

Rating Object		Rating Information	
Deutsche	Bank AG (Group)	Long Term Issuer Rating / Outlook:	Short Term:
		A / stable	L2
Creditreform ID:	6070000944	Type: Update / Unsolicited	
Rating Date: Monitoring until:	05 July 2023 withdrawal of the rating : CRA "Bank Ratings v.3.2"	Rating of Bank Capital and Unsecured Deb	ot Instruments:
Rating Methodology	CRA "Rating of Bank Capital and Unsecured Debt Instruments v.2.1"	Preferred Senior Unsecured (PSU):	Α
	CRA "Environmental, Social and Governance Score for Banks v.1.0" CRA "Rating Criteria and Definitions v.1.3"	Non-Preferred Senior Unsecured (NPS):	A-
		Tier 2 (T2):	BBB-
Rating History:	www.creditreform-rating.de	Additional Tier 1 (AT1):	BB+

Rating Action

Creditreform Rating upgrades Deutsche Bank's (Group) Long-Term Issuer Rating to A (Outlook: stable)

Creditreform Rating (CRA) upgrades Deutsche Bank's (Group) Long-Term Issuer Rating to A. The rating outlook is stable.

CRA upgrades Deutsche Bank's Preferred Senior Unsecured Debt to A, Non-Preferred Senior Unsecured Debt to A-, Tier 2 Capital to BBB- and AT1 Capital to BB+.

Please find a complete list of rating actions regarding the bank at the end of this rating update.

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Key Rating Drivers

- Greatly improved earnings quality
- Continued, excellent asset quality
- Solid capitalization, but declining regulatory capital buffer
- Nearing conclusion of transformation process with positive results
- The bank's status as a Global Systemically Important Bank (G-SIB)

Executive Summary

The rating of Deutsche Bank AG is prepared on the basis of group consolidated accounts.

Rating Action: The Long-Term Issuer Rating of Deutsche Bank is upgraded to A. The ratings of Preferred Senior Unsecured and Non-Preferred Senior Debt are upgraded in line with the LT Issuer Rating. Ratings of Tier 2 and AT1 capital are upgraded in line with the LT Issuer Rating. The outlook of Deutsche Bank is stable.

With the nearing conclusion of its transformation plan, Deutsche Bank has managed to structurally decrease costs and increased its revenues substantially with the change in the interest environment. The asset quality remains excellent while maintaining a solid capitalization.



Quantitative: Satisfactory Earnings Sufficient Assets Very Good Capital Satisfactory Liquidity Good Qualitative: Very Good

Creditreform C Rating

Company Overview

Deutsche Bank AG is the largest credit institution in Germany in terms of total assets. Deutsche Bank offers a comprehensive portfolio of services for a broad range of customers. The bank's four core business areas correspond to the following customer segments: *Corporate Bank, Investment Bank, Private Bank, and Asset Management. The Investment Bank and Private Bank* business areas account for the largest share of the Group's revenue. In addition, Deutsche Bank operates the *Capital Release Unit* (disposal of assets no longer in line with the bank's strategy) and *Corporate & Other* (costs and resources that are held centrally and cannot be allocated to other segments). Deutsche Bank's main focus is on Germany and Western Europe. Other significant geographical business areas include North America.

Since 2019, Deutsche Bank has been following a transformation process that has identified the following strategic action areas in particular and is intended to establish Deutsche Bank as a "Global Hausbank": Withdrawal from certain businesses, focus on the above-mentioned four customer-focused segments, expansion of investments in technology and growth, more conservative balance sheet, with a strengthened capital and liquidity position that is expected to enable cumulative distributions of around EUR 8bn for the financial years 2021-2025. From 2025 onwards, annual distributions are to reach 50% of net profit. In addition, operating costs are to be reduced significantly. By the end of 2025, the cost income ratio (CIR) is to fall below 62.5%. Earnings are expected to increase by an average of 3.5-4.5% annually, with the CET1 ratio remaining higher than 13% and the management buffer 200bp above minimum requirement. By 2025, the bank aims to increase the return on average tangible equity (ROTE) to over 10%.

In 2022, a significant milestone in the implementation of the strategic plan was reached; a partial release of provisions due to the achievement of many restructuring programs resulted in a partial release of provisions. The *Capital Release Unit (CRU)* achieved a result of EUR 118mn in 2022. With the achievement of the main targets, the *CRU* will no longer be reported separately starting in Q1-23.

