Disclosure Report

as at 31 December 2020 according to part 8 CRR

Content

1. Introduction and general principles **5**

1.1. Overview 5
1.2. Risk management concept 7

2. Own funds and capital requirements **9**

2.1. Own funds structure and key figures 9
2.2. Capital requirements 12

3. Countercyclical capital buffer **15**

4. Leverage ratio **17**

5. Unencumbered assets **20**

6. Liquidity risk **23**

6.1. Liquidity risk management 23
6.2. Liquidity ratios 26

7. Default risk **28**

7.1. Credit risk adjustments 28
7.2. Forborne and non-performing exposures 34
7.3. COVID-19-Disclosure 39
7.4. Use of credit risk mitigation techniques 42
7.5. Use of external ratings and standardized approach 45
7.6. Equity holdings in the banking book 50
7.7. IRB approach 52
7.8. IRB backtesting 64

8. Counterparty credit risk **69**

8.1. Qualitative disclosure of counterparty credit risk 69
8.2. Quantitative disclosure for counterparty credit risk 70

9. Securitizations **78**

9.1. Type and extent of securitization activities and risks involved 78
9.2. Risk weighting and accounting of securitization transactions 79
9.3. Exposure values and capital requirements of securitized receivables 80
9.4. Securitization activities in the reporting year and planning 2021 81

10. Market risk **82**

10.1. Market risk 82
10.2. Interest rate risk in the banking book 83

11. Operational risk **84**

12. Notes **85**

12.1. Consolidation matrix 85
12.2. Capital requirements in accordance with Article 437(1) CRR 86
12.3. Main features of capital instruments 93

13. List of abbreviations **101**

List of tables

[Tab. 1] Disclosure index according to paragraph 31 of EBA/GL/2016/11 4
[Tab. 2] OVA: Concept of risk management 8
[Tab. 3] KM1: Key figures 9
[Tab. 4] Terms and conditions of the own funds instruments 11
[Tab. 5] OV1: Overview of risk weighted assets (RWA) in € million 13
[Tab. 6] 438cd: Capital requirements by exposure class in € million 14
[Tab. 7] Countercyclical capital buffer 15
[Tab. 8] Geographical breakdown of relevant credit exposures for the calculation of the countercyclical capital buffer in € million 15
[Tab. 9] LRSum: Summary reconciliation of accounting assets and leverage ratio exposures in € million 17
[Tab. 10] LRCom: Leverage ratio common disclosure in € million 18
[Tab. 11] LRSpl: Split-up of on-balance-sheet exposures (excluding derivatives, SFTs and exempted exposures) in € million 19
[Tab. 12] LRQua: Disclosure of qualitative items 19
[Tab. 13] Assets in € million 21
[Tab. 14] Collateral received in € million 22
[Tab. 15] Encumbered assets, collateral received and associated liabilities in € million 22
[Tab. 16] LIQ1: Liquidity Coverage Ratio (LCR) 27
[Tab. 17] CRA: General and qualitative information about credit risk 28
[Tab. 18] CR1-A: Credit quality of exposures by exposure class and instrument in € million 29
[Tab. 19] CR1-B: Credit quality of exposures by industry or counterparty types in € million 29
[Tab. 20] CR1-C: Credit quality of exposures by geography in € million 30
[Tab. 21] CR2-A: Changes in the stock of general and specific credit risk adjustments in € million 30
[Tab. 22] CR2-B: Changes in the stock of defaulted and impaired loans and debt securities in € million 31
[Tab. 23] CRB-B: Total and average net amount of exposures in € million 32
[Tab. 24] CRB-C: Geographical breakdown of exposures in € million 32
[Tab. 25] CRB-D: Concentration of exposures by industry or counterparty types in € million 33
[Tab. 26] CRB-E: Maturity of exposures in € million 33
[Tab. 27] NPL1: Credit quality of forborne exposures in € million 34
[Tab. 28] NPL3: Credit quality of performing and non-performing exposures by past due days in € million 35
[Tab. 29] NPL4: : Performing and non-performing exposures and related provisions in € million 37
[Tab. 30] Information on loans and advances subject to legislative and non-legislative moratoria 40
[Tab. 31] Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria 41
[Tab. 32] Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis 42
[Tab. 33] CR3: CRM techniques – overview in € million 44
[Tab. 34] 453g: Total amount of collateralized exposure values (without securitizations) in € million 45
[Tab. 35] Rating agencies by receivables category 46
[Tab. 36] CR4: Standardized approach - credit risk exposure and CRM effects in € million 47
[Tab. 37] CR5: Standardized approach - exposure values in € million 48
[Tab. 38] Valuation of equity holding instruments in € million 51
[Tab. 39] Realized and unrealized gains or losses from equity holding instruments in € million 51
[Tab. 40] Rating modules of Hamburg Commercial Bank approved by the supervisory authorities 53
[Tab. 41] Exposure values by IRBA-exposure class and IRBA-rating module in € million 55
[Tab. 42] CR6: IRB approach - credit risk exposures by exposure class and PD range in € million 59
[Tab. 43] 452j: Average LGD and PD by geographical location according to Article 452(j) CRR 61
[Tab. 44] CR8: RWA flow statement of credit risk exposures according to IRB approach in € million 62
[Tab. 45] CR10: IRB equities under the simple risk-weight approach in € million 63
[Tab. 46] CR9: IRB approach - backtesting of PD per exposure class 65
[Tab. 47] LGD: IRB approach - backtesting of LGD per exposure class 66
[Tab. 48] CCF: IRB approach - backtesting of CCF per exposure class 67
[Tab. 49] EL: IRB approach - backtesting of expected loss (EL) per exposure class 68
[Tab. 50] CCR1: Analysis of CCR exposure by approach in € million 70
[Tab. 51] CCR2: CVA capital charge in € million 71
[Tab. 52] CCR3: Standardized approach – CCR exposures by regulatory portfolio and risk in € million 72
[Tab. 53] CCR4: IRB approach - CCR exposures by portfolio an PD scale in € million 73
[Tab. 54] CCR5-A: Impact of netting and collateral held on exposure values in € million 75
[Tab. 55] CCR5-B: Composition of collateral for exposures to CCR in € million 75
[Tab. 56] CCR6: Credit derivatives exposures in € million 76
[Tab. 57] CCR8: Exposures to CCPs in € million 77
[Tab. 58] Exposure value of securitized receivables in € million 80
[Tab. 59] Exposure value of retained or purchased securitization positions in € million 80
[Tab. 60] Exposure value and capital requirements of retained or purchased securitization items acc. to risk weight ranges in € million 81
[Tab. 61] MRA: Qualitative disclosure requirements related to market risk 82

[Tab. 62] MR1: Market risk under the standardized approach in € million 82
[Tab. 63] 448b: Interest rate risks in the banking book in € million 83
[Tab. 64] LI3: Outline of the differences in the scopes of consolidation (entity by entity) 85
[Tab. 65] Disclosure of the type and amounts of the specific capital requirements during the transitional period 86
[Tab. 66] Full reconciliation of components of own funds with the audited financial statements in € million 89
[Tab. 67] Description of the main features of capital instruments issued 93

Due to rounding, there may be minor differences in totals and percentages in this report.
This report is a non-binding translation of the original German version of the Disclosure Report (Offenlegungsbericht).

[Tab. 1] **Disclosure index according to paragraph 31 of EBA/GL/2016/11**

CRR Article	Designation	Chapter in the Disclosure Report
431	Scope of disclosure requirements	Introduction and general principles
432	Non-material, proprietary or confidential information	Introduction and general principles
433	Frequency of disclosure	Introduction and general principles
434	Means of disclosures	Introduction and general principles
435	Risk management objectives and policies	Introduction and general principles Liquidity risk Default risk Counterparty credit risk Market risk Operational risk
436	Scope of application	Introduction and general principles
437	Own funds	Own funds and capital requirements
438	Capital requirements	Own funds and capital requirements
439	Exposure to counterparty credit risk	Counterparty credit risk
440	Capital buffers	Countercyclical capital buffer
441	Indicators of global systemic importance	Not relevant for Hamburg Commercial Bank
442	Credit risk adjustments	Default risk
443	Unencumbered assets	Unencumbered assets
444	Use of ECAIs	Default risk
445	Exposure to market risk	Market risk
446	Operational risk	Operational risk
447	Exposures in equities not included in the trading book	Default risk
448	Exposure to interest rate risk on positions not included in the trading book	Market risk
449	Exposure to securitization positions	Securitizations
450	Remuneration policy	Disclosed in a separate report in the same place as the Disclosure Report
451	Leverage	Leverage ratio
452	Use of the IRB Approach to credit risk	Default risk
453	Use of credit risk mitigation techniques	Default risk
454	Use of the Advanced Measurement Approaches to operational risk	Not relevant for Hamburg Commercial Bank
455	Use of Internal Market Risk Models	Not relevant for Hamburg Commercial Bank

1. Introduction and general principles

1.1. Overview

The objective of disclosure according to the Capital Requirements Regulation (CRR) is to strengthen the market discipline of the institutions. For that reason, additional information on the risk profile will be provided for market participants, exceeding the information that have already been published in the Annual Report. Additional information on the business performance and other significant changes are provided in the Hamburg Commercial Bank's Annual Report as at 31 December 2020.

In response to the COVID-19 pandemic, the banking authority has introduced a set of supporting measures. However, the supporting measures are listed, for example, in the EBA/GL/2020/11 and Regulation (EU) 2020/873 are not used by the Hamburg Commercial Bank. The only exception is the early application of the relief provided for in CRR II for risk positions vis-à-vis small and medium-sized enterprises (SMEs) and qualified infrastructure financing (CRR "Quick Fix") in accordance with EBA/GL/2020/11. This led to a relief of the RWA in the reporting period.

Scope of application
Hamburg Commercial Bank AG is classified as a significant credit institution within the framework of the Single Supervisory Mechanism (SSM) and is directly supervised by the ECB. The consolidated balance sheet total amounts to more than € 30 billion. The bank is not classified as an Other Systemically Important Institution (A-SRI) pursuant to Article 131(3) of Directive 2013/36/EU in conjunction with § 10g(2) KWG (German Banking Act).

Hamburg Commercial Bank AG is the superordinate credit institution (parent institution) within the Hamburg Commercial Bank Group. The disclosure according to Part 8 CRR is made pursuant to Article 13 (1) CRR for the Hamburg Commercial Bank Group (hereinafter Hamburg Commercial Bank). The companies that belong to the Group within the meaning of § 10a KWG in conjunction with Article 11 CRR (regulatory scope of consolidation) must be taken into account. In contrast to this, the accounting scope of consolidation is to be seen in accordance with International Financial Reporting Standards (IFRS), as reflected in the Annual Report of the Hamburg Commercial Bank Group.

Table LI3 (see Section 12.1) illustrates the nature of consolidation and the difference between regulatory and accounting consolidation in accordance with Article 436 point (b) CRR. All companies to be consolidated and their allocation to the regulatory scope of consolidation respectively the scope of consolidation for accounting purposes are listed. The allocation of companies to company types is based on the regulatory consolidation and the definitions set out in Article 4(1) CRR.

In principle own funds and financial resources can be transferred within Hamburg Commercial Bank pursuant to Article 436 point (c) CRR. The feasibility can be restricted due to existing regulatory requirements or other legal obligations or restrictions. With regard to the capitalization of subsidiaries in which Hamburg Commercial Bank and other shareholders have an interest, the approval of co-shareholders and their committees is also required in the event of a change in equity capital or own funds. In the case of subsidiaries which are also institutions, changes in equity capital have to be coordinated with the relevant supervisory authorities.

There is no capital shortfall for subsidiaries within the meaning of Article 436 point (d) CRR. Capital shortfall is the amount which the actual capitalization is less than the regulatory capital required.

Materiality, proprietary and confidentiality
Article 432(1) CRR allows institutions in principle to waive disclosure of one or more of the information referred to in Part 8 Title II CRR if it is not considered to be material. Generally Hamburg Commercial Bank meets all disclosure requirements without restrictions, with one exception, where an aggregation option due to immateriality is used. To meet the requirements of Article 442 points (d) to (f) CRR, some tables aggregate CRSA exposure classes, which represent an insignificant proportion of the total amount of exposure, into an overall CRSA position. Therefore, Hamburg Commercial Bank defines a maximum proportion of 8 % as insignificant. This corresponds to the regulatory limit for the permanent use of the standardized approach for credit risks (permanent partial use).

In addition, Article 432(2) CRR allows institutions to refrain from disclosing one or more of the items of information referred to in Part 8 Titles II and III CRR, if those items include information which is regarded as proprietary or confidential. Hamburg Commercial Bank has not made use of this option in this report.

Frequency of disclosure
In accordance with Article 433 CRR, Hamburg Commercial Bank publishes the information required under Part 8 CRR fully once a year as at 12.31.

For information to be disclosed more frequently than once a year, Hamburg Commercial Bank follows the "Guidelines on materiality, proprietary and confidentiality and on disclosure frequency" (EBA/GL/2014/14 as amended by EBA/GL/2016/11 Version 2 of 09.06.2017) as well as the BaFin Circular 05/2015 (BA) of 08.06.2015 on the implementation of the EBA Guidelines.

In accordance with Title VII (26) (b) of the amended EBA/GL/2014/14, Hamburg Commercial Bank provides disclosures on own funds, capital requirements, leverage ratio and credit risks semi-annually. In principle Title VII (25) (e) of the EBA/2014/14 requires disclosure of all information which may change rapidly during the year. Hamburg Commercial Bank therefore also publishes essential liquidity key figures semi-annually. Quarterly disclosure is not required as Hamburg Commercial Bank is not systemically relevant.

Means of disclosure

The Disclosure Report is published on Hamburg Commercial Bank's website under "Investor Relations" in accordance with Article 434 (1) CRR. The timing and medium of publication are communicated to the supervisory authorities.

Other sources of disclosure

As far as information is published in accordance with other regulations, the disclosure requirements may be deemed to have been met in accordance with Article 434(2) CRR. Hamburg Commercial Bank uses this rule for the topics listed below:

- Article 435(1) CRR requires institutions to disclose their risk management objectives and policies for each risk category, including counterparty credit risk, market risk including interest rate risk and operational risk. Hamburg Commercial Bank´s other major risk types include transformation risk and reputational risk. This information is provided in the Group Management Report (Risk Report) of the Hamburg Commercial Bank´s Annual Report. The information flow to the management body regarding risk issues is also described there pursuant to Article 435(2) (e) CRR.
- The number of management or supervisory functions held by members of the management body as well as the strategy and diversity strategy for the selection of members of the management body is described pursuant to Article 435(2) points (a) to (c) CRR in the Corporate Governance Report, the Group Management Report (Management declaration pursuant to § 289f and § 315d of the German Commercial Code (HGB)) as well as in the Group notes (Note 63 "Other disclosures in accordance with German commercial law" and Note 64 "Names of Board members and directorships held") of the Hamburg Commercial Bank´s Annual Report. Information on the Risk Committee pursuant to Article 435(2) (d) CRR can be found in the Report of the Supervisory Board of the Hamburg Commercial Bank.
- Under Article 438 point (a) CRR an institution shall disclose a qualitative summary of the approach used to assess the adequacy of its internal (economic) capital to support current and future activities. Therefore the internal procedures used to assess capital adequacy in relation to the risk profile as well as the strategy for maintaining the equity capital level must be described. The details are presented in the Group Management Report (Risk Report) of the Hamburg Commercial Bank´s Annual Report.
- A description of the approaches and methods applied for determining specific and general risk adjustments pursuant to Article 442 point (b) CRR is provided in the Group Management Report (Risk Report) and in the Group explanatory notes (Note 7 "Accounting and measurement principles") of the Hamburg Commercial Bank´s Annual Report.
- Hamburg Commercial Bank fulfills the requirements of Article 450 CRR in conjunction with § 16 (1) of the German Institutional Compensation Ordinance (Institutsvergütungsverordnung) by means of a separate remuneration report. This is published on the Hamburg Commercial Bank´s website.

Additional information under § 26a KWG (German banking act)

In accordance with § 26a (1) sentence 1 KWG, the legal and organizational structure as well as the principles of proper management of the Group are described in the Group Management Report (Basis of the Group and Risk Report) of the Hamburg Commercial Bank´s Annual Report.

The additional disclosure requirements for disclosure of CRR institutions pursuant to § 26a (1) sentence 2 KWG can be found as an Appendix to the consolidated financial statements ("Country by Country Reporting") in Hamburg Commercial Bank´s Annual Report.

Non-relevance and negative declarations

In principle, Hamburg Commercial Bank discloses all information in accordance with Part 8 Titles II and III CRR. However, some of the requirements are not relevant and are thereforenot disclosed. With the aim of clarity of disclosure, Hamburg Commercial Bank therefore explicitly lists a negative declaration for the information set out below:

- Hamburg Commercial Bank does not make use of Articles 7 and 9 CRR. Therefore, disclosure is not made in accordance with Article 436 point (e) CRR.
- The capital ratios are calculated exclusively using own funds calculated in accordance with CRR. Accordingly, there is no explanation under Article 437(1) (f) CRR.
- The transitional provisions introducing IFRS 9 in accordance with Article 437 point (a) CRR are not used. Therefore, there is no disclosure under EBA/GL/2020/12.
- Hamburg Commercial Bank´s portfolio does not include participations that are subject to grandfathering provisions with regard to capital adequacy requirements. Thus, a statement under Article 438(d) subpoint (iv) CRR is omitted.
- As Hamburg Commercial Bank does not calculate risk exposure in accordance with the provisions of Article 153(5) CRR, no disclosure in accordance with the second sentence of Article 438 CRR for specialized lending is made.
- Hamburg Commercial Bank uses the mark-to-market method for determining counterparty credit risk in accordance with Article 274 CRR. No methods based on internal models as referred to in Articles 283 to 294 CRR are used. Accordingly, no information according to Article 439 points (c) and (i) CRR on

the correlation risk pursuant to Article 291 CRR or on the estimate of the value α under Article 284 CRR are disclosed.

- Information pursuant to Article 441 CRR is not disclosed, as Hamburg Commercial Bank has not been classified as globally systemically relevant.
- Hamburg Commercial Bank uses its own estimates of LGD and conversion factors for risk position vis-à-vis central governments, central banks, institutions and corporates. Accordingly, there is no separate disclosure under Article 452(d) and (j) subpoint (ii) CRR for exposures where no own estimates of the above parameters are used.
- Hamburg Commercial Bank treats risk positions in retail exclusively using the standardized approach for credit risks. As a consequence, no information under Article 452(c) subpoint (iv) and (f) CRR are disclosed.
- Hamburg Commercial Bank does not use advanced measurement approaches to calculate capital requirements for operational risk. Information pursuant to Article 454 CRR is therefore not presented.
- The assignment of the external rating to the credit quality steps according to Article 444 point (d) CRR is not disclosed as Hamburg Commercial Bank uses the standard mapping of EBA according to Article 270 CRR.
- There is no disclosure under Article 455 CRR as no internal market risk model is applied.
- Hamburg Commercial Bank does not hold any securitization positions in the trading book. For this reason, no information is provided on the specific interest rate risk pursuant to Article 445 CRR or trading book securitization positions under Article 449 CRR, including the omission of the description pursuant to Article 449 point (q) CRR.
- Hamburg Commercial Banks´s portfolio does not contain any re-securitization receivables. Therefore, no disclosure according to Article 449 CRR, inter alia, Article 449(c) and (o) subpoint (ii) CRR is made.
- Hedging transactions for further retained re-securitization and other securitization positions did not exist at the reporting date. Therefore, there is no disclosure under Article 449 point (g) CRR.
- Hamburg Commercial Bank does not use an internal assessment approach for securitizations pursuant to Part 3 Title II Chapter 5 Section 3 CRR. Accordingly, no information is provided in respect of Article 449 point (l) CRR.
- Hamburg Commercial Bank´s portfolio does not include any securitized facilities with an early termination clause. Therefore, there is no disclosure under Article 449(n) subpoint (iv) CRR.
- Hamburg Commercial Bank is not active as an originator of securitizations. Therefore, a disclosure pursuant to Article 449 point (p) CRR is omitted.
- Hamburg Commercial Bank has not provided support under Article 248(1) CRR. A claim under Article 449 point (r) CRR is therefore not made.

1.2. Risk management concept

The description of the risk management objectives and -policy pursuant to Article 435 (1) CRR is made by applying Article 434 (2) CRR with the information contained in the Group Management Report (Risk Report) of the Hamburg Commercial Bank´s Annual Report in accordance with the references given in Table OVA. There are also supplementary descriptions of liquidity risk in Section 6, credit risk in Section 7 and counterparty credit risk in Section 8.

[Tab. 2] OVA: Concept of risk management

Regulatory requirements of Table OVA (EBA/GL/2016/11)		Reference CRR	Refer to Hamburg Commercial Bank's Annual Report
a)	Approved risk declaration describing the business model and the impact of the risk profile and material transactions within the banking group, equities and subsidiaries as well as its aim and economic impact	Article 435(1)(f)	Group Management Report (Basis of the Group) Page 36 - 40 Group Management Report (Risk Report) Page 76 - 77
b)	Risk governance structure, approved limits for risks, information concerning general internal monitoring processes and framework	Article 435(1)(b)	Group Management Report (Risk Report) Page 76 - 80
c)	Communication channels ensuring the risk culture within the bank	Article 435(1)(b)	Group Management Report (Risk Report) Page 79 - 80
d)	Scope and main aspects of risk measurement systems and description of the risk communication to the management body	Article 435(1)(c) and (2)(e)	Group Management Report (Risk Report) Page 77 - 80
e)	Policies regarding systematic and regular reviews of risk management strategies and the periodical assessment evaluation of their effectiveness	Article 435(1)(c)	Group Management Report (Risk Report) Page 80, 82, 87, 95, 97, 102
f)	Qualitative information concerning stress testing	Article 435(1)(a)	Group Management Report (Risk Report) Page 84 - 85, 95 - 96, 98
g)	Information concerning strategies and processes to manage, hedge and mitigate risks, as well as on the monitoring of the effectiveness of hedges and mitigants	Article 435(1)(a) and (d)	Group Management Report (Risk Report) Page 96

2. Own funds and capital requirements

2.1. Own funds structure and key figures

For the disclosure of own funds pursuant to Article 437(1) points (a), (b), (d) and (e) CRR, Hamburg Commercial Bank follows the Implementing Regulation (EU) 1423/2013 laying down implementing technical standards for institutions´ own funds disclosure obligations pursuant to CRR. Full disclosure takes place on an annual basis. Semi-annual, information on own funds and capital ratios is disclosed in accordance with paragraph 26(b) in conjunction with paragraph 25(a) the amended of EBA/GL/2014/14.

The following table KM1 folloes the proposal of BCBS 455 for the disclosure of key figures relating to own funds, capital ratios and other rapidly changing information. The Net Stable Funding Ratio (NSFR) is shown in the Risk Report of the Hamburg Commercial Bank's Management Report as at 31 December 2020.

[Tab. 3] KM1: Key figures

		31.12.2020	30.06.2020
	Composition of own funds for regulatory purposes in € m		
1	Common Equity Tier 1 capital (CET1)	4,193	4,129
	of which: CET1 before regulatory adjustments	4,322	4,339
	of which: Regulatory adjustments of CET1	– 129	– 209
	Additional Tier 1 capital (AT1)	–	–
	of which: AT1 before regulatory adjustments	–	–
	of which: Regulatory adjustments of AT1	–	–
2	Tier 1 capital (T1 = CET1 + AT1)	4,193	4,129
	Tier 2 capital (T2)	972	1,015
	of which: T2 before regulatory adjustments	972	1,015
	of which: Regulatory adjustments of T2	–	–
3	Total capital (TC = T1 + T2)	5,165	5,144
	Total risk exposure amount in € million		
4	Total RWAs	15,523	19,046
	Capital ratios as a percentage of total risk exposure		
5	Common Equity Tier 1 (CET1) ratio	27.0	21.7
6	Tier 1 capital ratio	27.0	21.7
7	Total capital ratio	33.3	27.0
	Capital buffers as a percentage of total risk exposure		
8	Capital conservation buffer requirement	2.5	2.5
9	Institution specific countercyclical capital buffer	0.0	0.0
10	Buffer for global/other systematically important institutions	–	–
11	Institution specific capital buffer requirement (rows 8 + 9 + 10)	2.5	2.5
12	CET1 available after meeting the bank's minimum capital requirements	22.5	17.2
	Leverage ratio		
13	Total leverage ratio exposure measure in € m	34,287	41,788
14	Leverage ratio in %	12.2	9.9
	Liquidity Coverage Ratio (LCR)		
15	Liquidity buffer in € m	6,770	7,945
16	Total net cash outflow in € m	3,990	4,792
17	LCR ratio in %	170.2	166.2

Explanation of significant changes

The Common Equity Tier 1 capital ratio of the regulatory group increased by 5.3 percentage points to 27.0% as at the reporting date. The increase in CET1 compared to the semi-annual reporting date results on the one hand from the profit as at 31 December 2020, which could be taken into account in CET1 for the first time at the same reporting date (on the basis of Article 26 (2) CRR), and on the other hand from the decrease in deductions from Common Equity Tier 1 capital. The decrease in accumulated other comprehensive income had the opposite effect. The RWA changes are disclosed in Section 2.2.

The leverage ratio increases to 12.2 % due to the decline in the total exposure measure and to a lesser extent to the increase in

Tier 1 capital. The reduction of the total exposure measure is caused by the portfolio decline.

The liquidity coverage ratio LCR is disclosed as an average value for the last 12 months. Therefore, it differs from the reporting date related disclosure in the Management Report of Hamburg Commercial Bank as at 31 December 2020. Details are provided in Section 6.2.

Disclosure of the nature and amounts of specific own funds items

For the presentation referred to in Article 437(1) points (d) and (e) CRR, the model for own funds disclosure set out in Annex IV of Implementing Regulation (EU) No 1423/2013 is used. The full disclosure of this information is provided in Table 65.

Complete reconciliation of own funds components with audited financial statements

The full reconciliation of own funds copmponents with audited accounts under Article 437(1)(a) CRR in conjunction with Article 2 of Implementing Regulation (EU) 1423/2013 is shown in Table 66.

The transfer takes place in three steps. In the first step, a reconciliation of the scope of consolidation under commercial law to the scope of consolidation under supervisory law as at 31 December 2020 is started. Due to the fact that the profit is taken into account on the same reporting date, the reconciliation is not based on the last audited reporting date. The equity components of the scope of consolidation under commercial law correspond to the equity information published in the annual financial statements of Hamburg Commercial Bank as at 31 December 2020. In the second step, the own funds components are expanded and regulatory effects are taken into account. Finally, the own funds components are allocated to the own funds items of the Group's regulatory reporting as at 31 December 2020.

Description of the main features of own funds instruments issued

The main features of the instruments issued by the Hamburg Commercial Bank, namely Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital, are described in Table 67 in accordance with Article 437(1)(b) CRR in conjunction with Article 3 of Implementing Regulation (EU) 1423/2013.

Information on transitional provisions for the disclosure of own funds

According to Article 492 (4) CRR, the use of transitional provisions under Article 484 CRR are disclosed. Hamburg Commercial Bank does not use these transitional provisions.

2.1.1. Terms and conditions of the own funds instruments

In accordance with Article 437 (1) (c) CRR, the regulatory equity instruments of Hamburg Commercial Bank are essentially composed as follows:

- The share capital amounts to € 3,018 million.
- The reserves of € 1,256 million compromises capital reserves (€ 82 million), other retained earnings (€ 158 million) and Group retained earnings (€ 1,016 million).
- the Tier 2 capital amounts to € 972 million and consists of longer-term subordinated liabilities of € 904 million and an eligible excess for advanced IRBA positions in accordance with Article 62(1)(d) CRR of € 68 million.
- Subordinated debt was issued in the form of promissory notes, registered or bearer bonds and is denominated in Euro and US Dollar. The original maturities range from 15 to 40 years. Interest rate is between 0.0 % p. a. to 6.4 % p. a.

The following table provides more detailed information on terms and conditions of the eligible equity components.

[Tab. 4] Terms and conditions of the own funds instruments

	Allocable total amount in € m			Remaining maturity < 5 years in € m	Remaining maturity >= 5 years in € m	Avg. remaining maturity in years	Avg. interest rate in %[1]
	of which CET1	of which AT1	of which T2				
Ordinary shares of Hamburg Commercial Bank AG	3,018	–	–	–	–	–	–
Allocable share capital of other entities included in the regulatory scope of consolidation	–	–	–	–	–	–	–
Silent participations with limited allocability, subject to transitional rules, indefinite and without payment triggers	–	–	–	–	–	–	–
Silent participations with limited allocability, subject to transitional rules, limited or with payment triggers	–	–	–	–	–	–	–
Profit participation certificates	–	–	–	-–	–	–	–
Permanently eligible subordinated liabilities	–	–	904	5	899	13	0.8
Subordinated liabilities subject to a transitional rule	–	–	–	–	–	–	–

[1] The information on interest refers to the interest payments actually made.

2.2. Capital requirements

Table OV1 shows the capital requirements relevant for Hamburg Commercial Bank in accordance with Article 438 letters c to f CRR in conjunction with paragraph 69 of EBA/GL/2016/11. The differentiated presentation in accordance with the requirements of EBA/GL/2016/11 is supplemented by an overview according to exposure classes in Table 438cd to fully comply with the requirements of Article 438 CRR. The capital requirements are explained below.

