Research Log Research on Corporate Transparency Empirical Assignment

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Step 1: Identifying Local Firms (Postal Code 10435)

When approaching this assignment, I had two main criteria in mind that influenced my firm selection. First, I wanted to focus on companies that are not part of large chains. Second, I aimed to identify firms that are structured as *Kapitalgesellschaft* and are possibly large enough to be required under the German Commercial Code (HGB) to publish annual financial statements. These criteria were important because they increase the likelihood of finding relevant financial data in later steps of the assignment.

As a result, many well-known but unsuitable firms and shops near me — such as Rewe, Coffee Fellows, and Zeit für Brot — were excluded. My final selection is based either on (a) companies I discovered while walking through my neighborhood with the above criteria in mind, or (b) online searches for terms like "GmbH 10435" or "Online-Shop 10435" when I struggled to find suitable firms just by walking through my neighborhood.

The following sections describe how each company was identified and verified:

1. GLS Campus Berlin GmbH & Co. KG

German Language School (GLS) was the first company that came to mind. I frequently pass their large building when commuting by tram, and it struck me as a non-chain business likely to be subject to financial reporting requirements.

 \rightarrow According to their (imprint), the company's address is:

GLS Campus Berlin GmbH & Co. KG

Kastanienallee 82

10435 Berlin

 \rightarrow This confirms that the firm is located in my postal code (10435).

2. Berliner Prater Garten GmbH Restauration

Prater Garten was not an immediate candidate for me despite being a long-standing institution in the neighborhood. After visiting one evening, I realized how large this beergarden actually is are and decided to check whether they might meet the postal code and reporting requirements.

→ According to their (imprint), the company's address is:

Berliner Prater Garten GmbH Restauration

Kastanienallee 7-9

10435 Berlin

 \rightarrow This confirms that the firm is located in my postal code (10435).

3. Quandoo GmbH

I regularly pass by the office of Quandoo, a restaurant-booking platform, at the Kulturbrauerei, so I thought it must be registered to my postal code. Given its visibility and scale, I thought it would likely meet the requirements for public financial reporting for steps 2 and step 3.

 \rightarrow According to their (imprint), the company's address is: Quandoo GmbH

KulturBrauerei, Gebäude 5 Schönhauser Allee 36 10435 Berlin

 \rightarrow This <u>confirms</u> that the firm is located in my postal code (10435).

4. Kauf Dich Glücklich GmbH

I found this company via a Google search for "GmbH 10435 Berlin" and after a chat with ChatGPT about the biggest firms in my postal code after having trouble finding additional firms that matched my criterias. It is a popular lifestyle and fashion brand that operates its own online shop.

 \rightarrow According to their (imprint), the company's address is:

Kauf Dich Glücklich GmbH

Oderberger Straße 44

10435 Berlin

 \rightarrow This confirms that the firm is located in my postal code (10435).

5. STAYERY / BD Apartment GmbH

I found STAYERY through a targeted Google search for "GmbH 10435 Berlin" while looking for additional firms that meet my selection criteria. The company operates serviced apartments and is legally structured as a GmbH. Its scale and visibility suggest it may be subject to HGB reporting requirements.

→ According to their (imprint), the company's address is:

BD Apartment GmbH

Schönhauser Allee 43A

10435 Berlin

 \rightarrow This <u>confirms</u> that the firm is located in my postal code (10435).

The following firms were identified during the initial research phase but subsequently excluded from further consideration. This decision was made on the basis of an evaluation of their likelihood of having financial statements uploaded to the Unternehmensregister for Steps 2 or data in the Orbis dataset for Step 3.

Table 1: Firms considered but excluded (Step 1)

Company	Reason for exclusion
Zasta GmbH	Registered outside of 10435
YAPU Solutions GmbH	Financial disclosure or Orbis coverage appeared unlikely
Circula GmbH	Financial disclosure or Orbis coverage appeared unlikely
Berlin on Bike GmbH	Financial disclosure or Orbis coverage appeared unlikely
NeoBerlin GmbH	Financial disclosure or Orbis coverage appeared unlikely
Next Estate GmbH	Financial disclosure or Orbis coverage appeared unlikely

In order to maintain clarity and traceability in the analysis, the following table provides a summary of the five firms identified in Step 1. The following companies will be retained for the subsequent steps of the assignment.

