage, waste management and remediation activities	8	–	1,641	2	–	–	0	1,648
6	Construction	178	168	1,885	163	–	170	26	1,900
7	Wholesale and retail trade; repair of motor vehicles and motorcycles	8	3	2,200	8	–	5	3	2,200
8	Transportation and storage	34	19	6,742	11	–	6	2	6,764
9	Accommodation and food service activities	5	1	208	1	–	0	0	212
10	Information and communication	3	1	4,479	9	–	7	3	4,473
11	Financial and insurance activities	37	17	53,610	30	–	10	–25	53,618
12	Real estate activities	150	81	38,621	108	–	131	18	38,663
13	Professional, scientific and technical activities	32	3	3,193	13	–	19	3	3,213
14	Administrative and support service activities	6	2	3,290	11	–	2	3	3,286
15	Public administration and defence; compulsory social security	–	–	51,933	4	–	–	2	51,928
16	Education	52	0	498	1	–	1	–8	549
17	Human health and social work activities	5	2	1,856	4	–	3	2	1,856
18	Arts, entertainment and recreation	3	2	226	1	–	1	0	228
19	Other service activities	10	3	1,143	10	–	10	–36	1,143
20	Activities of households as employers; undifferentiated goods and services-producing activities of households for own use	51	29	6,163	26	–	26	6	6,188
21	Other	–	–	640	–	–	–	–1	640
<b>22</b>	<b>Total</b>	<b>721</b>	<b>358</b>	<b>199,575</b>	<b>496</b>	<b>–</b>	<b>469</b>	<b>30</b>	<b>199,799</b>

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 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)	
<b>1 Europe</b>	516	172	176,304	291	–	307	–4	176,529
2 Germany	352	141	130,934	211	–	256	55	131,074
3 Finland	–	–	1,411	2	–	1	1	1,409
4 France	84	28	9,242	27	–	21	6	9,299
5 Ireland	51	–	1,439	1	–	–	–9	1,489
6 Luxembourg	2	2	5,629	10	–	9	–24	5,621
7 The Netherlands	0	0	4,324	6	–	4	2	4,318
8 Norway	–	–	881	0	–	–	–0	881
9 Austria	0	0	3,210	5	–	3	1	3,206
10 Poland	0	0	1,548	4	–	4	1	1,543
11 Sweden	0	0	2,376	2	–	0	0	2,374
12 Switzerland	0	0	2,053	2	–	1	1	2,051
13 Spain	13	0	1,248	2	–	1	–2	1,258
14 United Kingdom	5	0	6,285	9	–	7	–33	6,281
15 Other	8	0	5,724	8	–	2	–1	5,724
<b>16 North America</b>	187	169	20,123	199	–	159	34	20,111
17 Canada	–	–	2,535	2	–	–	0	2,533
18 United States of America	187	169	17,518	197	–	159	34	17,508
19 Other	–	–	71	0	–	–	0	71
<b>20 Central and South America</b>	14	14	777	3	–	1	–0	788
<b>21 Australia and New Zealand</b>	0	0	707	1	–	–	0	706
<b>22 Asia</b>	0	0	702	0	–	0	0	702
<b>23 Africa</b>	3	3	274	2	–	1	–0	276
<b>24 Other regions<sup>1)</sup></b>	–	–	687	0	–	–	0	687
<b>25 Total</b>	<b>721</b>	<b>358</b>	<b>199,575</b>	<b>496</b>	<b>–</b>	<b>469</b>	<b>30</b>	<b>199,799</b>

<sup>1)</sup> Exposures to supranational organisations

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 adjust-

ment and the approval process is available in the form of an internal set of rules and regulations and can be found in Note (37) of the Notes to the Consolidated Financial Statements in the Annual Report.

The table below shows the changes in the credit risk adjustments over the reporting period 30 June 2019 to 31 December 2019. To ensure that requirements of Article 442 i) CRR are satisfied in full, the changes over the reporting period 31 December 2018 to 31 December 2019 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.

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

in € m

	a	b
	Specific credit risk adjustments	General credit risk adjustments
<b>1 Opening balance</b>	<b>428</b>	–
2 Additions	149	–
3 Reversals	103	–
Changes in credit risk adjustment due to stage transfers	20	–
4 Utilisations	37	–
5 Transfers between types of credit risk adjustment	–	–
6 Impact of exchange rate differences	2	–
7 Impact of consolidation effects	–	–
8 Other adjustments	–25	–
<b>9 Closing balance</b>	<b>433</b>	–
10 Recoveries on loans and advances previously written off	5	–
11 Direct write-offs	2	–

## Art. 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
<b>Opening balance</b>	<b>50</b>	<b>–</b>
Additions	91	–
Reversals	96	–
Changes in credit risk adjustment due to stage transfers	25	–
Utilisations	–	–
Transfers between types of credit risk adjustment	–	–
Impact of exchange rate differences	0	–
Impact of consolidation effects	0	–
Other adjustments	–14	–
<b>Closing balance</b>	<b>57</b>	<b>–</b>

The information in the tables above according to FINREP relates to the 31 December 2019 reporting date and comprises the amounts of the credit risk adjustments under IFRS based on the group of consolidated companies for regulatory purposes.

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 that under German commercial law.

The table below shows the changes in the exposures in default over the reporting period 30 June 2019 to 31 December 2019.

## 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
<b>1 Opening balance</b>	<b>784</b>
2 New defaults	35
3 Recoveries	33
4 Direct write-offs	4
5 Other adjustments	–139
<b>6 Closing balance</b>	<b>643</b>

In accordance with the EBA/GL/2018/10 guidelines, the tables EU CR1-D (Ageing of past-due exposures) and EU CR1-E (Non-performing and forborne exposures) are replaced by the following tables in the “Non-performing exposures and forbearance” section: Template 3 (Credit quality of performing and non-performing exposures by past due days) and Template 4 (Performing and non-performing exposures and related provisions).

## 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 and assignment of receivables as collateral 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 CRM. The stated values of collateral arrangements are reviewed by CRM, 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.

At FSP, in the case of collateral involving mortgages over real estate, valuation reports are prepared by qualified experts (internal and external), most of whom have been certified by the HypZert organisation. Professionally experienced employees are used for collateral in connection with small loans. If external valuation reports are commissioned, an internal validation is carried out by suitably qualified experts.

In the Helaba Group, 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 (78.02%) 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 (14.62%).

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. As at 31 December 2019 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.

FSP makes use of on-balance-sheet and off-balance-sheet netting arrangements in the form of netting agreements for mutual monetary receivables (on-balance-sheet netting). FSP therefore applies on-balance-sheet netting (or offsetting) in accordance with section 10 RechKredV between loans, advances or other receivables that can be terminated and are (re)payable on demand and liabilities to the same account holder that are not subject to any restrictions, provided that, for the purposes of calculating interest and fees or commissions, it is agreed that the account holder can be treated as if the amounts were being posted through a single account. In financial year 2019, the volume of this netting amounted to €10.8 m. FSP does not make use of any other netting options provided for in the CRR.

## 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	109,605	27,737	5,782	1,408	–	20,546
2 Debt securities	25,731	323	263	–	–	59
Off-balance-sheet exposures	34,943	1,461	879	121	–	461
<b>3 Total</b>	<b>170,279</b>	<b>29,521</b>	<b>6,924</b>	<b>1,529</b>	<b>–</b>	<b>21,067</b>
4 Of which defaulted	315	105	10	4	–	92

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.

## Art. 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	120	2,245	–	–
Institutions	674	973	–	5
Corporates	3,879	791	–	16,262
thereof: Specialised lending exposures	841	93	–	8,505
thereof: SME	60	99	–	2,183
thereof: Other	2,978	599	–	5,574
Retail	16	157	–	2,990
Secured by real estate	2	109	–	2,990
thereof: SME	0	0	–	508
thereof: Non-SME	2	109	–	2,481
Qualifying revolving	–	–	–	0
Other	14	48	–	0
thereof: SME	8	6	–	0
thereof: Non-SME	6	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	75	48	–	–
<b>Total IRB approach</b>	<b>4,763</b>	<b>4,215</b>	<b>–</b>	<b>19,257</b>
Central governments or central banks	–	–	–	–
Regional governments or local authorities	–	–	–	–
Public-sector entities	257	68	–	–
Multilateral development banks	–	–	–	–
International organisations	–	–	–	–
Institutions	30	816	–	–
Corporates	2,302	168	–	–
thereof: SME	421	1	–	–
Retail	352	170	–	–
thereof: SME	2	0	–	–
Exposures secured by real estate	0	–	–	1,954
thereof: SME	0	–	–	499
Exposures in default	8	1	–	–
Higher risk categories	–	–	–	–
Covered bonds	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–
Equity exposures	–	507	–	–
Other exposures	–	–	–	–
Securitisation exposures	–	350	–	–
<b>Total standardised approach (CRSA)</b>	<b>2,949</b>	<b>2,080</b>	<b>–</b>	<b>1,954</b>
<b>Total</b>	<b>7,712</b>	<b>6,295</b>	<b>–</b>	<b>21,210</b>

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.

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 – Standardised approach: Credit risk exposure and CRM effects by exposure class

in € m

Exposure classes	a		b		c		d		e		f	
	Basis of measurement		Exposure value				RWAs and RWA density					
	On balance sheet	Off balance sheet	On balance sheet	Off balance sheet	On balance sheet	Off balance sheet	RWAs	RWA density in %				
1 Central governments or central banks	867	156	1,397	158	26	1.69						
2 Regional governments or local authorities	12,402	2,461	14,866	1,319	14	0.09						
3 Public-sector entities	1,937	1,287	1,743	640	237	9.95						
4 Multilateral development banks	284	–	284	19	0	0.00						
5 International organisations	336	–	336	–	0	0.00						
6 Institutions	9,175	455	9,388	190	318	3.32						
7 Corporates	4,081	454	2,028	121	2,042	95.04						
8 Retail	577	256	164	13	138	78.37						
9 Exposures secured by real estate	1,756	198	1,756	106	654	35.15						
10 Exposures in default	42	6	34	2	38	105.11						
11 Higher risk categories	517	152	517	77	891	150.00						
12 Covered bonds	307	–	307	–	2	0.50						
13 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–						
14 Collective investment undertakings (CIU)	26	–	26	–	26	100.00						
15 Equity exposures	1,649	14	1,155	–	1,160	100.36						
16 Other exposures	262	–	262	–	253	96.66						
<b>17 Total</b>	<b>34,215</b>	<b>5,439</b>	<b>34,263</b>	<b>2,645</b>	<b>5,800</b>	<b>15.71</b>						

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

Exposure classes	Risk weighting								
	0%	2%	4%	10%	20%	35%	50%	70%	75%
1 Central governments or central banks	1,346	–	–	–	19	–	–	–	–
2 Regional governments or local authorities	16,115	–	–	–	69	–	–	–	–
3 Public-sector entities	1,256	–	–	–	1,087	–	39	–	–
4 Multilateral development banks	303	–	–	–	–	–	–	–	–
5 International organisations	336	–	–	–	–	–	–	–	–
6 Institutions	8,482	–	–	–	767	–	324	–	–
7 Corporates	–	–	–	–	80	24	32	–	–
8 Retail	–	–	–	–	–	–	–	–	148
9 Exposures secured by real estate	–	–	–	–	–	1,816	42	–	–
10 Exposures in default	–	–	–	–	–	–	–	–	–
11 Higher risk categories	–	–	–	–	–	–	–	–	–
12 Covered bonds	293	–	–	12	2	–	–	–	–
13 Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
14 Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–	–
15 Equity exposures	–	–	–	–	–	–	–	–	–
16 Other exposures	1	–	–	–	10	–	–	–	–
<b>17 Total standardised approach exposure value after credit risk mitigation</b>	<b>28,132</b>	<b>–</b>	<b>–</b>	<b>12</b>	<b>2,034</b>	<b>1,840</b>	<b>438</b>	<b>–</b>	<b>148</b>

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

in € m

	Exposure classes	Risk weighting						Capital deduction	Total	Of which unrated
		100%	150%	250%	370%	1,250%	Other			
1	Central governments or central banks	0	–	–	–	–	190	–	1,555	947
2	Regional governments or local authorities	–	–	–	–	–	1	–	16,185	1,439
3	Public-sector entities	–	–	–	–	–	0	–	2,383	101
4	Multilateral development banks	–	–	–	–	–	–	–	303	–
5	International organisations	–	–	–	–	–	–	–	336	215
6	Institutions	0	–	–	–	–	5	–	9,578	1,023
7	Corporates	1,266	–	–	–	–	745	–	2,149	1,387
8	Retail	28	0	–	–	–	–	–	177	177
9	Exposures secured by real estate	1	–	–	–	–	2	–	1,862	1,841
10	Exposures in default	33	4	–	–	–	–	–	36	36
11	Higher risk categories	–	594	–	–	–	–	–	594	594
12	Covered bonds	–	–	–	–	–	–	–	307	24
13	Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
14	Collective investment undertakings (CIU)	26	–	–	–	–	–	–	26	26
15	Equity exposures	1,153	–	3	–	–	–	–	1,155	1,155
16	Other exposures	251	–	–	–	–	–	–	262	262
<b>17</b>	<b>Total standardised approach exposure value after credit risk mitigation</b>	<b>2,759</b>	<b>598</b>	<b>3</b>	<b>–</b>	<b>–</b>	<b>944</b>	<b>0</b>	<b>36,908</b>	<b>9,228</b>

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.

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

Exposure classes	Risk weight								
	0 %	2 %	4 %	10 %	20 %	35 %	50 %	70 %	75 %
Central governments or central banks	813	–	–	–	19	–	–	–	–
Regional governments or local authorities	13,526	–	–	–	69	–	–	–	–
Public-sector entities	1,193	–	–	–	1,343	–	39	–	–
Multilateral development banks	284	–	–	–	–	–	–	–	–
International organisations	336	–	–	–	–	–	–	–	–
Institutions	8,219	–	–	–	808	–	333	–	–
Corporates	–	–	–	–	8	–	32	–	–
Retail	–	–	–	–	–	–	–	–	515
Exposures secured by real estate	–	–	–	–	–	1,816	42	–	–
Exposures in default	–	–	–	–	–	–	–	–	–
Higher risk categories	–	–	–	–	–	–	–	–	–
Covered bonds	293	–	–	12	2	–	–	–	–
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	–	–
Collective investment undertakings (CIU)	–	–	–	–	–	–	–	–	–
Equity exposures	–	–	–	–	–	–	–	–	–
Other exposures	1	–	–	–	10	–	–	–	–
<b>Total standardised approach exposure value before credit risk mitigation</b>	<b>24,665</b>	<b>–</b>	<b>–</b>	<b>12</b>	<b>2,259</b>	<b>1,816</b>	<b>447</b>	<b>–</b>	<b>515</b>

Art. 444 CRR – Standardised approach: Credit risk exposure value by exposure class and risk weight (before credit risk mitigation)

in € m

Exposure classes	Risk weight						Capital deduction	Total
	100 %	150 %	250 %	370 %	1,250 %	Other		
Central governments or central banks	0	–	–	–	–	190	–	1,023
Regional governments or local authorities	–	–	–	–	–	1	–	13,596
Public-sector entities	–	–	–	–	–	0	–	2,576
Multilateral development banks	–	–	–	–	–	–	–	284
International organisations	–	–	–	–	–	–	–	336
Institutions	0	–	–	–	–	5	–	9,366
Corporates	3,551	–	–	–	–	745	–	4,337
Retail	83	1	–	–	–	–	–	598
Exposures secured by real estate	1	–	–	–	–	2	–	1,862
Exposures in default	33	13	–	–	–	–	–	46
Higher risk categories	–	594	–	–	–	–	–	594
Covered bonds	–	–	–	–	–	–	–	307
Exposures to institutions and corporates with a short-term credit rating	–	–	–	–	–	–	–	0
Collective investment undertakings (CIU)	26	–	–	–	–	–	–	26
Equity exposures	1,660	–	3	–	–	–	–	1,663
Other exposures	251	–	–	–	–	–	–	262
<b>Total standardised approach exposure value before credit risk mitigation</b>	<b>5,606</b>	<b>608</b>	<b>3</b>	<b>–</b>	<b>–</b>	<b>944</b>	<b>–</b>	<b>36,875</b>

## 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 the subsidiary 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.
- 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 recommendation 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).