Credit risk and counterparty credit risk

Following approval by the responsible authorities, Hamburg Commercial Bank determines all risk parameters required to determine the risk weight internally. The risk-weighted position amounts for credit risk are thus calculated using the IRB approach in accordance with Part 3 Title II Chapter 3 CRR.

However, in the context of partial use, the standardized approach for credit risks in accordance with Part 3 Title II Chapter 2 CRR is applied for individual risk positions and for the companies to be consolidated. For this reason, information on the capital requirements for credit risk is presented in accordance with both the advanced IRB approach and the standardized approach to credit risk. In addition, the capital requirements for the risk arising from contributions to the default fund of a central counterparty are disclosed in accordance with Articles 307 to 309 CRR.

Hamburg Commercial Bank uses the PD/LGD approach and the simple risk-weight approach to determine the capital requirements for equity investments using the IRB approach. In addition, significant investments in a financial sector entity are separately backed by own funds in accordance with Article 48 CRR, provided that these are not deducted from own funds.

The capital requirement for credit risk (including counterparty credit risk and securitization risk, excluding deferred taxes) amounts to € 867 million. For an overall view, the € 166 million capital requirement reported in the additional risk position pursuant to Article 3 CRR must be added to the credit risk, resulting in a reduction of the credit risk to € 1,032 million compared to the previous period. The reduction in the capital requirement for credit risk mainly results from further portfolio reductions.

In the additional risk position according to Article 3 CRR, capital requirements continue to be entered that result from upcoming recalibrations, further developments and methodological revisions of individual IRB rating modules in the context of the new regulatory framework and regulations that will apply from the beginning of 2022, among other things.

Market risk

Hamburg Commercial Bank uses the standard procedures set out in Part 3, Title IV, Chapters 2 to 4 CRR to determine the capital requirements for market risks.

The capital requirements for market risks of € 3 million consist of the position risk. Due to falling below the 2% threshold in accordance with Article 351 CRR, there is no reporting of exchange rate risk. There is no commodity risk. The market risk changes are explained in Section 10.1.

Operational risk

Hamburg Commercial Bank uses the standard approach pursuant to Article 317 CRR to determine the capital requirement for operational risks. As at the reporting date, the capital requirement amounts € 109 million.

Overall capital requirements

In addition to credit risk, market risk and operational risk, Hamburg Commercial Bank also considers the risk of an adjustment to credit valuation (CVA risk) with own funds in accordance with Part 3, Title VI CRR. As at the reporting date, the capital requirements amounts to € 13 million.

There are no capital requirements for settlement risk pursuant to Part 3 Title V CRR and large exposures in accordance with Article 92(3) point (b) subpoint (ii) CRR.

There are further capital requirements pursuant to Articles 48 and 60 CRR amounting to € 84 million, which mainly result from deferred taxes. Deferred taxes are included in Table OV1 in row 27 and in Table 438cd in the IRBA exposure class "Other non credit-obligation assets".

As at the reporting date, total own funds requirements amounted to € 1,242 million.

[Tab. 5] OV1: Overview of risk weighted assets (RWA) in € million

			a	b	c
			RWAs		Minimum capital requirements
			31.12.2020	30.06.2020	31.12.2020
	1	Credit risk (excluding CCR)	10,156	12,487	812
Art. 438 (c)(d)	2	Of which the standardised approach	367	633	29
Art. 438 (c)(d)	3	Of which the foundation IRB (FIRB) approach	–	–	–
Art. 438 (c)(d)	4	Of which the advanced IRB (AIRB) approach	9,675	11,650	774
Art. 438 (d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	113	204	9
Art. 107, Art. 438 (c)(d)	6	CCR	730	969	58
Art. 438 (c)(d)	7	Of which mark to market	561	793	45
Art. 438 (c)(d)	8	Of which original exposure	–	–	–
	9	Of which the standardised approach	–	–	–
	10	Of which internal model method (IMM)	–	–	–
Art. 438 (c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	9	1	1
Art. 438 (c)(d)	12	Of which CVA	160	176	13
Art. 438 (e)	13	Settlement risk	–	–	–
Art. 449 (o)(i)	14	Securitization exposures in the banking book (after the cap)	110	88	9
	15	Of which IRB approach	–	–	–
	16	Of which IRB supervisory formula approach (SFA)	–	–	–
	17	Of which internal assessment approach (IAA)	–	–	–
	18	Of which standardised approach	110	88	9
Art. 438 (e)	19	Market risk	34	337	3
	20	Of which the standardised approach	34	337	3
	21	Of which IMA	–	–	–
Art. 438 (e)	22	Large exposures	–	–	–
Art. 438 (f)	23	Operational risk	1,366	1,366	109
	24	Of which basic indicator approach	–	–	–
	25	Of which standardised approach	1,366	1,366	109
	26	Of which advanced measurement approach	–	–	–
Art. 437 (2), Art. 48, Art. 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	1,054	1,060	84
Art. 500	28	Floor adjustment	–	–	–
		Additional risk exposure amount due to Article 3 CRR	2,074	2,740	166
	29	**Total**	**15,523**	19,046	**1,242**

[Tab. 6] 438cd: Capital requirements by exposure class in € million

Exposure class	RWAs		Capital requirements
	31.12.2020	30.06.2020	31.12.2020
Standardised Approach (CRSA)			
Central governments or central banks	–	–	–
Regional governments or local authorities	0	0	0
Public sector entities	15	52	1
Multilateral development banks	–	–	–
International organisations	–	–	–
Institutions	8	29	1
Corporates	346	554	28
Retail exposures	1	2	0
Exposures secured by mortgages on immovable property	11	19	1
Exposures in default	5	2	0
Exposures associated with particularly high risk	9	9	1
Covered bonds	–	–	–
Securitizations	110	88	9
Exposures to institutions and corporates with a short-term credit assessment	–	–	–
Shares in collective investment undertakings	–	–	–
Equities	–	–	–
Other items	–	–	–
Total CRSA	**505**	**754**	**40**
Advanced Internal Rating Based Approach (AIRB)			
Central governments and central banks	192	170	15
Institutions	552	435	44
Corporates	9,165	11,602	733
of which: Specialised lending	5,066	6,728	405
of which: SMEs	350	368	28
of which: Other	3,748	4,506	300
Retail exposures	–	–	–
Equity holdings	324	285	26
of which: Equity holdings using the PD/LGD approach	209	81	17
of which: Equity holdings using the simple risk weight approach	113	204	9
of which: Significant equity holdings in a financial sector entity (250%)	1	1	0
of which: Equity holdings using internal models	–	–	–
Securitizations	–	–	–
Other non credit-obligation assets	1,143	1,181	91
Total AIRB	**11,376**	**13,673**	**910**
Total	**11,880**	**14,427**	**950**

3. Countercyclical capital buffer

The amount of the institution specific countercyclical capital buffer and the geographical breakdown of the credit risk exposure relevant for the calculation of the countercyclical capital buffer is disclosed according to Article 440 CRR. The disclosure of the geographical distribution of credit risk exposures according to Article 440(1) (a) CRR in conjunction with Article 2 of Delegated Regulation (EU) 2015/1555 is provided in Table 8.

In columns 010 to 065, the exposure is disclosed separately according to general credit exposure, trading book exposure (i.e. specific market risk) and securitization exposure. The corresponding capital requirements are displayed in columns 070 to 100. Column 110 shows the weighting applied per country to the countercyclical capital buffer ratio. This results from the sum of the capital requirements per country divided by the sum of all capital requirements of the relevant credit exposures. Column 120 shows the corresponding countercyclical capital buffer of the respective country. This is to be published by the countries themselves.

The implementation of the disclosure of the countercyclical capital buffer differs from Table 1 in Annex I of Delegated Regulation (EU) 2015/1555 in the following respects:

- Column 040 "Risk positions in the trading book (internal models)" is not shown, as Hamburg Commercial Bank does not use internal models for market risks.
- In order to ensure consistency in content between the disclosure and the corresponding regulatory report on the countercyclical capital buffer, the presentation is expanded to include columns 065 and 095 to be shown in the report, which show "Other assets without credit obligations".

[Tab. 7] Countercyclical capital buffer

Total risk exposure amount (in € million)	15,523
Institution specific countercyclical capital buffer rate (in %)	0.031
Institution specific countercyclical capital buffer requirement (in € million)	5

[Tab. 8] Geographical breakdown of relevant credit exposures for the calculation of the countercyclical capital buffer in € million

	General credit exposures		Trading book exposure	Securitization exposure	Other	Capital requirements						
Breakdown by country[1]	Exposure value (SA)	Exposure value (IRB)	Sum of long and short position of trading book	Exposure value (SA)	Other assets without credit obligations	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitization exposures	Of which: Other assets without credit obligations	Total	Own funds require-ment weights	Countercyclical capital buffer rate
	010	020	030	050	065	070	080	090	095	100	110	120
AE	0	1	–	–	–	0	–	–	–	0	0.00	0.00%
AT	–	86	–	–	–	5	–	–	–	5	0.01	0.00%
AU	–	3	–	–	–	0	–	–	–	0	0.00	0.00%
BE	0	552	–	–	–	13	–	–	–	13	0.02	0.00%
BH	–	–	–	–	–	–	–	–	–	–	–	0.00%
BM	–	80	–	–	–	3	–	–	–	3	0.00	0.00%
BR	–	–	–	–	–	–	–	–	–	–	–	0.00%
CA	–	5	–	–	–	0	–	–	–	0	0.00	0.00%
CH	0	347	–	–	–	18	–	–	–	18	0.02	0.00%
CY	0	89	–	–	–	5	–	–	–	5	0.01	0.00%
DK	–	211	–	–	–	4	–	–	–	4	0.01	0.00%
EE	–	65	–	–	–	1	–	–	–	1	0.00	0.00%
ES	–	252	–	–	–	9	–	–	–	9	0.01	0.00%
FI	–	429	–	–	–	8	–	–	–	8	0.01	0.00%
FR	0	1,088	–	–	–	32	–	–	–	32	0.04	0.00%
GB	0	576	–	–	–	23	–	–	–	23	0.03	0.00%
GER	136	12,552	4	–	85	373	0	–	7	380	0.47	0.00%
GG	–	–	–	–	–	–	–	–	–	–	–	0.00%
GR	0	645	–	–	–	37	–	–	–	37	0.05	0.00%
HK	–	8	–	–	–	1	–	–	–	1	0.00	1.00%
HR	–	7	–	–	–	1	–	–	–	1	0.00	0.00%
IE	–	227	–	74	–	10	–	1	–	11	0.01	0.00%
IL	–	68	–	–	–	3	–	–	–	3	0.00	0.00%
IM	–	61	–	–	–	1	–	–	–	1	0.00	0.00%

	General credit exposures		Trading book exposure	Securitization exposure	Other	Capital requirements						
Breakdown by country[1]	Exposure value (SA)	Exposure value (IRB)	Sum of long and short position of trading book	Exposure value (SA)	Other assets without credit obligations	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitization exposures	Of which: Other assets without credit obligations	Total	Own funds require-ment weights	Countercyclical capital buffer rate
	010	020	030	050	065	070	080	090	095	100	110	120
IN	–	5	–	–	–	0	–	–	–	0	0.00	0.00%
IT	0	159	–	–	–	6	–	–	–	6	0.01	0.00%
JE	–	49	–	–	–	0	–	–	–	0	0.00	0.00%
JP	–	7	–	–	–	0	–	–	–	0	0.00	0.00%
KW	–	0	–	–	–	0	–	–	–	0	0.00	0.00%
KY	–	37	–	29	–	1	–	0	–	1	0.00	0.00%
LR	0	209	–	–	–	5	–	–	–	5	0.01	0.00%
LU	109	2,747	–	256	–	63	–	7	–	69	0.09	0.25%
MH	0	748	–	–	–	28	–	–	–	28	0.03	0.00%
MT	0	–	–	–	–	0	–	–	–	0	0.00	0.00%
NL	0	1,197	–	13	–	36	–	0	–	36	0.04	0.00%
NO	–	179	–	–	–	7	–	–	–	7	0.01	1.00%
NZ	–	49	–	–	–	2	–	–	–	2	0.00	0.00%
PA	0	45	–	–	–	2	–	–	–	2	0.00	0.00%
PL	–	36	–	–	–	0	–	–	–	0	0.00	0.00%
PT	–	153	–	–	–	9	–	–	–	9	0.01	0.00%
QA	–	–	–	–	–	–	–	–	–	–	–	0.00%
RU	–	20	–	–	–	0	–	–	–	0	0.00	0.00%
SA	–	4	–	–	–	0	–	–	–	0	0.00	0.00%
SE	–	372	–	–	–	15	–	–	–	15	0.02	0.00%
SG	–	178	–	–	–	5	–	–	–	5	0.01	0.00%
TH	0	–	–	–	–	0	–	–	–	0	0.00	0.00%
TR	0	93	–	–	–	2	–	–	–	2	0.00	0.00%
US	221	298	–	–	34	25	–	–	0	26	0.03	0.00%
VC	–	11	–	–	–	0	–	–	–	0	0.00	0.00%
VG	0	124	–	–	–	5	–	–	–	5	0.01	0.00%
ZA	–	320	–	–	–	30	–	–	–	30	0.04	0.00%
x28	–	–	–	–	–	–	–	–	–	–	–	0.00%
Total	468	24,394	4	373	120	789	0	9	7	805	1.00	

[1] Country code according to ISO 3166-1 ALPHA-2

4. Leverage ratio

According to Article 451 CRR, information on the leverage ratio must be disclosed. The leverage ratio is determined in accordance with Articles 429, 429a and 429b CRR in conjunction with the Implementing Regulation (EU) 2016/200.

The leverage ratio is the quotient of the Tier 1 capital and the total risk position measure. The total risk position measure is composed of assets and off-balance sheet transactions, taking into account valuation approaches specifically relevant to the leverage ratio.

As a risk-independent leverage ratio, the leverage ratio supplements the risk-based capital requirements. Currently, the leverage ratio is an observable parameter. As a benchmark, the Basel Committee on Banking Supervision set a leverage ratio of at least 3% in the framework for leverage ratio and disclosure requirements of January 2014. In June 2021, a mandatory ratio will be introduced, which will also be 3 % for Hamburg Commercial Bank.

In the following, the components of the leverage ratio are disclosed. In doing so, the option from Article 499 (2) CRR is used to disclose the Tier 1 capital only in accordance with Article 499 (1) (b) CRR, i.e. taking into account the Basel III transitional regulations.

[Tab. 9] LRSum: Summary reconciliation of accounting assets and leverage ratio exposures in € million

		Applicable Amount
1	Total assets as per published financial statements	33,815
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	– 18
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	– 622
5	Adjustments for securities financing transactions (SFTs)	–
6	Adjustment for off-balance-sheet items (ie conversion to credit equivalent amounts of off-balance-sheet exposures)	2,249
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	–
EU-6b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(14) of Regulation (EU) No 575/2013)	–
7	Other adjustments	– 1,139
8	**Leverage ratio total exposure measure**	**34,287**

[Tab. 10] LRCom: Leverage ratio common disclosure in € million

		CRR leverage ratio exposures CRR leverage ratio exposures
	On-balance-sheet exposures (excluding derivatives and SFTs)	
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	31,408
2	(Asset amounts deducted in determining Tier 1 capital)	– 129
3	**Total on-balance-sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**31,279**
	Derivative exposures	
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1,075
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	283
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)	– 609
8	(Exempted CCP leg of client-cleared trade exposures)	–
9	Adjusted effective notional amount of written credit derivatives	10
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	–
11	**Total derivatives exposures (sum of lines 4 to 10)**	**758**
	SFT exposures	
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	–
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–
14	Counterparty credit risk exposure for SFT assets	–
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b(4) and 222 of Regulation (EU) No 575/2013	–
15	Agent transaction exposures	–
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	–
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**–**
	Other off-balance-sheet exposures	
17	Off-balance-sheet exposures at gross notional amount	5,185
18	(Adjustments for conversion to credit equivalent amounts)	– 2,935
19	**Other off-balance sheet exposures (sum of lines 17 and 18)**	**2,249**
	Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on- and off-balance-sheet)	
EU-19a	(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on- and off-balance-sheet))	–
EU-19b	(Exposures exempted in accordance with Article 429(14) of Regulation (EU) No 575/2013 (on- and off-balance-sheet))	–
	Capital and total exposure measure	
20	Tier 1 capital	4,193
21	**Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**34,287**
	Leverage ratio	
22	Leverage ratio	12.2%
	Choice on transitional arrangements and amount of derecognised fiduciary items	
EU-23	Choice on transitional arrangements for the definition of the capital measure	transitional
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	–

[Tab. 11] LRSpl: Split-up of on-balance-sheet exposures (excluding derivatives, SFTs and exempted exposures) in € million

		CRR leverage ratio exposures
EU-1	Total on-balance sheet risk exposures (excluding derivatives, SFTs and exempted exposures), of which:	30,798
EU-2	Trading book exposures	4
EU-3	Banking book exposures, of which:	30,794
EU-4	Covered bonds	2,098
EU-5	Exposures treated as sovereigns	6,349
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	289
EU-7	Institutions	529
EU-8	Secured by mortgages of immovable properties	8,365
EU-9	Retail exposures	1
EU-10	Corporate	12,329
EU-11	Exposures in default	320
EU-12	Other exposures (e.g. equity, securitizations, and other non-credit obligation assets)	513

[Tab. 12] LRQua: Disclosure of qualitative items

1	Description of the processes used to manage the risk of excessive leverage	On the one hand, an ongoing supervision of the leverage ratio as at the reporting date (current state) and on the other hand, on a proactive perspective (forecast) is ensured. Moreover, in the frame of the stress tests, the development of the leverage ratio for various crisis scenarios is analysed. As a constraint, the compliance with the leverage ratio is considered in the annual corporate planning. The control of the leverage ratio can be adjusted inter alia with a balance limitation as required. The current amount of the leverage ratio, however, leads to expect that with the introduction of a compulsory leverage ratio that has to be met, there are no adjustments needed for the Tier 1 capital and total exposure measure.
2	Description of the factors that had an impact on the leverage ratio during the period to which the disclosed leverage ratio refers	At 12.2%, the leverage ratio increased by 2.3 percentage points above the value as of 30 June 2020 (9.9%). Further information on the change of the leverage ratio is provided in Section 2.1. There were no important external factors related to the economic and financial environment that had an impact on the leverage ratio.

5. Unencumbered assets

For the disclosure of unencumbered assets pursuant to Article 443 CRR, Hamburg Commercial Bank follows Delegated Regulation (EU) 2017/2295 on technical regulatory standards and Guideline EBA/GL/2014/03 on disclosure of encumbered and unencumbered assets.

According to the EBA definition, assets are encumbered or tied if they are not freely available for the institution to raise funds elsewhere. This is always the case if they are pledged or lent, i.e. used to secure the bank´s own loans and securities and to secure potential obligations from the derivatives business (netting and collateral agreements) within the framework or off-balance sheet transactions.

Information on the amount of the load

The encumbrance ratio pursuant to Article 100 CRR is around 42 % at the median for the financial year and fluctuated around the median over the course of the year.

The majority (approx. 82 %) of the encumbered assets and collateral received result from covered bond issues (cover pool), development bank business and ABF transactions as well as collateral and netting agreements from derivative transactions.

The remaining encumbered assets are divided between collateral for payment lines, collateral for repurchase agreements and securities lending transactions. As at 31.12.2020, derivative assets are included in consideration of balance sheet netting with the collateral.

At Group level, all encumbered assets relate to the transactions of Hamburg Commercial Bank AG.

Overcollateralization is present to a significant extent in the refinancing of covered bonds, ABF transactions and repurchase agreements.

The provision and acceptance of collateral is essentially based on standardized contracts for security repurchase agreements and for the collateralization of financial futures transactions. Moreover, the bank concludes individual contracts for the provision of collateral within the framework of development bank transactions and for ABF transactions.

Hamburg Commercial Bank provides various types of collateral for several business purposes. As at 31 December 2020, the majority consisted of cash collateral amounting to around € 1.2 billion for derivatives and partly for the development bank business. In addition to approximately € 0.4 billion in (commercial) loans, around € 0.1 billion in securities and promissory notes are pledged as collateral for payment and trading lines. Furthermore, own covered bonds are used as collateral for targeted longer-term refinancing transactions of around € 3 billion.

In the context of covered bond business (public mortgage register, mortgage bonds register and ship mortgage bond register), both the cover pools and the rating-related surplus as well as the issuable, free surplus are shown as encumbered assets.

In addition to unencumbered debt securities and equity instruments, unencumbered other assets are also shown in the following table.

Of the median of around € 3.1 billion in unencumbered other assets, around 70 % are receivables from the derivatives business, 18 % belong to deferred tax and around 7 % are assets for sale.

[Tab. 13] Assets in € million

	Carrying amount of encumbered assets	of which: notionally eligble EHQLA and HQLA	Fair value of encumbered assets	of which: notionally eligble EHQLA and HQLA	Carrying amount of unencumbered assets	of which: EHQLA and HQLA	Fair value of unencumbered assets	of which: EHQLA and HQLA
	010	030	040	050	060	080	090	100
010 Assets of the reporting institution	**16,532**	**588**			**23,147**	**6,576**		
030 Equity instruments	–	–			9	–		
040 Debt securities	999	588	999	588	4,643	4,379	4,358	4,358
050 of which: covered bonds	8	8	8	–	2,569	2,535	2,569	2,535
060 of which: asset-backed securities	–	–	–	–	117	–	88	–
070 of which: issued by general governments	986	575	986	575	1,509	1,509	1,509	1,509
080 of which: issued by financial corporations	38	20	38	–	3,047	2,823	2,761	2,761
090 of which: issued by non-financial corporations	–	–	–	–	96	–	97	–
120 Other assets	15,559	–			18,214	1,980		
121 of which: Loans on demand	1,017	–			2,170	1,980		
122 of which: Loans and advances other than loans on demand	13,364	–			14,108	–		

[Tab. 14] Collateral received in € million

			Unencumbered	
	Fair value of encumbered collateral received or own debt securities issued	of which: notionally EHQLA and HQLA	Fair value of collateral received or own debt securities issued available for encumbrance	of which: EHQLA and HQLA
	010	030	040	060
130 Collateral received by the reporting institution	**61**	**48**	**249**	**178**
140 Loans on demand	–	–	–	–
150 Equity instruments	–	–	–	–
160 Debt securities	61	48	249	178
170 of which: covered bonds	61	48	154	141
180 of which: asset-backed securities	–	–	–	–
190 of which: issued by general governments	3	3	23	23
200 of which: issued by financial corporations	61	48	202	141
210 of which: issued by non-financial corporations	–	–	19	5
220 Loans and advances other than loans on demand	–	–	–	–
230 Other collateral received	–	–	–	–
240 Own debt securities issued other than own covered bonds or asset-backed securities	–	–	170	–
241 Own covered bonds and asset-backed securities issued and not yet pledged			2,425	–
250 TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	16,592	655		

[Tab. 15] Encumbered assets, collateral received and associated liabilities in € million

	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
	010	030
010 Carrying amount of selected financial liabilities	**13,245**	**15,045**
011 of which: derivatives	1,836	2,185
012 of which: repurchase agreements	26	27
013 of which: collateralised deposits other than repurchase agreements	5,534	5,938
014 of which: debt securities issued	5,493	6,672
015 thereof: nominal value of loan commitments received	539	1,573

6. Liquidity risk

Hamburg Commercial Bank divides its liquidity risk into insolvency risk and liquidity maturity transformation risk.

The insolvency risk is the risk that current or future payment obligations cannot be met in part or in full. This is referred to as liquidity risk in the narrower sense. The key driver of this liquidity risk is the cash flow structure in the liquidity maturity statement (LMS), which is determined by the assets (maturity/currency structure) and liabilities (funding structure by maturity/currencies/investors). In this context, the market liquidity risk, i.e. the risk that transactions cannot be sold or only at unfavorable conditions due to insufficient market depth, is taken into account in the LMS as a component of the insolvency risk. Another component of insolvency risk is the refinancing risk, i.e. the risk of not being able to procure liquidity or not being able to do so to the expected conditions if required. The refinancing risk is determined by the refinancing structure. Information on the refinancing structure can be found in Note 49 to the consolidated financial statements "Residual maturity breakdown of financial instruments" in the Hamburg Commercial Bank's Annual Report.

The liquidity maturity transformation risk describes the risk that a loss will result from a mismatch in the contractual maturities of assets and liabilities, the so-called liquidity maturity transformation position, and the change in the Bank's own refinancing premium, which depends on its credit rating and which the Bank has to pay on the market.

6.1. Liquidity risk management

In this section, the risk management objectives and policy for liquidity risk are disclosed in continuous text form in accordance with Article 435(1) CRR in conjunction with paragraph 17 and Table LIQA of EBA/GL/2017/01.

6.1.1. Strategies and processes in the liquidity risk management

The business strategy and the associated risk appetite of Hamburg Commercial Bank are used to derive an appropriate risk strategy and risk management (overall risk strategy), which together form the basis of the bank´s risk culture. The liquidity risk strategy or liquidity risk tolerance, which adequately take into account the liquidity risks of the business model, is embedded in the overall risk strategy.

The liquidity risk strategy is part of the Strategic Risk Framework (SRF), which describes the risk strategic orientation and overall risk strategy. Together with Policy Liquidity Management (part of the Asset Liability Management Policy document), this liquidity risk strategy describes Hamburg Commercial Bank´s framework for dealing with liquidity and the associated risks. These framework conditions from the strategies/policies mentioned are summarized and partly specified in the framework document ILAAP Framework.

The corresponding risk appetite or risk tolerance are defined by the Group Management Board. Liquidity risk management is the responsibility of the divisions Bank Steering, Capital Markets and Risk Control.The liquidity risk strategy specifies Hamburg Commercial Bank´s risk strategy with regard to the question of how the Group wishes to structure its risk appetite with regard to liquidity risk, i.e. under which conditions and to which extent the Group may be prepared to enter into liquidity risk positions within the framework of the requirements of the regulator or the owners. In each case, the focus is on how the bank´s earnings expectations and risk appetite can be reconciled.

In addition to risk-bearing capacity, securing solvency at all times is of overriding importance for Hamburg Commercial Bank and is therefore the most important objective in managing liquidity risks. The Strategic Risk Framework formulates in detail the principles for risk controlling of the resource liquidity. In particular, it refers to the sub-processes of liquidity risk measurement, -monitoring-, limiting, -stress testing and reporting in operational liquidity management.

In contrast to this, the Liquidity Management Policy, as part of the Asset Liability Management Policy, formulates the principles for the management of the resource liquidity. The main objectives of liquidity management are to ensure solvency at all times and to manage liquidity under the condition that the relevant regulatory and internal ratios are met.

A distinction has to be made between the following liquidity risk management processes:

- **Risk identification:** The main liquidity risks and their drivers are identified as part of risk identification. On the basis, the Board of Managing Directors determines risk tolerances for the main liquidity risks and at the same time defines the liquidity risk strategy of Hamburg Commercial Bank.
- **Risk measurement:** Risk measurement focuses on the adequate measurement of material liquidity risks under conservative assumptions (risk perspective). The central instruments for this purpose are LMS, which show potential liquidity gaps over time. Moreover, risk measurement also includes stress testing, the measurement of risk concentrations as well as the calculation of regulatory ratios. In addition, regular backtesting of the models used is performed.

- **Risk limitation and monitoring:** The relevant limits are derived directly from risk tolerance (internal limits) or are defined by regulatory indicators (external limits). Limit monitoring, including escalation, is also part of this process step.
- **Risk management:** The fundamental task of risk management is to implement the liquidity risk strategy and to control compliance with internal and external (regulatory) limits. The main instruments used to manage the liquidity position are funding planning and the liquidity price allocation system. Safeguarding solvency at all times is also a key task of risk management. The main instruments for this are the liquidity buffer and the measures of the liquidity contingency plan.
- **Reporting:** In liquidity risk reporting, key internal and external indicators and their compliance with limits are reported.

6.1.2. Structure and organization of the liquidity risk management function

The Board of Managing Directors bears overall responsibility for the measurement, monitoring and management of material liquidity risks. As part of the operationalization of the risk management process at Hamburg Commercial Bank, tasks are allocated to subordinate bodies and organizational units with a clear division of tasks between liquidity management and risk monitoring. The organizational units and bodies have the following tasks and responsibilities with regard to liquidity as a resource:

Organisational units

Risk Control (RC): Within the context of risk measurement and monitoring, RC is responsible for all methods, procedures and technical implementation in liquidity risk controlling, meaning that it is also the central point of contact for internals and externals (e.g. supervisory authorities, auditors, rating agencies) for questions relating to this. When designing the risk measurement systems, the unit takes into account economic and normative requirements for liquidity management as possible and thus supports efficient liquidity management. It proposes the methods for the liquidity measurement system and the limits for the liquidity risk limit system, including stress scenarios, determines the extent of the liquidity buffer and coordinates committee resolutions on these. Additionally the unit is responsible for the regular monitoring and reporting of liquidity risks. In addition, it monitors upcoming changes in supervisory legislation and derives necessary measures as well as implements the requirements of supervisory law.