Table 2: Summary of selected firms in postal code 10435 (Step 1)

Company	Registered address	Imprint link
GLS Campus Berlin GmbH & Co. KG	Kastanienallee 82 10435 Berlin	Imprint
Berliner Prater Garten GmbH Restauration	Kastanienallee 7–9 10435 Berlin	Imprint
Quandoo GmbH	Schönhauser Allee 36 10435 Berlin	Imprint
Kauf Dich Glücklich GmbH	Oderberger Straße 44 10435 Berlin	Imprint
BD Apartment GmbH (STAYERY)	Schönhauser Allee 43A 10435 Berlin	Imprint

Step 2: Financial Statement Availability in the Corporate Register

In line with the assignment instructions, I consulted the official German Corporate Register (Unternehmensregister) to verify the legal registration and financial reporting activity of the five firms identified in Step 1. All registry searches were conducted manually using the firm names from Step 1. For each firm, I retrieved:

- the official legal name,
- the HRB or HRA number, and
- whether reports were available and If so, the overall period for which financial statements were available

When statements were available, I documented:

- the type of report (single-entity or consolidated),
- the exact fiscal period covered (in this case all fiscal periods refer to standard calendar years, beginning on 01.01. and ending on 31.12.), and
- the official filing date.

Table 3: Firm-level overview of financial statement availability (Step 2)

Firm Name	HRB/ HRA	FS Availability
GLS Campus Berlin GmbH & Co. KG	HRA 62662	No FS found
Berliner Prater Garten GmbH Restauration	HRB 58196	FS available for 2006–2022
Quandoo GmbH	HRB 145743	FS available for 2013–2023
Kauf Dich Glücklich GmbH	HRB 200794	FS available for 2018–2023
BD Apartment GmbH	HRB 86741	FS available for 2020–2022

Table 4: Detailed listing of all deposited financial statements by firm (Step 2)

Firm name	FS Type	Fiscal Period	Filing Date
Berliner Prater Garten GmbH Restauration	Single	2022	08.04.2024
Berliner Prater Garten GmbH Restauration	Single	2021	22.05.2023
Berliner Prater Garten GmbH Restauration	Single	2020	21.12.2021
Berliner Prater Garten GmbH Restauration	Single	2019	17.11.2020
Berliner Prater Garten GmbH Restauration	Single	2018	22.11.2019
Berliner Prater Garten GmbH Restauration	Single	2017	07.03.2019
Berliner Prater Garten GmbH Restauration	Single	2016	15.12.2017
Berliner Prater Garten GmbH Restauration	Single	2015	08.06.2016
Berliner Prater Garten GmbH Restauration	Single	2014	31.07.2015
Berliner Prater Garten GmbH Restauration	Single	2013	17.11.2014
Berliner Prater Garten GmbH Restauration	Single	2012	04.02.2014
Berliner Prater Garten GmbH Restauration	Single	2011	24.09.2012
Berliner Prater Garten GmbH Restauration	Single	2010	26.09.2011
Berliner Prater Garten GmbH Restauration	Single	2009	29.12.2010
Berliner Prater Garten GmbH Restauration	Single	2008	08.03.2010
Berliner Prater Garten GmbH Restauration	Single	2007	06.02.2009
Berliner Prater Garten GmbH Restauration	Single	2006	18.01.2008
Quandoo GmbH	Single	2023	21.11.2024
Quandoo GmbH	Single	2022	05.10.2023
Quandoo GmbH	Single	2021	09.02.2023
Quandoo GmbH	Single	2020	15.12.2021
Quandoo GmbH	Single	2019	17.03.2021
Quandoo GmbH	Single	2018	31.03.2020
Quandoo GmbH	Single	2017	19.03.2019
Quandoo GmbH	Single	2016	23.04.2018
Quandoo GmbH	Single	2015	09.02.2017
Quandoo GmbH	Single	2014	01.03.2016
Quandoo GmbH	Single	2013	30.01.2015

Firm name	FS Type	Fiscal Period	Filing Date
Kauf Dich Glücklich GmbH	Single	2023	30.01.2025
Kauf Dich Glücklich GmbH	Single	2022	28.02.2024
Kauf Dich Glücklich GmbH	Single	2021	19.05.2023
Kauf Dich Glücklich GmbH	Single	2020	14.06.2022
Kauf Dich Glücklich GmbH	Single	2019	18.10.2021
Kauf Dich Glücklich GmbH	Single	2018	19.03.2020
BD Apartment GmbH	Single	2022	13.03.2024
BD Apartment GmbH	Single	2021	26.01.2023
BD Apartment GmbH	Single	2020	23.05.2022

Special Observations

- For GLS Campus Berlin GmbH & Co. KG (HRA 62662), no financial statements were available in the Unternehmensregister. The registry states: "Zu diesem Unternehmen sind keine Dokumente hinterlegt."
- BD Apartment GmbH was listed under *Amtsgericht Köln*, which raised the question of whether the firm's adress is really in berlin. But according to Northdata, the company officially moved its adress from Cologne to Berlin in 2019.