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.

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 with no external rating in accordance with Article 259 (4) CRR or Article 254 (5) of Regulation (EU) No 2017/2401	Internal Assessment Approach (IAA) for Securitisations	Scorecard	Helaba development
Leveraged finance	Leveraged Finance Rating	Scorecard	Pool model

<sup>1)</sup> Entities that individually constitute SMEs but belong to a corporate group with sales revenue of more than € 50 m.

<sup>2)</sup> 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.

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.

## 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 <sup>1)</sup>		X	X <sup>2)</sup>	
	X	X		X	X <sup>2)</sup>	
			X	X	X <sup>2)</sup>	
	X			X	X <sup>2)</sup>	
				X		
			X	X	X <sup>2)</sup>	
			X			
			X			
			X		X <sup>2)</sup>	
			X			
						X
			X			

### Institutions exposure class

The rating model for banks 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 DSGVO 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.

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

Art. 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.

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

IRB exposure classes							AIRB 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							

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.

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

Borrower/ exposure	Rating models	Method	Origin of the model	AIRB exposure classes				
				Retail				
				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 2019, LBS had achieved coverage of 98.9 % (RWAs) and 99.6 % (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 € 5,980 m as at the reporting date; the exposure value of other non-credit-related assets was € 711 m.

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

Exposure classes	PD band	a	b	c	d	e
		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	43,934	417	77.06	47,062	0.00
	0.15 to <0.25	4	6	100.00	192	0.17
	0.25 to <0.50	–	–	–	–	–
	0.50 to <0.75	–	–	–	–	–
	0.75 to <2.50	0	–	–	0	1.32
	2.50 bis<10.00	0	–	–	0	4.44
	10.00 to <100.00	586	24	75.00	549	19.98
	100.00 (Default)	–	–	–	–	–
<b>Subtotal</b>		<b>44,525</b>	<b>447</b>	<b>77.25</b>	<b>47,804</b>	<b>0.23</b>
Institutions	0.00 to <0.15	15,725	1,421	73.44	16,608	0.05
	0.15 to <0.25	97	17	48.29	103	0.17
	0.25 to <0.50	521	81	71.03	266	0.36
	0.50 to <0.75	21	4	70.41	16	0.59
	0.75 to <2.50	78	24	54.65	74	0.96
	2.50 to <10.00	58	14	47.09	57	4.40
	10.00 to <100.00	151	18	63.55	10	10.07
	100.00 (Default)	10	0	75.00	4	100.00
<b>Subtotal</b>		<b>16,661</b>	<b>1,579</b>	<b>72.79</b>	<b>17,138</b>	<b>0.11</b>
Corporates – Specialised lending exposures	0.00 to <0.15	12,677	1,223	74.08	13,310	0.09
	0.15 to <0.25	3,354	581	73.35	3,721	0.17
	0.25 to <0.50	7,078	1,914	74.12	8,294	0.32
	0.50 to <0.75	2,452	824	74.78	3,000	0.59
	0.75 to <2.50	4,421	1,529	74.75	5,141	1.26
	2.50 to <10.00	429	34	80.61	449	4.00
	10.00 to <100.00	87	15	26.20	90	15.84
	100.00 (Default)	192	1	75.55	192	100.00
<b>Subtotal</b>		<b>30,689</b>	<b>6,122</b>	<b>74.28</b>	<b>34,198</b>	<b>1.03</b>

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
	1,425	44.98	2.50	424	0.90	0	
	1	45.00	2.50	83	43.02	0	
	-	-	-	-	-	-	
	-	-	-	-	-	-	
	1	45.00	2.50	0	107.45	0	
	2	45.00	2.50	0	152.87	0	
	39	45.00	2.50	1,387	252.44	0	
	-	-	-	-	-	-	
	<b>1,468</b>	<b>44.98</b>	<b>2.50</b>	<b>1,894</b>	<b>3.96</b>	<b>1</b>	<b>2</b>
	335	32.76	2.50	3,090	18.61	3	
	14	29.51	2.50	31	30.05	0	
	33	33.62	2.50	136	51.09	0	
	8	45.00	2.50	15	94.56	0	
	20	44.37	2.50	70	94.54	0	
	15	45.00	2.50	88	153.51	1	
	34	45.00	2.50	20	205.33	0	
	2	45.00	2.50	-	-	2	
	<b>461</b>	<b>32.87</b>	<b>2.50</b>	<b>3,449</b>	<b>20.13</b>	<b>7</b>	<b>14</b>
	384	42.40	2.50	3,625	27.23	5	
	89	43.43	2.50	1,545	41.52	3	
	229	43.29	2.50	4,738	57.13	11	
	79	44.08	2.50	2,326	77.52	8	
	119	41.16	2.50	4,891	95.14	27	
	21	42.19	2.50	617	137.45	7	
	8	43.94	2.50	208	229.94	6	
	11	44.17	2.50	-	-	85	
	<b>940</b>	<b>42.70</b>	<b>2.50</b>	<b>17,949</b>	<b>52.49</b>	<b>152</b>	<b>87</b>

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

Exposure classes	PD band	a	b	c	d	e
		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	725	147	72.74	794	0.08
	0.15 to <0.25	374	53	83.19	409	0.17
	0.25 to <0.50	964	168	75.05	1,071	0.31
	0.50 to <0.75	421	95	77.90	470	0.59
	0.75 to <2.50	1,013	115	80.00	1,040	1.32
	2.50 to <10.00	92	64	70.05	122	5.16
	10.00 to <100.00	54	13	45.31	57	18.26
	100.00 (Default)	10	8	92.22	16	100.00
<b>Subtotal</b>		<b>3,653</b>	<b>664</b>	<b>76.30</b>	<b>3,980</b>	<b>1.36</b>
Corporates – Other	0.00 to <0.15	16,343	12,400	68.95	22,034	0.07
	0.15 to <0.25	3,409	2,263	78.69	4,773	0.17
	0.25 to <0.50	4,199	4,086	75.66	6,718	0.30
	0.50 to <0.75	886	616	75.86	1,164	0.59
	0.75 to <2.50	1,131	767	76.65	1,503	1.39
	2.50 to <10.00	280	448	75.34	307	4.00
	10.00 to <100.00	1,401	159	78.48	622	18.75
	100.00 (Default)	171	51	92.54	204	100.00
<b>Subtotal</b>		<b>27,819</b>	<b>20,790</b>	<b>72.58</b>	<b>37,325</b>	<b>1.08</b>
IRBA equity exposures – PD/LGD approach	0.00 to <0.15	79	–	–	79	0.11
	0.15 to <0.25	45	–	–	45	0.17
	0.25 to <0.50	12	–	–	12	0.26
	0.50 to <0.75	8	–	–	8	0.59
	0.75 to <2.50	129	–	–	129	1.70
	2.50 to <10.00	6	–	–	6	6.67
	10.00 to <100.00	5	–	–	5	15.00
	100.00 (Default)	0	–	–	0	100.00
<b>Subtotal</b>		<b>284</b>	<b>–</b>	<b>–</b>	<b>284</b>	<b>1.26</b>
IRBA equity exposures – simple risk-weighted approach		439	173	100.00	612	–
IRBA equity exposures – risk-weighted equities		21	–	–	21	–
<b>Total</b>		<b>124,091</b>	<b>29,775</b>	<b>73.54</b>	<b>141,361</b>	<b>0.67</b>

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
	814	38.07	2.50	151	19.02	0	
	399	39.39	2.50	133	32.65	0	
	833	36.83	2.50	422	39.39	1	
	339	39.10	2.50	278	59.17	1	
	507	40.27	2.50	830	79.75	6	
	148	41.52	2.50	152	125.19	3	
	490	37.80	2.50	93	162.42	4	
	18	43.70	2.50	–	–	7	
	<b>3,548</b>	<b>38.69</b>	<b>2.50</b>	<b>2,060</b>	<b>51.76</b>	<b>22</b>	<b>9</b>
	1,174	43.16	2.50	5,445	24.71	7	
	302	43.94	2.50	2,035	42.64	4	
	522	43.97	2.50	3,757	55.92	9	
	137	43.49	2.50	903	77.60	3	
	219	44.48	2.50	1,594	106.09	9	
	82	44.38	2.50	446	145.30	5	
	863	26.93	2.50	819	131.72	27	
	87	43.70	2.50	–	–	89	
	<b>3,386</b>	<b>43.21</b>	<b>2.50</b>	<b>15,000</b>	<b>40.19</b>	<b>153</b>	<b>169</b>
	6	65.00	5.00	60	75.69	0	
	1	65.00	5.00	40	88.34	0	
	–	65.00	5.00	11	97.13	0	
	–	65.00	5.00	12	142.74	0	
	6	65.00	5.00	278	215.23	1	
	–	65.00	5.00	18	287.68	0	
	1	65.00	5.00	18	357.83	0	
	1	65.00	5.00	0	437.50	0	
	<b>15</b>	<b>65.00</b>	<b>5.00</b>	<b>436</b>	<b>153.55</b>	<b>2</b>	<b>–</b>
	107	–	–	1,174	191.84	5	–
	16	–	–	51	250.00	–	–
	<b>9,941</b>	<b>42.16</b>	<b>2.50</b>	<b>42,014</b>	<b>29.72</b>	<b>342</b>	<b>281</b>

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

Exposure classes	PD band	a	b	c	d	e
		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, SME	0.00 to <0.15	157	10	71.35	164	0.08
	0.15 to <0.25	52	2	65.24	54	0.17
	0.25 to <0.50	138	6	71.43	142	0.32
	0.50 to <0.75	52	3	73.19	54	0.59
	0.75 to <2.50	117	4	66.08	120	1.30
	2.50 to <10.00	44	1	70.23	45	4.59
	10.00 to <100.00	22	1	74.81	23	20.73
	100.00 (Default)	0	–	–	0	100.00
<b>Subtotal</b>		<b>583</b>	<b>28</b>	<b>70.36</b>	<b>603</b>	<b>1.57</b>
Retail – Secured by real estate, non-SME	0.00 to <0.15	1,472	31	79.52	1,496	0.06
	0.15 to <0.25	266	4	86.32	270	0.17
	0.25 to <0.50	625	12	86.06	636	0.31
	0.50 to <0.75	146	5	88.18	150	0.59
	0.75 to <2.50	335	4	92.69	338	1.32
	2.50 to <10.00	75	1	97.31	77	4.11
	10.00 to <100.00	32	0	62.12	32	18.75
	100.00 (Default)	34	0	100.00	35	100.00
<b>Subtotal</b>		<b>2,986</b>	<b>57</b>	<b>83.72</b>	<b>3,034</b>	<b>1.73</b>
Retail – Qualifying revolving	0.00 to <0.15	18	655	63.73	436	0.04
	0.15 to <0.25	2	15	65.35	12	0.17
	0.25 to <0.50	8	34	66.04	31	0.32
	0.50 to <0.75	5	12	67.04	13	0.59
	0.75 to <2.50	10	18	67.87	22	1.37
	2.50 to <10.00	7	6	69.68	12	4.56
	10.00 to <100.00	2	8	66.22	7	21.07
	100.00 (Default)	3	0	100.00	3	100.00
<b>Subtotal</b>		<b>55</b>	<b>749</b>	<b>64.14</b>	<b>535</b>	<b>1.07</b>
Retail – Other, SME	0.00 to <0.15	27	45	64.54	56	0.08
	0.15 to <0.25	10	15	63.52	20	0.17
	0.25 to <0.50	31	22	67.34	46	0.32
	0.50 to <0.75	14	14	70.60	24	0.59
	0.75 to <2.50	40	19	66.54	53	1.38
	2.50 to <10.00	20	9	65.51	25	4.68
	10.00 to <100.00	6	10	59.39	12	21.08
	100.00 (Default)	0	0	50.00	0	100.00
<b>Subtotal</b>		<b>148</b>	<b>134</b>	<b>65.61</b>	<b>236</b>	<b>2.06</b>

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
	1,125	30.35	2.50	8	4.83	0	
	336	30.82	2.50	5	8.98	0	
	797	31.12	2.50	20	14.13	0	
	258	32.72	2.50	12	23.00	0	
	609	32.43	2.50	46	38.60	1	
	232	32.79	2.50	37	81.29	1	
	153	30.64	2.50	32	138.61	1	
	1	24.79	2.50	-	-	0	
	<b>3,511</b>	<b>31.39</b>	<b>2.50</b>	<b>160</b>	<b>26.58</b>	<b>3</b>	<b>0</b>
	12,340	29.92	2.53	77	5.14	0	
	2,844	29.81	2.84	31	11.44	0	
	6,423	30.43	2.98	112	17.69	1	
	2,545	23.00	4.19	33	21.74	0	
	5,350	19.77	5.41	108	31.95	1	
	1,300	20.45	4.87	50	65.81	1	
	744	20.66	4.47	38	119.04	1	
	400	30.80	2.65	14	39.67	10	
	<b>31,946</b>	<b>28.21</b>	<b>3.14</b>	<b>464</b>	<b>15.28</b>	<b>14</b>	<b>4</b>
	114,933	63.17	2.50	8	1.76	0	
	3,427	63.22	2.50	1	5.90	0	
	10,008	63.13	2.50	3	9.82	0	
	4,541	63.40	2.50	2	15.74	0	
	8,752	63.96	2.50	7	29.94	0	
	7,836	63.89	2.50	8	67.28	0	
	3,055	62.87	2.50	10	138.10	1	
	909	75.83	2.50	1	28.91	2	
	<b>153,461</b>	<b>63.29</b>	<b>2.50</b>	<b>39</b>	<b>7.23</b>	<b>4</b>	<b>3</b>
	1,256	63.99	2.50	6	10.70	0	
	381	62.78	2.50	4	18.62	0	
	706	64.53	2.50	13	28.83	0	
	339	65.32	2.50	10	41.38	0	
	718	65.41	2.50	31	59.42	0	
	470	62.99	2.50	19	74.29	1	
	1,248	60.41	2.50	13	109.45	2	
	2	25.02	2.50	0	0.15	0	
	<b>5,120</b>	<b>64.15</b>	<b>2.50</b>	<b>96</b>	<b>40.80</b>	<b>3</b>	<b>2</b>

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

Exposure classes	PD band	a	b	c	d	e
		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	329	97	84.64	411	0.07
	0.15 to <0.25	80	18	86.09	96	0.17
	0.25 to <0.50	216	65	86.41	272	0.32
	0.50 to <0.75	67	25	87.20	88	0.59
	0.75 to <2.50	116	30	93.07	144	1.24
	2.50 to <10.00	30	5	97.95	35	4.59
	10.00 to <100.00	8	30	59.71	26	21.93
	100.00 (Default)	18	1	100.00	20	100.00
<b>Subtotal</b>		<b>863</b>	<b>271</b>	<b>84.87</b>	<b>1,090</b>	<b>2.79</b>
<b>Total</b>		<b>4,635</b>	<b>1,239</b>	<b>70.96</b>	<b>5,497</b>	<b>1.87</b>

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.