Bank Steering: The business unit Bank Steering acts as the Global Head for liquidity and is responsible for strategic liquidity management within the framework of the risk limits and risk specifications of the Board of Managing Directors. This involves balancing the liquidity position in order to adhere to the liquidity risk limits (risk of insolvency and liquidity maturity transformation risk) on the one hand and on the other includes responsibility for adhering to the supervisory requirements with regard to liquidity management. Moreover, Bank Steering has sovereignty over the funding strategy and the funding plan, including the formulation of targets to avoid concentrations in the funding strategy, the liquidity price allocation system, the liquidity contingency plan and the composition of the liquidity buffer.

Capital Markets / Treasury (CM): CM is responsible for the operational implementation of the framework requirements defined in connection with strategic liquidity management and liquidity risk measurement. In addition to the function of acting within the bank as an internal liquidity pool for internal liquidity acceptance and provisions, this also includes liquidity access to the central banks via open market transactions, daily dispositive liquidity management and ensuring solvency with regard to the limits defines in liquidity risk measurement.

Management bodies

Group Management Board: The Group Management Board determines the bank's business and risk strategy. Within risk strategy it is also responsible for measuring and managing liquidity risks. This responsibility is reflected in the adoption of the liquidity risk strategy as part of the SRM and, as a result, the determination of the risk tolerance or risk appetite appropriate to Hamburg Commercial Bank concerning liquidity risks. In addition, the Management Board is responsible for approving the liquidity and funding planning, the liquidity contingency planning and other overlying documents.

Risk Committee of the Supervisory Board: The Risk Committee is informed of the liquidity risk situation and other matters by the Chief Risk Officer on a quarterly basis.

Asset Liability Committee (ALCO): The ALCO is the body responsible for financial resource management and allocation within the context of risk limits and plan targets. The primary objective of the ALCO is the monitoring and management of the scarce resources of liquidity/funding, capital and the risks associated with these bottleneck factors (including risk concentration, credit spread, liquidity, FX and interest rate risks). In addition, Management Board decisions on these topics are prepared and pre-structured. ALCO performs its activities based on the ALCO rules of procedure. With regard to liquidity risk, it assesses the liquidity risk position, amongst other things, and makes decisions regarding methodological changes in liquidity risk controlling and limit changes and in the event of limit overdrafts. The ALCO also makes decisions on measures for managing liquidity and strategic liquidity maturity transformation (e.g. strategic adjustments to the liquidity cost calculating, defining funding targets and strategy).

Franchise Committee (FRC): The FRC is responsible for the operational management of the use of resources in the lending business at the level of material individual transactions. It decides independently on the allocation of these resources. This Committee is involved in the management of new business and prolongations. The aim is to approve business transactions that are in line with strategy and with liquidity outflows that can be funded within the context of liquidity planning.

6.1.3. Scope and type of liquidity risk reporting and measurement systems

Liquidity risk is measured using LMS and Liquidity Value at Risk (LVaR). The LMS represents the liquidity situation of Hamburg Commercial Bank over time. The balances arising in the individual maturity bands through aggregation of the balance sheet and off-balance-sheet inflows and outflows are referred to as liquidity gaps. The inflows and outflows of liquidity from assets and liabilities and from off-balance-sheet positions are determined using appropriate assumptions and models, taking into account the underlying scenarios. The assumptions, models and model parameters made are regularly validated depending on the estimated model risk content.

The LMS take certain cash flows into account (e.g. contractual principal repayments) and uncertain cash flows (e.g. early terminations) together with existing and planned transactions. The classification of cash flows into the categories "certain" and "uncertain" is based on whether the timing and the amount of the cash flows is known. If one of these two parameters is unknown, it is modelled.

In addition to the LMS described above, which is prepared for the period up to 12 months and under risk aspects (risk case) for the purpose of risk measurement, there is an expected case LMS, which contains expected cash flows (expected case).

In line with the requirements of MaRisk, risk measurement under aggravated and extreme market conditions is an important component of risk management for the bank. Risk measurement for aggravated and extreme market conditions is performed for the intraday, short-term und structural insolvency risk and the liquidity maturity transformation risk.

The measurement of the intraday insolvency risk is based on the internal ratio of the adjusted account balance and the regulatory ratios in accordance with BCBS 248 for the TARGET2 account at the Bundesbank. Hamburg Commercial Bank carries out most its interbank payment transactions via the TARGET2 account with the Bundesbank, which is why the material intraday liquidity risks may arise on this account.

Hamburg Commercial Bank measures its liquidity maturity transformation risk using a value at risk approach and calculates a liquidity value at risk (LVaR). The LVaR is calculated using a historical simulation (confidence level 99.9 %) of the liquidity spreads and their present value effects on the transactions that would theoretically be necessary to be able to close the current maturity transformation position immediately without considering new business. The risk measurement includes the base case LMS without taking into account new business, available refinancing channels (e.g. residues of deposits, covered and uncovered refinancing) to close the LMS gaps and changes in the bank's own refinancing curves. It is assumed that these hypothetical close-out transactions could actually be concluded on the market and that full refinancing would thus be possible.

In addition, a LMS is prepared for the over-year range, which takes risk aspects such as the base case LMS into account. In contrast to the base case LMS during the year, it only takes into account existing business and no new business.

The aim of the liquidity risk strategy is to avoid risk concentrations as far as possible within the framework of the business model. Concentration risks on the assets and liabilities side are regularly quantified and continuously monitored by means of indicators (e.g. investor, sector and maturity concentration for depositors) and inverse stress tests (e.g. on the withdrawal of deposits). In addition, concentration risks are conservatively taken into account in the various LMS scenarios by means of cash flow models specially focused on this and by means of risk premiums and discounts in the model parameters.

Furthermore, a separate USD LMS (only USD denominated asset/liability transactions and off-balance-sheet positions) is calculated.

A limit is set out for the intraday, short-term and structural insolvency risk as well as for the liquidity maturity transformation risk, which reflects the risk tolerance of the Board of Managing Directors.

According to the CRR, Hamburg Commercial Bank is required to report the LCR (here in conjunction with the Delegated Regulation (EU) 2015/61), the net stable funding ratio (NSFR) and the additional monitoring metrics for liquidity reporting (AMM). The required positions are reported to the competent authorities monthly for LCR and AMM and quarterly for NSFR. The Management Board is also informed on a monthly basis about the amount and development of these figures reported to the competent authorities.

For monitoring and management reasons, Hamburg Commercial Bank also prepares further ratios such as the liquidity capacity period, which reflects the legal term of the cash flows.

6.1.4. Strategies for hedging and mitigating liquidity risk as well as strategies and processes for monitoring the ongoing effectiveness of hedges and mitigations

The liquidity risk is generally hedged and mitigated within the context of risk limitation, monitoring and liquidity management.

The risk limits are essentially derived from the risk tolerance levels and the regulatory requirements. A distinction is made between the risk tolerance levels for insolvency risk and for the liquidity maturity transformation risk.

The intraday, the short-term and the structurally insolvency risk as well as the liquidity maturity transformation risk are monitored.

The fundamental task of liquidity management is the implementation of the liquidity risk strategy and the management of compliance with internal and external (regulatory) limits. This is done primarily by using the following tools:

- The intraday liquidity risk is managed on the basis of intra-day liquidity available for payment transactions at Group level. This involves the management of available liquidity, which consists of collateral deposited at central banks, balances with central banks and nostro accounts at correspondent banks.
- The tools used to secure short-term solvency (hedge against the short-term insolvency risk) are the liquidity buffer and the measures set out in the liquidity contingency plan.
- The short-term risk of insolvency is managed, among other things, by defining management limits and guidelines. The aim is to comply with the limits with regard to LMS. The main tools used for management purposes are the funding plan and the liquidity transfer pricing system.
- The risk of a future shortfall in regulatory minimum liquidity is quantified by monthly forecasting of the most serious stress scenario over a time horizon in line with medium-term planning (36 months). The measure is the net liquidity position (NLP). The forecast of the future liquidity surplus is carried out in the bank planning process both for the expected course of business and under adverse planning assumptions (downside planning and downside with downgrade planning). In addition, this instrument is used for restructuring planning and the inverse stress tests across risk types, in which future compliance with the regulatory minimum liquidity is checked under various stress scenarios.
- The LVaR as a risk measure for the liquidity maturity transformation risk is an observation variable for management which, however, is not actively but implicitly controlled by funding planning, the liquidity price allocation system and compliance with short-term limits.
- Compliance with regulatory limits is an essential basis for risk management. It must be ensured that the regulatory requirements are met at all times. Management guidelines are defined for this purpose.

Strategies for hedging and mitigating the liquidity risk also include the application of a transfer pricing concept. If a transaction which is relevant from a liquidity perspective is executed, this transaction generates a corresponding liquidity flow in the LMS. As a result, a counter-position is entered into to prevent a breach of liquidity risk limits, which mitigates the corresponding liquidity position. This counter-transaction results either in cost or income for the bank which is charged on to the originator of the counter-transaction. In the consistent inclusion of the liquidity cash flows associated with liquidity risk measurement in internal liquidity transfer pricing, all costs and income incurred by the bank because of liquidity flows are passed on in full to the originator.

Hamburg Commercial Bank's liquidity transfer pricing system is based on the liquidity risk modelling of the Risk Control division. The aim is to transfer the LMS values (or loads) into a price settlement system in order to ensure consistent control.

6.1.5. A statement, approved by the management body, on the adequacy of the institution's liquidity risk management arrangements ensuring that the liquidity risk management systems in place are appropriate to the institution's profile and strategy.

The Management Board of Hamburg Commercial Bank declares the adequacy of the liquidity position (ILAAP declaration) as part of the annual provision of ILAAP information to the ECB. The Management Board believes that the existence of adequate liquidity is underpinned in particular by the following aspects:

- Sustainable governance to assess and monitor adequacy
- Compliance with SRF limits in the actual state, base case planning and downside planning
- Compliance with the regulatory requirements
- Compliance with the liquidity risk ratios for the restructuring plan
- Consideration of strategic business risks

6.1.6. Statement on the liquidity risk profile associated with the business strategy

According to point six of Table LIQA of EBA/GL/2017/01, a concise liquidity risk statement, approved by the management body and describing briefly and concisely the overall liquidity risk profile of the institution associated with the business strategy, is to be provided. Hamburg Commercial Bank comments on this as follows.

Hamburg Commercial Bank´s liquidity risk profile includes short- and long-term risks. The short-term liquidity risk, of up to one year, essentially comprises the intraday and short-term insolvency risk as well as concentration risks. For Hamburg Commercial Bank the long-term liquidity risk is primarily the risk arising from the transformation of liquidity maturities or the risk of insolvency for more than one year. Further details are provided in the Group Management Report (Risk Report) of Hamburg Commercial Bank. The table "Key risk indicators of the Group" also contains key liquidity ratios.

Based on Hamburg Commercial Bank´s risk appetite, the SRF describes the bank´s risk-strategic orientation and risk management thus forms the foundation of its risk culture. The SRF is approved by the Management Board. All risk limits and risk guardrails derived from risk appetite are also integrated in the SRF.

6.2. Liquidity ratios

This section discloses material quantitative liquidity risk information in accordance with Article 435(1) CRR in conjunction with paragraph 14 and Table LIQ1 of EBA/GL/2017/01. Hamburg Commercial Bank is not classified as systemically relevant. Therefore, the more extensive disclosure pursuant to paragraphs 13, 18 and 19 of EBA/GL/2017/01 is waived.

The LCR is disclosed as the average value of the last 12 months. Starting from a high level, the LCR initially decreases over the course of the year as the bank continues its transformation and, after a slight countermovement in the second half of the year, stabilises at an overall lower level compared to the initial value. With a significantly reduced balance sheet total over the course of the year and correspondingly reduced inflows and outflows as well as liquidity buffers, the LCR is still clearly above the regulatory minimum size requirement of 100%.

[Tab. 16] LIQ1: Liquidity Coverage Ratio (LCR)

Scope of consolidation	Total adjusted value			
Currency and units: € m				
Quarter ending on:	31.03.2020	30.06.2020	30.09.2020	31.12.2020
Number of data points used in the calculation of the averages	12	12	12	12
21 Liquidity buffer	8,653	7,945	7,505	6,770
22 Total net cash outflows	4,858	4,792	4,432	3,990
23 Liquidity coverage ratio (in %)	180.2	166.2	170.4	170.2

7. Default risk

Hamburg Commercial Bank breaks down its default risk into credit,settlement, country and equity holding risk.

In addition to classic credit risk, the credit risk also includes counterparty credit risk (see Section 8) and issuer risk. Classic credit risk is the risk of total or partial loss due to a deterioration in the creditworthiness of the counterparty in credit transactions. Issuer risk is the risk that a financial transaction will lose value due to a default or a deterioration in the creditworthiness of an issuer.

The settlement risk consists of the settlement risk and the advance performance risk. The settlement risk consists of a possible loss in value if delivery or acceptance claims arise from a transaction that is already due and has not yet been settled by both parties. An advance performance risk exists if Hamburg Commercial Bank has already fulfilled its contractual obligations but the counter-performance by the contractual partner is still outstanding.

Hamburg Commercial Bank defines country risk as the risk that agreed payments will not be made or will be made only partially or late due to government imposed restrictions on cross-border payment transactions (transfer risk). The risk is not based on the creditworthiness of the debtor.

Equity holding risk is defined as the risk of financial loss due to impairment of an investment.

All the aforementioned components of default risk are taken into account as part of equity management. There are additional control measures for risk concentrations and equity holding risks.

Hamburg Commercial Bank complies with EBA/GL/2016/11 for the disclosure of default risk. In the tables in the default risk Section, counterparty credit risk and securitizations are not taken into account as they are presented separately. Exceptions are described explicitly. In this section "Other assets without credit obligations" are shown without the values for deferred taxes.

As Hamburg Commercial Bank, as an IRBA institute, complies with the regulatory upper limit in the context of permanent partial use and therefore the CRSA portfolio is of no material importance, in this section the CRSA exposure classes are aggregated into one position. Tables CR4 and CR5 acc. to EBA/GL/2016/11 are an exception, in which the assignment of the CRSA exposure classes are shown in detail.

Risk management objectives and policies

The risk management objectives and policies for default risk pursuant to Article 435(1) CRR are described on the basis of Article 434(2) CRR within the statements provided in the Group Management Report (Risk Report) of Hamburg Commercial Bank's Annual Report according to the references of the following table.

[Tab. 17] CRA: General and qualitative information about credit risk

Regulatory requirements of Table CRA (EBA/GL/2016/11)		Reference CRR	Refer to Hamburg Commercial Bank's Annual Report
a)	Coherence between business model and credit risk profile	Article 435(1)(f)	Group Management Report (Basis of the Group) Page 36 – 40 Group Management Report (Risk Report) Page 76 - 77
b)	Criteria and concepts determining the policy of credit risk management and defining limits for credit risks	Article 435(1)(a) and (d)	Group Management Report (Risk Report) Page 77, 85 - 86
c)	Structure and organisation of credit risk management and monitoring function	Article 435(1)(b)	Group Management Report (Risk Report) Page 78 - 79, 85 - 86
d)	Relation between the credit risk management, risk control function, compliance and the internal audit	Article 435(1)(b)	Group Management Report (Risk Report) Page 78 - 79

7.1. Credit risk adjustments

Tables CR1-A to CR1-C disclose, in accordance with Article 442 points (g) and (h) CRR in conjunction with paragraph 84 to 89 of EBA/GL/2016/11, book values and credit risk adjustments (without Additional Value Adjustments (AVA) according to 105 CRR) per exposure class, economic activity and geographical area. The disclosure is based on the geographical and sectoral breakdown used in the Annual Report. Further information is not significant.

According to paragraph 38 of EBA/OP/2017/02 risk provision under IFRS 9 is to be regarded as a specific credit risk adjustment. Therefore, column d always remains empty.

Forborne and non-performing exposures are disclosed annually in accordance with EBA/GL/2018/10. Tables CR1-D and CR1-E of EBA/GL/2016/11 are therefore omitted in accordance with paragraph 17 of this guideline.

The reduction in gross carrying amounts compared with the previous period is due to portfolio declines.

[Tab. 18] CR1-A: Credit quality of exposures by exposure class and instrument in € million

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Exposure class	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Central governments and central banks	–	6,242	0	–	–	– 0	6,242
2	Institutions	–	3,141	0	–	–	0	3,141
3	Corporates	680	25,707	601	–	262	– 208	25,786
4	Of which: Specialised lending	252	16,319	311	–	176	– 107	16,261
5	Of which: SMEs	38	1,412	32	–	3	– 3	1,417
6	Retail	–	–	–	–	–	–	–
14	Equity	0	125	–	–	– 560	–	125
	Other non credit-obligation assets	–	120	–	–	–	–	120
15	**Total IRBA**	**680**	**35,334**	**601**	**–**	**– 297**	**– 208**	**35,413**
35	**Total CRSA**	**7**	**854**	**3**	**–**	**2**	**– 4**	**858**
36	**Total**	**687**	**36,188**	**603**	**–**	**– 295**	**– 212**	**36,272**
37	Of which: Loans	586	25,576	572	–	264	– 204	25,591
38	Of which: debt securities	–	5,415	1	–	–	0	5,414
39	Of which: Off-balance-sheet exposures	101	5,094	28	–	–	– 8	5,166

[Tab. 19] CR1-B: Credit quality of exposures by industry or counterparty types in € million

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	Main Branch	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Credit institutions	–	3,787	0	–	–	0	3,787
2	Other financial institutions	0	1,049	1	–	24	0	1,048
3	Public sector	2	6,202	1	–	–	– 0	6,203
4	Private Households	36	194	16	–	0	13	214
5	Properties and buildings	142	8,138	162	–	96	11	8,118
6	Shipping	133	3,132	134	–	153	– 217	3,131
7	Industry	81	6,534	94	–	4	– 18	6,522
8	Trade and transport	71	2,298	58	–	4	– 13	2,311
9	Other services	222	4,580	136	–	21	12	4,665
10	Other	0	274	0	–	–	0	274
11	**Total**	**687**	**36,188**	**603**	**–**	**303**	**– 212**	**36,272**

[Tab. 20] CR1-C: Credit quality of exposures by geography in € million

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net values
	Main region	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Germany	531	26,668	434	–	125	42	21,220
2	Eurozone (w/o Germany)	42	10,003	110	–	– 0	– 30	9,459
3	Western Europe (w/o Eurozone)	308	3,006	121	–	102	50	2,806
4	Eastern Europe (w/o Eurozone)	21	215	8	–	3	– 1	196
5	African countries	22	452	29	–	–	6	369
6	North America	–	916	18	–	–	14	878
7	Latin America	94	247	43	–	–	39	172
8	Middle East	–	92	1	–	–	1	71
9	Asia Pacific Region	209	1,310	49	–	22	– 243	952
10	International organisations	–	136	0	–	–	– 0	135
11	Other	–	14	–	–	–	–	15
12	**Total**	**1,228**	**43,060**	**813**	**–**	**253**	**– 121**	**36,272**

Table CR2-A provides information concerning the changes in the stock of general and specific credit risk adjustments of loans and debt securitizations according to Article 442(i) CRR in conjunction with paragraph 91 of EBA/GL/2016/11. Except for exchange rate effects, data is transferred directly from FINREP. Due to the different description for securitization positions and different considerations of provisions the data cannot be compared with Table CR1-A to CR1-C as they are based on the regulatory reporting (COREP). The structure of the table correspond to the disclosure in FINREP reporting form F12.01 and therefore deviates from the template of EBA/GL/2016/11.

The amount of the specific credit risk adjustments directly transferred to the Profit and Loss according to the last sentence of Article 442 CRR is also presented in Table CR2-A.

[Tab. 21] CR2-A: Changes in the stock of general and specific credit risk adjustments in € million

		a	b
		Accumulated specific credit risk adjustments	Accumulated general credit risk adjustments
1	**Opening balance 30.06.2020**	**825**	**–**
2	Increases due to origination and acquisition	+ 514	–
3	Decrease due to derecognition repayments and disposals	– 318	–
4	Changes due to change in credit risk (net)	+ 19	–
5	Changes due to modifications without derecognition (net)	–	–
6	Changes due to update in the institution's methodology for estimation (net)	–	–
7	Decrease in allowance account due to write-offs	– 337	–
8	Impact of exchange rate differences	– 31	–
9	Business combinations, including acquisitions and disposals of subsidaries		–
10	Other adjustments		–
11	**Closing balance 31.12.2020**	**672**	**–**
12	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	– 7	–
13	Specific credit risk adjustments directly recorded to the statement of profit or loss	+ 10	–

In addition to Table CR2-A, further information concerning a reconciliation of exposures in default is provided in Table CR2-B (also based on FINREP) according to Article 442 point (i) CRR in conjunction with paragraph 92 of EBA/GL/2016/11. All defaulted loans and debt securities are listed in the table regardless of whether there is an impairment or not.

[Tab. 22] CR2-B: Changes in the stock of defaulted and impaired loans and debt securities in € million

		a
		Gross carrying value defaulted exposures
1	**Opening balance 30.06.2020**	**1,448**
2	Loans and debt securities that have defaulted or impaired since the last reporting period	205
3	Returned to non-defaulted status	–
4	Amount written off	– 334
5	Other changes	– 724
6	**Closing balance 31.12.2020**	**595**

7.1.1. Definition of "past due" and "impaired" for accounting purposes

The disclosure is made in accordance with Article 442 point (a) CCR with regard to paragraph 76 and Table CRB-A in EBA/GL/2016/11.

A claim is overdue if a counterparty has not made a payment in accordance with the contract. The overdue period begins on the first calendar day on which the first significant overdraft occurred. All calendar days are taken into account when determining the days in arrears.

The bank´s definition of non-performing exposure is consistent with its definition of default under Article 178 CRR. A default has occurred if the criterion "90-day-delay" and/or the criterion "unlikeliness to pay" applies to the debtor. Purely technical overdrafts, which are not credit rating related, do not represent a default. All defaulting transactions that are not measured at fair value are considered impaired from the outset and are allocated to Level 3 of IFRS 9 impairment model. In addition, in the risk provisioning process, non-default restructuring cases and relevant intensive support cases are examined to determine whether there is an objective indication (impairment trigger) of an impairment and thus a need for individual risk provisioning. The formation of an individual risk provision in turn lead to the default of the business partner.

Apart from transactions measured at fair value, there are no receivables which are overdue by more than 90 days and which are not considered impaired due to the system described above.

Thereby, Hamburg Commercial Bank does not use any own definition with regard to restructuring of a risk exposure which differs from Annex V of the Commission Implementing Regulation (EU) No. 680/2014.

7.1.2. Description of the approaches and methods of specific and general credit risk adjustments

A description of the approaches and methods used for determining specific and general credit risk adjustments in accordance with Article 442 letter b CRR in conjunction with paragraph 76 and Table CRB-A of EBA/GL/2016/11 is provided with the disclosures in the Annual Report of Hamburg Commercial Bank (Group Management Report (Risk Report) as well as Notes to the Consolidated Financial Statements, Note 6 "Accounting policies" Section I D Risk provisions and impairment of financial instruments). According to paragraph 38 of EBA/OP/2017/02, risk provisioning under IFRS 9 is to be considered exclusively as a specific credit risk adjustment.

Pursuant to Article 442 point (c) CRR in conjunction with paragraph 77 of EBA/GL/2016/11, in Table CRB-B the net value of exposures at the end of the period as well as the average of the last four end-of-quarter net exposures are shown.

[Tab. 23] CRB-B: Total and average net amount of exposures in € million

		a	b
	Exposure class	Net value of exposures at the end of the period	Average net exposures over the period
1	Central governments and central banks	6,242	7,889
2	Institutions	3,141	3,105
3	Corporates	25,786	29,008
4	*Of which: Specialised lending*	16,260	18,364
5	*Of which: SMEs*	1,417	1,392
6	Retail	–	–
14	Equitites	125	103
	Other non credit-obligation assets	120	135
15	**Total IRBA**	**35,413**	**40,241**
35	**Total CRSA**	**858**	**1,223**
36	**Total**	**36,272**	**41,463**

Table CRB-C discloses geographical breakdown exposures in accordance with Article 442 point (d) CRR in conjunction with paragraph 78 of EBA/GL/2016/11. The disclosure is based on the geographical and sectoral breakdown used in the Annual Report. Further details are regarded as negligible.

[Tab. 24] CRB-C: Geographical breakdown of exposures in € million

		Net book value											
	Exposure class	Germany	Eurozone (without Germany)	Western Europe (without Eurozone)	Eastern Europe (without Eurozone)	North America	Latin America	Asia Pacific Region	Middle East	African countries	International organisations	Other geographical areas	**Total**
1	Central governments and central banks	5,529	534	51	28	–	–	–	–	–	85	15	**6,242**
2	Institutions	1,244	878	772	3	0	238	–	–	6	–	–	**3,141**
3	Corporates	13,983	7,787	1,929	165	369	365	172	71	945	–	–	**25,786**
4	*Of which: Specialised lending*	7,992	6,841	879	56	246	50	58	4	134	–	–	**16,260**
5	*Of which: SMEs*	1,230	47	–	28	49	–	25	–	39	–	–	**1,417**
6	Retail	–	–	–	–	–	–	–	–	–	–	–	**–**
14	Equities	23	48	53	–	–	1	0	–	0	–	–	**125**
	Other non credit-obligation assets	81	5	–	–	–	34	–	–	–	–	–	**120**
15	**Total IRBA**	**20,859**	**9,252**	**2,805**	**196**	**369**	**638**	**172**	**71**	**951**	**85**	**15**	**35,413**
35	**Total CRSA**	**360**	**207**	**1**	**0**	**0**	**240**	**0**	**0**	**1**	**50**	**–**	**858**
36	**Total**	**21,220**	**9,459**	**2,806**	**196**	**369**	**878**	**172**	**71**	**952**	**135**	**15**	**36,272**

Table CRB-D discloses exposures with regard to the exposure classes in accordance with Article 442 point (e) CRR in conjunction with paragraphs 79 to 81 of EBA/GL/2016/11. The disclosure is based on the sectoral breakdown of the Annual Report. Further details are regarded as negligible.

[Tab. 25] CRB-D: Concentration of exposures by industry or counterparty types in € million

		Net value										
	Exposure class	Credit institutions	Other financial institutions	Public sector	Private households	Properties and buildings	Shipping	Industry	Trade and transport	Other services	Other	**Total**
1	Central governments and central banks	732	–	5,510	–	–	–	–	–	–	–	**6,242**
2	Institutions	2,992	10	136	–	3	–	–	–	–	–	**3,141**
3	Corporates	0	629	327	124	8,079	3,125	6,418	2,303	4,582	200	**25,786**
4	*Of which: Specialised lending*	–	227	46	23	7,136	1,607	5,072	935	1,017	197	**16,260**
5	*Of which: SMEs*	–	234	14	2	457	105	114	141	349	–	**1.417**
6	Retail	–	–	–	–	–	–	–	–	–	–	**–**
14	Equities	62	24	–	1	3	0	1	–	34	–	**125**
	Other non credit-obligation assets	0	26	–	0	0	–	8	–	12	74	**120**
15	**Total IRBA**	**3,786**	**690**	**5,973**	**125**	**8,085**	**3,125**	**6,427**	**2,303**	**4,627**	**274**	**35,413**
35	**Total CRSA**	**1**	**358**	**230**	**89**	**33**	**6**	**95**	**8**	**38**	**–**	**858**
36	**Total**	**3,787**	**1,048**	**6,203**	**214**	**8,118**	**3,130**	**6,522**	**2,311**	**4,666**	**274**	**36,272**

Table CRB-E discloses the maturity of exposures in accordance with Article 442 point (f) CRR in conjunction with paragraphs 82 and 83 of EBA/GL/2016/11.

[Tab. 26] CRB-E: Maturity of exposures in € million

		a	b	c	d	e	f
		Net value					
	Exposure class	On demand	≤ 1 year	> 1 year≤ 5 years	> 5 years	No stated maturity	**Total**
1	Central governments and central banks	1,743	1,460	1,324	1,715	–	**6,242**
2	Institutions	642	503	998	998	–	**3,141**
3	Corporates	554	4,608	11,050	9,574	–	**25,786**
4	*Of which: Specialised lending*	127	2,669	6,914	6,549	–	**16,260**
5	*Of which: SMEs*	13	151	542	711	–	**1,417**
6	Retail	–	–	–	–	–	**–**
14	Equities	–	–	–	–	125	**125**
	Other non credit-obligation assets	0	–	2	–	117	**120**
15	**Total IRBA**	**2,939**	**6,571**	**13,374**	**12,287**	**242**	**35,413**
35	**Total CRSA**	**27**	**345**	**53**	**433**	**–**	**858**
36	**Total**	**2,966**	**6,916**	**13,428**	**12,720**	**242**	**36,272**

7.2. Forborne and non-performing exposures

Hamburg Commercial is complying with the requirements of EBA/GL/2018/10 for the disclosure of forborne and non-performing exposures. Hamburg Commercial Bank is significant within the meaning of paragraph 12 of this Directive. However, as the NPL ratio (FINREP) as defined in paragraph 12 of EBA/GL/2018/06 was below the threshold of 5 % at the four quarterly closing dates prior to the reporting date (current NPL ratio: 2.6%), only tables 1, 3, 4 and 9 are to be disclosed in accordance with paragraph 15 of EBA/GL/2018/10.