Business Development

Profitability

Deutsche Bank reported a net profit of EUR 5.7bn in 2022, more than double the previous year's figure. The best result since 2007 was achieved against the backdrop of higher operating revenues and simultaneously a reduction in operating expenses as part of the transformation process, as well as non-recurring income and deferred tax valuation adjustments.

Operating income increased by EUR 1.2bn to EUR 26.8bn. This increase was driven by the higher net interest income (EUR +2.5bn). The sharp increase in key interest rates by central banks around the world also led to jumps in income and expenses from the interest business. Interest income increased by EUR 7.7bn, mainly due to loans and central bank deposits. Interest expense increased by EUR 5.2bn, mainly from customer deposits and long-term debt. The net interest income from the TLTRO III-program was EUR 0.2bn, down from EUR 0.5bn the previous year. The remaining balance at year-end 2022 was EUR 33.7bn. In contrast to overall net interest income, the fee and commission business developed negatively in 2022. The main reason for this was underwriting and advisory fees, which declined by just under EUR 0.9bn; overall, net fees decreased by just under EUR 1.1bn to EUR 9.8bn. Net trading and securities income also decreased sharply compared with the previous year; this was primarily attributable to financial assets at FV (non-trading). Equities in particular could not repeat the good results of the dynamic previous year. Losses were incurred by debt securities and other non-trading financial assets. By contrast, the very good trading result only partially offset the declines in the aforementioned areas. Included in the overall decrease was the loss incurred by hedge accounting (2022: EUR -151mn; 2021: EUR 124mn). Other income amounted to EUR 0.5bn, mainly due to favorable valuation adjustments. For comparability reasons, CRA recognized EUR 404mn from gains on disposal of assets held for sale (e.g. sale of Deutsche Bank Financial Advisors business in Italy) in non-recurring revenue.



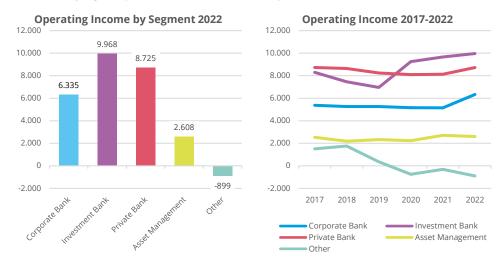


Chart 1 shows the operating income of the four main business areas and Other (including *Capital Release Unit*) for the year 2022 and the period 2017-2022. As already mentioned, operating income again developed positively, with only Asset Management reporting lower income compared with the previous year. The *Investment Bank and Private Bank* segments remain the pillars

of profitability, followed at some distance by *Corporate Bank and Asset Management*. The importance of Investment Banking for Deutsche Bank is unmistakable. Last year, however, the *Corporate Bank* segment in particular benefited from the sharp rise in global interest rates and recorded an increase in operating income of almost a quarter. With the exception of the Investment Bank, the revenues of the individual segments have remained fairly stable in recent years, both in absolute and relative terms.

Operating expenses decreased by EUR 1.3bn in 2022 under the impact of low restructuring and transformation costs. Personnel expenses increased by just under EUR 0.3bn, while non-compensation cost centers such as IT and occupancy-related costs in particular, as well as the restructuring activities cost center with the conclusion of the transformation process, recorded significant decreases.

Risk costs amounted to EUR 1.2bn in 2022, compared with EUR 0.5bn in the previous year. A challenging macro environment due to the war in Ukraine, strained supply chains and ultimately high inflation-induced sharp interest rate increases by central banks led to the increase, while 2021 benefited from the COVID-19 recovery.

The bank's key earnings figures also benefited from the very positive earnings performance. The cost income ratio (CIR) decreased sharply to 76%, but remains high. The return on equity (ROE) improved significantly to 7.8% and is now satisfactory. The same verdict holds true for the return on assets (ROA).