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
	11,001	65.25	2.59	51	12.34	0	
	3,458	61.15	2.72	23	23.76	0	
	8,076	60.94	2.69	95	34.85	1	
	4,354	53.82	2.88	39	44.65	0	
	6,864	48.34	3.14	79	55.07	1	
	2,145	50.69	3.08	27	77.51	1	
	887	62.83	2.67	38	149.01	4	
	970	71.11	2.38	6	32.08	14	
	<b>37,755</b>	<b>60.24</b>	<b>2.74</b>	<b>358</b>	<b>32.87</b>	<b>20</b>	<b>17</b>
	<b>231,793</b>	<b>39.87</b>	<b>2.90</b>	<b>1,117</b>	<b>20.32</b>	<b>45</b>	<b>26</b>

## Art. 452 CRR – Average PD by country, FIRB

<b>Exposure classes</b>	<b>Countries / regions</b>	<b>Average PD in %</b>
Central governments or central banks	Africa	10.00
	Asia	–
	Australia and New Zealand	–
	Europe	0.21
	North America	0.01
	Central and South America	–
Institutions	Africa	2.90
	Asia	0.59
	Australia and New Zealand	0.03
	Europe	0.09
	North America	0.04
	Central and South America	98.13
Corporates – Specialised lending exposures	Africa	100.00
	Asia	0.32
	Australia and New Zealand	9.43
	Europe	1.19
	North America	0.52
	Central and South America	1.14
Corporates – SME	Africa	100.00
	Asia	4.12
	Australia and New Zealand	6.61
	Europe	1.31
	North America	1.54
	Central and South America	0.97
Corporates – Other	Africa	2.05
	Asia	1.04
	Australia and New Zealand	8.76
	Europe	1.06
	North America	0.93
	Central and South America	0.18
IRBA equity exposures	Africa	–
	Asia	–
	Australia and New Zealand	–
	Europe	1.26
	North America	–
	Central and South America	–

## Art. 452 CRR – Retail portfolio average PD/LGD by country, AIRB

<b>Exposure classes</b>	<b>Countries/regions</b>	<b>Average PD in %</b>	<b>Average LGD in %</b>
Retail – Secured by real estate, SME	Africa	–	–
	Asia	0.03	24.79
	Australia and New Zealand	–	–
	Europe	1.57	31.40
	North America	0.09	24.79
	Central and South America	–	–
Retail – Secured by real estate, non-SME	Africa	4.94	22.94
	Asia	0.78	32.94
	Australia and New Zealand	0.28	33.11
	Europe	1.73	24.14
	North America	1.61	31.92
	Central and South America	0.11	24.79
Retail – Qualifying revolving	Africa	7.43	64.02
	Asia	1.48	61.84
	Australia and New Zealand	0.19	65.22
	Europe	1.07	63.29
	North America	0.22	63.37
	Central and South America	0.08	61.37
Retail – Other, SME	Africa	–	–
	Asia	4.78	68.19
	Australia and New Zealand	–	–
	Europe	2.04	64.17
	North America	20.00	36.26
	Central and South America	–	–
Retail – Other, non-SME	Africa	0.22	52.41
	Asia	0.20	67.46
	Australia and New Zealand	0.80	63.91
	Europe	2.79	51.97
	North America	0.21	68.23
	Central and South America	98.77	83.33

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	100.00
Corporates – Specialised lending exposures	100.00
Corporates – SME	100.00
Corporates – Other	99.88
Retail – Secured by real estate, SME	100.00
Retail – Secured by real estate, non-SME	97.47
Retail – Qualifying revolving	97.78
Retail – Other, SME	100.00
Retail – Other, non-SME	98.49
IRBA equity exposures	26,42 <sup>1)</sup>

<sup>1)</sup> 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 2019 and 31 December 2019 are presented below.

#### EU CR8 – IRB: RWA flow statements of credit risk exposures under the IRB approach

in € m

	a	b
	RWAs	Own funds requirement
<b>1 RWAs at previous quarter-end</b>	<b>43,320</b>	<b>3,466</b>
2 Asset size	439	35
3 Asset quality	250	20
4 Model updates/changes	–101	–8
5 Methodology and policy changes	–	–
6 Acquisitions and disposals	–3	0
7 Foreign exchange movements	–142	–11
8 Other	0	0
<b>9 RWAs at the end of the current quarter</b>	<b>43,764</b>	<b>3,501</b>

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 / changes: model adjustments in 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; some of the movements related to US dollars were offset by countervailing movements in sterling.

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

a	b	c	d	e
Exposure classes	PD band	External rating equivalent <sup>1)</sup>	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	–	0.20	0.20
	0.25 to <0.50	–	–	–
	0.50 to <0.75	–	–	–
	0.75 to <2.50	–	1.98	1.98
	2.50 to <10.00	–	6.67	6.67
	10.00 to <100.00	–	20.00	20.00
	100.00 (Default)	–	–	–
<b>Subtotal</b>		<b>–</b>	<b>0.23</b>	<b>0.23</b>
Institutions	0.00 to <0.15	–	0.05	0.05
	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	–	1.14	1.11
	2.50 to <10.00	–	4.47	4.97
	10.00 to <100.00	–	19.77	17.27
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>0.11</b>	<b>0.12</b>
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	–	1.21	1.26
	2.50 to <10.00	–	3.86	4.62
	10.00 to <100.00	–	11.65	15.00
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>1.00</b>	<b>1.03</b>
Corporates – SME	0.00 to <0.15	–	0.08	0.09
	0.15 to <0.25	–	0.17	0.17
	0.25 to <0.50	–	0.31	0.33
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.22	1.26
	2.50 to <10.00	–	4.52	4.88
	10.00 to <100.00	–	18.24	19.80
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>1.31</b>	<b>1.36</b>

	f		g	h	i
	Number of obligors		Defaulted obligors in the reporting period	Of which new obligors	Historical annual default rate in % <sup>2)</sup>
	Previous year	Current year			
	1,236	1,425	-	-	-
	-	1	-	-	-
	1	-	-	-	-
	-	-	-	-	-
	1	1	-	-	-
	3	2	-	-	-
	35	39	-	-	0.00
	1	-	-	-	-
	<b>1,277</b>	<b>1,468</b>	<b>-</b>	<b>-</b>	<b>0.00</b>
	347	338	-	-	-
	18	14	-	-	-
	21	33	-	-	-
	11	8	-	-	-
	12	20	-	-	1.07
	20	15	-	-	-
	36	34	1	-	2.48
	1	2	-	-	-
	<b>466</b>	<b>464</b>	<b>1</b>	<b>-</b>	<b>0.01</b>
	390	384	-	-	-
	126	89	-	-	0.07
	256	229	-	-	0.29
	96	79	-	-	0.08
	95	119	1	-	0.85
	17	21	-	-	2.91
	5	8	1	-	10.03
	21	11	-	-	2.41
	<b>1,006</b>	<b>940</b>	<b>2</b>	<b>-</b>	<b>0.29</b>
	707	814	1	-	0.18
	393	399	1	-	0.11
	805	833	4	-	0.22
	329	339	-	-	0.14
	565	507	7	-	1.52
	121	148	3	2	3.12
	445	490	7	1	1.48
	23	18	-	-	0.56
	<b>3,388</b>	<b>3,548</b>	<b>23</b>	<b>3</b>	<b>0.64</b>

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

a	b	c	d	e
Exposure classes	PD band	External rating equivalent <sup>1)</sup>	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	–	0.30	0.30
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.40	1.28
	2.50 to <10.00	–	3.91	4.19
	10.00 to <100.00	–	19.00	20.00
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		–	<b>1.09</b>	<b>1.10</b>
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	–	0.26	0.26
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.40	1.30
	2.50 to <10.00	–	6.67	6.67
	10.00 to <100.00	–	15.00	15.00
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		–	<b>1.13</b>	<b>1.09</b>
<b>Total</b>		–	<b>0.66</b>	<b>0.68</b>

<sup>1)</sup> Only needs to be reported if Article 180 1 (f) CRR applied. This article is not applied at Helaba.

<sup>2)</sup> 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 % <sup>2)</sup>
	Previous year	Current year			
	1,200	1,174	2	1	0.06
	345	302	–	–	0.02
	486	522	1	–	1.06
	172	137	3	1	1.55
	199	219	8	–	2.57
	60	82	–	–	1.48
	906	863	5	–	0.50
	98	87	–	–	0.77
	<b>3,466</b>	<b>3,386</b>	<b>19</b>	<b>2</b>	<b>0.40</b>
	6	6	–	–	–
	1	1	–	–	–
	–	–	–	–	–
	–	–	–	–	–
	5	6	–	–	–
	–	–	–	–	–
	2	1	–	–	–
	1	1	–	–	8.33
	<b>15</b>	<b>15</b>	<b>–</b>	<b>–</b>	<b>0.00</b>
	<b>9,618</b>	<b>9,821</b>	<b>45</b>	<b>5</b>	<b>0.20</b>

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

a	b	c	d	e
Exposure classes	PD band	External rating equivalent <sup>1)</sup>	Average PD in %	Average PD by obligors in %
Retail – Secured by real estate, 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	0.31
	0.50 to <0.75	–	0.58	0.58
	0.75 to <2.50	–	1.30	1.33
	2.50 to <10.00	–	4.59	4.52
	10.00 to <100.00	–	20.73	20.65
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>1.57</b>	<b>1.57</b>
Retail – Secured by real estate, non-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	–	1.32	1.29
	2.50 to <10.00	–	4.06	4.23
	10.00 to <100.00	–	17.95	19.90
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>1.69</b>	<b>1.71</b>
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	–	1.37	1.44
	2.50 to <10.00	–	4.56	4.64
	10.00 to <100.00	–	21.07	24.42
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>1.07</b>	<b>1.12</b>
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	0.32
	0.50 to <0.75	–	0.58	0.58
	0.75 to <2.50	–	1.38	1.35
	2.50 to <10.00	–	4.68	4.90
	10.00 to <100.00	–	21.08	21.20
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		<b>–</b>	<b>2.06</b>	<b>2.08</b>

	f		g	h	i
	Number of obligors		Defaulted obligors in the reporting period	Of which new obligors	Historical annual default rate in % <sup>2)</sup>
	Previous year	Current year			
	1,013	1,125	–	–	0.03
	288	336	–	–	–
	777	797	2	–	0.13
	245	258	–	–	–
	616	609	3	–	0.60
	218	232	14	–	2.79
	203	153	10	–	5.06
	1	1	–	–	–
	<b>3,361</b>	<b>3,511</b>	<b>29</b>	<b>–</b>	<b>0.56</b>
	11,018	12,126	8	–	0.03
	3,712	2,594	3	–	0.08
	7,002	5,671	15	1	0.12
	2,032	2,013	6	–	0.21
	4,127	3,931	27	–	0.61
	1,201	936	39	1	2.15
	617	533	71	2	11.79
	357	347	–	–	20.76
	<b>30,066</b>	<b>28,151</b>	<b>169</b>	<b>4</b>	<b>0.53</b>
	109,830	114,933	47	1	0.03
	6,896	3,427	20	–	0.19
	8,487	10,008	33	1	0.29
	5,896	4,541	39	5	0.47
	12,196	8,752	170	15	1.13
	7,662	7,836	347	30	2.99
	3,302	3,055	144	13	3.93
	828	909	9	9	–
	<b>155,097</b>	<b>153,461</b>	<b>809</b>	<b>74</b>	<b>0.22</b>
	1,209	1,256	1	–	0.02
	316	381	–	–	–
	710	706	5	–	0.37
	293	339	1	–	0.49
	676	718	10	1	0.95
	438	470	35	1	4.65
	1,414	1,248	73	7	3.80
	2	2	1	–	–
	<b>5,058</b>	<b>5,120</b>	<b>126</b>	<b>9</b>	<b>1.03</b>

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

a	b	c	d	e
Exposure classes	PD band	External rating equivalent <sup>1)</sup>	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	0.32
	0.50 to <0.75	–	0.59	0.59
	0.75 to <2.50	–	1.24	1.27
	2.50 to <10.00	–	4.55	4.64
	10.00 to <100.00	–	21.49	32.05
	100.00 (Default)	–	100.00	100.00
<b>Subtotal</b>		–	<b>2.82</b>	<b>3.08</b>
<b>Total</b>		–	<b>1.86</b>	<b>1.93</b>

<sup>1)</sup> Only needs to be reported if Article 180 1 (f) CRR applied. This article is not applied at Helaba.

<sup>2)</sup> 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 % <sup>2)</sup>
	Previous year	Current year			
	9,326	10,498	6	1	0.06
	3,695	3,268	6	2	0.18
	8,172	7,628	24	1	0.32
	4,473	4,142	25	3	0.46
	7,014	6,487	89	3	1.26
	2,146	2,077	119	2	3.92
	1,007	861	105	3	9.11
	923	958	19	19	13.67
	<b>36,756</b>	<b>35,919</b>	<b>393</b>	<b>34</b>	<b>0.91</b>
	<b>230,338</b>	<b>226,162</b>	<b>1,526</b>	<b>121</b>	<b>0.60</b>

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

in € m

Exposure classes	LGD band	Average LGD in %	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	25.28	380	1	–	1.04
	30.00 to 45.00	35.71	107	1	2.16	0.88
	45.00 to 60.00	50.24	19	0	–	5.05
	60.00 to 75.00	65.93	2	0	–	12.31
	75.00 to 90.00	–	–	–	–	–
	90.00 to 100.00	–	–	–	–	–
Retail – Secured by real estate, non-SME	0.00 to 15.00	14.54	190	1	4.96	3.76
	15.00 to 30.00	23.60	1,865	6	1.29	3.17
	30.00 to 45.00	35.53	430	4	1.99	3.19
	45.00 to 60.00	50.57	83	1	0.07	6.24
	60.00 to 75.00	66.06	7	1	12.02	13.64
	75.00 to 90.00	86.14	0	1	72.91	44.45
	90.00 to 100.00	–	–	–	–	–
Retail – Qualifying revolving	0.00 to 15.00	–	–	–	–	–
	15.00 to 30.00	24.91	0	0	–	–
	30.00 to 45.00	42.74	0	0	–	–
	45.00 to 60.00	52.14	0	0	44.72	51.73
	60.00 to 75.00	65.02	–	2	59.94	48.22
	75.00 to 90.00	82.76	–	1	62.21	48.48
	90.00 to 100.00	90.25	–	0	80.57	83.42
Retail – Other, SME	0.00 to 15.00	–	–	–	–	–
	15.00 to 30.00	25.01	7	0	7.77	7.98
	30.00 to 45.00	33.11	6	0	6.71	15.58
	45.00 to 60.00	55.87	1	0	43.90	46.15
	60.00 to 75.00	68.06	0	3	42.05	48.75
	75.00 to 90.00	–	–	–	–	–
	90.00 to 100.00	–	–	–	–	–
Retail – Other, non-SME	0.00 to 15.00	14.54	2	0	–	–
	15.00 to 30.00	21.31	10	0	26.75	2.18
	30.00 to 45.00	34.48	35	2	14.89	16.63
	45.00 to 60.00	55.56	0	0	36.58	35.05
	60.00 to 75.00	68.30	0	9	49.52	42.94
	75.00 to 90.00	84.64	0	7	67.81	61.59
	90.00 to 100.00	90.13	–	3	64.91	60.59
<b>Total</b>		<b>40.03</b>	<b>3,146</b>	<b>45</b>	<b>16.77</b>	<b>16.29</b>

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

in € m

	<b>31.12.2019</b>		
<b>Exposure classes</b>	<b>Basis of measurement of off-balance-sheet exposures</b>	<b>Average CCF in %</b>	<b>Exposure value of off-balance-sheet exposures</b>
Retail – Secured by real estate, SME	28	70.25	20
Retail – Secured by real estate, non-SME	57	83.34	47
Retail – Qualifying revolving	749	64.11	480
Retail – Other, SME	134	65.50	88
Retail – Other, non-SME	271	83.74	227
<b>Total</b>	<b>1,239</b>	<b>69.58</b>	<b>862</b>

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

in € m

	<b>31.12.2018</b>		
<b>Exposure classes</b>	<b>Basis of measurement of off-balance-sheet exposures</b>	<b>Average CCF in %</b>	<b>Exposure value of off-balance-sheet exposures</b>
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
<b>Total</b>	<b>1,155</b>	<b>69.12</b>	<b>798</b>

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

in € m

	<b>31.12.2017</b>		
<b>Exposure classes</b>	<b>Basis of measurement of off-balance-sheet exposures</b>	<b>Average CCF in %</b>	<b>Exposure value of off-balance-sheet exposures</b>
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
<b>Total</b>	<b>1,142</b>	<b>68.40</b>	<b>781</b>

The table below compares actual losses and expected losses (EL) for portfolios handled under the IRBA as at 31 December 2019 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).