Tables NPL1, NPL3 and NPL4 are filled from FINREP database as defined in EBA/GL/2018/10. The data are therefore not comparable with the tables based on the COREP report such as CR1-A to CR1-C, e.g. due to the different presentation of e.g. securitized positions and different consideration of risk provisions. Table 9 is not disclosed due to the bank´s approach to the realization of collateral. In the sense of a "taking possession and execution"-process no collateral is taken possession of and the table would therefore always remain empty (see Group explanatory notes Note 50 III "Other collateral received" of Hamburg Commercial Bank's Annual Report).

[Tab. 27] NPL1: Credit quality of forborne exposures in € million

		a	b	c	d	e	f	g	h
		Gross carrying amount/nominal of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collaterals received and financial guarantees received on forborne exposures	
		Performing forborne	Non-performing forborne			On performing forborne exposures	On non-performing forborne exposures		of which: collateral and financial guarantees received on non-performing exposures with forbearance measures
				of which: defaulted	of which: impaired				
1	Loans and advances	645	472	472	438	– 87	– 242	485	148
2	Central banks	–	–	–	–	–	–	–	–
3	Central governments	–	–	–	–	–	–	–	–
4	Credit institutions	–	–	–	–	–	–	–	–
5	Other financial corporations	–	56	56	56	–	– 11	37	37
6	Non-financial corporations	645	411	411	379	– 87	– 227	447	110
7	Households	0	5	5	2	– 0	– 4	1	1
8	Debt Securities	–	–	–	–	–	–	–	–
9	Loan commitments given	36	41	41	41	– 0	– 5	–	–
10	**Total**	**681**	**513**	**513**	**478**	**– 87**	**– 246**	**485**	**148**

[Tab. 28] NPL3: Credit quality of performing and non-performing exposures by past due days in € million

		a	b	c
		Gross carrying amount/nominal amount		
		Performing exposures		
			Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days
1	Loans and advances	22,545	22,543	2
2	Central banks	6	6	–
3	General governments	1,551	1,551	–
4	Credit institutions	599	599	–
5	Other financial corporations	1,520	1,520	–
6	Non-financial corporations	18,627	18,626	2
7	Of which SMEs	9,396	9,396	0
8	Households	242	242	0
9	Debt securities	5,439	5,439	–
10	Central banks	–	–	–
11	General governments	2,315	2,315	–
12	Credit institutions	2,772	2,772	–
13	Other financial corporations	256	256	–
14	Non-financial corporations	96	96	–
15	Off-balance-sheet exposures	5,187		
16	Central banks	–		
17	General governments	20		
18	Credit institutions	15		
19	Other financial corporations	415		
20	Non-financial corporations	4,728		
21	Households	9		
22	**Total**	**33,171**	**27,983**	**2**

		d	e	f	g	h	i	j	k	l
		Gross carrying amount/nominal amount								
		Non-performing exposures								
			Unlikely to pay that are not past due or are past due ≤ 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
1	Loans and advances	595	401	13	112	18	22	4	24	595
2	Central banks	–	–	–	–	–	–	–	–	–
3	General governments	–	–	–	–	–	–	–	–	–
4	Credit institutions	–	–	–	–	–	–	–	–	–
5	Other financial corporations	79	79	–	–	–	–	–	–	79
6	Non-financial corporations	508	320	13	110	18	21	3	22	508
7	Of which SMEs	238	115	–	83	9	9	3	20	238
8	Households	8	2	–	2	0	1	1	2	8
9	Debt securities	–	–	–	–	–	–	–	–	–
10	Central banks	–	–	–	–	–	–	–	–	–
11	General governments	–	–	–	–	–	–	–	–	–
12	Credit institutions	–	–	–	–	–	–	–	–	–
13	Other financial corporations	–	–	–	–	–	–	–	–	–
14	Non-financial corporations	–	–	–	–	–	–	–	–	–
15	Off-balance-sheet exposures	101								101
16	Central banks	–								–
17	General governments	–								–
18	Credit institutions	–								–
19	Other financial corporations	15								15
20	Non-financial corporations	86								86
21	Households	0								0
22	**Total**	**696**	**401**	**13**	**112**	**18**	**22**	**4**	**24**	**696**

[Tab. 29] NPL4: : Performing and non-performing exposures and related provisions in € million

		a	b	c	d	e	f
		Gross carrying amount/nominal amount					
		Performing exposures			Non-performing exposures		
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3
1	Loans and advances	22,545	19,469	2,724	595	0	561
2	Central banks	6	6	–	–	–	–
3	General governments	1,551	1,446	0	–	–	–
4	Credit institutions	599	598	0	–	–	–
5	Other financial corporations	1,520	1,223	123	79	–	79
6	Non-financial corporations	18,627	15,958	2,595	508	0	477
7	Of which SMEs	9,396	8,125	1,223	238	0	213
8	Households	242	236	5	8	–	5
9	Debt securities	5,439	4,888	–	–	–	–
10	Central banks	–	–	–	–	–	–
11	General governments	2,315	1,921	–	–	–	–
12	Credit institutions	2,772	2,658	–	–	–	–
13	Other financial corporations	256	214	–	–	–	–
14	Non-financial corporations	96	96	–	–	–	–
15	Off-balance-sheet exposures	5,187	4,257	260	101	–	76
16	Central banks	–	–	–	–	–	–
17	General governments	20	20	–	–	–	–
18	Credit institutions	15	0	–	–	–	–
19	Other financial corporations	415	313	8	15	–	4
20	Non-financial corporations	4,728	3,916	250	86	–	72
21	Households	9	8	1	0	–	–
22	**Total**	**33,171**	**28,614**	**2,984**	**696**	**0**	**637**

		g	h	i	j	k	l	m	n	o
		Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	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 non-performing exposures
			Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
1	Loans and advances	– 308	– 91	– 217	– 261	–	– 261	– 37	12,398	201
2	Central banks	–	–	–	–	–	–	–	–	–
3	General governments	– 0	– 0	–	–	–	–	–	39	–
4	Credit institutions	– 0	– 0	– 0	–	–	–	–	14	–
5	Other financial corporations	– 3	– 1	– 3	– 19	–	– 19	–	871	49
6	Non-financial corporations	– 304	– 90	– 214	– 241	–	– 241	– 37	11,262	149
7	Of which SMEs	– 132	– 38	– 94	– 107	–	– 107	– 5	5,728	61
8	Households	– 0	– 0	– 0	– 1	–	– 1	–	212	4
9	Debt securities	– 1	– 1	–	–	–	–	–	–	–
10	Central banks	–	–	–	–	–	–	–	–	–
11	General governments	– 0	– 0	–	–	–	–	–	–	–
12	Credit institutions	– 0	– 0	–	–	–	–	–	–	–
13	Other financial corporations	– 0	– 0	–	–	–	–	–	–	–
14	Non-financial corporations	– 0	– 0	–	–	–	–	–	–	–
15	Off-balance-sheet exposures	– 6	– 3	– 1	– 43	–	– 35		216	15
16	Central banks	–	–	–	–	–	–		–	–
17	General governments	–	–	–	–	–	–		–	–
18	Credit institutions	– 0	–	–	–	–	–		–	–
19	Other financial corporations	– 0	– 0	– 0	– 24	–	– 18		9	–
20	Non-financial corporations	– 6	– 3	– 1	– 19	–	– 17		208	15
21	Households	– 0	– 0	– 0	– 0	–	–		0	–
22	**Total**	**– 315**	**– 94**	**– 219**	**– 304**	**–**	**– 296**	**– 37**	**12,615**	**217**

7.3. COVID-19-Disclosure

As at 06.02.2020, the European Banking Authority introduced new guidelines with regard to regulatory reporting and disclosure of exposures in response to the COVID-19 pandemic.

The following tables are subject to the COVID-19 measures according to EBA/GL/2020/07 and essentially provide an overview of legislative and non-legislative moratoria on loan repayments and public guarantees.

According to EBA/GL/2020/02 seleceted positions of the monthly reported FINREP COVID-19 Tables (F90 to F93) are disclosed within the following tables. The valuation of the individual transactions is made in connection with EBA/GL/2020/07.

The majority of moratoria and public guarantees were granted in the economic sector of other professional, scientific and technical activities. Furthermore, wholesale trade accounts for another substantial part of the moratoria and public guarantees.

Table 30 provides an overview of the credit quality with regard to loans subject to moratoria in connection with COVID-19 (legislative and non-legislative). The disclosure is only made for loans for which the measure is classified as approved and ongoing.

Currently, the Hamburg Commercial Bank has two applicable moratoria subject to the COVID-19 crisis. First, a moratorium that is applicable for consumer loans according to article 240 EGBGB comprising a deferral of repayments and interest repayments. Second, a non-legislative private moratorium granting a postponement for repayments subject to commercial property financing.

Table 31 indicates a breakdown of the loans by the residual maturity of the moratoria. Hereby, the entirety is related to the loans that are indicated in Table 30.

Table 32 shows newly originated loans subject to public guarantee schemes in response to the COVID-19 pandemic. These guarantees exclusively relate to collateralised loans by the KfW. The maximum guaranteed amount is based on a potential drawdown and thereby does not reflect the current called guarantees. The total amount of newly originated loans and advances subject to public guarantee schemes amounts to € 125 million of which € 110 million is assigned to non-financial corporations. The remaining amount of € 15 million is assigned to other financial corporations within wholesale. This position is not separately indicated in the table.

[Tab. 30] Information on loans and advances subject to legislative and non-legislative moratoria

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Gross carrying amount							Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
			Performing			Non performing				Performing			Non performing			
				Of which: exposures with forbear-ance measures	Of which: Instru-ments with signifi-cant increase in credit risk since initial recog-nition but not credit-impaired (Stage 2)		Of which: exposures with forbear-ance measures	Of which: Un-likely to pay that are not past-due or past-due <= 90 days			Of which: exposures with for-bearance measures	Of which: Instru-ments with signifi-cant increase in credit risk since initial recog-nition but not credit-impaired (Stage 2)		Of which: exposures with for-bearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days	Inflows to non-perform-ing expo-sures
1	Loans and advances subject to moratorium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	of which: Households	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	of which: Collateralised by residential immovable property	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	of which: Non-financial corpora-tions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	of which: Small and Medium-sized Enterprises	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	of which: Collateralised by commercial immovable property	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[Tab. 31] Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria

		a	b	c	d	e	f	g	h	i
			Gross carrying amount							
						Residual maturity of moratoria				
		Number of obligors		Of which: legislative moratoria	Of which: expired	<= 3 months	> 3 months<= 6 months	> 6 months<= 9 months	> 9 months<= 12 months	> 1 year
1	Loans and advances for which moratorium was offered	12	166							
2	Loans and advances subject to moratorium (granted)	9	140	-	140	-	-	-	-	-
3	of which: Households		-	-	-	-	-	-	-	-
4	of which: Collateralised by residential immovable property		-	-	-	-	-	-	-	-
5	of which: Non-financial corporations		140	-	140	-	-	-	-	-
6	of which: Small and Medium-sized Enterprises		109	-	109	-	-	-	-	-
7	of which: Collateralised by commercial immovable property		140	-	140	-	-	-	-	-

[Tab. 32] Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis

		a	b	c	d
		Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
			of which: forborne	Public guarantees received	Inflows to non-performing exposures
1	Newly originated loans and advances subject to public guarantee schemes	125	2	100	-
2	of which: Households	-			-
3	of which: Collateralised by residential immovable property	-			-
4	of which: Non-financial corporations	110	2	88	-
5	of which: Small and Medium-sized Enterprises	3			-
6	of which: Collateralised by commercial immovable property	6			-

7.4. Use of credit risk mitigation techniques

The disclosure of qualitative information concerning credit risk mitigation is based on Article 453 points (a) to (e) CRR in conjunction with paragraph 93 and Table CRC in EBA/GL/2016/11 as well as on Article 452(b) subpoint (iii) CRR.

7.4.1. Policies, processes and scope of on- and off-balance-sheet netting

Institutions are able to utilize netting agreements when determining their required equity capital which lead to a reduction in the assessment basis and hence the equity capital required. Policies, processes and scope of on- and off-balance-sheet netting are to be disclosed in accordance with Article 453 point (a) CRR. In contrast to balance sheet netting which is not used by Hamburg Commercial Bank, off-balance-sheet netting within the framework of netting agreements for derivatives is applied (see Section 8.1.2). The market valuation method is used to determine the required net assessment basis. As at the reporting date Hamburg Commercial Bank recorded a counterparty credit risk to the amount of approximately € 1,350 million (see table CCR4 in Section 8.2.1).

7.4.2. Process for managing and recognizing credit risk mitigation

The Collateral Guideline incl. Valuation Guideline as well as the LGD method issued by the Management Board defines the collateral approved by Hamburg Commercial Bank as recoverable and hence minimizing default risk as well as the qualitative requirements for such collateral. Hence, it also defines the benchmarks for managing credit risk mitigation at Hamburg Commercial Bank. Disclosure is made in accordance with Article 452(b) subpoint (iii) CRR. The guidelines are supplemented by detailed instructions in the process regulations for the lending business in order to ensure comprehensive collateral management. The CRR requirements are an integral part of the Collateral Guideline.

Qualitative requirements for collaterals are, first and foremost, legal enforceability (especially for foreign collateral), an adequate consideration of a correlation between the creditworthiness of the borrower and the value of the collateral, matching maturities of loan and collateral agreement and the existence of an objective market value.

For these collaterals, the bank has identified collateral-specific recovery rates based on historical recovery cases, which are used with recognized collateral in calculating the LGD (see Section 7.7.1). The collateral guidelines establish what assets (e.g. real estate, moveable assets, receivables) and which collateral instruments (e.g. mortgage, land charge, assignment) are recognized. In addition, the responsible back office processing and control division must ensure on a case by case basis that the individual collateral and associated collateral agreement meet requirements in terms of enforceability and recoverability. In the risk-relevant lending business, the recoverability of the individual collateral is reviewed for plausibility as part of the loan decision process.

The decision whether a new asset or new collateral instrument can be recognized as minimizing risk is taken by a team of specialists from the divisions Credit Risk Management, Risk Control and Legal, Board Office & Taxes.

7.4.3. Policies and processes for collateral valuation and management

Valuation and administration of collateral is integrated into the process of managing and recognizing credit risk mitigation techniques in accordance with Article 453 point (b) CRR. As the CRR is the basis for the collateral guidelines, collateral is only treated as reducing risk for the purpose of calculating capital requirements if all CRR requirements are satisfied.

For each item of collateral to be offset against risk, an objective market value is determined. This is done on the basis of Hamburg Commercial Bank's Valuation Guideline through experts or entities that are independent of the Market division of the bank. The recoverability of an item of collateral is ensured by recognizing it as reducing risk only up to the specific recovery rate for that collateral. The legal validity and enforceability of the collateral is ensured in the loan and collateral agreements. There is a standard instruction on regular monitoring and revaluation of collateral. Besides the annual review of collateral, there is a reevaluation of the market value of the individual items of collateral every three years. The results of the annual monitoring can lead to a direct revaluation of the individual collateral in individual cases or for a segment. For individual collateral objects, there is an annual monitoring and reevaluation of the value (e.g. ships). Recognized collateral is documented and maintained in a central collateral system. This enables regular reporting to monitor and evaluate collateral. The recoverability of and options for realising an item of collateral are regularly reviewed as part of the regular credit monitoring process, and more frequently in the event of wide fluctuations in market value.

In the event of permanent impairment of collateral rights, e.g. impairment in value or a change in the legal position, additional collateral is sought and/or a monitoring file may be opened in accordance with the guidelines for exposure monitoring in order to initiate the necessary measures. In the event of a borrower's default, all collateral and possibly further collateral of a group of connected clients involved are revalued. All relevant information on an item of collateral is documented and updated in the IT system. Only collateral which is recognized as compliant with the guidelines and accordingly maintained is used in the steering systems of Hamburg Commercial Bank.

Back office specialists are available for prompt and competent realization of security in the event of a borrower's default. Experience with realizing security is incorporated into optimising collateral management.

7.4.4. Main types of collateral and information about market or credit risk concentrations within the credit mitigation taken

In principle, Hamburg Commercial Bank takes into account all collateral listed in the CRR (financial collateral, guarantees, physical collateral, other IRBA collateral) and netting agreements. Due to the portfolio and customer structure, Hamburg Commercial Bank essentially assumes the following types of collateral within the meaning of Article 453 point (c) CRR:

- real estate and movable assets, e.g. ships and railway wagons,
- receivables and rights,
- guarantees.

In addition, securities, shares and some credit derivatives serve as collateral.

In the above-mentioned collateral types there are concentrations within the context of credit risk mitigation as described below in accordance with Article 453 point (e) CRR as well as instruments for managing these risks.

Ship collateral amounts to approximately 19 % of the total collateral portfolio. Container ships and bulkers account for almost 68 % of this, while tankers account for 26 % of ship collateral. The share of real estate collateral has risen to about 67 %. Of this, just under 81 % are commercial properties.
Other collateral consists mainly of cash collateral and guarantees and has a share of approximately 13 %.

Concentration risks from eligible collateral are managed on a portfolio-related basis at the level of the bank as a whole, e.g. by monitoring and reporting these risks in extracts of the management report to the Risk Committee. In addition, it is integrated into the strategic planning and limiting in that for typical, business segment-related collateral (in particular object collateral such as ships), the business segment-related planning and limiting also results in a limiting of the collateral typically associated with the respective business segments.

Collateral can only be taken into account in calculating LGD if its risk-reducing effect has not been taken into account in establishing a rating (PD). This means, for example, that a guarantee or assigned receivable which has already been taken into account in a rating tool or through the rating of the guarantor as the bearer of economic risk or third party debtor cannot in addition be netted against risk as collateral.

7.4.5. Guarantors and credit derivative counterparty and their creditworthiness

For a guarantee (or credit derivative) to be recognized as reducing risk there must be a current internal rating for the guarantor comparable with at least a Fitch or S & P BB- or Moody's Ba3.

Within Hamburg Commercial Bank, the main types of guarantors within the meaning of Article 453 point (d) CRR are guarantees by central governments, local and regional administrative authorities, institutions and companies with high ratings. The main counterparties for credit derivatives are internationally active banks.

7.4.6. Collateralized exposure values

The two following tables show the scope of used credit risk mitigation techniques in accordance with Article 453 points (f) and (g) CRR.

In the case of the standardized approach for credit risk, financial and tangible security and guarantees are taken into account. Under advanced IRBA financial, tangible and other collateral are included in LGD calculation. Guarantees and credit derivatives can be taken into account either in LGD calculation or through PD substitution. Here, the secured part of the receivables is given the guarantors' PD. However, collateral taken into account in calculating the PD is not shown here. Life insurance is accounted for in accordance with Article 232 CRR. There were no material changes in the recognition of collateral in the reporting period.

An overview with regard to the scope of credit risk mitigation for total loans, debt securities and off-balance exposure according to paragraph 94 of EBA/GL/2016/11 is given in Table CR3.

[Tab. 33] CR3: CRM techniques – overview in € million

		a	b	c	d	e
		Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	11,585	14,004	11,630	560	–
2	Total debt securities	5,414	–	–	–	–
	Off-Balance exposure	3,744	1,423	1,052	143	–
3	**Total exposures**	**20,742**	**15,426**	**12.682**	**702**	**–**
4	*Of which defaulted*	398	260	201	34	–

In the following table, the scope of the credit risk mitigation techniques used per risk position class or investment approach in accordance with Article 155 CRR is presented in addition to the previous disclosure in Table CR3 pursuant to Article 453 letters f and g CRR. In this presentation, the restrictions of EBA/GL/2016/11 specified for CR3 do not apply, so that this presentation also includes counterparty default risk positions. Securitizations are not taken into account.

[Tab. 34] 453g: Total amount of collateralized exposure values (without securitizations) in € million

	Financial collateral	Other and physical collateral	Guarantees / credit derivatives
Central governments and central banks	–	–	–
Institutions	226	–	20
Corporates - Specialised lending	20	8,656	310
Corporates - SME	6	908	49
Corporates - Other	212	2,986	289
Retail	–	–	–
Equities	–	–	–
of which: Equities acc. to Article 155(3) CRR	–	–	–
of which: Equities acc. to Article 155(2) CRR	–	–	–
of which: Equities acc. to Article 155(4) CRR	–	–	–
Other non credit-obligation assets	–	–	–
Total IRBA	**463**	**12,550**	**669**
Total CRSA	**218**	**35**	**72**
Total	**681**	**12,585**	**741**

7.5. Use of external ratings and standardized approach

As mentioned before, in this Disclosure Report CRSA exposures are aggregated to one position due to materiality. Exceptions within this Section are Tables CR4 and CR5 according to EBA/GL/2016/11. In these tables, CRSA exposures are presented in detail.

7.5.1. Names of the nominated ECAI and ECA

Under the standardized approach for credit risks the required risk weight for the calculation of own capital backing is regulatory stipulated. The risk weight depends on the type of receivable, its external rating and any collateral. Hamburg Commercial Bank uses external credit assessments provided by external credit assessment institutions (ECAI) recognized by the supervisory authorities for the determination of risk weights in accordance with Article 138 and 269 CRR. Different rating agencies (ECAI) or export insurance agencies (ECA) can be appointed for each category of receivables. The CRSA or IRBA exposure class Securitizations allows rating agencies to be appointed at the transaction level; for all other CRSA exposures they are appointed per receivables category related to credit assessment.

If an external credit assessment of a recognized rating agency is used, the assessment is to be transferred into a credit assessment according to the rating master scale. It needs to be checked for each approved ECAI whether an external rating exists or not. If there is more than one external rating available, of the two ratings leading to the lowest CRSA risk weights, the rating with the higher CRSA risk weight is decisive. Hamburg Commercial Bank generally uses the issuer rating for exposures that are not part of the trading book, except for ABS transactions where the external rating for the transaction is used.

Hamburg Commercial Bank has admitted only the ECAIs listed in the following table to be used with respect to Article 444 point (a) CRR in conjunction with paragraph 97 and Table CRD of EBA/GL/2016/11 and makes use of these for the exposure classes listed pursuant to Article 444 point (b) CRR. Export credit agencies are not used in this context. ECAIs are only nominated for states and securitizations receivables categories. Whilst only the standardized approach for credit risk is involved for states receivables, external ratings are used for securitization positions under both the CRSA and the IRB approach. The external rating of the respective central government is relevant for transactions as defined in Articles 115 and 116 CRR as well as Article 119 in connection with Article 121 CRR and applied in determining the risk weight. Transactions assigned to the regional or local authority, public sector entity and institutions exposure classes are affected by this. These continue to be disclosed in the above-mentioned exposure classes.

[Tab. 35] Rating agencies by receivables category

Receivables category	Exposure class	Rating agency
States	Central governments or central banks	Fitch, Moody's, S & P
Securitizations	CRSA securitization exposures IRBA securitization exposures	Fitch, Moody's, S & P

7.5.2. Transfer of credit assessments of issuers and issues

The process used by Hamburg Commercial Bank to transfer credit assessments of issuers and issues in accordance with Article 444 point (c) CRR in conjunction with paragraph 97 and Table CRD of EBA/GL/2016/11 is described below.

Issuer ratings are necessary to determine the CRSA and IRBA risk weight for securitizations as well as the eligibility of collaterals for CRSA and IRBA exposures. Hamburg Commercial Bank uses issuer ratings provided by the rating agencies Fitch, Moody's and S & P. The listed rating agencies were designated to the regulatory authorities by Hamburg Commercial Bank.

The Hamburg Commercial Bank uses only confirmed issuer ratings needed for securities. These will be connected to each financial instrument and are used for the calculation according to Part 3 CRR (capital requirements), Part 4 CRR (large exposures) and Part 6 CRR (liquidity). Furthermore, it will be ensured that external ratings of securitization satisfy the proper requirements as delineated in Article 268 CRR. Determining the LGD, it will be tested whether the conditions with regard to eligible collaterals are met. Depending on the type of bond the CRR indicates a minimum level of creditworthiness that needs to be considered.

Issuer ratings are necessary to determine the CRSA risk weight for central governments. Thereby, Hamburg Commercial Bank uses issuer ratings of the rating agencies Fitch, Moody's and S & P. It will be ensured that only confirmed issuer ratings are used and external ratings are only used for central governments that are rated internally by the Hamburg Commercial Bank. After connecting the external ratings with the respective central government, the issuer ratings will then be used for the calculation according to Part 3 CRR (capital requirements) and Part 4 CRR (large exposures).

7.5.3. The assignment of the external ratings to the credit quality steps

The assignment of the external rating to the credit quality steps according to Article 444 point (d) CRR is not disclosed as Hamburg Commercial Bank uses the standard mapping of EBA according to Article 270 CRR.

7.5.4. CRSA exposure under regulatory risk weights

In order to determine the capital requirements, the standardized approach for credit risk require risk-weighted exposures (the product of risk weight and exposure value) to be created. The risk weights have to be used, that depend on exposure classes and the published standard assignments of external ratings in accordance with Article 270 CRR.

Table CR4 shows – in accordance with Article 453 points (f) and (g) CRR in conjunction with paragraphs 95, 98 and 99 of EBA/GL/2016/11 – the effect of credit risk mitigation techniques for the standardized approach for the calculation of capital requirements, broken down by exposure class.

[Tab. 36] CR4: Standardized approach - credit risk exposure and CRM effects in € million

		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	Exposure class	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density in %
1	Central governments or central banks	22	–	23	–	–	–
2	Regional government or local authorities	0	–	0	–	0	18.1
3	Public sector entities	150	0	117	0	14	12.4
4	Multilateral development banks	–	–	–	–	–	–
5	International organisations	50	–	50	–	–	–
6	Institutions	1	1	1	2	1	24.0
7	Corporates	333	255	217	119	327	97.3
8	Retail	1	1	1	0	1	68.2
9	Secured by mortgages on immovable property	26	6	26	3	11	36.2
10	Exposures in default	3	3	3	2	5	119.4
11	Higher-risk categories	5	2	5	1	9	150.0
12	Covered bonds	–	–	–	–	–	–
13	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–
14	Collective investment undertakings	–	–	–	–	–	–
15	Equity	–	–	–	–	–	–
16	Other items	–	–	–	–	–	–
17	**Total**	**591**	**267**	**442**	**126**	**367**	**64.6**

Table CR5 lists the CRSA risk exposure by exposure class and risk weight in accordance with Article 444 point (e) CRR in conjunction with paragraph 100 of EBA/GL/2016/11. Substitution effects lead to the replacement from originally higher risk weights to lower risk weights. CR5 specifies in the EBA/GL/2016/11 only that part of requirement in Article 444 point (e) CRR that relates to exposures after credit risk mitigation. For reasons of materiality, the risk exposures by credit rating level before credit risk mitigation are not disclosed.

The allocation of positions to risk weights is made without taking into account the deduction provided in Article 501(1) CRR.

[Tab. 37] CR5: Standardized approach - exposure values in € million

		Risk weight								
	Exposure class	0%	2%	4%	10%	20%	35%	50%	70%	75%
1	Central governments or central banks	23	–	–	–	–	–	–	–	–
2	Regional government or local authorities	0	–	–	–	0	–	–	–	–
3	Public sector entities	44	–	–	–	72	–	–	–	–
4	Multilateral development banks	–	–	–	–	–	–	–	–	–
5	International organisations	50	–	–	–	–	–	–	–	–
6	Institutions	–	–	–	–	2	–	0	–	–
7	Corporates	–	–	–	–	–	–	–	0	–
8	Retail	–	–	–	–	–	–	–	–	1
9	Secured by mortgages on immovable property	–	–	–	–	–	23	6	–	–
10	Exposures in default	–	–	–	–	–	–	–	–	–
11	Higher-risk categories	–	–	–	–	–	–	–	–	–
12	Covered bonds	–	–	–	–	–	–	–	–	–
13	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–	–	–	–
14	Collective investment undertakings	–	–	–	–	–	–	–	–	–
15	Equity	–	–	–	–	–	–	–	–	–
16	Other items	–	–	–	–	–	–	–	–	–
17	**Total**	**117**	**–**	**–**	**–**	**75**	**23**	**7**	**0**	**1**

		Risk weight								
	Exposure class	100%	150%	250%	370%	1250%	Others	Deducted	**Total**	of which unrated
1	Central governments or central banks	–	–	–	–	–	–	–	**23**	23
2	Regional government or local authorities	–	–	–	–	–	–	–	**0**	0
3	Public sector entities	–	–	–	–	–	–	–	**117**	117
4	Multilateral development banks	–	–	–	–	–	–	–	**–**	–
5	International organisations	–	–	–	–	–	–	–	**50**	50
6	Institutions	–	–	–	–	–	–	–	**2**	2
7	Corporates	336	–	–	–	–	–	–	**336**	336
8	Retail	–	–	–	–	–	–	–	**1**	1
9	Secured by mortgages on immovable property	–	–	–	–	–	–	–	**29**	29
10	Exposures in default	3	2	–	–	–	–	–	**4**	4
11	Higher-risk categories	–	6	–	–	–	–	–	**6**	6
12	Covered bonds	–	–	–	–	–	–	–	**–**	–
13	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–	–	**–**	–
14	Collective investment undertakings	–	–	–	–	–	–	–	**–**	–
15	Equity	–	–	–	–	–	–	–	**–**	–
16	Other items	–	–	–	–	–	–	–	**–**	–
17	**Total**	**338**	**8**	**–**	**–**	**–**	**–**	**–**	**568**	**568**

7.6. Equity holdings in the banking book

The regulatory authorities state that equity holdings must be consolidated, deducted from equity or backed with equity capital in the exposure class Equity holdings. In this context regulatory law considers equity holding risk to be a sub-class of the counterparty credit risk.