Chart 2: CIR, ROA & ROE of CA in comparison to the peer Group \mid Source: eValueRate / CRA

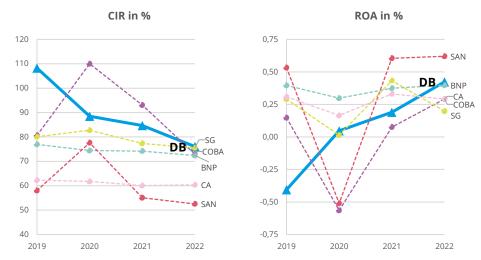


Chart 2 describes the development of Deutsche Bank's CIR and ROA compared with five peer banks. A general trend of declining CIR is clearly discernible, partly interrupted by the crisis year 2020. In most cases, the downward trend in CIR is due to the banks' rigorous cost-cutting measures and the recent significant increase in earnings in the context of higher interest rates. The development of ROA of the peer banks is ambivalent, with only Deutsche Bank showing a clearly positive trend, albeit starting from a very negative baseline.

Q1-23 confirms the good performance of the prior-year quarter, with a further overall increase in operating income and moderate expense development. However, given the significant slow-down in the economy as a whole, it is currently too early to make any meaningful forecasts for the year as a whole.

Asset Situation and Asset Quality

Total assets grew only marginally by EUR 12.8bn to EUR 1,336.8bn in the 2022 financial year. Loans to customers increased by EUR 12.5bn, while liquid assets and securities holdings decreased by EUR 13.1bn and EUR 10bn respectively. Securities holdings have been decreasing for years as part of a deleveraging process. In the period under review from 2019-2022, securities positions decreased from a total of just over EUR 180.3bn to around EUR 141.2bn. Over the same period, the loan portfolio to customers increased from EUR 428.5bn to EUR 480.6bn.

Chart 3: Exposure Loans and Advances. | Source: eValueRate / CRA / Pillar 3

On-balance sheet exposure by geography

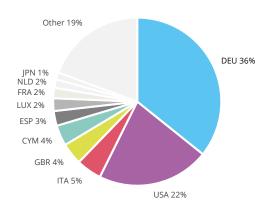


Chart 3 highlights the on-balance sheet exposure by origin. The focus is clearly on the German and US markets. The majority of the remaining exposure is located in Western and Southern Europe. Overall, Deutsche Bank operates almost exclusively in developed economies with a focus on the EU and the USA.

Chart 4: Exposure Loans and Advances. | Source: eValueRate / CRA / Pillar 3

Exposure: Loans and advances

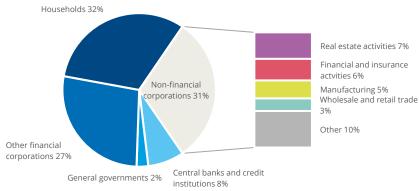
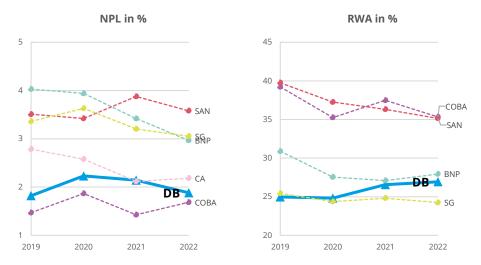


Chart 4 shows the exposure to loans and advances. Households and non-financial corporations account for the largest share of exposure. Again, the largest exposures in the non-financials sector are real estate, financials and insurance, as well as manufacturing, and wholesale and retail trade. These four sectors account for 68.3% of the non-financial exposure. In the opinion

of CRA, there is no significant over-exposure in specially identified risk sectors; only the commercial real estate business has a significant exposure compared with the bank's core capital. Given the size of the bank and the geographical distribution of the exposures, the bank is well diversified.

The already very good quality of the assets improved even further in the past fiscal year. The NPL ratio fell to below 2% and, despite the increase, risk costs also remained at a moderate level. Another positive aspect is the low RWA ratio.

Chart 5: NPL and RWA ratios of Deutsche Bank in comparison to the peer Group | Source: eValueRate / CRA / Pillar 3



The very good asset quality can be observed in the chart above. Compared with a peer group, Deutsche Bank, with the exception of Commerzbank, has a significantly lower NPL ratio. The RWA ratio is also significantly lower than that of the competition in some cases, which creates advantages in the capitalization requirements.

Figures from Q1-23 do not indicate any significant deterioration in asset quality.

Refinancing, Capital Quality and Liquidity

There were only minor changes on the liabilities side of the balance sheet. Deposits increased further by EUR 17bn, while leverage decreased for the third year in a row (EUR -14.7bn). Shareholders' equity increased by EUR 4.3bn in the reporting year 2022, with EUR 0.5bn in dividends paid to owners and share buy-backs totaling EUR 0.7bn in the year. In the current fiscal year, the dividend was increased by 50% from EUR 0.20 per share certificate to EUR 0.30. The bank intends to distribute EUR 8bn to owners by 2025 and aims for a payout ratio of 50% from 2025 on.