Between 31 December 2017 and 31 December 2018, the actual losses fell by around € 234 m, whereas the EL 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.

Actual losses rose by approximately € 52 m from 31 December 2018 to 31 December 2019. These changes resulted primarily from the utilisation of specific loan loss allowances relating to one shipping transaction in the “Corporates – Specialised lending exposures” IRB exposure class, and relating to non-performing real estate and corporate finance in the “Corporates – Other” IRB exposure class. In the same period, the EL rose by approximately € 25 m because of credit-risk-related changes and new business. The increase was mainly attributable to exposures in the IRB exposure classes “Corporates – Specialised lending exposures” (€ 7 m) and “Corporates – Other” (€ 12 m); the remainder of the increase was spread among various exposure classes.

Art. 452 CRR – Actual losses versus expected loss in lending business

in € m

Exposure classes	31.12.2019		31.12.2018		31.12.2017	
	Losses	Expected loss	Losses	Expected loss	Losses	Expected loss
Central governments or central banks	–	0	–	0	–	0
Institutions	–	3	–	2	–	2
Corporates	93	143	44	121	276	117
thereof: Specialised lending exposures	29	67	28	60	204	58
thereof: SME	2	15	0	13	–	12
thereof: Other	62	60	15	48	72	46
Retail	3	18	1	16	2	14
Secured by real estate	0	7	0	7	0	6
thereof: SME	–	3	0	3	–	3
Qualifying revolving	1	2	0	2	0	2
Other	2	9	0	7	1	6
thereof: SME	0	3	0	3	0	3
IRBA equity exposures	–	7	–	7	–	2
<b>Total</b>	<b>96</b>	<b>171</b>	<b>44</b>	<b>146</b>	<b>278</b>	<b>134</b>

# 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 table EU LI3 ("Outline of the differences in the scopes of consolidation"). 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 € 2,072 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.

Art. 447 CRR – Type of equity investment instrument

in € m

	Exposure value, on balance sheet	Exposure value, off balance sheet
Exchange-traded equity exposures	88	–
Private equity exposures in sufficiently diversified portfolios	451	173
Other equity exposures	1,361	–
<b>Total</b>	<b>1,899</b>	<b>173</b>

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 € 692.8 m as at 31 December 2019. 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. More detailed information on equity investment exposures is included in the Annual Report in Notes (2), (3), (40) of the Notes to the Consolidated Financial Statements, and in the group management report ("Changes to basis of consolidation" section (page 24) under "Financial Position and Financial Performance").

# Counterparty Credit Risk (CCR)

The counterparty credit risk exposure resulting from derivatives amounted to €12,781 m at 31 December 2019. 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	Replacement cost/ current market value <sup>1)</sup>	Potential future credit exposure <sup>1)</sup>	Effective expected positive exposure (EEPE)	Multiplier	Exposure value	RWAs
1 Mark to market		9,833	2,028			11,528	1,329
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 comprehensive method (for SFTs)						–	–
10 VaR for SFTs						–	–
<b>11 Total</b>							<b>1,329</b>

<sup>1)</sup> Shown for positive fair values

In the standardised approach, the distribution of the counterparty credit risk exposure 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

Exposure classes	Risk weight						
	0 %	2 %	4 %	10 %	20 %	35 %	50 %
1 Central governments or central banks	-	-	-	-	-	-	-
2 Regional governments or local authorities	-	-	-	-	-	-	-
3 Public-sector entities	180	-	-	-	-	-	-
4 Multilateral development banks	-	-	-	-	-	-	-
5 International organisations	-	-	-	-	-	-	-
6 Institutions	2,026	1,253	-	-	1	-	0
7 Corporates	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-
<b>11 Total standardised approach exposure value after credit risk mitigation</b>	<b>2,206</b>	<b>1,253</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>0</b>

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

in € m

Exposure classes	Risk weight						
	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	-	-	96	-	-	-	-
8 Retail	-	1	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	-	-	-	-	-	-	-
<b>11 Total standardised approach exposure value after credit risk mitigation</b>	<b>-</b>	<b>1</b>	<b>96</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

## 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	0	–	0	0
2	Regional governments or local authorities	–	–	–	–
3	Public-sector entities	–	–	180	–
4	Multilateral development banks	–	–	–	–
5	International organisations	–	–	–	–
6	Institutions	–	–	3,280	3
7	Corporates	–	–	96	96
8	Retail	–	–	1	1
	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	–	–	–	–
<b>11</b>	<b>Total standardised approach exposure value after credit risk mitigation</b>	<b>0</b>	<b>–</b>	<b>3,558</b>	<b>101</b>

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.

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

<b>Exposure classes</b>	<b>0 %</b>	<b>2 %</b>	<b>4 %</b>	<b>10 %</b>	<b>20 %</b>	<b>35 %</b>	<b>50 %</b>
Central governments or central banks	–	–	–	–	–	–	–
Regional governments or local authorities	–	–	–	–	–	–	–
Public-sector entities	248	–	–	–	–	–	–
Multilateral development banks	–	–	–	–	–	–	–
International organisations	–	–	–	–	–	–	–
Institutions	1,756	1,579	–	–	1	–	11
Corporates	4	–	–	–	–	–	–
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	–	–	–	–	–	–	–
<b>Total standardised approach exposure value before credit risk mitigation</b>	<b>2,008</b>	<b>1,579</b>	<b>–</b>	<b>–</b>	<b>1</b>	<b>–</b>	<b>11</b>



The distribution of counterparty credit risk exposure in the IRB approach by exposure class and PD band in the FIRB approach is as follows: There were no AIRB exposures as at 31 December 2019.

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

Exposure classes	PD band	a	b
		Exposure value	Average PD in %
Central governments or central banks	0.00 to <0.15	5,043	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)	–	–
<b>Subtotal</b>		<b>5,043</b>	<b>0.00</b>
Institutions	0.00 to <0.15	2,017	0.07
	0.15 to <0.25	3	0.17
	0.25 to <0.50	0	0.26
	0.50 to <0.75	–	–
	0.75 to <2.50	–	–
	2.50 to <10.00	–	–
	10.00 to <100.00	–	–
	100.00 (Default)	–	–
<b>Subtotal</b>		<b>2,021</b>	<b>0.07</b>
Corporates – Specialised lending exposures	0.00 to <0.15	404	0.07
	0.15 to <0.25	57	0.17
	0.25 to <0.50	300	0.36
	0.50 to <0.75	179	0.59
	0.75 to <2.50	49	0.96
	2.50 to <10.00	10	6.22
	10.00 to <100.00	2	15.00
	100.00 (Default)	5	100.00
<b>Subtotal</b>		<b>1,006</b>	<b>0.90</b>
Corporates – SME	0.00 to <0.15	–	–
	0.15 to <0.25	0	0.17
	0.25 to <0.50	1	0.29
	0.50 to <0.75	0	0.59
	0.75 to <2.50	–	–
	2.50 to <10.00	–	–
	10.00 to <100.00	–	–
	100.00 (Default)	–	–
<b>Subtotal</b>		<b>1</b>	<b>0.29</b>

in € m

	c	d	e	f	g
	Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %
	102	45.00	2.50	0	0.00
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	<b>102</b>	<b>45.00</b>	<b>2.50</b>	<b>0</b>	<b>0.00</b>
	69	45.00	2.50	349	17.28
	1	45.00	2.50	2	57.68
	1	45.00	2.50	0	0
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	<b>71</b>	<b>45.00</b>	<b>2.50</b>	<b>351</b>	<b>17.35</b>
	106	44.01	2.50	103	25.46
	28	42.82	2.50	23	40.93
	89	44.76	2.50	188	62.75
	18	41.70	2.50	132	73.33
	13	44.05	2.50	45	93.31
	5	44.15	2.50	17	168.28
	1	45.00	2.50	4	234.83
	2	45.00	2.50	0	0
	<b>262</b>	<b>43.76</b>	<b>2.50</b>	<b>513</b>	<b>51.00</b>
	-	-	-	-	-
	1	45.00	2.50	0	39.14
	2	45.00	2.50	0	41.68
	1	45.00	2.50	0	72.44
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	<b>4</b>	<b>45.00</b>	<b>2.50</b>	<b>0</b>	<b>42.28</b>

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

Exposure classes	PD band	a	b
		Exposure value	Average PD in %
Corporates – Other	0.00 to <0.15	707	0.04
	0.15 to <0.25	85	0.17
	0.25 to <0.50	257	0.27
	0.50 to <0.75	91	0.59
	0.75 to <2.50	6	1.69
	2.50 to <10.00	2	6.27
	10.00 to <100.00	4	18.81
	100.00 (Default)	1	100.00
<b>Subtotal</b>		<b>1,152</b>	<b>0.30</b>
<b>IRBA equity exposures</b>	<b>Subtotal</b>	<b>–</b>	<b>–</b>
<b>Total</b>		<b>9,223</b>	<b>0.15</b>

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.

As at 31 December 2019, there were no credit derivative transactions as specified in Article 439 (g) and (h) CRR, with the result that the disclosure of table EU CCR6 “Overview of credit derivatives exposures” has been omitted.

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.

in € m

	c	d	e	f	g
	Number of obligors	Average LGD in %	Average maturity	RWAs	RWA density in %
	125	44.70	2.50	100	14.20
	32	45.00	2.50	38	45.19
	43	44.85	2.50	137	53.34
	16	45.00	2.50	72	79.13
	10	45.00	2.50	7	114.74
	4	45.00	2.50	3	171.68
	41	45.00	2.50	10	248.30
	2	45.00	2.50	0	0
	<b>273</b>	<b>44.78</b>	<b>2.50</b>	<b>368</b>	<b>31.92</b>
	-	-	-	-	-
	<b>712</b>	<b>44.84</b>	<b>2.50</b>	<b>1,232</b>	<b>13.36</b>

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

## EU CCR8 – Exposures to CCPs

in € m

	a	b
	Exposure value	RWAs
<b>1 Exposures to qualified CCPs (total)</b>		<b>73</b>
2 Exposures for trades with qualified CCPs (excluding initial margin and default fund contributions), of which	802	16
3 (i) OTC derivatives	790	16
4 (ii) Exchange-traded derivatives	12	0
5 (iii) Securities financing transactions (SFTs)	–	–
6 (iv) Contractual cross-product netting	–	–
7 Insolvency-protected (segregated) initial margin	–	–
8 Not insolvency-protected (not segregated) initial margin	451	9
9 Prefunded default fund contributions <sup>1)</sup>	62	48
10 Alternative calculation of own funds requirements for exposures <sup>2)</sup>		–
<b>11 Exposures to non-qualified CCPs (total)</b>		<b>–</b>
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	–	–
20 Unfunded default fund contributions	–	–

<sup>1)</sup> The prefunded default fund contribution was backed by own funds in accordance with Article 308 CRR.

<sup>2)</sup> Application of Article 310 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	24,252	14,076	10,176	4,364	5,812
2 Securities financing transactions	–	–	–	–	–
3 Contractual cross-product netting	–	–	–	–	–
<b>4 Total</b>	<b>24,252</b>	<b>14,076</b>	<b>10,176</b>	<b>4,364</b>	<b>5,812</b>

## 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 <sup>1)</sup>		Fair value of collateral received	Fair value of posted collateral
	Insolvency-protected	Not insolvency-protected (not segregated)	Insolvency-protected	Not insolvency-protected (not segregated)		
Cash contribution in €	4,294	–	–	9,030	–	–
Cash contribution in other currencies	70	–	–	–	–	–
Debt securities, central governments, Germany	–	–	–	38	–	–
Debt securities, central governments, other countries	–	–	–	414	–	–
Debt securities, central governments, other public authorities	–	–	–	–	–	–
Debt securities, corporates	–	–	–	–	–	–
Equity securities, corporates	–	–	–	–	–	–
Other	–	–	–	–	–	–
<b>Total</b>	<b>4,364</b>	<b>–</b>	<b>–</b>	<b>9,481</b>	<b>–</b>	<b>–</b>

<sup>1)</sup> 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 the 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

		<b>a</b>	<b>b</b>
		<b>Exposure value</b>	<b>RWAs</b>
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	1,186	712
EU4	CVA risk based on the original exposure method	–	–
5	Total CVA risk	1,186	712

# 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 2019.

### Art. 449 CRR – Approaches used for securitisation transactions

Approach	Securitisation approach	Asset type
Asset type	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	Lease receivables
		Other
	Internal Assessment Approach (IAA)	Trade receivables
		Lease receivables
		Loans to corporates
	Inferred rating	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 2019. 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 the supervisory authorities for risk weighting in connection with bank regulation:

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

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

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 accor-

dance 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. All the approaches permitted under the Regulation are generally applied for new business and for exposures no longer subject to grandfathering provisions; as at the disclosure reporting date, Helaba held exposures for which the following approaches were used:

Approaches used for securitisation transactions in accordance with Regulation (EU) 2017/2401

Securitisation approach	Asset type
Standardised approach (SEC-SA)	Consumer credit
	Other
Internal assessment approach (SEC-IAA)	Lease receivables

### 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. Exposures subject to the new securitisation framework in accordance with Regulation (EU) 2017/2401 are also shown in the tables. As at 31 December 2019, there were no resecuritisation exposures in the portfolio.