A key objective of the bank is to wind down the equity holdings not relevant to the core business. In the reporting year, the equity holding portfolio has been reduced. A further marginal decrease is to be expected in the financial year 2021.

The equity holdings from the banking book are explained below.

7.6.1. Classification of equity holdings

The equity holding portfolio of the Hamburg Commercial Bank is divided essentially into five sub-portfolios. Each sub-portfolio has a different objective.

Strategic equity holdings Strategic equity holdings are all those which have a strategic importance for the Group and/or promote the economic interests of the region.

Business segment-supporting equity holding
Equity holdings to support business segments are oriented towards expanding existing customer relationships or creating new ones.

Wind-down equity holdings
Wind-down equity holdings are former equity holdings and/or equity holdings which must be wound-down in light of the decision of the EU Commission.

Bail-out purchases
Bail-out purchases are equity exposures which are entered into as part of the restructuring of a loan.

Other equity holdings
In contrast to the financial accounting regulations all items that contain a subordinated residual claim to the assets or income of the issuer are classified as equity holding under supervisory law. Equity holdings which are considered as an equity holding under supervisory aspects (in accordance with CRR) but mostly are allocated to the item "Shares and other non-fixed-income securities" (in accordance with IFRS) therefore do not belong to the categorizations described above and instead are treated as other equity holdings.

Equity holdings contained in investment funds or funds-like certificates
Hamburg Commercial Bank does not have equity holdings contained in investments funds or funds-like certificates as at the reporting date.

7.6.2. Accounting policies for equity holdings

Regular business valuations represent an important instrument for monitoring and managing equity holding risks in the case of strategic and business segment-supporting equity holdings as well as wind-down equity holdings and bail-out purchases. The processes have been designed to ensure that the recoverability of all Hamburg Commercial Bank's direct equity holdings and relevant indirect equity holding are assessed at least once a year. Significant equity holdings are subject to a detailed assessment using the relevant standards of the Institute of Public Auditors in Germany ("Institut der Wirtschaftsprüfer"). All other equity holdings undergo a risk-oriented assessment.

Equity holdings which are allocated to the sub-portfolio "Other equity holdings" also represent a long-term commitment due to their allocation to the banking book.

Assets under the position financial investments are generally classified as FVPL Other according to IFRS 9.

7.6.3. Overview of equity holdings in the banking book

The equity holding portfolio of the banking book of Hamburg Commercial Bank as defined by Article 447 points (b) and (c) CRR is shown in the following table.

[Tab. 38] Valuation of equity holding instruments in € million

Equity holding portfolio	Carrying amount	Fair value	Stock market value
Strategic equity holdings	**11**	**11**	**–**
Items traded on the stock exchange	–	–	–
Not listed on the stock exchange but belonging to a sufficiently diversified equity holding portfolio	–	–	–
Other equity holding exposures	11	11	–
Business segment-supporting equity holding	**2**	**2**	**–**
Items traded on the stock exchange	–	–	–
Not listed on the stock exchange but belonging to a sufficiently diversified equity holding portfolio	–	–	–
Other equity holding exposures	2	2	–
Wind-down equity holdings	**5**	**5**	**–**
Items traded on the stock exchange	–	–	–
Not listed on the stock exchange but belonging to a sufficiently diversified equity holding portfolio	–	–	–
Other equity holding exposures	5	5	–
Bail-out purchases	**0**	**0**	**–**
Items traded on the stock exchange	–	–	–
Not listed on the stock exchange but belonging to a sufficiently diversified equity holding portfolio	–	–	–
Other equity holding exposures	0	0	–
Other equity holdings	**108**	**108**	**71**
Items traded on the stock exchange	71	71	71
Not listed on the stock exchange but belonging to a sufficiently diversified equity holding portfolio	–	–	–
Other equity holding exposures	37	37	–
Equity holding exposures contained in investment funds or funds-like certificates	**–**	**–**	**–**
Total	**125**	**125**	**71**

7.6.4. Realized profits and losses for equity holdings

In the course of IFRS 9 all equity holdings were classified to the business model "Other" and are subsequently recognized in the income statement. The fair value-OCI-option is not used. Changes in fair value and realization effects are reported under the item "Net income from financial instruments categorized as FVPL".

The following table shows the cumulative realized gains or losses on sales and liquidations referred to in Article 447 point (d) CRR, together with the valuation result on participating interests.

Due to the categorization of holdings as FVPL, the presentation of unrealized revaluation gains or losses in accordance with Article 447 point (e) CRR is not applicable.

[Tab. 39] Realized and unrealized gains or losses from equity holding instruments in € million

	Realised gains or losses from sales and liquidations	Valuation gains / losses
Equity holding exposures	0	4
Total	**0**	**4**

7.7. IRB approach

7.7.1. Structure of the internal rating systems and relationship between internal and external credit assessments

The rating systems for the individual portfolio segments were developed in cooperation with nine Landesbanks (Landesbank project) based on scorecard and simulation approaches. This cooperation between the Landesbanks led to the founding of RSU Rating Service Unit GmbH & Co. KG (RSU) in 2003. Since 2004, RSU has assumed responsibility for the methodological maintenance and development of the rating systems. The individual partner banks provide their expertise in the form of competence or support centers. Currently, ten of the rating modules developed by the participating banks and provided by RSU in LB Rating are used in Hamburg Commercial Bank. In addition, RSU has integrated two rating modules from S Rating und Risikosysteme GmbH (SR), a subsidiary of Deutscher Sparkassen- und Giroverband (DSGV), into the central LB Rating application. All these rating modules are recognized for the purpose of reporting under CRR at Hamburg Commercial Bank. In addition, the LGD and CCF methodology developed by Hamburg Commercial Bank and approved by the supervisory authorities was transferred to the RSU network in 2009. Hamburg Commercial Bank assumes the competence center function for the LGD validation of all rating systems except aircraft and project finance.

The structure of the internal rating systems and relationship between internal and external credit assessments pursuant to Article 452(b) subpoint (i) CRR are explained below.

Rating methods

The rating systems distinguish between scorecard and cash flow approaches. The scorecard approach identifies characteristics and factors that are able to differentiate between good and bad borrowers. Their validity is first verified with a single factor model. Subsequently, several characteristics, which each have high significance in a single factor model, are combined to create a multi-factor model. The scores determined using the multi-factor model are translated to default probabilities. A precondition for the application of a scorecard approach is that a sufficient number of relatively homogeneous borrowers are available.

The cash flow approach simulates cash flows of one asset in various scenarios. These vary depending on macro-economic and sector-based conditions. A simulation engine (SimEngine) is used to create numerous scenarios which differ according to macro-economic conditions. Additionally, sector-based models calculate scenarios for future changes in sector-related factors such as rents, vacancies or charter rates. The values are then fed into the calculation of scenarios for the cash flow of the corresponding asset. Subsequently scenarios are selected where the borrower must be considered to be defaulting. The default probability is calculated as a ratio from the number of scenarios where a default was recorded to the total number of scenarios.

Both the scorecard and the cash flow approaches include quantitative as well as qualitative factors. Once these factors have been taken into consideration, warning signals and the company background are examined. There are also override opportunities, allowing ratings to be moved up to a limited extent and down to an unlimited extent. In the final rating result, the local currency rating, all of these aspects have been taken into consideration. Thereby, an individual probability of default is obtained for each borrower, enabling assignment to a specific credit rating class. When measuring borrower risk, the risk of foreign currency transfer restrictions has to be considered, as well as default risk.

The rating result is calibrated on a standard rating master scale. This master scale is the DSGV master scale from which Hamburg Commercial Bank implemented 24 live and 3 default categories. Each rating class on the rating master scale is assigned a one-year default probability. This standard rating scale allows for immediate comparison of existing ratings separately from the portfolio segment.

Default records that are kept internally are generally used for the estimation of default probabilities under the corresponding rating procedures. The shadow-rating method is used additionally, if a portfolio has enough ratings from the recognised rating agencies. Thereby, a "good/bad" analysis is made in terms of the degree to which the ranking for the external ratings can be mapped for a benchmarking portfolio. Furthermore, an additional comparative figure is calculated from these external ratings in order to calibrate the middle rating level.

As at the reporting date, the rating modules and methods used within Hamburg Commercial Bank for CRR reporting are shown in the following table. In order to determine the capital requirements the advanced IRB approach is used.

[Tab. 40] Rating modules of Hamburg Commercial Bank approved by the supervisory authorities

Borrower, bearer of economic risk, asset or project	Rating module	Rating method
Corporates	Corporates Sparkassen-StandardRating	Scorecard
Real estate	Sparkassen-ImmobiliengeschäftsRating (SIR) Internationale Immobilienfinanzierungen	Cash flow and scorecard
Ships	Ship financing	Cash flow
Banks, savings banks	Banks and DSGV guarantee system	Scorecard
Insurance companies	Insurance companies	Scorecard
International regional authorities	International regional authorities	Scorecard
Leasing companies, real estate lessees	Leasing	Scorecard with cash flow component
Projects	Project financing	Cash flow
Leveraged Buy Out financing	Leveraged finance	Scorecard
Individuals, self-employed, craftsmen, corporate clients	Sparkassen-StandardRating or Sparkassen-ImmobiliengeschäftsRating (SIR) (depending on the primary origin of capital)	Scorecard or cash flow
States, national authorities	Country and transfer risk	Scorecard

The banks participating in the further development of the RSU-rating systems are divided into competence and support centers and participants. The competence center bank assumes a leading role in the development and maintenance of modules where it can offer special expertize. It is supported by experts from the support banks.

Hamburg Commercial Bank has the main responsibility for the rating modules ship financing and leveraged finance. The respective internal audit division as an independent body reviews the validation and further development of the rating procedures at both RSU and SR and at Hamburg Commercial Bank.

LGD method

Modelling is based on historical losses, which are collected together with other banks and analyzed using statistical and econometric techniques.

The LGD calculation method was developed successively by Hamburg Commercial Bank for each rating segment and is continuously reviewed and refined in the course of the annual validation process. Since the transition to the RSU association in 2009, validation has been done jointly with other banks. The result are estimation methods for the determination of the risk of secured and unsecured exposures under consideration of recovery rates regarding specific collateral and specific borrowers (proceeds of the assets in bankruptcy). The secured exposure is not totally free of risk and has a basic risk. LGD calculation takes into account the current data in the legacy systems.

When determining LGD (overall LGD) three possible default scenarios are considered. In addition to winding down, restructuring of the defaulted commitment is possible. In the best case scenario recovery is possible. LGD estimation is based on observation of the workout case. In order to draw up a forecast for the loss ratio, the proceeds of the sale of collateral (the product of the market value of the collateral asset and a recovery rate specific to that asset) and proceeds from the bankruptcy estate (the product of non-collateralized exposure and a borrower-specific recovery rate) are used. The LGD estimate takes into account the individual specific default duration.

Downturn-LGD method and calculation

Generally, the calculation of a downturn parameter is only relevant to models that are influenced by a macroeconomic environment. Thereby, ratios resulting from years below the average (e.g. 25 %-quantile) will be undertaken in relation to the ratio calculated on the normal basis (e.g. 50 %-quantile). This is only reasonably possible for models for which sufficient data is available. An alternative procedure is the consideration of external studies, data or comparisons of other models.

Review and any updating processes of the downturn parameters are made within the standard maintenance.CCF method

In contrast to assets on the balance sheet, where future exposure can be calculated from the loan agreements, receivables from the classic off-balance-sheet business must have the exposure at default (EaD) calculated using a credit conversion factor (CCF). The CCF is assessed annually on a joint basis as part of the RSU association together with other banks.

CCF indicates the proportion of outstandings under open credit lines or amount of credits that can generally be taken into account which are actually utilized by the borrower at the time of default.

CCF-model classification

There are two steps of assigning transactions to CCF-models. In a first step, all transactions that are not relevant to CCF or not directly used in order of CCF calculation are identified. Such transactions are not assigned to any CCF-models. All other transactions are assigned to a CCF-model based on the type of credit within the second step.

Reference structure of transactions and aggregated amounts
It is possible to combine individual customer transactions within the loss data base. This is possible and even necessary when transactions (e.g. a loan) show the drawdown on a credit line of another transaction (e.g. commitment). Consequently, a reference structure always consists of a main transaction and one or more partial transactions.

CCF of commitments and master agreements
The CCF of commitments and master agreements describes the utilization of the undrawn credit line at the time of default 1 year prior to the occurrence of the default by the debtor. CCF is the ratio between the additional amount of a loan used in the future divided by the amount that could be claimed.

CCF of sureties and letter of credit
With regard to sureties and letter of credits there is a higher risk of drawing by the borrower after the time of default as it is presumed that financial compensations (by a third-party) for the defaulted borrower are not likely. Regarding sureties and letter of credit the CCF is generally calculated based on a ratio resulting from discounted drawdowns of the sureties or letter of credit after the year of default to and in the year of default IA ≥ to as well as from sureties and letter of credit that exist at the time of forecast t-1 (one year before default).

7.7.2. Use of internal estimates for purposes other than for calculating the risk-weighted exposures under the IRB approach

Hamburg Commercial Bank uses parameters determined internally within the meaning of Article 452(b) subpoint (ii) CRR in many areas of the Group. For example, all risk parameters EaD/CCF, PD and LGD are actively used as part of overall bank management. In particular the risk parameters are embedded into risk-adjusted pricing of loan applications, the procedure to create loan loss provisions as well as into the profit center calculation. The rating systems are used with the corresponding risk parameters in the following steering systems of the bank:

- loan approval procedures/determination of competences
- a prior and ex-post calculation of individual transactions
- limit setting
- reporting
- commitment monitoring
- intensified loan management/restructuring

In addition, the parameters are used for on-going scenario calculations and in the planning and strategy process.

7.7.3. Permission from the competent authorities to use the IRB approach or accepted transitional arrangements

Hamburg Commercial Bank determines all parameters required to determine the risk-weighted exposure amount internally, i.e. probability of default (PD), loss given default (LGD), exposure at default (EaD), credit conversion factor (CCF) and maturity (M), and hence, complies with the requirements of the advanced IRB ap-proach for credit risks. Hamburg Commercial Bank already received the necessary permission from the competent authorities in 2007 to use this approach in accordance with Article 452 point (a) CRR in conjunction with Section 103 and Table CRE by the EBA/GL/2016/11. The implementation phase was completed as at 12/31/2012 by achieving the exit threshold in accordance with § 10(3) SolvV.

Hamburg Commercial Bank does not currently apply any transitional arrangements with respect to the use of the IRB approach. Exposure classes, to which the standardized approach for credit risk is permanently applied, and any relevant exemptions or transitional arrangements for these exposure classes are presented at appropriate points in the following sections.

An exit threshold of over 92 % is achieved for all coverage ratios of regulatory relevance - i.e. based on IRBA exposure values pursuant to § 11(1) SolvV and on risk-weighted IRBA exposure values pursuant to § 11(2) SolvV - as at the reporting date at both the institution and group level.

The following table shows the credit exposures broken down by IRB-exposure classes and IRB-rating modules. The data basis of this table differs due to methodical reasons from the other tables in Section Default Risk. Beside the credit risks the data basis consists also of counterparty credit risk. The background to this is that the application of rating procedure is independent of the type of transaction and therefore a limitation only to credit risk is not appropriate.

[Tab. 41] Exposure values by IRBA-exposure class and IRBA-rating module in € million

Exposure class	Rating process	Exposure value
Central governments and central banks	Banks and DSGV Guarantee System	732
	International Regional Authorities	134
	Country and Transfer Risk	5,429
	Total	**6,295**
Institutions	Banks and DSGV Guarantee System	3,368
	Corporates	24
	Sparkassen-ImmobiliengeschäftsRating (SIR)	3
	International Regional Authorities	112
	Total	**3,507**
Corporates	Banks and DSGV Guarantee System	418
	Ship financing	1,640
	Corporates	5,691
	Sparkassen-StandardRating	68
	Sparkassen-ImmobiliengeschäftsRating (SIR)	9,875
	Leveraged Finance	410
	Leasing Companies	54
	Real Estate Leasing (SPC)	328
	Insurance Companies	53
	International Commercial Real Estate	788
	Project financing	4,943
	Total	**24,269**
Equities[1)]	Banks and DSGV Guarantee System	81
	Corporates	12
	Sparkassen-StandardRating	0
	Sparkassen-ImmobiliengeschäftsRating (SIR)	0
	Real Estate Leasing (SPC)	1
	Total	**93**

1) Equities acc. to Article 155 (3) CRR (PD/LGD approach)

7.7.4. Control mechanisms for rating systems

In accordance with Article 452(b) subpoint (iv) CRR in conjunction with paragraph 103 and Table CRE of EBA/GL/2016/11 the control mechanisms for the rating systems are described below.

Description of the rating process
The rating process is divided into a creation process and determination process and is subject to the dual control principle. The determination of the rating is set by back office processing and control divisions.

The rating guidelines in the Credit Manual specify for all exposure amounts (except the retail portfolio and risks with total lending less than € 750,000 per group of connected clients or less than € 75,000 at business partner level) that internal rating systems recognized under supervisory law must be used. An individual credit assessment must be prepared,

- for borrowers, bearers of economic risk, rating issuers (this applies also to the purchase of receivables without recourse);
- for persons who act exclusively as support in the rating modules;
- as a precondition in order to include specific collateral (e.g. personal collateral) provided as a risk reduction to the benefit of Hamburg Commercial Bank.

Each borrower subject to rating is given only one rating for local currency rating and, if necessary a foreign currency rating.

The exact triggers for the rating are also specified in the Credit Manual. Each rating must be updated according to risk aspects (required for re-rating) – but at the latest within twelve months – and verified and confirmed by the back office division. Special risk aspects which require updating before the end of the 12-month period are specifically:

- significant expansion of the counterparty credit risk,
- knowledge of significant new risk-related information,
- commitments where a currency transfer risk exists if the risk country migrates to rating class 9 or worse,
- defaults and recoveries according default guidelines.

As long as the person or entity to be assessed is classified in a default class (rating level 16-18), regular re-rating is not necessary. The default reasons are however to be updated in the rating, if there is a change within the default rating classes based on new information received. This does not apply to the rating systems for ship and project financings, for which ratings – also in the case of default - are to be generally updated at least once within 12 months.

The guidelines in the Credit Manual explain the requirements for creating a rating unit. It sets out when the rating of the legal borrower is waived as part of the rating and the loan decision process and the rating of the bearer of economic risk and/or the rating donor is to be applied instead.

The rating process is regulated in the Credit Manual. In addition the respective specialized rating manuals are to be observed with the regard to the specific module requirements.

To ensure comprehensive rating for the exposure for which risk classification is required by CRR, the bank has established a process quality controlling.

Rating systems review

A validation of all rating modules and of the LGD and CCF models of Hamburg Commercial Bank is performed annually within the meaning of Article 144(1)(e) CRR and Article 185 CRR. The management board will be informed annually about the validation results of the rating modules and its consequences.

The validation includes the following steps:

- analysis of portfolio and market performance (e.g. description of the portfolio according to region and relevant customer types)
- analysis of rating distributions
- backtesting (comparison with actual default rates) and/or benchmarking (comparison with external ratings)
- calibration (verification of the extent of allocated default probabilities)
- examination of selectivity (ability of the rating module to differentiate between good and bad borrowers)
- review of the model structure and design (e.g. significance and weighting of individual factors and partial models, inclusion of supporters, analysis of the frequency with which data were overwritten and the reasons for this, inclusion of the transfer risk)
- examination of the application of ratings (e.g. analysis of data quality, verification of standard application by carrying out duplicate analyses).

The process of validation involves two steps:

- The first step involves validation based on the pooled data of all partner banks and savings banks under the lead management of RSU and/or SR. Data are pooled specifically to create the largest possible and hence statistically most significant database. In cooperation with the relevant competence center and support center, RSU performs the validation and, if necessary, the recalibration and further development of the modules on the basis of the pooled data. For the modules of SR, pooling is carried out on the basis of data from participating savings banks and participating banks. Updates, validation and developments are made by SR.
- As the validation is done on the basis of the pooled data, it is necessary to demonstrate that the results can also be applied to Hamburg Commercial Bank. This is done in a second step in cooperation with RSU as well as SR.

The LGD and CCF methods are also validated annually jointly with other banks, similar to validation of the rating modules. In addition, the validity of RSU and SR is also determined independently of maintenance and development.

Within the Hamburg Commercial Bank the unit credit risk control is responsible for the support, development and methodologies of the rating modules as well as LGD and CCF models.

The unit Model & Product Validation was created to ensure independence between the development of models and validation. All models from the model inventory for which Risk Control is responsible are validated across all risk types. The functional consistency of the risk modelling is also ensured. Additionally, consistent and transparent model risk governance regarding the process of model risk management was implemented.

IRBA Risk Model Reporting

IRBA risk models are monthly reported to the ALCO and executive board members of CRO and CFO. Thereby, validation results of each rating module including potential actions that might be required as well as assessments of effects for modules that need to be validated are submitted. Each report provides the following information regarding the rating module: EaD, pool validation decision, internal validation decision including potential measures, decision on calibration, selectivity, model adjustments, changes in capital adequacy and changes in EL. Furthermore, the ALCO will be provided with information concerning regulatory findings of the IRBA modules on the basis of institutional and pool level.

Additionally, aspects regarding the concentration on default risks, development of EaD, EL, capital adequacy, PD and LGD are presented in different dimensions. Since the beginning of 2018

Hamburg Commercial Bank has a two-step decision-making process according to changes in methodologies, policies and processes.

Beside the ALCO operating in the "designated committee" function with the participation of the board management (Article 189 CRR) a model management committee ("Modellsteuerungskreis" MSK) was created. The MSK manages the interface between the ALCO and the units that are responsible for the development, operating and validation of the models used by the risk management.

Considering the principle of proportionality, this process ensures an adequate depth of expert knowledge and a timely decision-making. The organizational separation of development unit and validation units within Hamburg Commercial Bank, was implemented at the beginning of 2018.

7.7.5. A description of the internal ratings process by exposure classes

Positions which cannot be rated using a recognized IRBA rating system but have an internal expert rating are calculated in the standardized approach for credit risk (see Section 7.5). The internal valuation methods are applied to exposure classes under the IRB approach as laid down in Article 452 point (c) CRR in accordance with paragraph 103 of EBA/GL/2016/11 and Table CRE. The scope of application of an IRBA rating module generally covers several exposure classes. Table 41 shows the IRBA rating modules that are used for each exposure class. The assignment of positions to expo sure classes is carried out independently of the IRBA rating module used on the basis of a customer classification key, which is an en cryption of the business partners according to various features.

IRBA module "Banks"

The context of the approach used for the rating model of banks is restricted to rating objects that are generally related to typical banking transactions (material view on the definition of banks). Bank holdings, Bausparkassen (building society), public funding agencies and financial service provider can be rated within this module.

The development of the model was realized by RSU mainly following a statistical approach (comparison with internal default history and with external ratings) but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "DSGV Guarantee System" (Banken DHV)

The rating module "Banken DHV" is only used for the valuation of the DSGV Guarantee System. This module offers some special characteristics defined by no past defaults and insider information available for determining system parameters.

The simulation-based approach is very similar to the CreditMetrics credit portfolio model. Thereby, statistical analyses and expert judgment are used for parameterizing risk factors and for validation.

IRBA module "Corporates"

The corporate rating module presents a rating for corporate businesses (turnover of € 20 million or more) whereby the rating method can generally be used cross-sectoral for all corporate businesses worldwide. A basic requirement for the usage of corporate modules is that the company has a commercial accounting with annual financial statements and a business administrative management.

The development of the model was realized by RSU mainly following a statistical approach but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "Real Estate Leasing"

The object of the rating module "SPC-Real Estate Leasing" is to valuate special purpose companies (SPC) in order to finance real estates. The lessee can be rated with other internal IRBA methods. A leased object is defined by national or international real estate for which its value is based on an expert valuation. Thereby, financing processes refer to the residual value (independent whether open or not), direct loans to the SPC or leasing receivables.

The development of the model was realized by RSU mainly following a statistical approach (comparison with internal default history and with external ratings) but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "International Commercial Real Estate (ICRE)"

The object of the rating module "ICRE" is to valuate commercial real estates. Thereby, the location of the property or the focus of the real estate portfolio needs to be outside Germany. Whereas the borrower may be domiciled in Germany or abroad. A condition to use this model is defined by the cash flows. Thereby generated cash flows such as rentals, lease payments and sales proceeds for which the loan will be applied with are directly assigned to the property portfolio.

The simulation approach aims at providing an economic model based on an analysis of cause-effect relationships. Cash flow numbers, object values and transaction characteristics are the main risk drivers used in the simulation.

IRBA module "International Regional Authorities"

The module "International Regional Authorities" is used to assess the economic ability and willingness on an international government body outside Germany to meet its payment obligations full and punctually. The module covers regions and municipalities below the level of federal government, which perform public sector responsibilities for private households and companies within their administrative areas and can levy taxes and other charges.

The development of the model was realized by RSU mainly following a statistical approach but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "Country and Transfer Risk"
The module "Country and Transfer Risk" is used to calculate the probability of default of countries for obligations in both domestic and foreign currency as well as the probability of default of transferring transactions. This module calculates the risk that a foreign debtor may be prevented from meeting its payment obligations in foreign currency by government imposed restrictions.

The development of the model was realized by RSU mainly following a statistical approach but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "Leasing Companies"
The module "Leasing Companies" is intended for rating leasing companies that apply German accounting standards (HGB).

The development of the model was realized by RSU mainly following a statistical approach (comparison internal default history) but also taking into account expert judgment to ensure the economic plausibility of the outcomes.

IRBA module "Leveraged Finance"
The module "Leveraged Finance" is intended for Leveraged Buyout transactions, comparable business acquisitions such as Management Buy-Outs, Management Buy-Ins etc. as well as strategic takeovers or acquisitions involving substantial borrowing.

The development of the Leveraged Finance model was realized on by RSU mainly following a statistical approach but also taking into account expert judgment to ensure the economic plausibility of the outcomes.

IRBA module "Insurance Companies"
The rating module "Insurance Companies" is designed for rating companies that are commonly classified as insurers or generate more than 50 % of their gross operating income from insurance business or all companies that can be classified as insurance businesses.

The development of the model was realized by RSU mainly following a statistical approach but also taking into account expert judgment based on the statistical results to ensure the economic plausibility of the outcomes.

IRBA module "Project Financing"
Generally, the module project financing can be used for all types of project financing. Project financing correspond to projects that have normally limited timeframes. The expected cash flow for this financed project will be determined.

The development of the model was realized by the RSU. It is based on a simulation approach whose aim is to provide an economic model which is based on an analysis of cause-effect relationships. Cash flow numbers, project value and transaction characteristics are the main risk drivers used in the simulation.

IRBA module "Ship Financing"
This module calculates the probability of default (PD) and the loss given default (LGD) for object financing in the portfolio of ship financing. Thereby, the definition of object financing is based on the requirements of the Basel Committee on Banking Supervision in the field of specialized lending (addressed in CRR).

The development of the model was realized by the RSU. It is based on a simulation approach whose aim is to provide an economic model which is based on an analysis of cause-effect relationships. Cash flow numbers, object values and transaction characteristics are the main risk drivers used in the simulation.

IRBA module "Sparkassen-Immobiliengeschäfts-Rating"
The module "Sparkassen-Immobiliengeschäfts-Rating (SIR)" rates commercial real estate projects. A real estate is defined as commercial if the rentals, lease payments and sales proceeds are directly assigned to the property portfolio. The component "Object Rating" is used for real estate which are located in Germany. If a customer may have both - domestic and foreign property - the foreign real estate will then be valuated within the solvency rating (in case SIR can be used). Process specific standards of RSU are used relating to the application of ICRE.

The development of the model was realized by the SR. It is based on a simulation approach whose aim is to provide an economic model which is based on an analysis of cause-effect relationships. Cash flow numbers, object values and transaction characteristics are the main risk drivers used in the simulation. Simulation results are transformed, calibrated and adjusted by qualitative factors (specified by experts).

IRBA module "Sparkassen-Standard-Rating"
The module "Sparkassen-Standard-Rating" is designed for the valuation of commercial customers, corporates (up to € 20 million turnover), freelancers and entrepreneurs.

The scoring approach aims at providing an economic model based on an analysis of cause-effect relationships. Annual financial statements, behavioral analysis and qualitative information, that are measured by scoring, are the main factors deriving to the rating score.

Retail exposures
For retail exposures Hamburg Commercial Bank only uses the standardized approach for credit risk.

Equity holding exposures
For the rating of equity holding exposures the rating modules for credit risk are used. If no rating module recognized under supervisory law can be used for an equity holding exposure, the simple risk-weight approach is used according to Article 155(2) CRR.