Capital resources can be described as overall satisfactory. At 13.4% and 2.9% respectively, the CET1 ratio and the associated buffer are rather below average, but otherwise adequately dimensioned. However, both the balance sheet equity and the equity ratio have increased in recent years, contrary to the industry trend; CRA welcomes this development.

Chart 6: Available Capital and Minimum Requirements | Source: eValueRate / CRA / P3

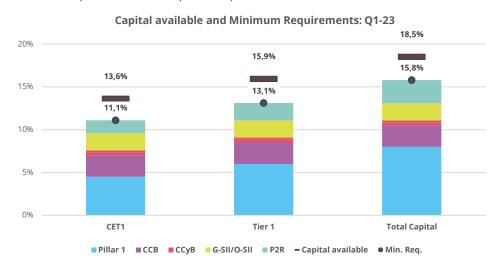
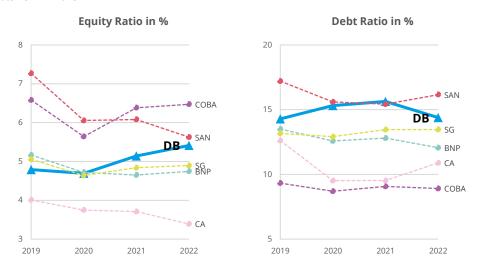


Chart 6 shows the capital adequacy and buffer requirements for regulatory capital. As of Q1-23, the CET1 ratio increased to 13.6%, but the available buffer decreased markedly to 2.5% due to higher capital requirements (countercyclical capital buffer, systemic risk buffer and a higher Pillar 2 requirement).

Chart 7: Equity and Debt Ratios, CET1 And CET1 Buffer of Deutsche Bank in comparison to the peer Group | Source: eValueRate / CRA / Pillar 3



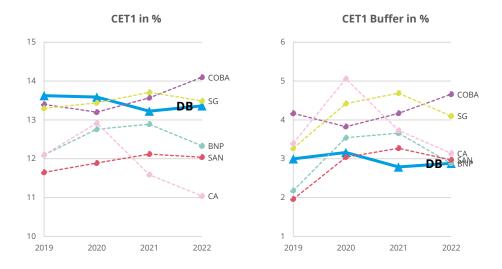


Chart 7 compares Deutsche Bank's capitalization and debt with a peer group. The upper row shows the development of balance sheet equity and debt. Contrary to the industry trend, the capitalization of the bank is clearly increasing, albeit from a low starting point. Deutsche Bank and its peer group are quite similarly leveraged in terms of debt ratio. The bottom line shows the CET1 ratio and the CET1 buffer. Deutsche Bank's CET1 ratio is rather high compared with its peers, but due to high buffer requirements, the existing buffer is at the lower end. With an increase in the requirement and planned distributions and buybacks, this buffer will be even lower this year than at the end of 2022.

Due to Deutsche Bank's bank capital and debt structure, as well as its status as a G-SIB, the Group's Preferred Senior Unsecured Debt instruments are not notched down in comparison to the Long-Term Issuer Rating and rated A. Due to the seniority structure, Deutsche Bank's Non-Preferred Senior Unsecured debt is rated A-. Deutsche Bank's Tier 2 Capital is rated BBB- based on Deutsche Bank's capital structure and seniority in accordance with our rating methodology. Additional Tier 1 Capital is rated BB+, reflecting the capital structure, seniority and a high bail-in risk in the event of resolution.

Environmental, Social and Governance (ESG) Score Card

Deutsche Bank has one significant and two moderate ESG rating drivers

• Corporate governance has been identified as a significant rating driver. The relevance for the Long-Term Issuer Rating results from the impact of the corporate governance factor on all other ESG factors and the overall well-being of the bank. The sub-factor was rated positively because, after years of changes in strategy and management, stability and continuity have gradually returned to the bank and it currently looks as if this will continue.