Step 3: Preparing Orbis Data and Matching with Unternehmensregister Filings

To continue the analysis, I forked the public course repository and created a local R project using RStudio. The Orbis data file, which was provided via Moodle, was stored in the designated folder, data/generated. In accordance with the assignment guidelines, I did not push the dataset to the public repository.

The objective of this step was to determine whether the financial statements identified in Step 2 were also available in the Orbis dataset. After loading and inspecting the data in RStudio, I conducted a manual search to see which of my firms were included. To ensure transparency and reproducibility, I translated this manual process into code using string-based filters on the company names.

Three of the five firms — Berliner Prater Garten GmbH Restauration, Quandoo GmbH, , and Kauf Dich Glücklich GmbH — were successfully identified in the Orbis data. This holds true for both the manual and the code search. For each, I filtered by fiscal year and prepared a structured comparison against the Unternehmensregister findings. A CSV file showing the results of this step is provided and can be found in output/orbis_filtered_step3_sorted.csv.

Table 5: Availability of financial statements in Orbis and Unternehmensregister (Step 3)

Firm Name	FS Availability	Orbis Data Availability
GLS Campus Berlin GmbH & Co. KG	not available	not available
Berliner Prater Garten GmbH Restauration	2006-2022	2012-2021
Quandoo GmbH	2013-2023	2013-2022
Kauf Dich Glücklich GmbH	2018-2023	$2008,\ 2018–2022$
BD Apartment GmbH (STAYERY)	2020-2022	not available

Special Observations

- GLS Campus Berlin GmbH & Co. KG was not found in the Orbis dataset. While the string "GLS" returned several entries, including firms such as *GLS Neue Energie GmbH*, none matched the address or full name of the GLS language school located in postal code 10435.
- BD Apartment GmbH (STAYERY) was also not listed in the dataset. Various name variations were tested (e.g., "STAYERY", "BD Apartment"), but none yielded a match. This result is consistent with my earlier manual search.

• The three remaining firms — Berliner Prater Garten GmbH Restauration, Quandoo GmbH, and Kauf Dich Glücklich GmbH — could be clearly identified and matched to Orbis entries.

Conclusion

A comparison reveals that Orbis coverage tends to lag behind or fall short of the full disclosure range found in the Unternehmensregister. For instance, Prater Garten is listed in the register starting in 2006, but only starting in 2012 in Orbis. Kauf Dich Glücklich is consistent from 2018 onward, though there may be an error entry for 2008. Quandoo GmbH is the most consistent match, with nearly complete overlap of the full set of Financial Statements.

Step 4: Comparison of Orbis and Unternehmensregister Data (2021)

Task

The objective of Step 4 was to identify the firm located in postal code 10435 with the highest total assets in the Orbis dataset for the fiscal year ending in 2021, and to compare its financial values against the corresponding financial statement published in the Unternehmensregister. The values to be compared included:

- Total assets
- Book value of equity
- Net sales (if available)

Process

The Orbis dataset was filtered for all entries with postal code 10435 and year 2021. The result was sorted by total assets (column name: toas) in descending order to identify the largest firm. The cross-validation of variable names was conducted using the Orbis variable guide (pages 1762 onwards), where:

- toas corresponds to total assets,
- shfd to book value of equity, and
- turn to sales.

The firm with the highest total assets was **TIN Jade GmbH**, reporting €276,994,891 in assets and €258,636,965 in equity. However, net sales (turn) were missing. A search for this firm in the Unternehmensregister yielded no results. Further investigation via Northdata revealed that TIN Jade GmbH had been merged in July 2024. Northdata listed **New TIN Linio I GmbH** as the legal successor. This firm was found in the Unternehmensregister but had not published a financial statement for 2021, likely because the merger had not yet taken place then.

Following the assignment protocol, I then selected the second-largest firm by total assets: **GEC German Exposition Corporation International GmbH**. The company's Orbis values for 2021 were:

• Total assets: €48,114,317

• Book value of equity: €47,803,808

• Net sales: missing

A match was confirmed in the Unternehmensregister for the same firm (HRB 72197, Amtsgericht Charlottenburg). The 2021 financial statement covered the period from 01.01.2021 to 31.12.2021 and was filed on 29.06.2022.

Findings

The comparison between Orbis and Unternehmensregister data for GEC German Exposition Corporation International GmbH shows consistent reporting. Both total assets and equity figures match exactly, differing only due to rounding in Orbis. Net sales were not disclosed in either source.

Table 6: Comparison of Orbis and Unternehmensregister values for 2021

Metric	Orbis	Unternehmensregister
Total Assets	€48,114,317	€48,114,317.41
Equity (Book Value)	€47,803,808	€47,803,808.07
Net Sales	Not available	Not disclosed

Step 5: Comparing Firms from Postal Code 10435 to the Berlin Firm Population

Objective

This step aims to evaluate whether firms located in postal code 10435 differ systematically from the overall Berlin firm population with respect to firm size and equity ratio. For this I compared two financial metrics extracted from the Orbis dataset for the fiscal year 2021:

- Total Assets, measured in euros (toas),
- Equity Ratio, defined as book value of equity divided by total assets (shfd / toas).