## Art. 449 CRR – Total volume of securitisation exposures by asset type

in € m

			Securitisations					
			Current trade receivables	Lease receivables	Loans to corporates	Consumer credit	Other	Total
Own special purpose vehicles	Banking book	On balance sheet	907	719	240	–	350	2,217
		Off balance sheet	160	296	181	–	160	798
	Trading book	Derivatives	–	–	5	–	–	5
Liquidity lines for ABCP programmes / EETC financing for third-party special purpose vehicles	Banking book	Off balance sheet	–	–	124	–	–	124
Other securitisation exposures in respect of third-party special purpose vehicles	Banking book	On balance sheet	2,489	266	950	496	201	4,402
		Off balance sheet	108	112	1	2	102	326
	Trading book	Derivatives	–	1	11	–	–	12
Securities	Banking book	On balance sheet	–	–	–	–	15	15
<b>Total</b>			<b>3,665</b>	<b>1,394</b>	<b>1,514</b>	<b>498</b>	<b>829</b>	<b>7,900</b>

## Art. 449 CRR – Total volume of securitisation exposures by risk weight band

Risk weight band		Securitisations		
		Total volume	Own funds requirement, SA	Own funds requirement, IRB
≤10 %	Banking book	4,572	0	25
	Trading book	18	–	0
>10 % to <20 %	Banking book	1,480	1	12
	Trading book	–	–	–
≥20 % to <50 %	Banking book	429	–	9
	Trading book	–	–	–
≥50 % to <100 %	Banking book	1,354	81	0
	Trading book	–	–	–
≥100 % to <850 %	Banking book	44	–	5
	Trading book	–	–	–
≥850 % to <1,250 %	Banking book	–	–	–
	Trading book	–	–	–
1,250 % / Capital deduction	Banking book	2	–	2
	Trading book	–	–	–
<b>Total</b>		<b>7,900</b>	<b>82</b>	<b>54</b>

Material changes in the securitisation exposures as compared with the previous year are the result of new business with target customers and the land transport finance portfolio taken over from DVB Bank SE.

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 pur-

chased 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.

Art. 449 CRR – Total volume of securitisation exposures in respect of own special purpose vehicles

in € m

			Securitisations				
			Current trade receivables	Lease receivables	Loans to corporates	Other	Total
Sponsor	Banking book	On balance sheet	907	528	240	350	2,025
		Off balance sheet	160	296	181	160	798
	Trading book	Derivatives	–	–	5	–	5
<b>Total</b>			<b>1,067</b>	<b>824</b>	<b>427</b>	<b>510</b>	<b>2,828</b>

### 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 or SEC-IRBA.

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 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)	1,070	86
2	Equity risk (general and specific)	14	1
3	Currency risk	206	16
4	Commodity risk	0	0
Options			
5	Simplified approach	–	–
6	Delta-plus method	–	–
7	Scenario approach	22	2
8	Securitisation (specific risk)	–	–
<b>9</b>	<b>Total</b>	<b>1,312</b>	<b>105</b>

## 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<sup>2</sup> (linear interest rate risk) and ELLI (interest rate option risk), has been approved by the banking supervisor.

## EU MR2-A – Market risk in internal models approach

in € m

	<b>a</b>	<b>b</b>
	<b>RWAs</b>	<b>Own funds requirement</b>
<b>1 VaR</b> (the higher of a) and b))	<b>913</b>	<b>73</b>
a) Previous day's VaR (Article 365 (1) CRR (VaRt-1))		20
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		73
<b>2 sVaR</b> (the higher of a) and b))	<b>781</b>	<b>63</b>
a) Latest sVaR (Article 365 (2) CRR (sVaRt-1))		22
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		63
<b>3 Incremental risk charge – IRC</b> (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		–
<b>4 Comprehensive risk measure</b> (the higher of 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)		–
<b>5 Other</b>	–	–
<b>6 Total</b>	<b>1,694</b>	<b>136</b>

The changes in RWAs under the internal model between 30 September 2019 and 31 December 2019 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
<b>1 RWAs at previous quarter-end</b>	<b>573</b>	<b>706</b>	–	–	–	<b>1,279</b>	<b>102</b>
1a Regulatory adjustments <sup>1)</sup>	319	440	–	–	–	760	61
1b RWAs at previous quarter-end (end of the day)	254	266	–	–	–	519	42
2 Movement in risk levels	–22	–63	–	–	–	–84	–7
3 Model updates / changes	–	–	–	–	–	–	–
4 Methodology and policy changes	–	–	–	–	–	–	–
5 Acquisitions and disposals	–	–	–	–	–	–	–
6 Foreign exchange movements	0	0	–	–	–	0	0
7 Other	19	71	–	–	–	90	7
8a RWAs at current quarter-end (end of the day)	251	274	–	–	–	525	42
8b Regulatory adjustments <sup>1)</sup>	662	507	–	–	–	1,170	94
<b>8 RWAs at the end of the current quarter</b>	<b>913</b>	<b>781</b>	–	–	–	<b>1,694</b>	<b>136</b>

<sup>1)</sup> 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 rose during the fourth quarter of 2019, 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 2019.

## EU MR3 – IMA values for trading portfolios

		<b>a</b>
<b>VaR (10 day 99 %)</b>		
1	Maximum value	27.0
2	Average value	18.4
3	Minimum value	11.2
4	Value on reporting date	20.1
<b>Stressed VaR, sVaR (10 day 99 %)</b>		
5	Maximum value	26.4
6	Average value	18.6
7	Minimum value	13.9
8	Value on reporting date	21.9
<b>Incremental risk charge, IRC (99.9 %)</b>		
9	Maximum value	–
10	Average value	–
11	Minimum value	–
12	Value on reporting date	–
<b>Internal model for correlation trading activities</b>		
13	Maximum value	–
14	Average value	–
15	Minimum value	–
16	Value on reporting date	–

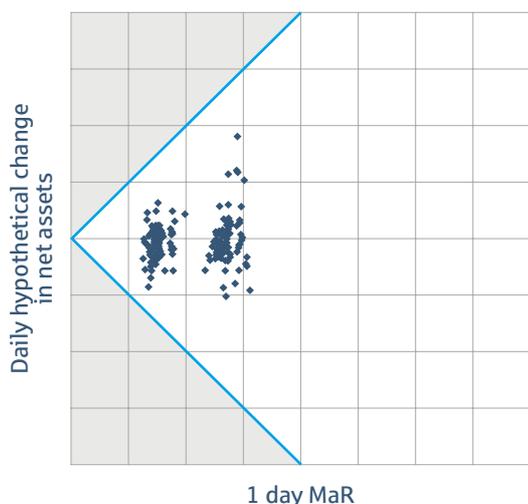
The increase in the MaR as at 31 December 2019 compared with the figure as at 30 June 2019 is attributable to changes in exposures during normal trading activities and to the regular updating of the risk parameters. The change in the stressed MaR during the second half of 2019 is mainly attributable to changes in exposures.

### Back-testing and validation

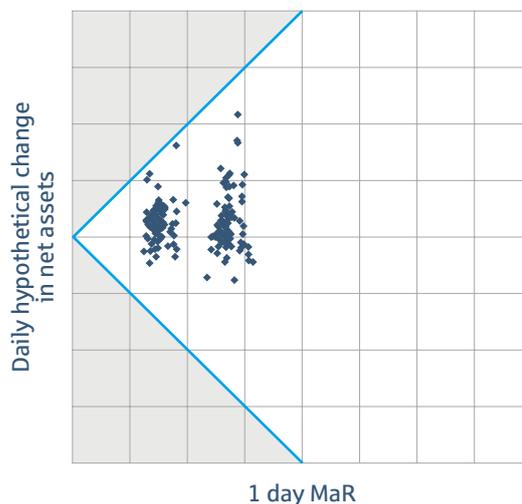
Clean and dirty back-testing is carried out daily to review the predictive quality of the risk models. The data used in these procedures is verified to ensure it is of the requisite quality. The procedures involve determining the MaR figure for a holding period of one trading day with a one-tailed confidence 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 MaRC<sup>2</sup> and ELLI, produced no negative outliers in the second half of 2019. 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  $\pm 200$  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 2019 of € 180 m, the lion's share of it from a loss of € 182 m on euro exposures. The remaining gain of € 2 m would have been attributable to foreign currencies. In accordance with regulatory requirements, all material foreign currencies were taken into account. The US dollar would have accounted for a loss of € 2 m, the Swiss franc a gain of € 1 m and the pound sterling a gain of € 3 m. Helaba determines the effect of interest shocks in accordance with the requirements of BaFin Circular 6/2019, which superseded the previous Circular 7/2018 in 2019.

# Non-Financial Risk / Operational Risk

Work on refinement and standardisation in relation to non-financial risk (NFR) began in 2018 in recognition of the increasing prominence of NFR in risk management. The aim of this work was to combine operational risk and its existing NFR sub-risk categories from 2019 in a complete framework for the containment and monitoring of non-financial risk centred on a comprehensive 3-LoD model with a minimum of overlap.

## Principles of risk containment

Helaba identifies, assesses, monitors, controls and reports non-financial risk using an integrated management approach in accordance with the regulatory requirements.

The containment and monitoring of non-financial risk are segregated at disciplinary and organisational level at Helaba. Risk management is accordingly a local responsibility discharged by Helaba's individual units, which are supervised by specialist monitoring units with responsibility for sub-categories of non-financial risk.

The specialist central monitoring units are responsible for the structure of the methods and processes used to identify, assess, monitor, control and report the sub-categories of non-financial risk. The methods and processes used for the risk sub-categories follow minimum standards that have been specified centrally to ensure that the framework for non-financial risk is designed on a standardised basis.

The management of sub-categories of non-financial risk that form part of operational risk must comply in full with the established methods and procedures used for operational risk. This means that these risks are taken into account appropriately as part of the quantification of operational risk and, from a structural perspective, are thus identified, assessed and included in the calculation of the risk capital amount accordingly. In the case of sub-categories of non-financial risk that are not covered by operational risk, these risks are taken into account in a number of ways, such as risk exposure markups, safety margins and buffers. Overall, Helaba comprehensively ensures that the sub-categories of non-financial risk are taken into account in the risk-bearing capacity/ICAAP of the Helaba Group.

The central Risk Controlling unit is responsible for monitoring compliance with the minimum standards applicable to the non-financial risk framework.

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

# 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 the year under review, 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 €51.6 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 the year under review.

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.

The figures published by Helaba equate to the median of the four regulatory reports submitted in the relevant period, supplemented by the median of the relevant portions of (very) highly liquid assets. The different groups of consolidated entities (prudential scope of consolidation, group of consolidated entities for liquidity purposes) have no impact in relation to the (very) highly liquid assets.

Art. 443 CRR – Assets

in € m

	Carrying amount of encumbered assets		Fair value of encumbered assets	
	010	thereof: Theoretically eligible as EHQLA or HQLA 030	040	thereof: Theoretically eligible as EHQLA or HQLA 050
<b>010 Assets of reporting institution</b>	74,840	3,309		
030 Equity instruments	–	–	–	–
040 Debt securities	6,222	3,309	6,248	3,309
050 thereof: Covered bonds	656	640	656	640
060 thereof: Asset-backed securities	–	–	–	–
070 thereof: Issued by governments	2,849	2,167	2,876	2,167
080 thereof: Issued by financial institutions	3,335	1,124	3,333	1,124
090 thereof: Issued by non-financial institutions	38	25	38	25
120 Other assets	67,965	–		
121 thereof: Cover pool assets	48,477	–		

Art. 443 CRR – Assets

in € m

	Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		thereof: Theoretically eligible as EHQLA or HQLA		thereof: Theoretically eligible as EHQLA or HQLA
	060	080	090	100
<b>010 Assets of reporting institution</b>	134,433	12,007		
030 Equity instruments	2,292	–	2,292	–
040 Debt securities	22,066	12,007	22,066	12,007
050 thereof: Covered bonds	6,879	6,026	6,879	6,026
060 thereof: Asset-backed securities	22	–	22	–
070 thereof: Issued by governments	4,199	3,855	4,199	3,855
080 thereof: Issued by financial institutions	17,606	8,162	17,606	8,162
090 thereof: Issued by non-financial institutions	226	10	226	10
120 Other assets	110,060	–		
121 thereof: Cover pool assets	–	–		

Art. 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 EHQLA or HQLA		thereof: Theoretically eligible as EHQLA or HQLA
	010	030	040	060
<b>130 Collateral received by reporting institution</b>	1,794	645	7,533	7,533
140 Callable loans	–	–	–	–
150 Equity instruments	–	–	–	–
160 Debt securities	635	635	7,533	7,533
170 thereof: Covered bonds	78	99	2,650	2,650
180 thereof: Asset-backed securities	–	–	–	–
190 thereof: Issued by governments	274	348	3,921	3,921
200 thereof: Issued by financial institutions	339	455	3,576	3,446
210 thereof: Issued by non-financial institutions	–	–	14	14
220 Loans and advances other than callable loans	1,214	–	–	–
230 Other collateral received	–	–	–	–
240 Own debt securities issued other than own covered bonds and ABSs	–	–	516	–
241 Own covered bonds, and ABSs issued but not yet pledged as collateral	–	–	93	–
250 Assets, collateral received and own debt securities issued	76,646	4,526	–	–

Art. 443 CRR – Sources of encumbrance

in €m

	<b>Matching liabilities, contingent liabilities or securities lent</b>	<b>Assets, collateral received and own debt securities issued other than covered bonds and encumbered ABSs</b>
	010	030
<b>010 Carrying amount of selected financial liabilities</b>	68,291	75,579
011    thereof: Cover pool assets	39,761	51,643

# Non-Performing Exposures and Forbearance

The disclosures as at the reporting date of 31 December 2019 are made on the basis of the EBA/GL/2018/10 guidelines. Helaba is classified as an other systemically important institution and will therefore have to publish a half-yearly presentation going forward. The gross NPL ratio as defined in item 13 of EBA guidelines EBA/GL/2018/10 was 0.48% as at the reporting date, as a result of which the scope of the disclosures is reduced to four templates as specified in the EBA requirements. Unless otherwise stated, definitions and data are based on the FINREP reporting requirements in accordance with Regulation (EU) 2015/534.

The ECB has confirmed in a letter to banks (“Communication on supervisory coverage expectations for NPEs”, letter 2019\_185) that disclosures in accordance with the EBA guidelines are sufficient in place of those specified in the ECB’s “Guidance to banks on non-performing loans” issued in March 2017.

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 group of consolidated companies for regulatory purposes and that under German commercial law. In the Annual Report, disclosures on non-performing exposures and forbearance can be found in the notes to the consolidated financial statements (note 37).

## Forbearance Disclosures

Deferred or renegotiated loans and advances are determined in accordance with the definition of forborne exposures issued by the 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 measures may also include rights agreed at the time the contract is signed, under which the debtor has the option of modifying the terms and conditions of the contract if this modification is justified because the debtor is facing financial difficulties. Before a contract may be classified as forborne, concessions to the debtor must have been made.

For every forbearance action, the Helaba Group verifies whether a default event has occurred regarding the respective debt instrument. If the forbearance action leads to a default event, the instrument concerned is designated as “non-performing forborne” and transferred to stage 3. If the objective evidence of impairment no longer applies, the instrument is transferred from stage 3. Objective evidence of impairment no longer exists if there is no longer any default event. Simultaneously, an internally established cure period applies, taking regulatory requirements into account. During the cure period, all items remain in stage 3. If the forbearance action does not lead to a default event, the instrument concerned is designated as “performing forborne” and transferred to stage 2 based on the qualitative transfer criteria. If the debt instrument recovers during the cure period to the extent that it is no longer deemed an exposure subject to workout and the ‘significant increase in credit risk’ condition is no longer satisfied on the basis of the quantitative transfer criterion, it is transferred from stage 2 to stage 1.