Score Guidance
> 4,25 Outstanding
>3,5 - 4,25 Above-average

>2,5 - 3,5 Average

<= 1,75 Poor

1,75 - 2,5 Substandard

ESG Bank Score

- Green Financing / Promoting has been identified as a moderate rating driver and is included proportionately in the bank's qualitative rating. This item was rated positively at the bank due to the significant volume of sustainable financing and investments, as well as the target values and their ratio to total assets.
- Corporate Behavior has been identified as a moderate rating driver. After years of turbulence and scandals, calm seems to be slowly returning, but the bank is still struggling with legacy issues from the past and the resulting proceedings.

Relevance Scale 2022 Eval. 1.1 Green Financing / The sub-factor "Green Financing/Promoting" has a moderate relevance for the 3 Environmenta Promoting credit rating, and is rated positive in terms of the CRA ESG criteria. 1.2 Exposure to Environ-The sub-factor "Exposure to Environmental Factors" has a low relevance for the 2 () mental Factors credit rating, and is rated neutral in terms of the CRA ESG criteria. The sub-factor "Resource Efficiency" has no significant relevance for the credit 1.3 Resource Efficiency 1 (+) rating, and is rated positive in terms of the CRA ESG criteria.

cial	I / T Human (anifal	The sub-factor "Human Capital" has low relevance for the credit rating, and is rated neutral in terms of the CRA ESG criteria.	2	()
, ŏ	I Z Z SOCIAL RESPONSIBILITY	The sub-factor "Social Responsibility" has no significant relevance for the credit rating, and is rated neutral in terms of the CRA ESG criteria.	1	()

901	I 3 1 (Ornorate (Overnance	The sub-factor "Corporate Governance" is highly relevant for the credit rating, and is rated positive in terms of the CRA ESG criteria.	4	(+)
vernan	3.2 Corporate Behaviour	The sub-factor "Corporate Behaviour" has a moderate relevance for the credit rating, and is rated neutral in terms of the CRA ESG criteria.	3	()
99	3.3 Corporate Transparency	The sub-factor "Corporate Transparency" has no significant relevance for the credit rating, and is rated very positive in terms of the CRA ESG criteria.	1	(+ +)

	ESG Relevance Scale
5	Highest Relevance
4	High Relevance
3	Moderate Relevance
2	Low Relevance
1	No significant Relevance

ESG Evaluation Guidance				
(+ +) Strong positive				
(+)	Positive			
()	Neutral			
(-)	Negative			
()	Strong negativ			

The ESG Score is based on the Methodology "Environmental, Social and Governance Score of Banken (Version 1.0)" of Creditreform Rating AG, which is available on our homepage https://creditreform-rating.de/en/about-us/regulatory-requirements.html. In addition, we refer to CRA's position paper "Consodering the Impact of ESG Factors".

Creditreform ⊆ Rating

Outlook

The outlook of the Long-Term Issuer Rating of Deutsche Bank is affirmed at stable. In the medium term, with the successful completion of the transformation program, the course should be set for sustainably higher profits than in the previous years.

Best-case scenario: A+

Worst-case scenario: A-

Please note:

The scenarios are based on information available at the time of the rating. Within the forecast horizon, circumstances may occur that could lead to a change of the rating out of the indicated range.

Scenario Analysis

In a scenario analysis, the bank is able to reach a Long-Term Issuer Rating of A+ in the "Best-Case-Scenario" and a Long-Term Issuer Rating of A- in the "Worst-Case-Scenario". The ratings of Bank Capital and Senior Unsecured Debt would respond similarly based on our rating methodology. These ratings are especially sensitive to changes in total equity and to the bank capital and debt structure in general.

We might upgrade Deutsche Bank's Long-Term Issuer Rating and the ratings of Bank Capital and Senior Unsecured Debt if the bank sustainably improves its earnings situation and capitalization remains at least stable. Furthermore, the asset quality should not materially deteriorate.

In contrast, CRA would consider a downgrade of Deutsche Bank's Long-Term Issuer Rating if the earnings situation did not improve sustainably and capitalization as well as asset quality deteriorated significantly, e.g. in the context of a significant economic slowdown due to the substantially increased interest rate environment.

Appendix

Bank Ratings Deutsche Bank (Group)

The bank ratings are dependent on a host of quantitative and qualitative factors. An improvement in either sub-category may result in a higher rating score.

Long-Term Issuer / Outlook / Short-Term A / L2 / stable

Bank Capital and Debt Instruments Ratings Deutsche Bank (Group)

The ratings for bank capital and debt instruments are inter alia dependent on subordination and relative size of the instrument class, based on the long-term issuer rating of the bank.

