

“Analysis of Basel-III Capital Ratios of Germany’s Ten Largest Banks”

by Mert Cevher

Master’s Student at Public Economics, Law and Politics
Leuphana University Lüneburg
Lüneburg, Germany
Dec, 2025

-
- **Research Question:** How significantly do Germany's top 10 banks exceed Basel-III minimum capital requirements?
 - **Data Source:** European Banking Authority (EBA), 2025 EU-wide Transparency Exercise
 - **Scope:** Germany - 10 largest banks
 - **Time Period:** 2025 Q2
 - **Main Metrics:** CET-1, Tier 1 and Leverage Ratios
 - **Tools:** Microsoft Excel, SQL (MySQL), Tableau

Executive Summary

Project Objective

This analysis contains a comparative assessment of the capital adequacy ratios of the ten largest banks in Germany under Basel III by using the European Banking Authority (EBA) 2025 EU-wide Transparency Exercise dataset. The main objective of this project is to provide insights into the financial robustness of these ten banks by analyzing their compliance with Basel III adequacy criteria. This project covers the ten largest banks in Germany, including Deutsche Bank, Commerzbank, and NRW.Bank, on the basis of Q2 2025 data.

Methodology

1. Filtering a raw EBA CSV file which contains 90,000 records by using Microsoft Excel based on German banks' LEI codes, time period, and country information.
2. Checking for missing or wrong data and comparing CET-1, Tier 1 and leverage ratios by using SQL.
3. Categorizing banks into risk groups ("Very Strong", "Strong", "Normal") based on their CET-1 ratios.
4. Visualizing findings as graphs and charts in Tableau.

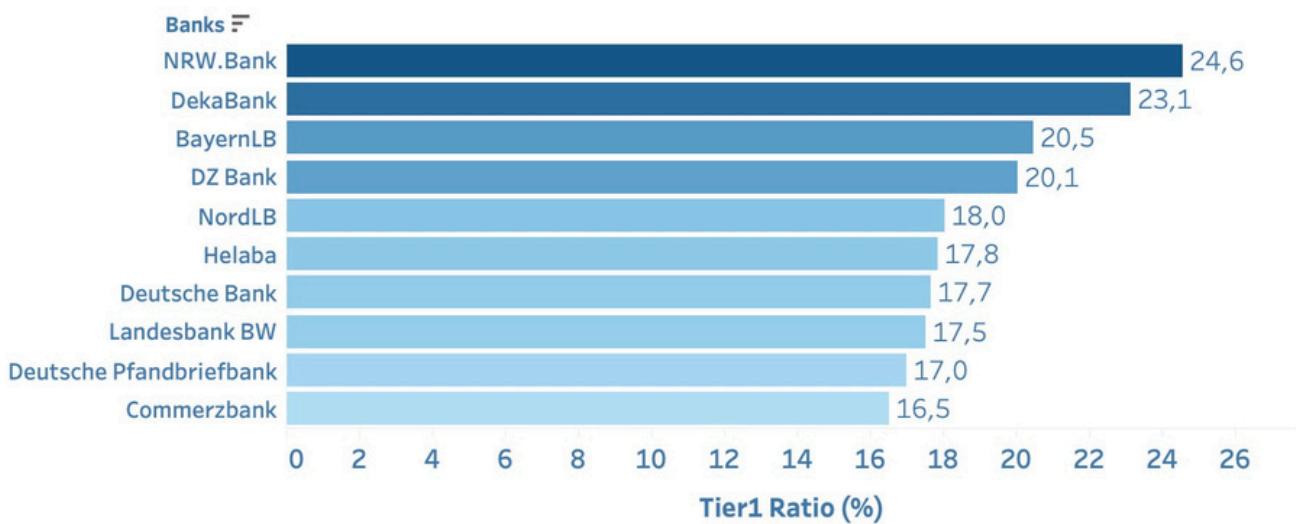
Key Findings

- The average CET-1 ratio of the ten banks analyzed is 17.9%. This is nearly four times higher than the minimum level of 4.5% required under Basel III.
- NRW.bank has the highest CET-1 ratio at 24.6%, while Deutsche Bank has the lowest at 14.2%.
- 30% of banks are "very strong," 50% are "strong," and 20% are "normal."