Default definition
Hamburg Commercial Bank does not deviate from the definition of default in Article 178 CRR and EBA/GL/DoD.

7.7.6. Quantitative information on the use of the IRB approach

Table CR6 shows the credit risk exposures in accordance with Article 452 points (e) and (g) CRR in conjunction with paragraphs 104 to 107 of EBA/GL/2016/11 allowing for credit risk mitigation techniques. In addition to the credit risk exposures, parameters for calculating capital requirements using IRBA models are disclosed for each exposure class and rating range. As Hamburg Commercial Bank does not calculate retail business using the IRB approach and does not use internal models under Article 155(4) CRR, these rows remain empty. The bank uses only the advanced IRB approach (AIRB). Therefore, a separate table for the foundation IRB approach (FIRB) is not presented.

The credit risk exposures include purchased corporate receivables amounting to € 249 million. No separate disclosure has been made for reasons of materiality.

[Tab. 42] CR6: IRB approach - credit risk exposures by exposure class and PD range in € million

		a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors	Average LGD in %	Average maturity in years	RWAs	RWA density in %	EL	Value adjustments and provisions
Central governments and central banks													
	0.00 to < 0.15	6,138	10	93.5	6,148	–	18	23.6	2.4	85	1.4	0	
	0.15 to < 0.25	6	–	–	6	0.2	2	30.0	4.0	2	37.9	0	
	0.25 to < 0.50	27	–	–	27	0.3	3	38.5	2.4	14	50.3	0	
	0.50 to < 0.75	–	–	–	–	–	–	–	-	–	–	–	
	0.75 to < 2.50	–	–	–	–	–	–	–	-	–	–	–	
	2.50 to < 10.00	61	–	–	61	3.0	1	40.0	5.0	91	149.8	1	
	10.00 to < 100.00	–	–	–	–	–	–	–	-	–	–	–	
	100.00 (Default)	–	–	–	–	–	–	–	-	–	–	–	
	Subtotal	**6,232**	**10**	**93.5**	**6,241**	**0.0**	**24**	**23.8**	**2.4**	**192**	**3.1**	**1**	**0**
Institutions													
	0.00 to < 0.15	2,694	1	22.2	2,694	0.1	82	19.4	2.9	315	11.7	0	
	0.15 to < 0.25	226	–	–	226	0.2	5	34.9	2.0	71	31.5	0	
	0.25 to < 0.50	200	–	–	200	0.3	8	10.2	3.0	39	19.4	0	
	0.50 to < 0.75	21	–	–	21	0.6	3	57.0	5.0	38	182.5	0	
	0.75 to < 2.50	0	–	–	0	2.0	1	62.6	1.0	0	140.7	0	
	2.50 to < 10.00	–	–	–	–	–	1	–	-	–	–	–	
	10.00 to < 100.00	–	–	–	–	–	1	–	-	–	–	–	
	100.00 (Default)	–	–	–	–	–	–	–	-	–	–	–	
	Subtotal	**3,141**	**1**	**22.2**	**3,141**	**0.1**	**96**	**20.2**	**2.8**	**464**	**14.8**	**1**	**0**
Corporates - Specialised lending													
	0.00 to < 0.15	3,816	304	40.8	3,940	0.1	197	18.3	2.8	358	9.1	1	
	0.15 to < 0.25	1,602	183	38.5	1,673	0.2	66	20.1	2.6	239	14.3	1	
	0.25 to < 0.50	3,170	710	38.5	3,443	0.3	148	25.3	2.8	994	28.9	3	
	0.50 to < 0.75	1,285	312	37.2	1,401	0.6	58	29.1	2.8	589	42.0	2	
	0.75 to < 2.50	3,226	728	39.2	3,511	1.4	152	22.5	2.6	1,530	43.6	11	
	2.50 to < 10.00	900	5	33.8	902	4.1	45	36.2	2.9	901	100.0	13	
	10.00 to < 100.00	79	–	–	79	23.0	7	24.3	2.2	79	100.5	5	
	100.00 (Default)	249	3	31.3	250	100.0	28	51.2	2.5	128	51.1	118	
	Subtotal	**14,327**	**2,244**	**38.8**	**15,199**	**2.5**	**701**	**23.7**	**2.7**	**4,818**	**31.7**	**153**	**311**
Corporates - SME													
	0.00 to < 0.15	387	48	35.5	404	0.1	31	10.5	2.7	15	3.7	0	
	0.15 to < 0.25	145	50	42.5	167	0.2	6	12.3	2.5	13	8.0	0	
	0.25 to < 0.50	249	71	36.2	275	0.4	30	18.2	2.9	51	18.5	0	
	0.50 to < 0.75	125	20	39.6	133	0.6	9	29.5	2.5	49	36.6	0	
	0.75 to < 2.50	222	78	36.0	250	1.3	39	26.8	2.8	114	45.6	1	
	2.50 to < 10.00	2	4	34.2	3	3.9	7	35.9	2.5	2	79.0	0	

		a	b	c	d	e	f	g	h	i	j	k	l
Exposure class	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF in %	EAD post CRM and post CCF	Average PD in %	Number of obligors	Average LGD in %	Average maturity in years	RWAs	RWA density in %	EL	Value adjustments and provisions
	10.00 to < 100.00	10	–	–	10	12.8	3	4.4	4.7	2	16.9	0	
	100.00 (Default)	33	5	20.0	34	100.0	13	69.9	3.0	24	71.6	22	
	Subtotal	**1,174**	**276**	**37.1**	**1,276**	**3.2**	**138**	**19.2**	**2.7**	**270**	**21.2**	**23**	**32**
Corporates - Other													
	0.00 to < 0.15	1,495	438	41.1	1,675	0.1	63	28.0	3.1	305	18.2	0	
	0.15 to < 0.25	313	327	37.1	434	0.2	46	32.5	2.2	122	28.0	0	
	0.25 to < 0.50	1,268	763	34.0	1,527	0.3	108	35.5	2.7	718	47.0	2	
	0.50 to < 0.75	726	185	36.7	793	0.6	36	27.5	3.0	420	53.0	1	
	0.75 to < 2.50	1,356	399	37.3	1,504	1.3	97	30.3	2.6	1,074	71.4	6	
	2.50 to < 10.00	257	57	33.1	276	3.5	18	25.5	2.5	221	80.0	2	
	10.00 to < 100.00	279	114	32.9	316	20.6	20	31.8	3.3	537	169.9	26	
	100.00 (Default)	300	90	41.4	337	100.0	45	40.9	2.3	235	69.6	119	
	Subtotal	**5,992**	**2,373**	**36.7**	**6,863**	**6.5**	**432**	**31.1**	**2.8**	**3,632**	**52.9**	**158**	**255**
Retail													
Equities acc. to art. 155(3) CRR													
	0.00 to < 0.15	–	–	–	–	–	–	–	–	–	–	–	
	0.15 to < 0.25	–	–	–	–	–	–	–	–	–	–	–	
	0.25 to < 0.50	59	–	–	59	0.4	13	90.0	5.0	114	191.9	0	
	0.50 to < 0.75	5	–	–	5	0.7	1	90.0	5.0	11	235.9	0	
	0.75 to < 2.50	30	–	–	30	1.4	11	90.0	5.0	85	287.0	0	
	2.50 to < 10.00	–	–	–	–	–	–	–	–	–	–	–	
	10.00 to < 100.00	–	–	–	–	–	–	–	–	–	–	–	
	100.00 (Default)	0	–	–	0	100.0	1	95.1	5.0	0	61.0	0	
	Subtotal	**93**	**–**	**–**	**93**	**0.7**	**26**	**90.0**	**5.0**	**209**	**224.1**	**1**	**–**
Equities acc. to Art. 155(2) CRR		**6**	**24**	**100.0**	**31**		**39**		**–**	**113**	**370.0**	**1**	**–**
Equities acc. to Art. 155(4) CRR													
Other non credit-obligation assets		**120**	**–**		**120**		**5**		**5,0**	**89**	**74.6**		**–**
Total		**31,086**	**4,927**	**38.1**	**32,964**	**2.7**	**1,438**	**24.9**	**2.7**	**9,788**	**29.7**	**337**	**598**

Average LGD and PD by geographical location

The exposure-weighted average LGD and PD are shown in the following table for each geographical area in accordance with Article 452(j) subpoint (i) CRR. For the purpose of this table and in line with the Consultation Paper EBA/CP/2016/07, the location of the institution respectively branch where the exposure is recorded is shown and not the debtor's country of residence.

Information is provided in accordance with the definition in Article 452 Sentence 3 CRR for the EU member states Germany, Greece and Luxembourg. Hamburg Commercial Bank is either licensed in these countries or conducts its business activities there through a branch or subsidiary as at the reporting date.

As at the reporting date, there are no more transactions in the Singapore branch.

The Athens branch did not record any business in the reporting year.

[Tab. 43] 452j: Average LGD and PD by geographical location according to Article 452(j) CRR

Exposure class	Avg. PD in %	Avg. LGD in %
Germany		
Central governments and central banks	0.0	23.9
Institutions	0.1	19.8
Corporates	3.7	25.2
Equities under PD/LGD approach - Art. 155(3) CRR	0.7	90.0
Subtotal	**2.6**	**24.6**
Greece		
Central governments and central banks	-	-
Institutions	-	-
Corporates	-	-
Equities under PD/LGD approach - Art. 155(3) CRR	-	-
Subtotal	**-**	**-**
Luxemburg		
Central governments and central banks	0.0	20.0
Institutions	0.1	46.1
Corporates	5.7	48.8
Equities under PD/LGD approach - Art. 155(3) CRR	100.0	95.1
Subtotal	**4.4**	**44.2**
Singapore		
Central governments and central banks	-	-
Institutions	-	-
Corporates	-	-
Equities under PD/LGD approach - Art. 155(3) CRR	-	-
Subtotal	**-**	**-**
Total	**2.7**	**24.9**

Credit derivatives
Table CR7 shows the effect of credit derivatives purchased for hedging the loan portfolio on the capital requirements according to paragraph 108 of EBA/GL/2016/11.

Hedging with regard to credit risk mitigation only occurs with cash collaterals resulting from credit linked notes. According to Article 218 CRR collaterals resulting from credit linked notes are not treated as credit derivatives but as cash collaterals. Therefore, credit derivatives have currently no impact on the capital requirements and Table CR7 is omitted.

RWA flow statements
According to Article 92(3)(a) and Article 438 point (d) CRR in conjunction with paragraph 109 of EBA/GL/2016/11, Table CR8 shows the flow statements showing changes on the risk weighted exposure (RWA) calculated under the IRB approach and accordingly the required capital requirements with regard to the credit risk. Table CR8 does not include securitizations, counterparty credit risk and Other non credit-obligation assets according to Article 147(2)(g) CRR. Included are all participations under Article 155 CRR, not only IRBA participations for which the PD/LGD approach is applied.

[Tab. 44] CR8: RWA flow statement of credit risk exposures according to IRB approach in € million

		a	b
		RWA amounts	Capital requirements
1	**RWA at the end of the last reporting period 30.06.2020**	**11.733**	**939**
2	Asset size	– 1.417	– 113
3	Asset qualitiy	– 495	– 40
4	Model updates	– 39	– 3
5	Methodology and policy	–	–
6	Acquisitions and disposals	31	2
7	Foreign exchange movements	– 131	– 11
8	Other	18	1
9	**RWAs as at the end of the reporting period 31.12.2020**	**9.700**	**776**

Main adjustments of the RWA flow statements in the reporting period as well as key drivers will be described as follows as required by EBA/GL/2016/11.

The effect in terms of asset size results from the course of business. Details concerning the course of business are provided in the Management Report of Hamburg Commercial Bank as at 31 December 2020 (economic report).

Asset quality includes the effects of all parameter changes that lead to a change in the risk weight of a transaction. Changes in LGD values also include changes in the collateralization and valuation of collateral. In addition to the value shown in the table above, the adjustments to model parameters currently anticipated in the additional risk position in accordance with Article 3 CRR (see Section 2.2) must also be taken into account when considering asset quality. In the overall view, there is a RWA decrease for the reporting period. As soon as the anticipated model adjustments become effective, they will be included in the RWA flow statements.

The model adjustments in the second half of 2020 are mainly driven by spillover effects from the 2020 projects, in particular from the model changes in the rating module banks (reduction in PD) and project financing (reduction in PD). For methodological changes from maintenance projects of rating procedures, the effects are spread over three quarters, i.e. 1/3 of the changes that actually take effect are distributed over each quarter.

In the reporting period, there were no regulatory adjustments material of any significance for the RWA flow statement, nor were there any significant changes in the investment portfolio.

The effect of foreign exchange movements results primarily from the USD exchange rate, which fell from 1.1198 EUR/USD to 1.2271 EUR/USD.

The position "Oher" includes exposure changing from the standardized approach to the IRB approach (and vice versa) due to adjusted rating conditions.

Simple risk-weight approach
The IRB approach always calculates the risk weights using parameters assessed internally. Equity exposure and specialized lending exposure are exceptions. In these cases it is possible to determine risk weight using the simple risk-weight approach. Risk weighting is set by the supervisory authorities depending on fixed criteria. However, Hamburg Commercial Bank currently only partially uses the simple risk-weight approach for equity exposures. Depending on whether the equity exposure is not quoted on the stock exchange but is diversified sufficiently, or represents a quoted or another equity exposure, a risk weight of 190 %, 290 % and/or 370 % in accordance with Article 155(2) CRR is allocated.

Table CR10 shows quantitative information concerning equity exposure for which the simple risk-weight approach is used according to Article 438(2) CRR in conjunction with paragraph 70 of EBA/GL/2016/11. Significant equity holdings in a financial sector entity receive a risk weight of 250 % subject to Article 155(1) CRR in conjunction with Article 48(4) CRR. These exposures are not disclosed in Table CR10.

No information is disclosed concerning specialized lending exposure as Hamburg Commercial Bank does not calculate these exposures under the requirements of Article 153(5) CRR.

[Tab. 45] CR10: IRB equities under the simple risk-weight approach in € million

Categories	On-balance-sheet amount	Off-balance-sheet amount	Risk weight	Exposure amount	RWAs	Capital requirements
Private equity exposures	–	–	190 %	–	–	–
Exchange-traded equity exposures	–	–	290 %	–	–	–
Other equity exposures	6	24	370 %	31	113	9
Total	**6**	**24**		**31**	**113**	**9**

7.8. IRB backtesting

Information with regard to backtesting of IRB model parameters are disclosed according to Article 452 point (i) CCR in conjunction with paragraphs 110 and 111 of EBA/GL/2016/11. The probability of default (PD) is given in Table CR9 with regard to EBA/GL/2016/11. Other parameters are given within the bank specific Tables LGD, CCF and EL.

For methodological reasons, the data basis for the tables in this section differs from the other tables in the default risk Section. In addition to credit risk, counterparty credit risks and fully or partially securitized transaction are also taken into account. The background to this is that the backtesting of the IRB model parameters on a customer basis is independent of the type of transactions carried out and therefore a limitation to credit risk is not appropriate.

The values considering the actual LGD are cumulative and cover all defaults from 1990 to the time that they are concluded. Non-defaults are not considered. The relation of the losses resulting from defaulted customers to the outstanding amount at the report date is shown. Thereby, the actual loss of the bank is assessed (final depreciation amount on completion of the processing). All revenues which have flowed to the bank by this point are considered.

Actual losses are calculated similar to the actual LGD. Hereby, defaults that are not concluded and might already have accumulated losses are not considered. In contrary to the calculation of LGD the actual loss is based on defaults that occurred over a three-year period. Therefore, the actual losses from 2016 to 2018, 2017 to 2019 and 2018 to 2020 are shown. As the backtesting is based on this three-year window, a comparison to accounting losses based on the reporting period is not possible.

The significance for the comparative values that are disclosed is limited due to different reporting periods for the estimated losses (actual year) compared to the actual losses (year of default = year of completing the processing). Particularly, in special cases such as portfolio transactions or data revision, the internal process of the default could be completed after the actual default conclusion. This could affect the actual LGD or losses of the previous years (previous reporting dates). The actual losses that are shown are however periodically included within the recalibration of the IRBA parameters. The same applies to the estimated and actual LGD.

Since 1990 the actual CCF are also cumulatively assessed. In contrast to LGD and losses, the CCF is assessed on the basis of the year of default and open credit lines one year before default and open credit lines at default as there is no methodological reason to wait for the end of the processing. Thereby, data revisions can lead to changed backtesting results from previous reporting dates.

PD and default rates

For some rating modules, deviations between PD and default rates were observed on average in the last three periods (year 2018 to 2020). In the following section, the causes for the deviations in the affected rating modules are discussed.

For the rating module "ship financing", increased default rates compared to the forecasts were observed due to the persistently difficult market environment. In recent years, the relationship between PD and default rate has been balanced, but defaults have increased again at the end of the observation period.

The default rates in the "Corporates" module are higher overall compared to the forecast. The defaults originate from the Shipping asset class as well as from the other sectors in the Corporates and Leveraged Finance module. The comparatively small portfolio in the application area of the rating module Leveraged Finance leads to significant deviations between the default rates and the forecast of the last two years in this module. The default rates in the Corporates module are only slightly above the forecast in the last two observation periods.

No defaults were observed in the rating modules Sovereigns and Institutions (countries, local authorities, banks, insurance companies) in recent years.

Crisis years are taken into account in the history of the rating modules. Whether and to what extent the COVID 19 pandemic leads to effects that deviate from the crisis experience already taken into account is analysed regularly.

[Tab. 46] CR9: IRB approach - backtesting of PD per exposure class

a	b	d	e	f	f	g	h	i
Exposure class	PD range	Weighted average PD of previous year in %	Arithmetic average PD by obligors of previous year in %	Number of obligors End of previous year	Number of obligors end of the year	Defaulted obligors in the year	Of which new obligors	Average historical annual default rate in %
Central governments and central banks	0.00 to < 0.15	0.0	0.0	24	19	-	-	-
	0.15 to < 0.25	-	-	-	2	-	-	-
	0.25 to < 0.50	0.3	0.3	2	3	-	-	-
	0.50 to < 0.75	0.6	0.6	1	-	-	-	-
	0.75 to < 2.50	2.0	2.0	1	-	-	-	-
	2.50 to < 10.00	-	-	-	1	-	-	-
	10.00 to <100.00	0.0	0.0	-	-	-	-	-
	Subtotal	**0.0**	**0.1**	**28**	**25**	**-**	**-**	**-**
Institutions	0.00 to < 0.15	0.1	0.1	102	95	-	-	-
	0.15 to < 0.25	0.2	0.2	7	8	-	-	-
	0.25 to < 0.50	0.4	0.3	8	8	-	-	-
	0.50 to < 0.75	0.0	0.0	-	3	-	-	-
	0.75 to < 2.50	0.9	1.4	3	1	-	-	-
	2.50 to < 10.00	-	-	-	1	-	-	-
	10.00 to <100.00	0.0	10.0	1	1	-	-	-
	Subtotal	**0.1**	**0.2**	**116**	**112**	**-**	**-**	**-**
Corporates - Specialised lending	0.00 to < 0.15	0.1	0.1	249	198	-	-	-
	0.15 to < 0.25	0.2	0.2	74	66	-	-	0.4
	0.25 to < 0.50	0.3	0.3	159	151	-	-	0.1
	0.50 to < 0.75	0.6	0.6	81	60	-	-	0.5
	0.75 to < 2.50	1.4	1.4	221	152	1	-	1.4
	2.50 to < 10.00	5.3	4.8	39	46	2	-	9.2
	10.00 to <100.00	17.1	20.9	17	8	4	-	27.2
	Subtotal	**1.0**	**1.2**	**840**	**681**	**7**	**-**	**3.1**
Corporates - SME	0.00 to < 0.15	0.1	0.1	33	32	-	-	-
	0.15 to < 0.25	0.2	0.2	17	7	-	-	-
	0.25 to < 0.50	0.3	0.3	46	33	1	-	0.4
	0.50 to < 0.75	0.6	0.6	15	10	-	-	-
	0.75 to < 2.50	1.2	1.3	43	45	-	-	1.3
	2.50 to < 10.00	3.3	5.1	7	8	1	-	9.2
	10.00 to <100.00	19.9	18.8	4	4	-	-	15.6
	Subtotal	**0.8**	**1.2**	**165**	**139**	**2**	**-**	**1.9**
Corporates - Other	0.00 to < 0.15	0.1	0.1	115	81	-	-	-
	0.15 to < 0.25	0.2	0.2	87	50	-	-	0.7
	0.25 to < 0.50	0.3	0.3	131	124	-	-	0.5
	0.50 to < 0.75	0.6	0.6	54	41	-	-	1.0
	0.75 to < 2.50	1.4	1.4	121	110	2	-	2.8
	2.50 to < 10.00	5.0	4.3	18	21	1	-	4.7
	10.00 to <100.00	14.1	16.1	22	21	4	-	16.2
	Subtotal	**1.0**	**1.3**	**547**	**447**	**7**	**-**	**1.7**
Equities acc. to Art. 155(3) CRR	0.00 to < 0.15	-	-	-	-	-	-	-
	0.15 to < 0.25	-	-	-	-	-	-	-
	0.25 to < 0.50	0.4	0.4	1	13	-	-	-
	0.50 to < 0.75	0.7	0.7	1	1	-	-	-
	0.75 to < 2.50	1.3	1.3	5	11	-	-	-
	2.50 to < 10.00	0.0	0.0	-	-	-	-	-
	10.00 to <100.00	20.0	20.0	1	-	-	-	42.9
	Subtotal	**1.2**	**3.4**	**8**	**25**	**-**	**-**	**7.1**

External rating equivalents are not disclosed in Table CR9 (column c EBA-template) as Hamburg Commercial Bank does not estimate the PD on the basis of Article 180(1)(f) CRR.

[Tab. 47] LGD: IRB approach - backtesting of LGD per exposure class

	2020				
	Actual LGD in % by 31.12 .2020	Estimated LGD in % as at 31.12.2019		Number of obligors as at 31.12.2019	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	6.2	0.0	22.6	0	27
Institutions	45.2	–	16.9	0	103
Corporates - Specialised lending	28.8	59.5	25.0	30	836
Corporates - SME	30.5	61.3	24.5	16	162
Corporates - Other	29.0	53.8	34.0	43	507
Total	**29.4**	**57.9**	**25.4**	**89**	**1,635**

	2019				
	Actual LGD in % by 31.12.2019	Estimated LGD in % as at 31.12.2018		Number of obligors as at 31.12.2018	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	6.2	75.0	23.5	1	31
Institutions	45.2	–	15.1	0	137
Corporates - Specialised lending	28.9	43.1	25.2	63	990
Corporates - SME	29.1	57.8	38.9	14	184
Corporates - Other	29.0	50.9	39.6	33	504
Total	**29.3**	**46.5**	**26.3**	**111**	**1,846**

	2018				
	Actual LGD in % by 31.12.2018	Estimated LGD in % as at 31.12.2017		Number of obligors as at 31.12.2017	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	8.0	73.9	22.8	2	36
Institutions	45.2	0.0	13.8	0	143
Corporates - Specialised lending	28.9	45.1	28.2	268	1,099
Corporates - SME	28.8	41.2	34.3	37	168
Corporates - Other	29.1	49.1	38.2	66	645
Total	**29.3**	**45.6**	**26.6**	**373**	**2,091**

[Tab. 48] CCF: IRB approach - backtesting of CCF per exposure class

	2020				
	Actual CCF in % by 31.12.2020	Estimated CCF in % as at 31.12.2019		Number of obligors as at 31.12.2019	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	–	0.0	86.7	0	27
Institutions	100.0	–	37.9	0	103
Corporates - Specialised lending	29.6	48.9	43.1	30	836
Corporates - SME	34.1	49.9	43.9	16	162
Corporates - Other	22.2	59.6	48.9	43	507
Total	**27.3**	**52.9**	**46.2**	**89**	**1,635**

	2019				
	Actual CCF in % by 31.12.2019	Estimated CCF in % as at 31.12.2018		Number of obligors as at 31.12.2018	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	–	0.0	95.7	1	31
Institutions	100.0	–	37.5	0	137
Corporates - Specialised lending	29.6	44.5	45.1	63	990
Corporates - SME	34.1	49.9	50.4	14	184
Corporates - Other	22.2	65.4	48.5	33	504
Total	**27.3**	**52.6**	**47.0**	**111**	**1,846**

	2018				
	Actual CCF in % by 31.12.2018	Estimated CCF in % as at 31.12.2017		Number of obligors as at 31.12.2017	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	–	100.0	95.9	2	36
Institutions	100.0	–	36.9	0	143
Corporates - Specialised lending	29.8	46.6	42.3	268	1,099
Corporates - SME	35.7	57.7	49.3	37	168
Corporates - Other	22.4	45.8	48.2	66	645
Total	**27.5**	**52.0**	**44.9**	**373**	**2,091**

[Tab. 49] EL: IRB approach - backtesting of expected loss (EL) per exposure class

	2020				
	Actual Loss in € million by 31.12.2020	Estimated Loss (EL) in € million as at 31.12.2019		Number of obligors as at 31.12.2019	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	0	–	1	0	27
Institutions	–	–	0	0	103
Corporates - Specialised lending	533	359	62	30	836
Corporates - SME	51	54	3	16	162
Corporates - Other	20	158	26	43	507
Total	**705**	**570**	**92**	**89**	**1,635**

	2019				
	Actual Loss in € million by 31.12.2019	Estimated Loss (EL) in € million as at 31.12.2018		Number of obligors as at 31.12.2018	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	0	0	4	1	31
Institutions	8	–	1	0	137
Corporates - Specialised lending	5,295	289	82	63	990
Corporates - SME	279	55	7	14	184
Corporates - Other	1,223	146	25	33	504
Total	**7,046**	**490**	**119**	**111**	**1,846**

	2018				
	Actual Loss in € million by 31.12.2018	Estimated Loss (EL) in € million as at 31.12.2017		Number of obligors as at 31.12.2017	
Exposure class	Defaulted	Defaulted obligors	Non-defaulted obligors	Defaulted obligors	Non-defaulted obligors
Central governments and central banks	–	0	5	2	36
Institutions	38	–	1	0	143
Corporates - Specialised lending	6,838	2,160	99	268	1,099
Corporates - SME	367	191	5	37	168
Corporates - Other	1,405	569	34	66	645
Total	**8,790**	**2,921**	**144**	**373**	**2,091**

8. Counterparty credit risk

Hamburg Commercial Bank subsumes risks from derivative and securities financing transactions under counterparty credit risk. A counterparty credit risk is the risk that the counterparty of the transaction defaults, the transaction no longer can be settled as planned and in consequence a replacement risk arises.

Hamburg Commercial Bank complies with EBA/GL/2016/11 for the disclosure of counterparty credit risk.

8.1. Qualitative disclosure of counterparty credit risk

Qualitative information related to counterparty credit risk (CCR) should be disclosed in accordance with Article 435(1)(a) CRR and Article 439 points (a) to (d) CRR in conjunction with paragraph 53 of EBA/GL/2016/11. Additionally, all necessary information of points (a) to (e) in Table CCRA in EBA/GL/2016/11 will be described within the following. Point (d) is not relevant as no methods based on internal models are used (see Section 1.1 Non-relevance and negative declarations).

8.1.1. Methodology how internal capital and ceilings for counterparty credit risk exposures are assigned

The usual credit approval procedures must be complied with when creating counterparty credit risk exposures within the meaning of Part 3 Title II Chapter 6 CRR. The risk classification, limitation and monitoring processes of the classic lending business apply accordingly. Information, which complies with the requirements as defined in Article 435(1) CRR, is set out in the Group Management Report (Risk Report) in Hamburg Commercial Bank's Annual Report, furthermore there is a daily monitoring of derivative/issuer exposures in accordance with MaRisk requirements. As part of the monitoring of trading lines the potential future exposure on currency and interest rate derivatives is recalculated daily for each customer on the basis of a 95 %-quantile and compared to the respective trading limit. The eligible sums for counterparty credit risk exposures are included in the bank-wide economic management, capital allocation and limitation together with the other exposures subject to credit risk.

8.1.2. Rules for collateralization and establishing credit reserves

In connection with counterparty credit risk exposures Hamburg Commercial Bank uses the rules described below for securing collateral and establishing credit reserves in accordance with Article 439 point (b) CRR.

Policies for collateralization

Derivative transactions for hedging interest rate, foreign exchange and other similar risks are generally concluded with single counterparties and governed by OTC master agreements, namely either the German Master Agreement for Financial Derivate Transactions or the International Master Agreement of the International Swaps and Derivatives Association (ISDA) in the 1992 or 2002 versions respectively.

In addition, collateral agreements supplementing a number of master agreements were concluded, mostly with banks in Germany and abroad, but also with non-banks in individual instances.

Since 03.01.2017, financial counterparts and non-financial counterparts above the clearing threshold are obligated to collateralize new businesses in accordance with the framework under the EMIR Regulation. Hamburg Commercial Bank has adopted all relevant trade contracts with the financial counterparts and non-financial counterparts above the clearing threshold and therefore remains tradable.

All Master Agreements and collateral agreements are entered in a system. A daily review is conducted for each individual derivative transaction as to eligibility for netting under supervisory law, the inclusion in a collateral agreement as well as the legal basis for use as collateral as to each individual derivative transaction.