Template 1 – Credit quality of forborne exposures

		a	b	c	d
		Gross carrying amount/ nominal amount of exposures with forbearance measures			
		Collateral received and financial guarantees received on forborne exposures			
		Non-performing forborne		Of which defaulted	Of which defaulted
<b>1</b>	<b>Loans and advances</b>	<b>516</b>	<b>474</b>	<b>474</b>	<b>474</b>
2	Central banks	–	–	–	–
3	General governments	–	–	–	–
4	Credit institutions	–	–	–	–
5	Other financial corporations	–	19	19	19
6	Non-financial corporations	492	445	445	445
7	Households	24	10	10	10
<b>8</b>	<b>Debt securities</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>
<b>9</b>	<b>Loan commitments given</b>	<b>22</b>	<b>15</b>	<b>15</b>	<b>15</b>
<b>10</b>	<b>Total</b>	<b>538</b>	<b>489</b>	<b>489</b>	<b>489</b>

## 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 need for 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 equally both to default events in accordance with the CRR and to non-performing exposures. An exposure is deemed to be material if it exceeds either an absolute threshold of € 100 or 2.5 % of total exposures (as defined in section 16 of the German Solvency Regulation (Solvabilitätsverordnung – SolvV)). An instrument is classified as past due if the party to the agreement fails to make the contractually agreed payments in respect of the financial instrument on time. The past due period begins on the day after the due date of the contractu-

ally 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.

Helaba has harmonised the internal use of the terms “non-performing exposures” and “default event” in accordance with Article 178 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 cure period. New business is allocated to stage 1 unless it has to be classified as a POCI asset. 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.

in € m

	e	f	g	h
	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Of which impaired	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
	-24	-223	175	88
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-5	-	-
	-24	-216	149	81
	-0	-2	26	7
	-	-	-	-
	-0	-10	0	-
	-24	-234	175	88

Template 3 – Credit quality of performing and non-performing exposures by past due days

		a	b	c
		Performing exposures		
			Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days
<b>1</b>	<b>Loans and advances</b>	<b>135,486</b>	<b>135,464</b>	<b>22</b>
2	Central banks	65	65	–
3	General governments	35,829	35,829	0
4	Credit institutions	16,563	16,560	3
5	Other financial corporations	10,216	10,216	0
6	Non-financial corporations	65,191	65,177	14
7	Of which: SMEs	2,412	2,410	1
8	Households	7,622	7,618	4
<b>9</b>	<b>Debt securities</b>	<b>23,257</b>	<b>23,257</b>	<b>–</b>
10	Central banks	–	–	–
11	General governments	6,956	6,956	–
12	Credit institutions	15,667	15,667	–
13	Other financial corporations	539	539	–
14	Non-financial corporations	95	95	–
<b>15</b>	<b>OFF-BALANCE SHEET EXPOSURES</b>	<b>38,017</b>		
16	Central banks	–		
17	General governments	4,530		
18	Credit institutions	1,193		
19	Other financial corporations	7,156		
20	Non-financial corporations	23,636		
21	Households	1,501		
<b>22</b>	<b>Total</b>	<b>196,760</b>	<b>158,721</b>	<b>22</b>

The table shows performing and non-performing exposures. The exposures are broken down by past due age structure, by classification as unlikely to pay (UTP) and by status as defaulted. Figures are presented in a breakdown by exposure class. In contrast to the disclosures as at 31 December 2018, the cash balances at central banks and other demand deposits are not included under loans and advances.

Helaba determines impairment for all assets on the basis of an expected loss model. The tables below show impairment and collateral and guarantees held, 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.

in € m

	d	e	f	g	h	i	j	k	l
	Gross carrying amount/ nominal amount								
	Non-performing exposures								
	Past due > 30 days ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted	
	659	378	9	64	19	11	3	175	658
	-	-	-	-	-	-	-	-	-
	0	-	0	0	-	-	-	-	-
	7	-	-	1	6	-	-	-	7
	23	18	0	-	4	-	-	-	23
	523	290	3	57	4	4	1	165	523
	10	7	0	0	1	2	0	-	10
	106	70	6	5	5	7	2	11	106
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	79								79
	-								-
	-								-
	-								-
	6								6
	71								71
	1								1
	738	378	9	64	19	11	3	175	737

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

Template 4 – Impairment disclosures by FINREP counterparty sector

		a	b	c	d	e	f
		Gross carrying amount / nominal amount <sup>1)</sup>					
		Performing exposure			Non-performing exposures		
			Of which: stage 1	Of which: stage 2		Of which: stage 2	Of which: stage 3
<b>1</b>	<b>Loans and advances</b>	<b>135,486</b>	<b>127,381</b>	<b>4,310</b>	<b>659</b>	<b>–</b>	<b>656</b>
2	Central banks	65	65	0	–	–	–
3	General governments	35,829	31,880	32	0	–	0
4	Credit institutions	16,563	16,554	9	7	–	7
5	Other financial corporations	10,216	10,031	146	23	–	19
6	Non-financial corporations	65,191	61,797	3,555	523	–	523
7	Of which: SMEs	2,412	2,210	202	10	–	10
8	Households	7,622	7,053	569	106	–	106
<b>9</b>	<b>Debt securities</b>	<b>23,257</b>	<b>–</b>	<b>23,257</b>	<b>–</b>	<b>–</b>	<b>–</b>
10	Central banks	–	–	–	–	–	–
11	General governments	6,956	–	6,956	–	–	–
12	Credit institutions	15,667	–	15,667	–	–	–
13	Other financial corporations	539	–	539	–	–	–
14	Non-financial corporations	95	–	95	–	–	–
<b>15</b>	<b>Off-balance-sheet exposures</b>	<b>38,017</b>	<b>34,399</b>	<b>3,617</b>	<b>79</b>	<b>–</b>	<b>77</b>
16	Central banks	–	–	–	–	–	–
17	General governments	4,530	3,625	905	–	–	–
18	Credit institutions	1,193	1,054	139	–	–	–
19	Other financial corporations	7,156	6,999	157	6	–	6
20	Non-financial corporations	23,636	21,290	2,346	71	–	70
21	Households	1,501	1,431	70	1	–	1
<b>22</b>	<b>Total</b>	<b>196,760</b>	<b>161,780</b>	<b>31,185</b>	<b>738</b>	<b>–</b>	<b>733</b>

<sup>1)</sup> 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.

As at the reporting date there were no foreclosed assets in accordance with Template 9 of the EBA guidelines.

in € m

	g	h	i	j	k	l	m	n	o
	Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions	Collateral and financial guarantees received	
	Performing exposures – accumulated impairment and provisions		Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions					On performing exposures	On performing exposures
		Of which: stage 1	Of which: stage 2		Of which: stage 2	Of which: stage 3			
	<b>-160</b>	<b>-39</b>	<b>-121</b>	<b>-273</b>	-	<b>-271</b>	-	<b>38,485</b>	<b>173</b>
	-	-	-	-	-	-	-	-	-
	-0	-0	-0	-	-	-	-	702	-
	-0	-0	-0	-0	-	-0	-	261	5
	-4	-3	-1	-7	-	-6	-	2,611	-
	-146	-32	-114	-238	-	-238	-	28,859	97
	-3	-2	-1	-1	-	-1	-	1,597	9
	-9	-3	-6	-27	-	-27	-	6,051	71
	<b>-2</b>	-	<b>-2</b>	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-0	-	-0	-	-	-	-	-	-
	-2	-	-2	-	-	-	-	-	-
	-0	-	-0	-	-	-	-	-	-
	-0	-	-0	-	-	-	-	-	-
	<b>-33</b>	<b>-13</b>	<b>-20</b>	<b>-25</b>	-	<b>-25</b>	-	<b>1,705</b>	<b>2</b>
	-	-	-	-	-	-	-	-	-
	-0	-0	-0	-	-	-	-	8	-
	-0	-0	-0	-0	-	-0	-	0	-
	-1	-1	-0	-0	-	-0	-	71	-
	-29	-11	-19	-24	-	-24	-	1,558	2
	-2	-1	-1	-0	-	-0	-	68	0
	<b>-194</b>	<b>-52</b>	<b>-143</b>	<b>-298</b>	-	<b>-296</b>	-	<b>40,200</b>	<b>175</b>

# Annex

## List of Abbreviations

Abbreviation	Definition	Abbreviation	Definition
ABCP	Asset-backed commercial paper	GaV	Rules of procedure for the Board of Managing Directors (German: Geschäftsanweisung für den Vorstand)
ABS	Asset-backed securities	G-SIIs	Global systemically important institutions
AIRB	Advanced IRB	HLBA	Historical look-back approach (LCR)
AT1	Additional Tier 1 capital	HQLA	High-quality liquid assets
BaFin	German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)	IAA	Internal Assessment Approach for Securitisations
BCBS	Basel Committee on Banking Supervision	ICAAP	Internal Capital Adequacy Assessment Process
CCF	Credit conversion factor	IFRS	International Financial Reporting Standards
CCP	Central counterparty (CCP)	ILAAP	Internal Liquidity Adequacy Assessment Process
CCR	Counterparty credit risk (CCR)	IMA	Internal models for market risk
CDS	Credit default swap	IRB	Internal Ratings-Based (Approach) (FIRB/AIRB)
CET1	Common Equity Tier 1 capital	ISDA	International Swaps and Derivatives Association
CIU	Collective investment undertakings (CRSA exposure class)	KIRB	The capital charge for the underlying portfolio had it not been securitised, including the expected loss
COREP	Common solvency ratio reporting	KKR	Customer Compact Rating (Kunden Kompakt Rating)
CRD	Capital Requirements Directive (CRD IV)	KPI	Key performance indicator
CRM	Credit Risk Management	KWG	German Banking Act (Kreditwesengesetz)
CRR	Capital Requirements Regulation	LBR/LB Rating	Landesbanken Rating
CRSA	Credit Risk Standardised Approach	LBS	Landesbausparkasse
CVA	Credit valuation adjustment	LCR	Liquidity Coverage Ratio
DRV	German Master Agreement	LeDIS	Legal Database Information System
DSGV	German Savings Banks Association	LGD	Loss Given Default
DVA	Debit value adjustment	LoD	Lines of defence
EBA	European Banking Authority	LTP	Liquidity transfer pricing system
ECB	European Central Bank	MAC clause	Material adverse change clause
EETC	Enhanced equipment trust certificates	MaR/VaR	Money-at-risk/value-at-risk
EHQLA	Extremely high-quality liquid assets	MaRC <sup>2</sup>	Risk measurement system (linear interest rate risk)
EL	Expected loss	MaRisk	German Minimum Requirements for Risk Management
ELLI	Risk measurement system (interest rate option risk)	MaSan	German Minimum Requirements for the Design of Recovery Plans
EMIR	European Market Infrastructure Regulation	MTA	Minimum transfer amounts
Euribor	Euro Interbank Offered Rate	NACE codes	Statistical classification of economic activities in the European Community
FBA	Funding benefit adjustment	NFR	Non-financial risk
FCA	Funding cost adjustment	NPL/NPE	Non-performing loans/non-performing exposures
FINREP	Financial reporting	NSFR	Net Stable Funding Ratio
FIRB	Foundation IRB		
FSP	Frankfurter Sparkasse		
FVA	Funding valuation adjustment		
FVTOCI	Fair value through other comprehensive income		

<b>Abbreviation</b>	<b>Definition</b>
O-SIIs	Other systemically important institutions
OTC	Over-the-counter
PD	Probability of default
POCI	Purchased or originated credit impaired
P2G	Additional Pillar 2 capital guidance
P2R	Additional Pillar 2 capital requirement
RAF	Risk appetite framework
RAS	Risk appetite statement
RSGV	Rheinischer Sparkassen- und Giroverband
RSU	Rating Service Unit GmbH & Co. KG
RWAs	Risk-weighted assets
SAG	German Recovery and Resolution Act
SEC-ERBA	Securitisation external ratings-based approach
SEC-IAA	Securitisation internal assessment approach
SEC-IRBA	Securitisation internal ratings-based approach
SEC-SA	Securitisation standardised approach
SFA	Supervisory Formula Approach
SFTs	Securities financing transactions
SME	Small and medium-sized enterprises
SolvV	German Solvency Regulation
SPV	Special purpose vehicle
sMaR/sVaR	Stress money-at-risk/stress value-at-risk
S-Rating	Sparkassen Rating- und Risikosysteme GmbH
SREP	Supervisory review and evaluation process
SVWL	Sparkassenverband Westfalen-Lippe
T1	Tier 1 capital (T1 = CET1 + AT1)
T2	Tier 2 capital
TC	Total capital (TC = T1 + T2)
TSCR	Total SREP capital requirement
UTP	Unlikely to pay
VR-RKA	Supervisory Board Risk and Credit Committee

## 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 full contractual terms and conditions for the capital instruments classified as Additional Tier 1 capital or Tier 2 capital can be found on Helaba’s website ([www.helaba.com/de/kapitalinstrumente](http://www.helaba.com/de/kapitalinstrumente)).

The publication of the specific data in the following overview and the publication of the details on Helaba’s website do not constitute a recommendation, offer or invitation to subscribe to or purchase securities or other instruments.

No money, securities or other consideration is requested from any person whatsoever as a result of this website or the information in this document; if an offer or an invitation reply is submitted in response to this website or the information published in this document, it will not be accepted.

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.	NAT001-046
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	588.89	1.920	328.80
9	Par value of instrument (issue currency, in m)	589	1.920	348.80
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	589	1.920	348.80
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.	19.12.2028/100.0%
16	Subsequent call dates, if applicable	n.a.	n.a.	19.12. every 10 yrs. min. 30-day notice period
<b>Coupons/dividends</b>				
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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	Minimum 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, description of write-up 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.