The analysis investigates whether the observed differences between the two groups are statistically significant.

Research Design

Sample Definition

The empirical analysis is based on firm-level data from the orbis_panel_berlin.rds file, which contains financial information for companies registered in Berlin. Two mutually exclusive groups were defined for comparison:

- Firms with postal code 10435 (local subset)
- All firms with city_native == "Berlin" (reference population)

The sample was restricted to the fiscal year 2021 in order to ensure a clean cross-sectional comparison. This decision also facilitates the application of standard inferential methods such as the t-test, without the need to control for time fixed effects or panel dynamics.

Variable Construction

To assess equity ratio, I computed the equity ratio as the ratio of shfd (book value of equity) to toas (total assets), following the Orbis variable guide. Firms with missing or zero total assets were excluded automatically by the internal handling of the t.test().

Statistical Methodology

The main hypothesis is whether firms in postal code 10435 differ from Berlin firms in terms of mean total assets and mean equity ratio. I use t-tests to assess differences in means. For each metric and group, I compute the following descriptive statistics:

- Mean, standard deviation
- Median, minimum, maximum and interquartile range

Additionally, I report 95% confidence intervals for the mean differences to quantify uncertainty.

Implementation and Reproducibility

All analysis steps were implemented in RStudio. First, I developed the procedure using a regular R script, and then transformed the Step 5 Part of it into an R Markdown file to generate a fully reproducible PDF output. The final table was generated using the kable() and kableExtra packages and exported as a standalone PDF, which was then inserted into this research logs last page using the pdfpages package in Latex.

All relevant materials (code, RMD file, output table) were published in my fork of the public course repository:

https://github.com/krueger-konstantin/rct25

A dedicated folder was created for the empirical assignment. It includes:

- The original R script for Step 3-5,
- The RMarkdown file for Step 5,
- The exported PDF table generated via the markdown script,

All R-Outputs from Steps 3 and 4 were stored in the output/ folder for better overview (but not submitted to Moodle). The Orbis dataset itself was not published on GitHub, in line with the course policy.

Findings

Total Assets

Firms in postal code 10435 exhibit significantly lower total assets on average ($\mathfrak{C}3.5$ million) compared to the broader Berlin sample ($\mathfrak{C}24.5$ million). This difference is statistically sig-

nificant (p < 0.000001), with a 95% confidence interval for the difference in means ranging from £13.7 million to £28.6 million. The interquartile range and median values also indicate a more homogeneous firm size distribution in 10435.

Equity Ratio

While the mean equity ratio in 10435 is close to zero (-0.38%), the Berlin-wide average is substantially lower (-46.33%), likely driven by outliers with extreme negative equity. Despite this apparent difference, the t-test fails to reject the null hypothesis of equal means (p = 0.2064). Median equity ratios are similar across both groups (0.46% vs. 0.38%), suggesting that central tendencies are comparable.

Conclusion

The analysis demonstrates that firms in 10435 are significantly smaller in size than the general Berlin population but exhibit similar equity ratios. This result may reflect the relatively local and less capital-intensive nature of businesses in 10435.

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Empirical Assignment Step 5: Firm Comparison Table

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Table 1: Summary Statistics and Mean Comparison of Total Assets (in €) and Equity Ratio for Firms in Berlin and Postal Code 10435 (2021)

	Total Assets (€)		Equity Ratio (%)	
	n = 228	n = 28009	n = 228	n = 28009
Statistic	10435	Berlin	10435	Berlin
Mean	3,537,375	24,510,694	-0.38	-46.33
Standard Deviation	19,127,667	607,413,392	5.51	6,084.86
Minimum	1	1	-69.04	-1,001,262.00
Median	670,126	1,015,124	0.46	0.38
Maximum	276,994,891	71,843,000,000	1.00	1.00
Interquartile Range	1,556,392	3,303,914	0.73	0.63
p-value	0.00000005	0.00000005	0.2064	0.2064
95% CI Lower	-28,508,391	-28,508,391	-25.32	-25.32
95% CI Upper	-13,438,246	-13,438,246	117.21	117.21

Notes: This Orbis dataset is provided by WRDS. The sample covers the period of 2021. Firms with total assets of zero were excluded. Total assets are reported in euros. The equity ratio is defined as book value of equity divided by total assets and expressed as a percentage. Mean comparisons between firms in postal code 10435 and the overall Berlin sample are based on t-tests. Corresponding p-values indicate statistical significance