For central clearing of OTC derivatives Hamburg Commercial Bank has joined the London Clearing House (LCH), ICE Clear Europe Limited (ICEU) and EUREX. A Client-clearing-procedure is used via three renowned client-broker. For Hamburg Commercial Bank, the initial margin requirement (IM) under EMIR will come into force in September 2022. Nevertheless, relevant new businesses will be controlled a way so that IM payments will not be necessary.

Therefore, the Bank is currently reaching agreements with counterparties regarding the application of the IM allowance and corresponding controls (e.g. trading stops). For this reason, the bank will implement an appropriate internal monitoring tool.

Policies for value adjustments for counterparty credit risks

Hamburg Commercial Bank uses the mark-to-market method for determining counterparty credit risk in accordance with Article 274

CRR. With regard to securities financing transactions (SFT) a comprehensive method is used which considers financial securities in accordance with Article 223 CRR.

Derivative financial instruments are accounted for and measured in accordance with the IFRS rules. More detailed information on the recognition and measurement inclusive value adjustments for counterparty credit risk is set out in the Group Financial Statements (Group notes, Note 7 “Accounting Policies”) in Hamburg Commercial Bank's Annual Report.

8.1.3. Changes in the amount of collateral posted due to a downgrade of the credit rating

The collateral agreements to these Master Agreements occasionally include individual clauses which could require the Hamburg Commercial Bank to first-time supply collateral or increase collateral in the event that one of the external ratings of the Hamburg Commercial Bank is downgraded. As at the reporting date, a ratings downgrade of two notches by the rating agencies Moody's and/or S & P would result in additional collateral of € 20 million to be disclosed in accordance with Article 439 point (d) CRR. This would not materially affect Hamburg Commercial Bank’s risk bearing capacity.

8.2. Quantitative disclosure for counterparty credit risk

8.2.1. Exposure value

Parameters for the exposure to counterparty credit risk based on the approach used are given in Table CCR1 according to Article 439 points (e) and (f) CRR in conjunction with paragraph 114 of EBA/GL/2016/11.

According to Article 274 CRR, Hamburg Commercial Bank only uses the mark-to-market method associated with all derivative transactions. For all securities financing transactions (SFT) a comprehensive method is used which considers financial securities in accordance with Article 223 CRR. Therefore, rows 2 to 8 and 10 of Table CCR1 remain empty. Additionally, columns a, d and e also remain empty as they should not be filled regarding this method. Pursuant to EBA guidelines, exposures to a central counterparty are not considered. As at the reporting date, all securities financing transactions with regard to central counterparties were concluded. Therefore, line 9 is empty.

[Tab. 50] CCR1: Analysis of CCR exposure by approach in € million

		a	b	c	d	e	f	g
		Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1	Mark to market		1,379	283			1,545	561
2	Original exposure	–					–	–
3	Standardised approach		–			–	–	–
4	IMM (for derivatives and SFTs)				–	–	–	–
5	Of which securities financing transactions				–	–	–	–
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						–	–
11	**Total**							**561**

Information concerning capital requirements due to the CVA capital charge is given in Table CCR2 according to Article 439 points (e) and (f) CRR in conjunction with paragraph 115 of EBA/GL/2016.

Hamburg Commercial Bank solely uses the standardized method for determining these capital requirements. Thus, rows 1 to 3 and EU4 in Table CCR2 are not filled.

[Tab. 51] CCR2: CVA capital charge in € million

		a	b
		Exposure value	RWAs
1	Total portfolios subject to the advanced method	–	–
2	(i) VaR component (including the 3× multiplier)		–
3	(ii) SVaR component (including the 3× multiplier)		–
4	All portfolios subject to the standardised method	178	160
EU4	Based on the original exposure method	–	–
5	**Total subject to the CVA capital charge**	**178**	**160**

Information on risk exposure concerning counterparty credit risk calculated under the standardized approach is given in Table CCR3 pursuant to Article 444 point (e) CRR in conjunction with paragraph 117 of EBA/GL/2016/11.
For credit risk, there is a comparable presentation shown in Table CR5.

[Tab. 52] CCR3: Standardized approach – CCR exposures by regulatory portfolio and risk in € million

		Risk weight												
	Exposure class	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	**Total**	of which unrated
1	Central governments or central banks	–	–	–	–	–	–	–	–	–	–	–	**–**	–
2	Regional government or local authorities	–	–	–	–	–	–	–	–	–	–	–	**–**	–
3	Public sector entities	–	–	–	–	0	–	–	–	–	–	–	**0**	0
4	Multilateral development banks	–	–	–	–	–	–	–	–	–	–	–	**–**	–
5	International organisations	–	–	–	–	–	–	–	–	–	–	–	**–**	–
6	Institutions	–	150	–	–	25	–	–	–	–	–	–	**175**	175
7	Corporates	–	–	–	–	–	–	–	–	20	–	–	**20**	20
8	Retail	–	–	–	–	–	–	–	1	–	–	–	**1**	1
9	Secured by mortgages on immovable property	–	–	–	–	–	0	–	–	–	–	–	**0**	0
10	Exposures in default	–	–	–	–	–	–	–	–	–	0	–	**0**	0
11	Institutions and corporates with a short-term credit assessment	–	–	–	–	–	–	–	–	–	–	–	**–**	–
12	Other items	–	–	–	–	–	–	–	–	–	–	–	**–**	–
13	**Total**	**–**	**150**	**–**	**–**	**25**	**0**	**–**	**1**	**20**	**0**	**–**	**196**	**196**

Information concerning counterparty credit risk, which is calculated using the IRB approach, is given in Table CCR4 in accordance with Article 452 point (e) CRR in conjunction with paragraph 118 of EBA/GL/2016/11. Thereby, the exposure to central counterparties is not listed.

There will be no further description for geographical locations for counterparty credit risk according to Article 452 point (j) subpoint (i) CRR as more than 99 % (within IRB approach) of the counterparty credit risk is held nationally.

[Tab. 53] CCR4: IRB approach - CCR exposures by portfolio an PD scale in € million

		a	b	c	d	e	f	g
Exposure class	PD scale	EAD post CRM	Average PD in %	Number of obligors	Average LGD in %	Average maturity in years	RWAs	RWA density in %
Central governments and central banks								
	0.00 to < 0.15	53	–	2	20.0	4.6	–	–
	0.15 to < 0.25	–	–	–	–	–	–	–
	0.25 to < 0.50	–	–	–	–	–	–	–
	0.50 to < 0.75	–	–	–	–	–	–	–
	0.75 to < 2.50	–	–	–	–	–	–	–
	2.50 to < 10.00	–	–	–	–	–	–	–
	10.00 to < 100.00	–	–	–	–	–	–	–
	100.00 (Default)	–	–	–	–	–	–	–
	Subtotal	**53**	**–**	**2**	**20.0**	**4.6**	**–**	**–**
Institutions								
	0.00 to < 0.15	190	0.1	28	27.6	3.5	54	28.4
	0.15 to < 0.25	173	0.2	5	9.7	5.0	32	18.7
	0.25 to < 0.50	3	0.3	1	32.7	2.4	2	56.2
	0.50 to < 0.75	–	–	–	–	–	–	–
	0.75 to < 2.50	–	–	–	–	–	–	–
	2.50 to < 10.00	–	–	–	–	–	–	–
	10.00 to < 100.00	–	–	–	–	–	–	–
	100.00 (Default)	–	–	–	–	–	–	–
	Subtotal	**366**	**0.1**	**34**	**19.2**	**4.2**	**88**	**24.1**
Corporates - Specialised lending								
	0.00 to < 0.15	101	0.1	76	52.9	2.6	21	20.9
	0.15 to < 0.25	229	0.2	20	57.2	2.6	90	39.1
	0.25 to < 0.50	76	0.3	54	51.8	3.4	50	65.7
	0.50 to < 0.75	38	0.6	19	58.8	3.4	36	95.0
	0.75 to < 2.50	37	1.6	15	32.5	3.1	20	55.0
	2.50 to < 10.00	136	4.4	7	7.0	4.9	31	23.1
	10.00 to < 100.00	–	–	–	–	–	–	–
	100.00 (Default)	0	100.0	2	72.8	2.5	0	37.0
	Subtotal	**617**	**1.3**	**193**	**43.4**	**3.3**	**249**	**40.3**
Corporates - SME								
	0.00 to < 0.15	1	0.1	2	14.3	2.5	0	6.1
	0.15 to < 0.25	0	0.2	1	63.8	2.5	0	38.2
	0.25 to < 0.50	28	0.4	9	49.2	2.5	13	47.7
	0.50 to < 0.75	2	0.6	1	11.0	2.5	0	11.7
	0.75 to < 2.50	4	1.4	16	32.8	2.5	2	50.7
	2.50 to < 10.00	0	4.4	2	63.8	2.5	0	138.2
	10.00 to < 100.00	32	10.2	1	59.4	5.0	64	201.7
	100.00 (Default)	–	–	–	–	–	–	–
	Subtotal	**67**	**5.0**	**32**	**51.4**	**3.7**	**80**	**118.6**
Corporates - Other								
	0.00 to < 0.15	134	0.1	18	19.4	2.9	23	17.2
	0.15 to < 0.25	4	0.2	10	50.3	2.2	2	46.2
	0.25 to < 0.50	48	0.3	26	27.3	4.2	18	38.2
	0.50 to < 0.75	47	0.6	15	52.6	4.2	54	115.2
	0.75 to < 2.50	10	1.0	16	43.1	3.3	10	102.6
	2.50 to < 10.00	0	3.7	4	62.2	2.5	1	200.1
	10.00 to < 100.00	2	19.9	2	60.6	2.0	8	332.7
	100.00 (Default)	1	100.0	5	27.4	2.2	0	61.7
	Subtotal	**246**	**0.8**	**96**	**29.2**	**3.4**	**116**	**47.2**
Retail								

		a	b	c	d	e	f	g
Exposure class	PD scale	EAD post CRM	Average PD in %	Number of obligors	Average LGD in %	Average maturity in years	RWAs	RWA density in %
Equities acc. to Art. 155(3) CRR								
	0.00 to < 0.15	–	–	–	–	–	–	–
	0.15 to < 0.25	–	–	–	–	–	–	–
	0.25 to < 0.50	–	–	–	–	–	–	–
	0.50 to < 0.75	–	–	–	–	–	–	–
	0.75 to < 2.50	–	–	–	–	–	–	–
	2.50 to < 10.00	–	–	–	–	–	–	–
	10.00 to < 100.00	–	–	–	–	–	–	–
	100.00 (Default)	–	–	–	–	–	–	–
	Subtotal	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Equities acc. to Art. 155(2) CRR		**–**	**–**	**–**	**–**	**–**	**–**	**–**
Equities acc. to Art. 155(4) CRR								
Other non credit-obligation assets		–	–	–	–	–	–	–
Total		**1,350**	**1.0**	**357**	**33.7**	**3.6**	**533**	**39.5**

8.2.2. Gross positive fair value and net credit exposures

The extent to which Hamburg Commercial Bank is involved in derivatives and SFTs and to what extent netting is used is set out in Tables CCR5-A and CCR5-B in accordance with Article 439 point (e) CRR in conjunction with paragraphs 120 to 122 of EBA/GL/2016/11.

Eligible collateral and net credit exposures are also disclosed. Only collaterals eligible in the standardized approach for credit risk directly reduces the exposure values, whereas under the advanced IRB approach collaterals are incorporated in the determination of LGD (see also Section 7.4).

[Tab. 54] CCR5-A: Impact of netting and collateral held on exposure values in € million

		a	b	c	d	e
		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
1	Derivatives	1,929	– 550	1,379	623	756
2	SFTs	–	–	–	–	–
3	Cross-product selling	–	–	–	–	–
4	**Total**	**1,929**	**– 550**	**1,379**	**623**	**756**

[Tab. 55] CCR5-B: Composition of collateral for exposures to CCR in € million

	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Cash - Euro	–	274	–	886	–	–
Cash - other than Euro	–	87	–	0	–	–
Securities	–	–	–	–	–	
Real estate	–	194	–	–	–	–
Receivables	–	0	–	–	–	–
Guarantees	–	39	–	–	–	–
Other collaterals	–	29	–	–	–	–
Total	**–**	**623**	**–**	**887**	**–**	**–**

8.2.3. Credit derivatives

Hamburg Commercial Bank discloses the use of credit derivatives in accordance with Article 439 points (g) and (h) CRR in conjunction with paragraph 123 of EBA/GL/2016/11 in Table CCR6.

Collateralization for the purpose of credit risk mitigation only occurs with cash collaterals resulting from credit linked notes. According to Article 218 CRR collaterals resulting from credit linked notes are not treated as credit derivatives but as cash collaterals. Therefore, the nominal amount of the hedging with credit derivatives is zero and all credit derivatives are disclosed in column c1 and c2 (other credit derivatives). Accordingly, beyond the product differentiation of EBA/GL/2016/11 there is no further breakdown by types of default risk exposures with regard to Article 439 point (g) CRR.

With regard to credit derivatives, Hamburg Commercial Bank only acts as a collateral giver (seller), so that column c1 remains empty. Furthermore, there are no brokerage transactions.

[Tab. 56] CCR6: Credit derivatives exposures in € million

	a	b	c1	c2
	Credit derivative hedges		Other credit derivatives	
	Protection bought	Protection sold	Protection bought	Protection sold
Notionals				
Single-name credit default swaps	–	–	–	10
Index credit default swaps	–	–	–	–
Total return swaps	–	–	–	–
Credit options	–	–	–	–
Other credit derivatives	–	–	–	–
Total notionals	**–**	**–**	**–**	**10**
Fair values				
Positive fair value (asset)	–	–	–	0
Negative fair value (liability)	–	–	–	–

Column c acc. to EBA/GL/2016/11 results from the sum of columns c1 and c2.

8.2.4. Central counterparties

Beside the disclosure for counterparty credit risk which is shown in Tables CCR1 and CCR2, supplementary information for central counterparty according to Article 439 points (e) and (f) CRR in conjunction with paragraph 116 of EBG/GL/2016/11 is disclosed in Table CCR8. Hereby, only the direct engagement towards central counterparties is disclosed which means that transactions concluded by clearing members are not included.

[Tab. 57] CCR8: Exposures to CCPs in € million

		a	b
		EaD post CRM	RWA
1	**Exposures to QCCPs (total)**		**9**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	1	0
3	(i) OTC derivatives	–	–
4	(ii) Exchange-traded derivatives	1	0
5	(iii) SFTs	–	–
6	(iv) Netting sets where cross-product netting has been approved	–	–
7	Segregated initial margin	–	
8	Non-segregated initial margin	–	–
9	Prefunded default fund contributions	10	9
10	Alternative calculation of own funds requirements for exposures		–
11	**Exposures to non-QCCPs (total)**		**–**
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	–	–
13	(i) OTC derivatives	–	–
14	(ii) Exchange-traded derivatives	–	–
15	(iii) SFTs	–	–
16	(iv) Netting sets where cross-product netting has been approved	–	–
17	Segregated initial margin	–	
18	Non-segregated initial margin	–	–
19	Prefunded default fund contributions	–	–
20	Unfunded default fund contributions	–	–

9. Securitizations

9.1. Type and extent of securitization activities and risks involved

9.1.1. Objectives, roles and extent of securitization activities

Securitizations are an important instrument for banks in refinancing, capital relief and risk management. Companies in the financial sector can act in different positions in a securitization transaction, transferring credit risk themselves as originators, managing the portfolio to be securitized as sponsors in the function of servicers respectively managers, or acquiring securities from the securitization as investors.

Hamburg Commercial Bank is involved in various activities which have securitization structures. In this process, Hamburg Commercial Bank takes the role of the sponsor. Hamburg Commercial Bank only enters into new business in this business segment, which is operated as a credit substitute business, in very limited exceptional cases.

Hamburg Commercial Bank takes the role of the sponsor in order to satisfy the demand for financing alternatives in the small- and medium-sized customer segment.

Hamburg Commercial Bank assumes advisory and administrative activities for the special purpose vehicle Smartfact S.A., Luxembourg, and acts as an intermediary for the receivables purchased by the special purpose vehicle Smartfact. In addition, Hamburg Commercial Bank supports the special purpose vehicle with the refinancing necessary for the purchase by means of a credit line or bearer bond. The bank also acts as an investor in CLO securitizations.

Overall, the CRSA and IRBA exposure value of all securitization positions retained or sold by Hamburg Commercial Bank amounts to € 373 million as at the reporting date.

Hamburg Commercial Bank held no securitizations in its trading book as well as took it no role as originator at the reporting date.

9.1.2. Types and extent of risks

Credit risk

Hamburg Commercial Bank's securitization transactions are subject to the credit monitoring processes (in addition to market risk monitoring by Risk Control) with regard to their credit risks (change in performance and composition of the underlying transactions). The credit analysis of the position is conducted by the appropriate division. Finally, decisions are made with respect to the completed monitoring forms on the basis of the dual control principle pursuant to loan competences which have been fixed and which have been published in the Credit Manual.

For purposes of calculating intrinsic values, the cash flow structure of the underlying assets is first modeled and then applied to the contractual payment system of the securitization transactions. These values are calculated quarterly. The process described for credit monitoring is likewise suitable for re-securitizations and securitizations, which is why no further differentiation is made. By means of regularly updating repayment cash flows and on-going loan monitoring, changes in value of the underlying receivables are generally reflected directly in the value of the securitization positions.

Market risk

Hamburg Commercial Bank's securitization transactions are subject to market risk monitoring with regard to their interest rate risks (changes in interest rates and credit spreads) and foreign exchange risks. Calculating the market risk of the securitization transactions, the repayment structure and the termination rights are considered. Interest rate and foreign exchange risks are then calculated using the same method applicable to all trading transactions after taking into account hedge transactions. The credit spread risks are determined on the basis of credit spread curves which are purchased from providers of market data and which are broken down by asset class, rating class and country.

The process described for market risk monitoring is likewise suitable for re-securitizations and securitizations, which is why no further differentiation is made. By means of regularly updating repayment cash flows and credit spread curves, changes in value of underlying receivables are generally reflected directly in the value of the securitization positions to the extent there are no other hedge relationships.

Liquidity risk

The following distinction is made for purposes of liquidity risk monitoring in relation to securitizations:

- Accounting-related liquidity risks may arise in the form of time lags (mismatch) between incoming and outgoing cash flows.
- Market-related liquidity risks may arise, for example in cases where issued bonds cannot be fully placed on the market or where price losses are realized on the liquidation of assets.

Accounting-related liquidity risks are avoided by coordinating the fixed/determinable payments over the course of the transactions. If this cannot be accomplished (e.g. via short-term refinancing via asset backed commercial paper (ABCP) programs), the market-related liquidity risks are hedged via liquidity facilities.

9.2. Risk weighting and accounting of securitization transactions

Determination of risk-weighted exposure amounts for securitization transactions

The methods to be used in calculating the regulatory capital for securitization positions are stated in Article 449 point (h) CRR and the names of the applied rating agencies are disclosed according to Article 449 point (k) CRR. Because there are no issued securities by Hamburg Commercial Bank, information about rating agencies are only for investments in external securitization transactions.

The determination of the risk weighted assets in CRSA will be used according to Article 261 VO 2017_2401. The bank uses the external ratings (ECAI) from Fitch, Moody´s and S & P. In addition, SEC-ERBA is used pursuant to Article 263 VO 2017_20401.

In accordance with Article 266(3) CRR, there is the option for CRSA and IRBA securitization positions for which a risk weight of 1,250 % has been calculated of making a capital deduction or applying this risk weight to determine the risk weighted capital charge.

During the reporting period there were no significant changes by methods, assumptions or parameters according to Article 449(j) subpoint (iii) CRR.

Accounting methods for securitization activities

Accounting methods

Acquired securitization positions which meet the definition of securities in the German Ordinance on the Accounting System for banks are recognized and measured in accordance with the standard methods for securities.

Primary receivables of Hamburg Commercial Bank which the bank allocates to securitizations without a significant transfer of risk or with regard to which a transfer is made to Special Purpose Vehicles (SPV) still included in the consolidated financial statements, continue to be reported under the original exposure class. Assumption of risks by third parties is taken into account as collateral when calculating impairments. If the risk has not been transferred through securitization or if the guarantee is impaired, the receivable is written down. Receivables transferred under securitizations are shown as disposals in the balance sheet.

Sales proceed from reference assets (e.g. loans, promissory notes, securities) which are a component of a securitization are accounted for corresponding to the balance sheet item of the reference asset. In this manner, sales proceeds are accounted for independent of their inclusion in a securitization.

Financial backing for securitization transactions is provided in the form of liquidity facilities or guarantees. In the event a down writing is likely, the risk is covered by creating an impending loss provision.

Valuation methods

The fair value of securitization transactions is calculated using market prices.

Various market data providers and quotes from other market participants are used as sources of data. Models are used in cases where no valid market data is available. If price information is available from several providers, a procedure for selecting a valid market price is applied. For quality assurance purposes, all valuation results are validated by experts.

9.3. Exposure values and capital requirements of securitized receivables

Exposure values of securitized receivables

For securitizations, a distinction must be made between securitizations with transfer of receivables (traditional or true sale securitizations) and securitizations without transfer of receivables (synthetic securitizations). Depending on the nature of the securitized receivables, securitizations are also allocated to different product classes, which have the characteristics of specific receivables.

In accordance with Article 449 (n) subpoint (i) CRR, the following table shows the exposure value of the securitized receivables at Hamburg Commercial Bank as at the reporting date, broken down by securitization transactions with and without transfer of receivables and the nature of securitized receivables.

The sponsor exposure of € 256 million is composed of € 172 million on-balance sheet and € 84 million off-balance sheet exposure via SPV Smartfact S.A. in accordance with Article 449 letter i CRR.

[Tab. 58] Exposure value of securitized receivables in € million

Securitization portfolio	Originators	Sponsors
Traditional securitizations		
Real estate	–	–
Ships	–	–
Retail banking	–	256
ABS	–	–
Other	–	–
Subtotal	**–**	**256**
Synthetic securitizations		
Real estate	–	–
Ships	–	–
Retail banking	–	–
ABS	–	–
Other	–	–
Subtotal	**–**	**–**
Total	**–**	**256**

Exposure values of retained or purchased securitization positions

In accordance with Article 449(n) subpoint (ii) CRR, the following table shows a list of the securitization positions held by the bank.

[Tab. 59] Exposure value of retained or purchased securitization positions in € million

Securitization items	CRSA exposure value	IRBA exposure value
Balance sheet items		
Credit Enhancements	–	–
Participations in ABS transactions	116	–
Other balance sheet items	256	–
Subtotal	**373**	**–**
Off-balance-sheet items		
Liquidity facilities	–	–
Derivatives	–	–
Other off-balance-sheet items	–	–
Subtotal	**–**	**–**
Total	**373**	**–**

Risk weight ranges and exposure values of securitizations

In accordance with Article 449(o) subpoint (i) CRR, the following table shows the bank's individual securitization positions (see Table 60) allocated to risk weight ranges, and the resulting capital requirements. There were no securitization positions held by Hamburg Commercial Bank which are risk weighted with 1,250 % respectively deducted from CET1 according to Article 449(n)(v) CRR.

[Tab. 60] Exposure value and capital requirements of retained or purchased securitization items acc. to risk weight ranges in € million

	Securitized items retained or purchased					
	Exposure value[1)]			**Capital requirements**		
Risk weight range in %	Securitization	Re-securitization	**Total**	Securitization	Re-securitization	**Total**
CRSA						
0 ≤ 10	–	–	**–**	–	–	**–**
> 10 ≤ 20	116	–	**116**	2	–	**2**
> 20 ≤ 50	256	–	**256**	7	–	**7**
> 50 ≤ 100	–	–	**–**	–	–	**–**
> 100 ≤ 350	–	–	**–**	–	–	**–**
> 350 ≤ 650	–	–	**–**	–	–	**–**
> 650 < 1.250	–	–	**–**	–	–	**–**
1.250 or capital deduction	–	–	**–**	–	–	**–**
Total CRSA	**373**	**–**	**373**	**9**	**–**	**9**
IRBA						
0 ≤ 10	–	–	**–**	–	–	**–**
> 10 ≤ 20	–	–	**–**	–	–	**–**
> 20 ≤ 50	–	–	**–**	–	–	**–**
> 50 ≤ 100	–	–	**–**	–	–	**–**
> 100 ≤ 350	–	–	**–**	–	–	**–**
> 350 ≤ 650	–	–	**–**	–	–	**–**
> 650 < 1.250	–	–	**–**	–	–	**–**
1.250 or capital deduction	–	–	**–**	–	–	**–**
Total IRBA	**–**	**–**	**–**	**–**	**–**	**–**
Total	**373**	**–**	**373**	**9**	**–**	**9**

[1)] before exercising the right to vote acc. to Article 266(1) and (2) CRR

9.4. Securitization activities in the reporting year and planning 2021

Securitization activities in the reporting year
In the year under review, the Bank purchased CLO securitizations in the role of investor. There were no securitization activities within the meaning of Article 449 (n) (vi) CRR.

Significant changes to quantitative disclosures
In accordance with Article 449(m) CRR, the material changes in quantitative information that occurred during the reporting period must be explained. The changes in securitization positions are predominantly due to the investment in CLOs transactions.

Planned securitization activities
In the business plan for 2021, the Bank plans to invest in a senior securitization tranche of approximately € 150 million. No securitization transactions for capital charge relief are planned. Therefore, the disclosure under Article 449(n) (iii) CRR is not relevant.

10. Market risk

10.1. Market risk

Market risk refers to potential losses that may arise from adverse changes in the market value of positions in the trading and banking book. Market movements relevant to Hamburg Commercial Bank include changes in interest rates and credit spreads (interest rate risk), exchange rates (foreign exchange risks) and share prices, indices and fund prices (equity risks) including their volatilities.

Risk management objectives and policy
The description of the risk management objectives and policy for market risk in accordance with Article 435(1) CRR is made by applying Article 434(2) CRR with the information contained in the Group Management Report (Risk Report) of Hamburg Commercial Bank´s Annual Report in accordance with the references set out in Table MRA.

[Tab. 61] MRA: Qualitative disclosure requirements related to market risk

Regulatory requirements of Table MRA (EBA/GL/2016/11)	Reference CRR	Refer to Hamburg Commercial Bank's Annual Report
a) Strategies and processes of market risk control	Article 435(1)(a) and (d)	Group Management Report (Risk Report) Page 93 - 94
b) Structure and organisation of market risk mangagement function	Article 435(1)(b)	Group Management Report (Risk Report) Page 93 - 94
(c) Monitoring and systems of trading book positions	Article 435(1)(a) and (c) in conjunction with Article 455(c) and Article 104	Group Management Report (Risk Report) Page 94 - 95

Capital requirements
Hamburg Commercial Bank applies the prescribed or selectable standard procedure pursuant to Part 3 Title IV Chapters 2 to 4 CRR for the regulatory calculation of capital requirements for market risk. The bank does not apply its own risk model under Part 3 Title IV Chapter 5 CRR and does not hold a correlation trading portfolio.

Table MR1 shows the own funds requirements for market risk in accordance with Article 445 CRR in conjunction with paragraph 127 of EBA/GL/2016/11.

Within the semi-annual reporting period, the equity risk remained constant, whereas the interest rate and foreign exchange rate risk decreased.

There was no disclosure for foreign exchange rate risk as at 31 December 2020, as the capital requirements were below the 2% threshold according to Article 351 CRR.

[Tab. 62] MR1: Market risk under the standardized approach in € million

		a	b
		RWAs	Capital requirements
	Outright products		
1	Interest rate risk (general and specific)	33	3
2	Equity risk (general and specific)	1	0
3	Foreign exchange risk	–	–
4	Commodity risk	–	–
	Options		
5	Simplified approach	–	–
6	Delta-plus method	–	–
7	Scenario approach	–	–
8	Securitization (specific risk)	–	–
9	**Total**	**34**	**3**

10.2. Interest rate risk in the banking book

The management of interest rate risk in the banking book is an integral part of market risk management. Interest rate risk refers to the loss potential of an open interest rate position that arises as a result of a possible change in market or present value of a payment series due to a potential change in yields or discount factors. Discount factors result from the corresponding yield curve. Credit spreads are also taken into account for single name bonds and credit default swaps.

The interest rate risks in the banking book is represented by the strategically held positions in the banking book of Hamburg Commercial Bank. The investor behavior of customer deposits is only modelled with regard to the earnings risk. Subsidiary agreements in the lending business, including special repayment or termination rights and rollover loans, are taken into account in both present value and income-oriented risk measurement. Risk measurement and stress testing are carried out by the Risk Control division on the basis of the transactions recorded in the trading and portfolio management systems.

The Capital Markets division manages the interest rate risk in the banking book arising from the bank´s client business. The aim here is to bundle interest rate risks and usually transfer them directly to the trading book in order to manage them within the framework of the specified market price risk limits. Interest rate risks in the banking book are measured daily. The VaR is calculated using a confidence level of 99 %, a holding period of one day and a data history of 250 trading days.