<sup>1)</sup>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 Girozentrale, AöR	Landesbank Hessen-Thüringen via Main Capital Funding Limited Partnership
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	NAT047	XF0000HEX310	DE000A0E4657
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	Additional Tier 1	Additional Tier 1	Additional Tier 1
5	Post-transitional CRR rules	Additional Tier 1	Tier 2	Ineligible
6	Eligible at solo/group/group & solo levels	Group & solo	Group & solo	Group & solo
7	Instrument type	Subordinated AT1 bond	Silent participation	"Silent participation – packaged in bearer bond (ISIN: DE000A0E4657) –"
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	25	18	250
9	Par value of instrument (issue currency, in m)	25	18	250
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	25	18	250
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	n.a.	n.a.	n.a.
10	Accounting classification	Regulatory Additional Tier 1 instruments	Liability – amortised cost	Liability – amortised cost
11	Original issue date	19.12.18	14.12.01	02.06.05
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	19.12.2028/100.0 %	31.12.2024/Carrying amount as at call date (repayment after financial statements adopted)	31.12.2022/Nominal amount
16	Subsequent call dates, if applicable	19.12. every 10 yrs. min. 30-day notice period	31.12. every 10 yrs. 2-yr. notice period	31.12. each yr. 2-yr. notice period only if carrying amount=nom. amount
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Floating	Floating	Fixed
18	Coupon rate and any related index	3.8610 %/ICE 10-year Euro mid-swap rate	2.4990 %/EUR swap interest rate	5.5000 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	Partially discretionary	Partially discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary	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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts into	n.a.	n.a.	n.a.
30	Write-down features	Yes	Yes	Yes
31	If write-down, write-down trigger(s)	Minimum CET1 capital ratio (5.125 %)	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, description of write-up mechanism	Write-up from net income from year (in proportion to and ranked pari passu with other instruments of the same class)	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	No	Yes	Yes
37	If yes, specify non-compliant features	n.a.	See feature 20a	See feature 20a

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 7	Instrument 8	Instrument 9	Instrument 10	Instrument 11
Landesbank Hessen-Thüringen via Main Capital Funding II Limited Partnership	Landesbank Hessen-Thüringen Girozentrale, AöR			
DE000A0G18M4	XF0000HEX0D3	XF0000HEX0E1	XF0000HEX0K8	XF0000HEX0J0
German law	German law	German law	German law	German law
Additional Tier 1	Tier 2	Tier 2	Tier 2	Tier 2
Ineligible	Tier 2	Tier 2	Tier 2	Tier 2
Group & solo	Group & solo	Group & solo	Group & solo	Group & solo
"Silent participation – packaged in bearer bond (ISIN: DE000A0G18M4) –"	Profit participation rights without certificate			
250	4	4	4	12
250	10	10	10	30
EUR	EUR	EUR	EUR	EUR
250	10	10	10	30
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
01.12.06	12.05.06	12.05.06	29.05.06	01.06.06
Perpetual	Dated	Dated	Dated	Dated
No maturity	31.12.21	31.12.21	31.12.21	31.12.21
Yes	Yes	Yes	Yes	Yes
31.12.2022/Nominal amount	n.a.	n.a.	n.a.	n.a.
31.12. each yr. 2-yr. notice period only if carrying amount=nom. amount	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
5.7500%	5.3000%	5.3000%	5.1225%	5.1750%
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
Non-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
Indirect – net loss for the year	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
Indirect – 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 subordinated liabilities (i.e. satisfied after all 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)
Yes	No	No	No	No
See feature 20a	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)	XF0000HEX0L6	DE000HLB88G7	XF0000HEXRV3
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	Profit participation rights without certificate	Profit-participation certificate	Subordinated loan
8	Amount eligible as regulatory own funds (in € m, as at most recent reporting date)	0	8	5
9	Par value of instrument (issue currency, in m)	1	20	10
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	20	10
9a	Issue price	100.00 %	100.00 %	100.00 %
9b	Redemption price	n.a.	n.a.	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11	Original issue date	12.06.06	12.06.06	19.09.06
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	31.12.21	31.12.21	19.09.22
14	Issuer call subject to prior supervisory approval	Yes	Yes	No
15	Optional call date and redemption amount	n.a.	n.a.	n.a.
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	5.2100 %	5.2200 %	4.4425 %
19	Existence of a dividend stopper	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Partially discretionary	Partially discretionary	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	Cumulative	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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts into	n.a.	n.a.	n.a.
30	Write-down features	Yes	Yes	No
31	If write-down, write-down trigger(s)	Net accumulated loss	Net accumulated loss	n.a.
32	If write-down, full or partial	Full or partial	Full or partial	n.a.
33	If write-down, permanent/temporary/n.a.	Temporary	Temporary	n.a.
34	If temporary write-down, description of write-up mechanism	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)	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.

<sup>1)</sup>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				
XS0128218327	XS0128429619	XS0132805762	XS0130374183	XF0000HEWXNO
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated bond	Subordinated bond	Subordinated bond	Subordinated bond	Subordinated loan
52	50	15	30	4
52	50	15	30	5
EUR	EUR	EUR	EUR	EUR
52	50	15	30	5
99.79%	99.77%	100.05%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
23.04.01	03.05.01	18.07.01	01.06.01	10.07.13
Dated	Dated	Dated	Dated	Dated
23.04.41	03.05.41	18.07.31	01.06.31	10.07.23
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.
Floating	Floating	Floating	Fixed	Fixed
0.0000%/Euribor	0.0000%/Euribor	0.0440%/Euribor	6.2500%	4.2600%
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)	XF0000HEWXL4	XF0000HEWXJ8	XF0000HEWXM2
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	7	4
9	Par value of instrument (issue currency, in m)	10	10	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	10	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	10.07.13	10.07.13	10.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	10.07.23	10.07.23	10.07.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2600 %	4.2600 %	4.2600 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEWXR1	XF0000HEWXP5	XF0000HEWXX6	XF0000HEWXH2	XF0000HEWXQ3
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
5	10	10	20	4
5	10	10	20	5
EUR	EUR	EUR	EUR	EUR
5	10	10	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				
12.07.13	12.07.13	11.07.13	15.07.13	11.07.13
Dated	Dated	Dated	Dated	Dated
12.02.25	12.02.25	11.07.28	15.07.27	11.07.23
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
4.3200%	4.3200%	4.6800%	4.6300%	4.2500%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEWXV3	XF0000HEWXU5	XF0000HEWXW1
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	2	1
9	Par value of instrument (issue currency, in m)	2	2	1
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	2	2	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	15.07.13	15.07.13	15.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	15.07.26	15.07.26	15.07.26
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.5300 %	4.5300 %	4.5300 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 31</b>	<b>Instrument 32</b>	<b>Instrument 33</b>	<b>Instrument 34</b>	<b>Instrument 35</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEWXS9	XF0000HEWXT7	XF0000HEWXX9	XF0000HEWX77	XF0000HEWX85
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
4	0	4	14	2
5	1	5	20	3
EUR	EUR	EUR	EUR	EUR
5	1	5	20	3
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
12.07.13	12.07.13	11.07.13	17.07.13	17.07.13
Dated	Dated	Dated	Dated	Dated
12.07.24	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
4.3500%	4.3500%	4.2400%	4.1200%	4.1200%
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.
n.a.	n.a.	n.a.	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)	XF0000HEWX36	XF0000HEWX44	XF0000HEWX28
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	4	7	6
9	Par value of instrument (issue currency, in m)	5	10	8
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	10	8
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	17.07.13	12.07.13	15.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	17.07.23	12.07.23	17.07.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.1800 %	4.2000 %	4.1800 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 39</b>	<b>Instrument 40</b>	<b>Instrument 41</b>	<b>Instrument 42</b>	<b>Instrument 43</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEWYE7	XF0000HEWYF4	XF0000HEWX93	XF0000HEWYA5	XF0000HEWYB3
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
11	4	28	18	7
11	4	40	25	10
EUR	EUR	EUR	EUR	EUR
11	4	40	25	10
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
23.07.13	23.07.13	19.07.13	19.07.13	19.07.13
Dated	Dated	Dated	Dated	Dated
22.07.33	22.07.33	19.07.23	19.07.23	19.07.23
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
4.7000%	4.7000%	4.2000%	4.2000%	4.2000%
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.
n.a.	n.a.	n.a.	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)	XF0000HEWYC1	XF0000HEWYD9	XF0000HEWX51
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	4	1	5
9	Par value of instrument (issue currency, in m)	5	2	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	2	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	19.07.13	19.07.13	17.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	19.07.23	19.07.23	17.07.28
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2000 %	4.2000 %	4.6000 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 47</b>	<b>Instrument 48</b>	<b>Instrument 49</b>	<b>Instrument 50</b>	<b>Instrument 51</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEWX69	XF0000HEWYL2	XF0000HEWYK4	XF0000HEWYMO	XF0000HEWYQ1
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
1	2	6	5	1
1	2	9	7	1
EUR	EUR	EUR	EUR	EUR
1	2	9	7	1
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
17.07.13	24.07.13	24.07.13	25.07.13	25.07.13
Dated	Dated	Dated	Dated	Dated
17.07.28	24.07.26	24.07.23	25.07.23	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
4.6000%	4.4000%	4.1000%	4.1300%	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.
n.a.	n.a.	n.a.	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)	XF0000HEWYP3	XF0000HEWYN8	XF0000HEWYS7
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	0	1	5
9	Par value of instrument (issue currency, in m)	1	1	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	1	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	25.07.13	25.07.13	31.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	25.07.23	25.07.23	31.07.28
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.1300 %	4.1300 %	4.5900 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEWYT5	XF0000HEWYV1	XF0000HEWYW9	XF0000HEWYX7	XF0000HEWYY5
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
1	20	2	21	14
1	20	3	30	20
EUR	EUR	EUR	EUR	EUR
1	20	3	30	20
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
31.07.13	31.07.13	29.07.13	31.07.13	31.07.13
Dated	Dated	Dated	Dated	Dated
31.07.28	31.07.28	31.07.23	31.07.23	31.07.23
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
4.5900%	4.6300%	4.2300%	4.2500%	4.2500%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEWYZZ	XF0000HEWY01	XF0000HEWY19
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	4	4
9	Par value of instrument (issue currency, in m)	10	5	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	5	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	31.07.13	31.07.13	31.07.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	31.07.23	31.07.23	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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2500 %	4.2500 %	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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 63</b>	<b>Instrument 64</b>	<b>Instrument 65</b>	<b>Instrument 66</b>	<b>Instrument 67</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEWY27	DE000HLBOWG6	XF0000HEWY84	XF0000HEWY92	XF0000HEWZA2
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan
4	18	5	5	5
5	25	5	5	5
EUR	EUR	EUR	EUR	EUR
5	25	5	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				
31.07.13	14.08.13	05.08.13	05.08.13	05.08.13
Dated	Dated	Dated	Dated	Dated
31.07.23	14.08.23	05.08.33	05.08.33	05.08.33
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	Fixed	Fixed	Fixed
4.2500%	4.2600%	4.7300%	4.7300%	4.7300%
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.
n.a.	n.a.	n.a.	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)	XF0000HEWZD6	XF0000HEWZC8	DE000HLB0WH4
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	14	5	18
9	Par value of instrument (issue currency, in m)	20	5	25
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	20	5	25
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	02.08.13	02.08.13	15.08.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	02.08.23	02.08.30	15.08.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2650 %	4.7500 %	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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEWZG9	XF0000HEWOM5	DE000HLBOWJO	XF0000HEWQ6	XF0000HEW056
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan
7	7	4	4	7
10	10	5	5	10
EUR	EUR	EUR	EUR	EUR
10	10	5	5	10
100.00%	100.00%	100.00%	100.00%	99.92%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost	Liability – amortised cost	Liability – amortised cost	Liability – fair value option	Liability – amortised cost
09.08.13	29.08.13	04.09.13	05.09.13	23.09.13
Dated	Dated	Dated	Dated	Dated
09.08.23	29.08.23	04.09.23	05.09.33	22.09.23
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	Currently fixed, subsequently floating	Fixed
4.2800%	4.4200%	4.4200%	5.0000% / EUR swap interest rate	4.4300%
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.
n.a.	n.a.	n.a.	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)	XF0000HEW072	XF0000HEW1A8	XF0000HEW1B6
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	4	4	4
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	99.78 %	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	26.09.13	04.10.13	04.10.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	26.09.23	04.10.23	04.10.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.4000 %	4.3500 %	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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 79</b>	<b>Instrument 80</b>	<b>Instrument 81</b>	<b>Instrument 82</b>	<b>Instrument 83</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW1C4	XF0000HEW1H3	XF0000HEW1L5	XF0000HEW1M3	XF0000HEW1S0
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
4	2	4	4	5
5	2	5	5	5
EUR	EUR	EUR	EUR	EUR
5	2	5	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				
04.10.13	09.10.13	09.10.13	09.10.13	28.10.13
Dated	Dated	Dated	Dated	Dated
04.10.23	09.10.23	09.10.23	09.10.23	28.10.24
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
4.3400%	4.4000%	4.3700%	4.3700%	4.4150%
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.
n.a.	n.a.	n.a.	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)	XF0000HEW1T8	DE000HLB02N4	DE000HLB0WK8
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	0	160	4
9	Par value of instrument (issue currency, in m)	1	215	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	215	5
9a	Issue price	100.00 %	98.06 %	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	28.10.13	06.11.13	01.11.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	28.10.24	06.11.23	01.11.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Floating
18	Coupon rate and any related index	4.4150 %	4.0000 %	1.9110 % / 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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
DE000HLBOWL6	XF0000HEW1V4	XF0000HEW1U6	XF0000HEW1Y8	XF0000HEW148
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan
4	5	0	4	1
5	5	1	5	1
EUR	EUR	EUR	EUR	EUR
5	5	1	5	1
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
01.11.13	04.11.13	05.11.13	06.11.13	13.11.13
Dated	Dated	Dated	Dated	Dated
01.11.23	04.11.33	05.11.24	06.11.23	13.11.23
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
4.3000%	4.8750%	4.4150%	4.1900%	4.2700%
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.
n.a.	n.a.	n.a.	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)	XF0000HEW155	XF0000HEW2F5	XF0000HEW2E8
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	4	4	4
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 %	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	28.11.13	11.12.13	11.12.13
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	28.11.23	11.12.23	11.12.23
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.2100 %	4.2850 %	4.2650 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEW2N9	XF0000HEW2R0	XF0000HEW205	XF0000HEW213	XF0000HEW221
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
8	30	1	4	1
10	30	1	4	1
EUR	EUR	EUR	EUR	EUR
10	30	1	4	1
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
17.01.14	23.01.14	06.02.14	06.02.14	06.02.14
Dated	Dated	Dated	Dated	Dated
17.01.24	23.01.34	06.02.26	06.02.26	06.02.26
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
4.3400%	4.6300%	4.1000%	4.1000%	4.1000%
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.
n.a.	n.a.	n.a.	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)	XF0000HEW2Z3	XF0000HEW239	XF0000HEW247
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	10	5
9	Par value of instrument (issue currency, in m)	2	10	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	2	10	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	06.02.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	06.02.26	06.02.34	06.02.34
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.1000 %	4.4700 %	4.4700 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 103</b>	<b>Instrument 104</b>	<b>Instrument 105</b>	<b>Instrument 106</b>	<b>Instrument 107</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW254	XF0000HEW262	XF0000HEW270	XF0000HEW288	XF0000HEW296
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
15	7	1	1	1
15	7	1	1	1
EUR	EUR	EUR	EUR	EUR
15	7	1	1	1
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
06.02.14	06.02.14	06.02.14	06.02.14	06.02.14
Dated	Dated	Dated	Dated	Dated
06.02.34	06.02.34	06.02.34	06.02.34	06.02.34
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
4.4700%	4.4700%	4.4700%	4.4700%	4.4700%
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.
n.a.	n.a.	n.a.	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)	XF0000HEW3C0	XF0000HEW3N7	XF0000HEW3P2
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	5	6	6
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 %	100.00 %
9b	Redemption price	100.00 %	100.00 %	100.00 %
10	Accounting classification	Liability – amortised cost	Liability – fair value option	Liability – fair value option
11	Original issue date	12.02.14	06.03.14	06.03.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	12.02.29	06.03.34	06.03.34
14	Issuer call subject to prior supervisory approval	Yes	Yes	Yes
15	Optional call date and redemption amount	n.a.	06.03.2024 / Nominal amount	06.03.2024 / Nominal amount
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4.3400 %	4.6800 %	4.6800 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEW3Q0	XF0000HEW3R8	XF0000HEW3W8	XF0000HEW3Z0	XF0000HEW353
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
4	11	20	21	9
5	10	20	25	9
EUR	EUR	EUR	EUR	EUR
5	10	20	25	9
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost	Liability – fair value option	Liability – amortised cost	Liability – amortised cost	Liability – amortised cost
11.03.14	13.03.14	21.03.14	15.04.14	09.05.14
Dated	Dated	Dated	Dated	Dated
11.03.24	13.03.34	21.12.29	15.04.24	09.05.34
Yes	Yes	Yes	Yes	Yes
n.a.	13.03.2024 / Nominal amount	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.
Fixed	Fixed	Fixed	Fixed	Fixed
3.8800%	4.7000%	4.3000%	3.6300%	4.2300%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEW361	XF0000HEW379	DE000HLB4L07
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	1	1	18
9	Par value of instrument (issue currency, in m)	1	1	20
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Floating
18	Coupon rate and any related index	4.2300 %	3.6350 %	1.5600 % / 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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEW395	XF0000HEW4D6	DE000HLB4L15	XF0000HEW4E4	XF0000HEW4R6
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan
7	22	9	3	17
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 – fair value option			
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%	0.6036% / 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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEW4X4	XF0000HEW4Y2	XF0000HEW4Z9
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	10	5
9	Par value of instrument (issue currency, in m)	10	10	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	10	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	25.08.14	25.08.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	01.07.25	01.07.25	01.07.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.0000 %	3.0000 %	3.0000 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 127</b>	<b>Instrument 128</b>	<b>Instrument 129</b>	<b>Instrument 130</b>	<b>Instrument 131</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW403	XF0000HEW437	XF0000HEW445	XF0000HEW478	XF0000HEW486
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
5	3	5	15	15
5	3	5	15	15
EUR	EUR	EUR	EUR	EUR
5	3	5	15	15
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
25.08.14	26.08.14	27.08.14	03.09.14	03.09.14
Dated	Dated	Dated	Dated	Dated
01.07.25	26.08.24	27.08.29	03.09.29	03.09.29
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
3.0000%	2.9050%	3.2650%	3.1500%	3.1500%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEW5A9	XF0000HEW5D3	XF0000HEW5F8
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	5	15	20
9	Par value of instrument (issue currency, in m)	5	15	20
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	15	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	10.09.14	19.09.14	02.10.14
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	10.09.26	19.09.33	02.10.34
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend / coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.0300 %	3.5600 %	3.4550 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEW5G6	XF0000HEW5N2	XF0000HEW5U7	XF0000HEW5V5	DE000HLB1V32
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated bond
5	1	1	4	49
5	2	1	4	50
EUR	EUR	EUR	EUR	EUR
5	2	1	4	50
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
02.10.14	29.10.14	11.11.14	11.11.14	18.11.14
Dated	Dated	Dated	Dated	Dated
02.10.24	29.10.24	11.11.24	11.11.24	18.11.24
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
2.8100%	2.7000%	2.7150%	2.7150%	2.6900%
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.
n.a.	n.a.	n.a.	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)	DE000HLB1KN5	XF0000HEW577	XF0000HEW6L4
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	94	3	5
9	Par value of instrument (issue currency, in m)	100	3	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	100	3	5
9a	Issue price	97.97 %	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	19.11.14	12.12.14	30.01.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	19.11.24	12.06.25	30.01.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	2.5000 %	2.6200 %	2.3700 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 143</b>	<b>Instrument 144</b>	<b>Instrument 145</b>	<b>Instrument 146</b>	<b>Instrument 147</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW6M2	DE000HLB12L7	XF0000HEW6N0	XF0000HEW6S9	XF0000HEW6X9
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan
0	15	5	3	5
0	15	5	3	5
EUR	EUR	EUR	EUR	EUR
0	15	5	3	5
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
30.01.15	03.02.15	24.02.15	10.03.15	30.03.15
Dated	Dated	Dated	Dated	Dated
30.01.25	03.02.25	24.02.25	10.03.25	30.03.27
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
2.3700%	2.3700%	2.3750%	2.3700%	2.3100%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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)	XF0000HEW6Y7	XF0000HEW7A5	XF0000HEW7D9
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	5	20	4
9	Par value of instrument (issue currency, in m)	5	20	4
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	20	4
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	01.04.15	10.04.15	14.04.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	01.04.30	10.04.25	14.04.26
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	2.4000 %	2.2050 %	2.2200 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>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				
XF0000HEW7E7	XF0000HEW7F4	XF0000HEW7G2	XF0000HEW7H0	XF0000HEW7J6
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
1	5	5	2	2
1	5	5	2	2
EUR	EUR	EUR	EUR	EUR
1	5	5	2	2
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
14.04.15	15.04.15	15.04.15	15.04.15	15.04.15
Dated	Dated	Dated	Dated	Dated
14.04.26	15.04.25	15.04.25	15.04.25	15.04.25
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
2.2200%	2.1950%	2.1950%	2.1950%	2.1950%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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	Instrument 158
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)	XF0000HEW8B1	DE000HLB09P4	DE000HLB13N1
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	10	10	44
9	Par value of instrument (issue currency, in m)	10	10	45
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	10	45
9a	Issue price	100.00 %	99.53 %	98.00 %
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	21.05.15	16.06.15	24.06.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	21.05.35	16.06.25	24.06.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.0000 %	2.7500 %	2.0000 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 159</b>	<b>Instrument 160</b>	<b>Instrument 161</b>	<b>Instrument 162</b>	<b>Instrument 163</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW855	XF0000HEW817	XF0000HEW825	XF0000HEW833	XF0000HEW841
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
5	35	5	5	2
5	35	5	5	2
EUR	EUR	EUR	EUR	EUR
5	35	5	5	2
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
30.06.15	14.07.15	14.07.15	14.07.15	14.07.15
Dated	Dated	Dated	Dated	Dated
30.06.25	14.07.25	14.07.25	14.07.25	14.07.25
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
2.8600%	3.0650%	3.0650%	3.0650%	3.0650%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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 164	Instrument 165	Instrument 166
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)	XF0000HEW858	XF0000HEW874	XF0000HEW882
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	5	10	2
9	Par value of instrument (issue currency, in m)	5	10	2
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	5	10	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	14.07.15	14.07.15	14.07.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	14.07.31	14.07.25	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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.5000 %	3.1800 %	3.1800 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 167</b>	<b>Instrument 168</b>	<b>Instrument 169</b>	<b>Instrument 170</b>	<b>Instrument 171</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW866	XF0000HEW890	XF0000HEW9A1	XF0000HEW9C7	DE000HLB0908
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated bond
10	5	2	3	5
10	5	2	3	6
EUR	EUR	EUR	EUR	EUR
10	5	2	3	6
100.00%	100.00%	100.00%	100.00%	99.92%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
15.07.15	15.07.15	15.07.15	16.07.15	21.07.15
Dated	Dated	Dated	Dated	Dated
15.07.30	14.07.28	15.07.26	16.07.25	21.07.25
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
3.4500%	3.5500%	3.3700%	3.2000%	3.2000%
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.
n.a.	n.a.	n.a.	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 172	Instrument 173	Instrument 174
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)	XF0000HEW9D5	XF0000HEW9E3	XF0000HEW9F0
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	12	10
9	Par value of instrument (issue currency, in m)	10	13	10
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	13	10
9a	Issue price	100.00 %	99.99 %	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	21.07.15	24.07.15	24.07.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	21.07.25	24.07.25	24.07.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1200 %	3.0900 %	3.0850 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 175	Instrument 176	Instrument 177	Instrument 178	Instrument 179
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW9M6	XF0000HEW9Q7	XF0000HEW9R5	XF0000HEW9S3	XF0000HEW9T1
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
2	10	10	1	1
2	10	10	1	1
EUR	EUR	EUR	EUR	EUR
2	10	10	1	1
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
28.07.15	31.07.15	31.07.15	31.07.15	31.07.15
Dated	Dated	Dated	Dated	Dated
28.07.25	31.07.30	31.07.25	31.07.25	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
3.0250%	3.4000%	3.0400%	3.0400%	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.
n.a.	n.a.	n.a.	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 180	Instrument 181	Instrument 182
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)	XF0000HEW9Y1	XF0000HEW9Z8	XF0000HEW908
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	4	1
9	Par value of instrument (issue currency, in m)	2	4	1
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	2	4	1
9a	Issue price	99.80 %	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	03.08.15	05.08.15	05.08.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	03.08.27	05.08.30	05.08.30
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1900 %	3.3800 %	3.3800 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 183</b>	<b>Instrument 184</b>	<b>Instrument 185</b>	<b>Instrument 186</b>	<b>Instrument 187</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEW916	XF0000HEW973	XF0000HEW999	XF0000HEXAA3	XF0000HEXAB1
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
1	2	7	2	1
1	2	7	2	1
EUR	EUR	EUR	EUR	EUR
1	2	7	2	1
100.00%	99.82%	99.42%	99.80%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
05.08.15	06.08.15	12.08.15	11.08.15	11.08.15
Dated	Dated	Dated	Dated	Dated
05.08.30	06.08.30	12.08.30	12.08.30	11.08.25
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
3.3800%	3.2750%	3.3400%	3.3750%	3.0300%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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 188	Instrument 189	Instrument 190
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)	XF0000HEXAC9	XF0000HEXAF2	DE000HLB1AH8
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	5	5
9	Par value of instrument (issue currency, in m)	10	5	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	10	5	5
9a	Issue price	100.00 %	99.79 %	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	12.08.15	25.08.15	02.09.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	12.08.25	25.08.25	02.09.30
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.0250 %	2.9200 %	3.3400 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 191	Instrument 192	Instrument 193	Instrument 194	Instrument 195
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEXAN6	DE000HLB1AJ4	XF0000HEXAP1	XF0000HEXAQ9	XF0000HEXAR7
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated bond	Subordinated loan	Subordinated loan	Subordinated loan
5	5	10	0	1
5	5	10	1	1
EUR	EUR	EUR	EUR	EUR
5	5	10	1	1
100.00%	99.53%	99.91%	99.91%	99.91%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
02.09.15	08.09.15	08.09.15	08.09.15	08.09.15
Dated	Dated	Dated	Dated	Dated
02.09.30	08.09.25	08.09.26	08.09.26	08.09.26
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
3.3300%	3.0300%	3.1900%	3.1900%	3.1900%
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.
n.a.	n.a.	n.a.	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 196	Instrument 197	Instrument 198
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)	XF0000HEXAS5	XF0000HEXA16	XF0000HEXA40
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	1	3
9	Par value of instrument (issue currency, in m)	1	1	3
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	1	3
9a	Issue price	99.91 %	97.82 %	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	08.09.15	23.09.15	24.09.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	08.09.26	23.09.25	24.09.29
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1900 %	2.7500 %	3.3400 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