Preferred Senior Unsecured (PSU):

Non-Preferred Senior Unsecured (NPS):

Tier 2 (T2):

BBB
Additional Tier 1 (AT1):

Rating History

Please consult our website www.creditreform-rating.de for additional information regarding the dates of publication.

Figure 1: Rating History

Bank Issuer Rating	Rating Date	Result
Initialrating	16.10.2017	BBB+ / stable / L2
Rating Update	01.02.2018	BBB+ / stable / L2
Rating Update	25.09.2018	BBB+ / stable / L2
Rating Update	09.12.2019	BBB+ / stable / L2
Monitoring	24.03.2020	BBB+ / stable / L2 (NEW)
Rating Update	26.11.2020	BBB+ / negative / L2
Monitoring	05.07.2021	BBB+ / UNW / L2
Rating Update	19.08.2021	A- / stable / L2
Rating Update	22.04.2022	A- / stable / L2
Rating Update	05.07.2023	A / stable / L2
Bank Capital and Debt Instruments	Rating Date	Result
Senior Unsecured / T2 / AT1 (Initial)	01.02.2018	BBB+ / BB / BB-
Senior Unsecured / T2 / AT1	25.09.2018	BBB+ / BB / BB-
PSU / NPS / T2 / AT1	09.12.2019	BBB+ / BBB / BB / BB-
PSU / NPS / T2 / AT1	24.03.2020	BBB+ / BBB / BB / BB- (NEW)
PSU / NPS / T2 / AT1	26.11.2020	BBB+ / BBB / BB / BB-
PSU / NPS / T2 / AT1	05.07.2020	BBB+ / BBB / BB / BB- (UNW)
PSU / NPS / T2 / AT1	19.08.2021	A- / BBB+ / BB+ / BB
PSU / NPS / T2 / AT1	22.04.2022	A- / BBB+ / BB+ / BB

Creditreform C Rating

PSU / NPS / T2 / AT1 05.07.2023 A / A- / BBB- / BB+

Tables Group (if applicable)

Figure 2: Income statement¹ | Source: eValueRate / CRA

Income Statement (EUR m)	2022	%	2021	2020	2019
Income					
Net Interest Income	13.650	+22,4	11.155	11.526	13.749
Net Fee & Commission Income	9.837	-10,0	10.934	9.424	9.520
Net Insurance Income	3	+0,0	3	3	3
Net Trading & Fair Value Income	2.629	-22,8	3.406	2.794	-182
Equity Accounted Results	152	+55,1	98	120	110
Dividends from Equity Instruments	-	-	-	ı	Ī
Other Income	536	-	-	102	4
Operating Income	26.807	+4,7	25.596	23.969	23.204
Expense					
Depreciation and Amortisation	68	> +100	5	i	1.037
Personnel Expense	10.712	+2,8	10.418	10.471	11.142
Tech & Communications Expense	3.680	-14,8	4.321	3.862	5.011
Marketing and Promotion Expense	165	-7,3	178	174	251
Other Provisions	-	-	-	i	-
Other Expense	5.765	-14,7	6.755	6.708	7.679
Operating Expense	20.390	-5,9	21.677	21.215	25.120
Operating Profit & Impairment					
Operating Profit	6.417	+63,7	3.919	2.754	-1.916
Cost of Risk / Impairment	1.226	> +100	515	1.792	723
Net Income					
Non-Recurring Income	404	-	0	59	4
Non-Recurring Expense	-	-	14	-	-
Pre-tax Profit	5.595	+65,0	3.390	1.021	-2.635
Income Tax Expense	-64	< -100	880	397	2.630
Discontinued Operations	-	-	-	-	-
Net Profit	5.659	> +100	2.510	624	-5.265
Attributable to minority interest (non-controlling interest)	134	-6,9	144	129	125
Attributable to owners of the parent	5.525	> +100	2.365	495	-5.390