Figure 1: CET-1 ratios of the ten largest German banks (2025 Q2)

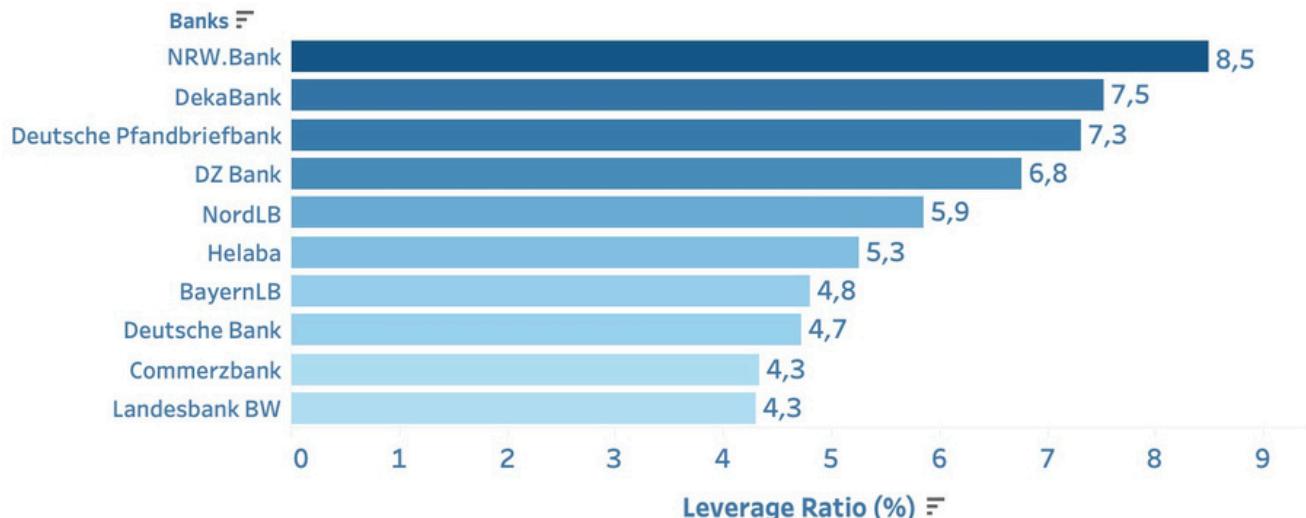
Source: European Banking Authority (EBA), 2025 EU-wide Transparency Exercise

The bank with the highest CET-1 ratio is NRW.Bank at 24.56%, while Deutsche Bank ranks lowest on the list at 14.24%. However, none of them is at a risky level in terms of Basel III criteria; in fact, all banks are above three times the minimum requirement of 4.5%. In particular, NRW.Bank, DekaBank, and BayernLB show very positive signals with CET-1 ratios above 20%. This indicates the determination of Germany's ten largest banks to meet the criteria and the robustness of the German banking system..

Figure 2: Tier1 ratios of the ten largest German banks (2025 Q2)

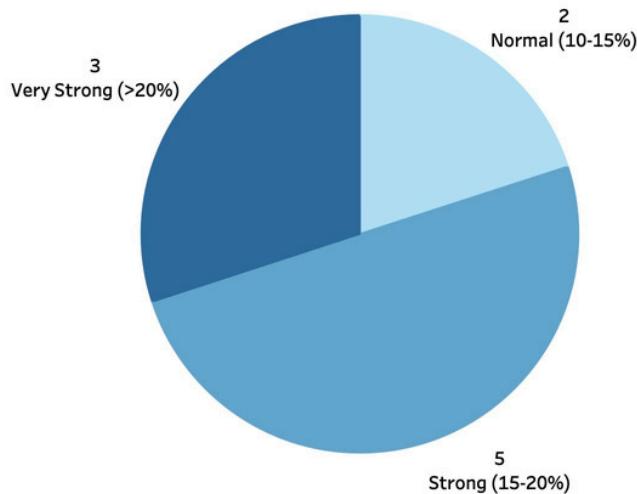
Source: European Banking Authority (EBA), 2025 EU-wide Transparency Exercise

In terms of Tier 1 ratios, similar to CET 1 ratios, NRW.Bank has the highest ratio at 24.56%, while Commerzbank has the lowest Tier 1 ratio at 16.5%. All banks are at least twice the minimum Tier 1 requirement of 6%. This shows that they all meet the criteria. Furthermore, only NRW.Bank and BayernLB have a Tier 1 ratio equal to their CET-1 ratio. This means that other banks are pursuing a higher AT-1 (Additional Tier 1) usage strategy. In particular, the 3.42% difference between Deutsche Bank's CET-1 ratio and its Tier 1 ratio indicates that it has a high AT-1 usage on its balance sheet.