<b>Instrument 199</b>	<b>Instrument 200</b>	<b>Instrument 201</b>	<b>Instrument 202</b>	<b>Instrument 203</b>
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEXBB9	XF0000HEXBC7	XF0000HEXBD5	XF0000HEXBE3	XF0000HEXBFO
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
2	2	5	1	20
2	2	5	1	20
EUR	EUR	EUR	EUR	EUR
2	2	5	1	20
100.00%	100.00%	100.00%	100.00%	100.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
29.09.15	29.09.15	29.09.15	01.10.15	01.10.15
Dated	Dated	Dated	Dated	Dated
29.09.25	29.09.25	29.09.25	01.10.25	01.10.25
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
3.1700%	3.1700%	3.1600%	3.1500%	3.1500%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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 204	Instrument 205	Instrument 206
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)	XF0000HEXBG8	XF0000HEXBH6	XF0000HEXBJ2
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	25	1	0
9	Par value of instrument (issue currency, in m)	25	1	0
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	25	1	0
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	01.10.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	01.10.25	01.10.25	01.10.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1500 %	3.1500 %	3.1500 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 207	Instrument 208	Instrument 209	Instrument 210	Instrument 211
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEXBK0	XF0000HEXBL8	XF0000HEXBM6	XS1306576726	XF0000HEXBY1
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated bond	Subordinated loan
10	10	10	40	5
10	10	10	40	5
EUR	EUR	EUR	EUR	EUR
10	10	10	40	5
100.00%	100.00%	100.00%	100.00%	99.75%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
01.10.15	01.10.15	01.10.15	21.10.15	14.10.15
Dated	Dated	Dated	Dated	Dated
01.10.25	01.10.25	01.10.35	21.10.30	14.10.30
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
3.1500%	3.1500%	3.7240%	1.5210% / Euribor	3.5300%
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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 212	Instrument 213	Instrument 214
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)	XF0000HEXB15	XF0000HEXB98	XF0000HEXCG6
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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)	4	1	10
9	Par value of instrument (issue currency, in m)	4	1	10
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	4	1	10
9a	Issue price	100.00 %	99.70 %	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	16.10.15	21.10.15	23.10.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	16.10.25	21.10.30	23.10.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Floating
18	Coupon rate and any related index	3.1700 %	3.4700 %	1.7660 % / 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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 215	Instrument 216	Instrument 217	Instrument 218	Instrument 219
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEXCH4	XF0000HEXCL6	XF0000HEXCM4	XF0000HEXCN2	XF0000HEXCS1
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan				
4	1	4	13	15
4	1	4	13	15
EUR	EUR	EUR	EUR	EUR
4	1	4	13	15
99.13 %	99.13 %	100.00 %	100.00 %	100.00 %
100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Liability – amortised cost				
28.10.15	28.10.15	02.11.15	02.11.15	04.11.15
Dated	Dated	Dated	Dated	Dated
28.10.30	28.10.30	31.10.25	31.10.25	04.11.25
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	Floating
3.4000 %	3.4000 %	3.0400 %	3.0400 %	1.7870 % / Euribor
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.
n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	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 220	Instrument 221	Instrument 222
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)	XF0000HEXCT9	XF0000HEXCU7	XF0000HEXBR5
3	Law applicable to the instrument	German law	German law	German law
<b>Regulatory treatment</b>				
4	CRR transitional provisions: Instrument category <sup>1)</sup>	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	2	5
9	Par value of instrument (issue currency, in m)	1	2	5
	Issue currency	EUR	EUR	EUR
	Par value of instrument (EUR equivalent, in € m)	1	2	5
9a	Issue price	100.00 %	100.00 %	99.49 %
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	10.11.15	10.11.15	17.11.15
12	Perpetual or dated	Dated	Dated	Dated
13	Original maturity date	10.11.25	10.11.25	17.11.25
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	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
<b>Coupons / dividends</b>				
17	Fixed or floating dividend/coupon	Fixed	Fixed	Fixed
18	Coupon rate and any related index	3.1350 %	3.1400 %	3.0500 %
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, fully or partially	n.a.	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts 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, description of write-up 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.

<sup>1)</sup>No portions of an issue have been reclassified to a lower level.

Instrument 223	Instrument 224	Instrument 225	Instrument 226	Instrument 227
Landesbank Hessen-Thüringen Girozentrale, AöR				
XF0000HEXBU9	XF0000HEXC9	XF0000HEXC55	XF0000HEXC63	DE000HLB2DM0
German law				
Tier 2				
Tier 2				
Group & solo				
Subordinated loan	Subordinated loan	Subordinated loan	Subordinated loan	Subordinated bond
0	10	10	3	161
1	10	10	3	166
EUR	EUR	EUR	EUR	EUR
1	10	10	3	166
99.00%	100.00%	100.00%	100.00%	99.00%
100.00%	100.00%	100.00%	100.00%	100.00%
Liability – amortised cost				
18.11.15	19.11.15	02.12.15	02.12.15	18.11.15
Dated	Dated	Dated	Dated	Dated
18.11.25	19.11.25	02.12.25	02.12.25	18.11.25
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
3.0000%	3.1000%	3.0250%	3.0400%	3.0000%
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.
n.a.	n.a.	n.a.	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.

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#### Landesbank Hessen-Thüringen Girozentrale

Neue Mainzer Strasse 52–58  
60311 Frankfurt am Main  
Germany  
T +49 69/91 32-01

Bonifaciusstrasse 16  
99084 Erfurt  
Germany  
T +49 3 61/2 17-71 00

[www.helaba.com](http://www.helaba.com)

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