Figure 3: Key earnings figures | Source: eValueRate / CRA and Pillar 3

Income Ratios (%)	2022	%	2021	2020	2019
Cost Income Ratio (CIR)	76,06	-8,63	84,69	88,51	108,26
Cost Income Ratio ex. Trading (CIRex)	84,33	-13,36	97,69	100,19	107,41
Return on Assets (ROA)	0,42	+0,23	0,19	0,05	-0,41
Return on Equity (ROE)	7,82	+4,13	3,69	1,00	-8,47
Return on Assets before Taxes (ROAbT)	0,42	+0,16	0,26	0,08	-0,20
Return on Equity before Taxes (ROEbT)	7,74	+2,75	4,98	1,64	-4,24
Return on Risk-Weighted Assets (RORWA)	1,57	+0,86	0,71	0,19	-1,62
Return on Risk-Weighted Assets before Taxes (RORWAbT)	1,55	+0,59	0,96	0,31	-0,81
Net Financial Margin (NFM)	1,39	+0,20	1,19	1,25	1,45
Pre-Impairment Operating Profit / Assets	0,48	+0,18	0,30	0,21	-0,15
Change in % Points					

Change in %Points

¹ Data by our data provider eValueRate, which is standardized for analytical reasons. Thus, the used data and the resulting figures do not have necessary to match the presentation of the bank, which refers to this and all subsequent tables and figures.

Creditreform ⊆ Rating

Figure 4: Development of assets | Source: eValueRate / CRA

Figure 4: Development of assets Source: evaluerate / CRA						
Assets (EUR m)	2022	%	2021	2020	2019	
Cash and Balances with Central Banks	178.896	-6,8	192.021	166.208	137.592	
Net Loans to Banks	14.343	-4,1	14.949	14.644	15.837	
Net Loans to Customers	480.621	+2,7	468.082	426.115	428.514	
Total Securities	141.227	-6,6	151.271	184.313	180.261	
Total Derivative Assets	299.686	-0,0	299.732	343.455	332.931	
Other Financial Assets	80.546	+9,9	73.270	59.905	72.380	
Financial Assets	1.195.319	-0,3	1.199.325	1.194.640	1.167.515	
Equity Accounted Investments	1.124	+3,0	1.091	901	929	
Other Investments	-	-	-	-	-	
Insurance Assets	-	-	-	-	-	
Non-current Assets & Discontinued Ops	40	-89,9	398	6.097	4.976	
Tangible and Intangible Assets	13.195	+6,8	12.360	12.274	11.959	
Tax Assets	8.856	+19,2	7.432	7.044	6.912	
Total Other Assets	118.254	+14,4	103.387	104.303	105.383	
Total Assets	1.336.788	+1,0	1.323.993	1.325.259	1.297.674	

Figure 5: Development of asset quality | Source: eValueRate / CRA and Pillar 3

Asset Ratios (%)	2022	%	2021	2020	2019
Net Loans to Customers / Assets	35,95	+0,60	35,35	32,15	33,02
Risk-weighted Assets ¹ / Assets	26,93	+0,37	26,56	24,82	0,00
NPL ² / Loans to Customers ³	1,88	-0,26	2,14	2,23	1,82
NPL ² / Risk-weighted Assets ¹	3,18	-0,39	3,57	3,69	3,05
Potential Problem Loans ⁴ / Loans to Customers ³	7,98	+0,80	7,18	6,29	4,28
Reserves ⁵ / NPL ²	69,97	-1,30	71,28	67,96	67,55
Cost of Risk / Loans to Customers ³	0,20	+0,11	0,09	0,33	0,13
Cost of Risk / Risk-weighted Assets ¹	0,34	+0,19	0,15	0,54	0,22
Cost of Risk / Total Assets	0,09	+0,05	0,04	0,14	0,06

Figure 6: Development of refinancing and capital adequacy | Source: eValueRate / CRA

Total Liabilities and Equity	1.336.788	+1,0	1.323.993	1.325.259	1.297.674
Total Equity	72.328	+6,3	68.030	62.196	62.160
Total Liabilities	1.264.460	+0,7	1.255.963	1.263.063	1.235.514
Total Other Liabilities	113.504	+16,4	97.545	104.359	98.314
Provisions	2.449	-7,3	2.641	2.430	2.622
Tax Liabilities	1.038	-5,7	1.101	1.135	1.196
Non-current Liabilities & Discontinued Ops	208	-17,5	252	9.850	9.650
Insurance Liabilities	-	-	-	ı	-
Total Financial Liabilities	1.147.261	-0,6	1.154.424	1.145.289	1.123.732
Other Financial Liabilities	51.182	-9,5	56.561	46.493	49.384
Securities Sold, not yet Purchased	-	-	•	ı	-
Derivative Liabilities	282.353	-1,7	287.108	327.775	316.506
Total Debt	192.269	-7,1	207.005	202.990	185.416
Total Deposits from Customers	536.404	+3,3	519.435	492.599	495.352
Total Deposits from Banks	85.053	+0,9	84.315	75.432	77.074
Liabilities (EUR m)	2022	%	2021	2020	2019