Figure 3: Leverage ratios of the ten largest German banks (2025 Q2)

Source: European Banking Authority (EBA), 2025 EU-wide Transparency Exercise

The leverage ratios of these ten banks range from 8.5% to 4.3%. The bank with the highest leverage ratio is NRW.Bank at 8.5%, while the lowest ratio is 4.3% at Commerzbank and Landesbank BW. All banks exceed the minimum criteria (3%) for leverage ratios, as they do for CET-1 and Tier-1 ratios. This also indicates that German banks are secure in terms of leverage ratio.

Figure 4: Risk groups of the ten largest German banks (2025 Q2)

Banks with a CET1 ratio greater than 20% are classified as “very strong,” those between 15% and 20% as “strong,” and those between 10% and 15% as “normal.” The “very strong” group includes NRW.Bank, DekaBank, and BayernLB; the ‘strong’ group includes NordLB, DZ Bank, Landesbank BW, Helaba, and Deutsche Pfandbriefbank; and the “normal” group includes Commerzbank and Deutsche Bank. As can be understood from this, although some are riskier, all banks are safe and robust within the scope of Basel III criteria against any potential financial shock.

Key Findings

- The average CET1 ratio of ten major German banks is 17.9%—nearly four times the Basel III minimum.
- While NRW.Bank has a very strong CET1 ratio of 24.6%, Deutsche Bank has the lowest at 14.2%, still 3.2 times above the minimum.
- All banks' Tier 1 ratios are at least double the 6% minimum requirement. All meet the criteria.
- NRW.Bank has the highest leverage ratio (8.5%), Landesbank BW the lowest (4.30%).
- Risk distribution: 30% of banks are “very strong,” 50% are “strong,” and 20% are at “normal” levels.
- Germany's ten largest banks are healthy and secure as of Q2 2025.

```

1   -- Creating and selecting the database
2 • CREATE DATABASE IF NOT EXISTS basel_iii;
3 • USE basel_iii;
4
5   -- Creating the table to store capital ratio datas
6 • ⊖ CREATE TABLE bank_capital_ratios (
7     id INT PRIMARY KEY AUTO_INCREMENT,
8     bank_name VARCHAR(100) NOT NULL,
9     lei_code VARCHAR(20) NOT NULL,
10    cet1_ratio DECIMAL(5,2) NOT NULL,
11    tier1_ratio DECIMAL(5,2) NOT NULL,
12    leverage_ratio DECIMAL(5,2) NOT NULL,
13    period INT NOT NULL,
14    UNIQUE KEY unique_lei_period (lei_code, period)
15 );
16
17   -- Displaying all banks with their CET1, Tier1 and Leverage ratios
18   -- Ordering CET1 descending to analyze strong and weak banks
19 • SELECT
20     bank_name as "Banks",
21     cet1_ratio as "CET1 Ratio (%)",
22     tier1_ratio as "Tier1 Ratio (%)",
23     leverage_ratio as "Leverage Ratio (%)"
24   FROM bank_capital_ratios
25   ORDER BY cet1_ratio DESC;
26
27   -- Grouping banks based on their CET1 ratio levels
28   -- Classifying as Very Strong (>20%), Strong (15–20%), or Normal (10–15%)
29   -- Creating the data for the risk distribution pie chart
30 • SELECT
31   ⊖ CASE
32     WHEN cet1_ratio > 20.0 THEN 'Very Strong (>20%)'
33     WHEN cet1_ratio BETWEEN 15.0 AND 20.0 THEN 'Strong (15–20%)'
34     WHEN cet1_ratio BETWEEN 10.0 AND 15.0 THEN 'Normal (10–15%)'
35     ELSE 'Below Minimum'
36   END as risk_group,
37   COUNT(*) as number_of_banks
38   FROM bank_capital_ratios
39   GROUP BY risk_group
40   ORDER BY
41   ⊖ CASE risk_group
42     WHEN 'Very Strong (>20%)' THEN 1
43     WHEN 'Strong (15–20%)' THEN 2
44     WHEN 'Normal (10–15%)' THEN 3
45     ELSE 4
46   END;

```