In addition to determining the interest rate risk on a daily basis as part of the VaR calculation, Hamburg Commercial Bank also measures the interest rate risk in the event of an interest rate shock. For this special analysis of the interest rate risks of the banking book items, the bank uses the net present value analysis, i.e. it evaluates which net present value change would result from defined changes in interest rates, provided that all financial instruments are valued using risk-free yield curves (i.e. without any spreads). The figures for the year under review have shown that Hamburg Commercial Bank would lose significantly less than 20 % of its liable own funds in an interest rate shock of + 200 and – 200 basis points and thus the requirements of the BaFin circular as of 06/2019 (BA) are met.

The effects of an interest rate shock of + 200 and – 200 basis points at the reporting date in accordance with Article 448 point (b) CRR are shown in the following table.

[Tab. 63] 448b: Interest rate risks in the banking book in € million

	Change in net present value	
Currency	+200 bp	-200 bp
EUR	270	– 27
USD	21	– 3
GBP	7	– 1
Other	– 5	6
Total	293	– 25

The total amount of € +293 million or € -25 million represents the balance of the present value changes from the interest rate shocks in the event of a parallel shift of the interest rate curves of all currencies.

11. Operational risk

Hamburg Commercial Bank defines operational risk as the risk as of direct and indirect losses resulting from inadequate or failed internal infrastructure, internal processes, employees or external factors (risk categories). The definition includes the risks of damage from legal risks and compliance risk.

Risk management objectives and policy
The description of the risk management objectives and policy for operational risk in accordance with Article 435(1) CRR is given on pages 64 to 67 of the Group Management Report (Risk Report) of Hamburg Commercial Bank´s Annual Report. This also applies to the disclosure on legal risk and compliance risk.

Capital requirements
Hamburg Commercial Bank applies exclusively the standardized approach in order to determine the capital requirements for operational risk. Therefore, the method is not described in accordance with Article 312(2) CRR.

The total capital requirement at the reporting date was € 109 million.

12. Notes

12.1. Consolidation matrix

[Tab. 64] LI3: Outline of the differences in the scopes of consolidation (entity by entity)

	Treatment under supervisory law					Consolidation under IFRS
	Consolidation					
Type of company / company	full	proportional	exemption pursuant to Article 19 CRR	Deduction method[1)]	Risk-weighted	full
CI HCOB Securities S.A.	X					X
FI Asian Capital Investment Opportunities Limited			X			
FI BINNENALSTER-Beteiligungsgesellschaft mbH	X					X
FI Bu Wi Beteiligungsholding GmbH			X			
FI European Capital Investment Opportunities Limited			X			
FI HCOB Auffang- und Holdinggesellschaft mbH & Co. KG	X					X
FI HCOB Finance (Guernsey) Limited	X					X
FI HCOB Funding II	X					X
FI HCOB Private Equity GmbH	X					X
FI Neptune Finance Partner S.à.r.l.			X			
FI Neptune Finance Partner II S.à.r.l.			X			
FI RESPARCS Funding Limited Partnership I	X					X
FI RESPARCS Funding II Limited Partnership	X					X
IU HCOB Residual Value Ltd.[2)]				X	X	X
Oth Adessa Grundstücksverwaltungsgesellschaft mbH & Co. Vermietungs KG[2)]					X	X
Oth GmbH Altstadt Grundstücksgesellschaft[2)]					X	X
Oth OCEAN Funding 2013 GmbH[2)]					X	X

1) shows companies subject to the threshold value procedure in accordance with Article 48 CRR (ex-cluding cases of application unter Article 19 CRR)
2) Consideration in accordance with the equity-method pursuant to Article 18(7) CRR

Abbreviations:
CI: Credit institution in accordance with Article 4(1)(1) CRR
FI: Financial institution in accordance with Article 4(1)(26) CRR
IU: Insurance undertaking in accordance with Article 4(1)(5) CRR
ASU: Ancillary services undertaking in accordance with Article 4(1)(18) CRR

12.2. Capital requirements in accordance with Article 437(1) CRR

[Tab. 65] Disclosure of the type and amounts of the specific capital requirements during the transitional period

		Amount in € m	Article Reference CRR
	Common Equity Tier 1 capital: instruments and reserves		
1	Capital instruments and the related share premium accounts	3,100	26 (1), 27, 28, 29
	of which: common shares (incl. share premium)	3,100	EBA list 26(3)
2	Retained earnings	1,174	26 (1) (c)
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	-48	26 (1)
3a	Funds for general banking risk	-	26 (1) (f)
4	Amount of qualifying items referred to in Article 484(3) and the related share premium accounts subject to phase out from CET1	-	486 (2)
5	Minority Interests (amount allowed in consolidated CET1)	-	84
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	95	26 (2)
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**4,322**	**Sum of the rows 1 to 5a**
	Common Equity Tier 1 (CET1) capital: regulatory adjustments		
7	Additional value adjustments (negative amount)	-11	34, 105
8	Intangible assets (net of related tax liability) (negative amount)	-15	36 (1) (b), 37
9	Empty Set in the EU		
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38(3) are met) (negative amount)	-77	36 (1) (c), 38
11	Fair value reserves related to gains or losses on cash flow hedges	-	33 (1) (a)
12	Negative amounts resulting from the calculation of expected loss amounts	-1	36 (1) (d), 40, 159
13	Any increase in equity that results from securitized assets (negative amount)	-	32 (1)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-	33 (1) (b)
15	Defined-benefit pension fund assets (negative amount)	-	36 (1) (e), 41
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-	36 (1) (f), 42
17	Holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	36 (1) (g), 44
18	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	36 (1) (h), 43, 45, 46, 49 (2) and (3), 79
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79
20	Empty Set in the EU		
20a	Exposure amount of the following items which qualify for a RW of 1,250%, where the institution opts for the deduction alternative	0	36 (1) (k)
20b	of which: qualifying holdings outside the financial sector (negative amount)	-	36 (1) (k) (i), 89 to 91
20c	of which: securitization positions (negative amount)	0	36 (1) (k) (ii), 243 (1) (b), 244 (1) (b), 258
20d	of which: free deliveries (negative amount)	-	36 (1) (k) (iii), 379 (3)
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38(3) are met) (negative amount)	-18	36 (1) (c), 38, 48 (1) (a)
22	Amount exceeding the 15% threshold (negative amount)	-	48 (1)
23	of which: 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	-	36 (1) (i), 48 (1) (b)

		Amount in € m	Article Reference CRR
24	Empty Set in the EU		
25	of which: deferred tax assets arising from temporary differences	-	36 (1) (c), 38, 48 (1) (a)
25a	Losses for the current financial year (negative amount)	-	36 (1) (a)
25b	Foreseeable tax charges relating to CET1 items (negative amount)	-	36 (1) (l)
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	-	36 (1) (j)
	Other components or deductions regarding CET1	-6	
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-129**	**Sum of rows 7 to 20a, 21, 22 plus rows 25a to 27**
29	**Common Equity Tier 1 (CET1) capital**	**4,193**	**row 6 minus row 28**
	Additional Tier 1 (AT1) capital: instruments		
30	Capital instruments and the related share premium accounts	-	51, 52
31	of which: classified as equity under applicable accounting standards	-	
32	of which: classified as liabilities under applicable accounting standards	-	
33	Amount of qualifying items referred to in Article 484(4) and the related share premium accounts subject to phase out from AT1	-	486 (3)
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	-	85, 86
35	of which: instruments issued by subsidiaries subject to phase out	-	486 (3)
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**-**	**Sum of rows 30, 33 and 34**
	Additional Tier 1 (AT1) capital: regulatory adjustments		
37	Direct and indirect holdings by an institution of own AT1 Instruments (negative amount)	-	52 (1) (b), 56 (a), 57
38	Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	56 (b), 58
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	56 (c), 59, 60, 79
40	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above the 10% threshold net of eligible short positions) (negative amount)	-	56 (d), 59, 79
41	Empty Set in the EU		
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	-	56 (e)
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-**	**Sum of rows 37 to 42**
44	**Additional Tier 1 (AT1) capital**	**-**	**row 36 minus row 43**
45	**Tier 1 capital (T1 = CET1 + AT1)**	**4,193**	**Sum of rows 29 and 44**
	Tier 2 (T2) capital: instruments and provisions		
46	Capital instruments and the related share premium accounts	904	62, 63
47	Amount of qualifying items referred to in Article 484(5) and the related share premium accounts subject to phase out from T2	-	486 (4)
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	-	87, 88
49	of which: instruments issued by subsidiaries subject to phase out	-	486 (4)
50	Credit risk adjustments	68	62 (c) and (d)
51	**Tier 2 (T2) capital before regulatory adjustments**	**972**	
	Tier 2 (T2) capital: regulatory adjustments		
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-	63 (b) (i), 66 (a), 67
53	Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	66 (b), 68

		Amount in € m	Article Reference CRR
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	66 (c), 69, 70, 79
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) (negative amount)	-	66 (d), 69, 79
56	Empty Set in the EU		
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-**	**Sum of the rows 52 to 56**
58	**Tier 2 (T2) capital**	**972**	**row 51 minus row 57**
59	**Total capital (TC = T1 + T2)**	**5,165**	**Sum of rows 45 and 58**
60	**Total risk weighted assets**	**15,523**	
	Capital ratios and buffers		
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	27.0 %	92 (2) (a)
62	Tier 1 (as a percentage of risk exposure amount)	27.0 %	92 (2) (b)
63	Total capital (as a percentage of risk exposure amount)	33.3 %	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 (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	7.0 %	CRD 128 to 131, 133
65	of which: capital conservation buffer requirement	2.5 %	
66	of which: countercyclical buffer requirement	0.0 %	
67	of which: systemic risk buffer requirement	0.0 %	
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.0 %	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	22.5 %	CRD 128
69	[non relevant in EU regulation]		
70	[non relevant in EU regulation]		
71	[non relevant in EU regulation]		
	Amounts below the thresholds for deduction (before risk weighting)		
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	116	36 (1) (h), 45, 46, 56 (c), 59, 60, 66 (c), 69, 70
73	Direct and indirect holdings by the institution of the CET 1 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)	7	36 (1) (i), 45, 48
74	Empty Set in the EU		
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)	422	36 (1) (c), 38, 48
	Applicable caps on the inclusion of provisions in Tier 2		
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	-	62
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	-	62
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	261	62
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	68	62
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)		
80	Current cap on CET1 instruments subject to phase out arrangements	-	484 (3), 486 (2) and (5)
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-	484 (3), 486 (2) and (5)
82	Current cap on AT1 instruments subject to phase out arrangements	441	484 (4), 486 (3) and (5)
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	484 (4), 486 (3) and (5)
84	Current cap on T2 instruments subject to phase out arrangements	18	484 (5), 486 (4) and (5)
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	484 (5), 486 (4) and (5)

[Tab. 66] Full reconciliation of components of own funds with the audited financial statements in € million

Step 1) Comparison of own funds items of the consolidated financial statements between the scope of consolidation under the German Commercial Code (HGB) and the regulatory scope of consolidation

	Own funds items financial statement under IFRS per 31.12.2020		
Position	Accounting Scope of Consolidation	Regulatory Scope of Consolidation	Cause of the difference
Share capital	3,018	3,018	
Capital reserve	82	82	
Retained earnings	1,010	997	Consolidation or retention of profits/losses
of which: other retained earnings	165	158	Retained profits/losses
of which: cumulative gains and losses arising on the revaluation of net defined benefit liabilities recognised in OCI	-261	-261	
of which: deferred tax assets on cumulative gains and losses arising on the revaluation of net defined benefit liabilities recognised in OCI	83	83	
of which: credit risk-induced changes in the value of liabilities designated at fair value	0	0	
of which: deferred taxes on credit risk-induced changes from fair value designated liabilities	0	0	
of which: group reserve	1,023	1,016	Consolidation effects (first-time consolidation and deconsolidation)
Revaluation reserve	148	148	
of which: Valuation results relating to financial assets classified as FVOCI as a mandatory requirement (after taxes)	145	145	
of which: credit risk-induced changes in the value of liabilities designated at fair value (after taxes)	3	3	
Currency conversion reserve	-16	-16	
Other net income from financial investments accounted for under the equity method	-	-	
Group net result	102	95	Consolidation effects due to different consolidation rules
Non-controlling interests	0	0	
Equity	**4,344**	**4,324**	
Subordinated liabilities	938	938	
Silent participations	2	2	
Profit participation capital	-	-	
Subordinated capital	**940**	**940**	
Other assets on the balance sheet/ P&L positions relevant for regulatory reporting			
Intangible assets	15	15	Consolidation effects due to different consolidation rules
Deferred tax assets	1,215	1,200	Consolidation effects due to different consolidation rules
Deferred tax liabilities	683	683	Consolidation effects due to different consolidation rules

Step 2) Expansion of own funds items of the consolidated financial statements using the regulatory scope of consolidation taking intra-year regulatory adjustments and updates into account

Position	Expanded own funds items (IFRS per 12/31/2020) of the regulatory scope balance sheet	Regulatory adjustments in fiscal year 2020	Reason for adjustment	Expanded own funds items (IFRS per 12/31/2020) of the regulatory scope balance sheet including updates and regulatory adjustments in 2020	Component
Share capital	3,018	-		3,018	a
Capital reserve	82	-		82	b
Retained earnings	997	0		997	
of which: other retained earnings	158	-		158	c
of which: cumulative gains and losses arising on the revaluation of net defined benefit liabilities recognised in OCI	-261	-		-261	j
of which: deferred tax assets on cumulative gains and losses arising on the revaluation of net defined benefit liabilities recognised in OCI	83	-		83	k
of which: credit risk-induced changes in the value of liabilities designated at fair value	0	0		0	no consideration
of which: deferred taxes on credit risk-induced changes from fair value designated liabilities	0	0		0	no consideration
of which: group reserves	1,016	-		1,016	d
Revaluation reserve	148	-3		145	
of which: Valuation results relating to financial assets classified as FVOCI as a mandatory requirement (after taxes)	145	-		145	f
of which: credit risk-induced changes in the value of liabilities designated at fair value (after taxes)	3	-3		0	no consideration
Currency conversion reserve	-16	-		-16	e
Other net income from financial investments accounted for under the equity method	-	-		-	g
Group net result	95	0		95	i
Non-controlling interests	0	0		0	no consideration
Equity	4,324	-		4,322	
Subordinated liabilities	938	-35	Amortisation according to Art. 64 CRR	904	o
Silent participations	2	-2	Due to the termination of all silent participations, they are no longer included in own funds.	0	n
Subordinated Capital	940	-		904	
Intangible assets	15	-		15	ma

Deferred tax assets	1,200	-		1,200	
of which: deferred tax assets that rely on future profitability excluding those arising from temporary differences	179	-		179	ra
of which: deferred tax assets arising from temporary differences	1.021	-		1.021	sa
Deferred tax liabilities	683	-		683	
including: deferred tax assets that rely on future profitability excluding those arising from temporary differences	102	-	Breakdown according to Art. 38 (5) CRR	102	rb
including: deferred tax assets arising from temporary differences	581	-	Breakdown according to Art. 38 (5) CRR	581	sb
including: deferred taxes on intangible assets	0	-		0	mb

Step 3) Allocation of own funds items to equity items

		Amount in € m	Component mapping to step 2
	Common Equity Tier 1 capital: instruments and reserves		
1	Capital instruments and the related share premium accounts	3,100	a+b
2	Retained earnings	1,174	c+d+i
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	-48	e+f+g+(j+k)
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	95	i
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**4,322**	
	Common Equity Tier 1 (CET1) capital: regulatory adjustments		
7	Additional value adjustments (negative amount)	-11	regulatory value
8	Intangible assets (net of related tax liability) (negative amount)	-15	ma-mb
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38(3) are met) (negative amount)	-77	rb-ra
12	Negative amounts resulting from the calculation of expected loss amounts	-1	regulatory value
20a	Exposure amount of the following items which qualify for a RW of 1,250%, where the institution opts for the deduction alternative	-	regulatory value
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38(3) are met) (negative amount)	-18	sb-sa and application of the threshold method
25a	Loss for the current financial year (negative amount)	-	
	Other components or deductions regarding CET1	-6	regulatory value
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-129**	
29	**Common Equity Tier 1 (CET1) capital**	**4,193**	
	Additional Tier 1 (AT1) capital: instruments		
33	Amount of qualifying items referred to in Article 484(4) and the related share premium accounts subject to phase out from AT1	-	
36	**Additional Tier 1 (AT1 capital before regulatory adjustments**	**-**	
	Additional Tier 1 (AT1) capital: regulatory adjustments		
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-**	
44	**Additional Tier 1 (AT1) capital**	**-**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**4,193**	
	Tier 2 (T2) capital: instruments and provisions		
46	Capital instruments and the related share premium accounts	904	o
47	Amount of qualifying items referred to in Article 484(5) and the related share premium accounts subject to phase out from T2	-	
50	Credit risk adjustments	68	regulatory value
51	**Tier 2 (T2) capital before regulatory adjustments**	**972**	
	Tier 2 (T2) capital: regulatory adjustments		
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-**	
58	**Tier 2 (T2) capital**	**972**	
59	**Total capital (TC = T1 + T2)**	**5,165**	

12.3. Main features of capital instruments

[Tab. 67] Description of the main features of capital instruments issued

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	DE0003303996	XFNAM0009724	XFNAM0009757
3	Governing law(s) of the instrument	German law	German law	German law
	Regulatory Treatment			
4	Transitional CRR rules	Common Equity Tier 1 capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Common Equity Tier 1 capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	Share capital	Registered bonds	Registered bonds
8	Amount recognised in regulatory capital (EURm)	3018,2	2,9	0,8
9	Nominal amount of instrument (CUR of issuance)	3018.2 (EURm)	18 (EURm)	5 (EURm)
9	Nominal amount of issuance (EURm)	3018,2	18	5
9a	Issue price	n.a.	100,0	100,0
9b	Redemption price	n.a.	100,0	100,0
10	Accounting classification	Share capital	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	02.06.2003	23.10.2006	27.10.2006
12	Perpetual or dated	Unlimited	With expiry date	With expiry date
13	Original maturity date	No maturity	22.10.2021	27.10.2021
14	Issuer call subject to prior supervisory approval	no	no	no
15	Optional call date, contigent call dates and redemption amount	no	no	no
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Fixed	Fixed
18	Coupon rate and any related index	n.a.	4,55%	4,61%
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Supplementary capital	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XFNAM0009815	XS0096688881	XS0098835761
3	Governing law(s) of the instrument	German law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	Registered bonds	Bearer bonds	Bearer bonds
8	Amount recognised in regulatory capital (EURm)	0,9	45,1	18,4
9	Nominal amount of instrument (CUR of issuance)	5 (EURm)	50 (EURm)	20 (EURm)
9	Nominal amount of issuance (EURm)	5	50	20
9a	Issue price	100,0	100,0	100,0
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	07.11.2006	26.04.1999	29.06.1999
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	08.11.2021	26.04.2038	29.06.2029
14	Issuer call subject to prior supervisory approval	no	yes	yes
15	Optional call date, contigent call dates and redemption amount	no	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Fixed	Fixed	Fixed
18	Coupon rate and any related index	4,48%	5,38%	5,00%
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XS0104723266	XS0105720881	XS0119368222
3	Governing law(s) of the instrument	English law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	Bearer bonds	Bearer bonds	variable bearer bonds (FRN)
8	Amount recognised in regulatory capital (EURm)	83,9	63,8	70,0
9	Nominal amount of instrument (CUR of issuance)	86 (EURm)	64 (EURm)	70 (EURm)
9	Nominal amount of issuance (EURm)	86	64	70
9a	Issue price	100,0	100,0	100,0
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	25.11.1999	17.01.2000	25.10.2000
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	25.11.2039	17.01.2030	25.10.2030
14	Issuer call subject to prior supervisory approval	yes	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Variable	Variable
18	Coupon rate and any related index	EURIBOR03M + 0.38 %	EURIBOR06M + 0.36 %	EURIBOR03M + 0.38 %
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XS0119368495	XS0119436326	XS0119502994
3	Governing law(s) of the instrument	English law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	variable bearer bonds (FRN)	variable bearer bonds (FRN)	variable bearer bonds (FRN)
8	Amount recognised in regulatory capital (EURm)	50,0	49,6	80,0
9	Nominal amount of instrument (CUR of issuance)	50 (EURm)	50 (EURm)	80 (EURm)
9	Nominal amount of issuance (EURm)	50	50	80
9a	Issue price	99,7	99,3	100,0
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	25.10.2000	30.10.2000	30.10.2000
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	25.10.2030	30.10.2030	30.10.2040
14	Issuer call subject to prior supervisory approval	yes	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Variable	Variable
18	Coupon rate and any related index	EURIBOR03M + 0.36 %	EURIBOR03M + 0.33 %	EURIBOR03M + 0.38 %
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XS0120017974	XS0120635809	XS0121146137
3	Governing law(s) of the instrument	English law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	variable bearer bonds (FRN)	variable bearer bonds (FRN)	Bearer bonds
8	Amount recognised in regulatory capital (EURm)	50,0	50,0	35,0
9	Nominal amount of instrument (CUR of issuance)	50 (EURm)	50 (EURm)	35 (EURm)
9	Nominal amount of issuance (EURm)	50	50	35
9a	Issue price	100,0	100,0	100,6
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	08.11.2000	28.11.2000	06.12.2000
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	08.11.2030	28.11.2030	06.12.2030
14	Issuer call subject to prior supervisory approval	yes	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Variable	Fixed
18	Coupon rate and any related index	EURIBOR06M + 0.39 %	EURIBOR03M + 0.38 %	6,44%
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XS0121531122	XS0122546442	XS0122667230
3	Governing law(s) of the instrument	English law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	variable bearer bonds (FRN)	Bearer bonds	variable bearer bonds (FRN)
8	Amount recognised in regulatory capital (EURm)	16,0	15,0	92,0
9	Nominal amount of instrument (CUR of issuance)	16 (EURm)	18.4 (USDm)	92 (EURm)
9	Nominal amount of issuance (EURm)	16	15	92
9a	Issue price	99,9	100,0	100,0
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	05.02.2001	29.12.2000	22.01.2001
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	05.02.2031	29.12.2030	22.01.2041
14	Issuer call subject to prior supervisory approval	yes	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Variable	Variable
18	Coupon rate and any related index	EURIBOR03M + 0.36 %	USDLIB03M + 0.42 %	EURIBOR03M + 0.38 %
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier[1]	XS0122825754	XS0123007279	XS0124807099
3	Governing law(s) of the instrument	English law	English law	English law
	Regulatory Treatment			
4	Transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	Bearer bonds	variable bearer bonds (FRN)	Bearer bonds
8	Amount recognised in regulatory capital (EURm)	18,5	5,0	20,4
9	Nominal amount of instrument (CUR of issuance)	22.7 (USDm)	5 (EURm)	25 (USDm)
9	Nominal amount of issuance (EURm)	18,5	5	20,4
9a	Issue price	100,0	100,0	100,5
9b	Redemption price	100,0	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	22.01.2001	12.01.2001	19.02.2001
12	Perpetual or dated	With expiry date	With expiry date	With expiry date
13	Original maturity date	05.01.2040	01.12.2030	19.02.2031
14	Issuer call subject to prior supervisory approval	yes	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders	Possibility of termination in the event that a change in taxation leads to additional payments to the bond-holders
16	Subsequent call dates, if applicable	n.a.	n.a.	n.a.
	Coupons / Dividends			
17	Fixed or floating dividend / coupons	Variable	Variable	Variable
18	Coupon rate and any related index	USDLIB03M + 0.42 %	EURIBOR03M + 0.36 %	USDLIB03M + 0.405 %
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 step up or other incentive to redeem	no	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative	not 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 or temporary	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	Senior unsecured	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.	n.a.

1	Issuer	Hamburg Commercial Bank AG	Hamburg Commercial Bank AG
2	Unique Identifier1	XS0126551695	XS0133159227
3	Governing law(s) of the instrument	English law	English law
	Regulatory Treatment		
4	Transitional CRR rules	Supplementary capital	Supplementary capital
5	Post-transitional CRR rules	Supplementary capital	Supplementary capital
6	Eligible at solo/(sub-)consolidated /solo & (sub-)consolidated	Solo and (partially) consolidated	Solo and (partially) consolidated
7	Instrument type	Bearer bonds	variable bearer bonds (FRN)
8	Amount recognised in regulatory capital (EURm)	116,5	19,9
9	Nominal amount of instrument (CUR of issuance)	143 (USDm)	20 (EURm)
9	Nominal amount of issuance (EURm)	116,5	20
9a	Issue price	100,5	99,5
9b	Redemption price	100,0	100,0
10	Accounting classification	Liabilities - amortised cost value	Liabilities - amortised cost value
11	Original date of issuance	21.03.2001	18.07.2001
12	Perpetual or dated	With expiry date	With expiry date
13	Original maturity date	21.03.2031	18.07.2031
14	Issuer call subject to prior supervisory approval	yes	yes
15	Optional call date, contigent call dates and redemption amount	Possibility of termination in the event that a change in taxation leads to additional payments to the bondholders	Possibility of termination in the event that a change in taxation leads to additional payments to the bondholders
16	Subsequent call dates, if applicable	n.a.	n.a.
	Coupons / Dividends		
17	Fixed or floating dividend / coupons	Variable	Variable
18	Coupon rate and any related index	USDLIB03M + 0.405 %	EURIBOR03M + 0.415 %
19	Existence of a dividend stopper	no	no
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	mandatory	mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	mandatory	mandatory
21	Existence of step up or other incentive to redeem	no	no
22	Noncumulative oder cumulative	not cumulative	not cumulative
23	Convertible or non-convertible	non convertible	non convertible
24	If convertible, conversion trigger(s)	n.a.	n.a.
25	If convertible, fully or partially	n.a.	n.a.
26	If convertible, conversion rate	n.a.	n.a.
27	If convertible, mandatory or optional conversion	n.a.	n.a.
28	If convertible, specify instrument type convertible into	n.a.	n.a.
29	If convertible, specify issuer of instrument it converts into	n.a.	n.a.
30	Write-down features	no	no
31	If write-down, write-down trigger(s)	n.a.	n.a.
32	If write-down, full or partial	n.a.	n.a.
33	If write-down, permanent or temporary	n.a.	n.a.
34	If temporary write-down, description of write-up mechanism	n.a.	n.a.
35	Position in subordination hierarchy in liquidation	Senior unsecured	Senior unsecured
36	Non-compliant transitioned features	n.a.	n.a.
37	If yes, specify non-compliant features	n.a.	n.a.

13. List of abbreviations

ABF	Asset Backed Funding
ABS	Asset Backed Securities
AIRB	Advanced Internal Ratings Based (advanced IRB)
ALCO	Asset Liability Committee
AMM	Additional Monitoring Metrics for Liquidity Reporting
AT1	Additional Tier 1 Capital
BaFin	Federal Financial Supervisory Authority
BCBS	Basel Committee on Banking Supervision (Basel Committee)
CCF	Credit Conversion Factor
CET1	Common Equity Tier 1
CFO	Chief Financial Officer
CM	Capital Markets
COREP	Common Solvency Ratio Reporting
CRD IV	Capital Requirements Directive No. 2013/13/EU
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CVA	Credit Valuation Adjustment (adjustment of the credit valuation)
DSGV	German Savings Banks and Giro Association
EaD	Exposure at Default
EBA	European Banking Authority
ETUC	Introductory Act to the Civil Code
ECA	Export Credit Agency
ECAI	External Credit Assessment Institution
EKU	Eigenkapitalunterlegung (own funds requirements)
EL	Expected loss
EMIR	European Market Infrastructure Regulation
ECB	European Central Bank
FINREP	Financial reporting
FIRB	Foundation Internal Ratings Based (Basis-IRB)
Fitch	Fitch Ratings
FRN	Floating Rate Note
FV	Fair Value
FVPL	Fair Value through Profit or Loss
FX risk	Foreign currency risk
GL	Guideline
P&L	Profit and loss account
HGB	Commercial Code
IAS	International Accounting Standards
ICRE	International Commercial Real Estate
IFRS	International Financial Reporting Standard
ILAAP	Internal Liquidity Adequacy Assessment Process
IRB	Internal Rating Based
IRBA	Internal Rating Based Approach

IRRBB	Interest Rate Risk in the Banking Book
ISDA	International Swaps and Derivatives Association
KfW	Reconstruction Loan Corporation
SME	Small and medium-sized enterprises
KSA	Standardised approach for credit risks
KWG	Gesetz über das Kreditwesen/Kreditwesengesetz (German Banking Act)
LAB	Liquidity progress review
LCH	London Clearing House
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LVaR	Liquidity Value at Risk
MaRisk	Minimum requirements for risk management
Moody's	Moody's Investors Service
NPL	Non-performing loan
NSFR	Net Stable Funding Ratio
OTC	Over the Counter
PD	Probability of Default
RC	Risk Control
RSU	RSU Rating Service Unit GmbH & Co. KG
RWA	Risk Weighted Assets
SFA	Solvabilitätsverordnung (German Solvency Regulation)
SFT	Securities Financing Transactions
SolvV	Solvency Regulation
SPV	Special Purpose Vehicle
SR	S Rating and Risk Systems GmbH
SRF	Strategic Risk Framework
S & P	Standard & Poor's
T1	Tier 1 capital
T2	Tier 2 capital
VaR	Value-at-Risk

Hamburg Commercial Bank AG

Gerhart-Hauptmann-Platz 50
20095 Hamburg
Germany