I RWA: Pillar 3, EU CR1

1 RWA: Pillar 3, EU CR1

2 NPL: Gross; Non-Performing Loans of the categories Households, Non-Financial Corporations, Other Financial Corporations as per Pillar 3, EU CR1

3 Loans to Customers: Gross; Households, Non-Financial Corporations, Other Financial Corporations as per Pillar 3, EU CR1

4 Potential Problem Loans: Stage 2; Households, Non-Financial Corporations, Other Financial Corporations as per Pillar 3, EU CR1

5 Reserves: Impairment & Provisions and Collateral & Guarantees; Households, Non-Financial Corporations, Other Financial Corporations as per Pillar 3, EU CR1

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Figure 7: Development of capital and liquidity ratios | Source: eValueRate / CRA and Pillar 3

Capital Ratios and Liquidity (%)	2022	%	2021	2020	2019
Total Equity / Total Assets	5,41	+0,27	5,14	4,69	4,79
Leverage Ratio ¹	4,60	-0,30	4,90	4,80	4,30
Common Equity Tier 1 Ratio (CET1) ²	13,36	+0,13	13,23	13,59	13,63
Tier 1 Ratio (CET1 + AT1) ²	15,73	-0,02	15,75	15,34	15,04
Total Capital Ratio (CET1 + AT1 + T2) ²	18,37	+0,53	17,84	17,35	17,44
CET1 Minimum Capital Requirements ¹	10,48	+0,04	10,44	10,43	10,63
Net Stable Funding Ratio (NSFR) ¹	119,56	-1,51	121,07	-	-
Liquidity Coverage Ratio (LCR) ¹	135,15	-6,66	141,81	142,76	142,21

Change in %Points

1 Pillar 3 EU KM1

2 Regulatory Capital Ratios: Pillar 3 EU KM1

Creditreform ⊆ Rating

Regulatory

Creditreform Rating AG was neither commissioned by the rating object nor by any other third party for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in the regulatory sense as an unsolicited rating. The following table clarifies the level of participation of the rated entity (rating object):

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	No
With Access to Internal Documents	No
With Access to Management	No

The rating is based on publicly available information and internal evaluation methods for the rated bank. The quantitative analysis is based mainly on the latest annual accounts, interim reports, other investor relations information of the bank, and calculated key figures by eValueRate / CRA.

The information and documents processed met the requirements of the rating system of Creditreform Rating AG as published on the website www.creditreform-rating.de. The rating was carried out on the basis of the following methodologies and Rating Criteria and Definitions (v1.3):

- Bank ratings (v3.2)
- Rating of bank capital and unsecured debt instruments (v2.1)
- Environmental, Social and Governance Score for Banks (v1.0)

The complete presentation of the rating methodologies used by Creditreform Rating AG and the basic document Rating Criteria and Definitions are published on our homepage:

https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html

On 05 July 2023, the rating was presented by the analysts to the rating committee and adopted in a resolution.

The rating result was communicated to Deutsche Bank AG, and the preliminary rating report was made available to the bank. There was no change in the rating.

The rating is valid until withdrawal and is subject to monitoring from the rating date (see cover page). The rating will be comprehensively reviewed at least once every year. Within this period, the rating can be updated.

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Rating Endorsement Status: The rating of Deutsche Bank AG (Group) was not endorsed by Creditreform Rating AG from a third country as defined in Article 4 (3) of the CRA-Regulation.

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To prepare this credit rating, CRA has used following substantially material sources:

- 1. Aggregated data base by eValueRate
- 2. Annual Report and interim reports
- 3. Investors relations information and other publications
- 4. Website of the rated bank
- 5. Public and internal market analyses
- 6. Internet research

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The "Basic data" information card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In case where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies or these other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

Creditreform ⊆ Rating

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings are explained in mentioned methodologies and / or in the credit rating report.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks is indicated clearly and prominently in the rating report or in the "Basic data" card as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

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