# Template for a Business Research Article
## Using the Elsevier Quarto Template

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**Abstract**

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## 1. Introduction

This document is a Quarto template for creating an academic paper formatted for potential publication in Elsevier journals. If you have received this document as a PDF, a live version including the code used to create this document can be found at: https://github.com/eweisbrod/abr.

Here are some examples of in-text and parenthetical citations. You can use latex citation styles inside a Quarto PDF. To add citations to the paper, you must add the bibtex reference information to the "Bibliography.bib" file that is part of the Qaurto project. The easiest way to do this is to look up the paper you wish to cite on Google scholar, then click on the "cite" link below the paper, select bibtex, and cut and paste the reference info into the bib file. The bibtex reference will include a shorthand way to refer to the paper in the latex cite commands (e.g., "blankespoor2019individual"). Blankespoor et al. (2019) is an in-text cite. There are also parenthetical cites (e.g, Doyle et al., 2006; Livnat and Mendenhall, 2006; Dirk et al., 2018; Bradshaw et al., 2018).[1]

Here is a new sentence with a parenthetical cite at the end (Easton et al., 2024).

The second time I cite the paper, I think it will use et al (Easton et al., 2024)

## 2. Background and Hypotheses Development

This template includes some formatting for declaring formal hypotheses or research questions. I think these commands require some of the definitions that were set in the preamble above. Here is an example hypothesis related to the data example that will be used in the tables.

**Hypothesis 1 (H1) :** *Ceteris paribus, earnings are less persistent for loss firms than profit firms.*

This hypothesis is easy to motivate based on persistent losses driving a firm out of business, curtailments (Lawrence et al., 2018), the abandonment option (Hayn, 1995), etc. However, if we want to define a more open-ended "research question" rather than a "hypothesis," we could format it this way:

**Research Question 1 (RQ1):** *Are losses less persistent than profits?*

Next, I will provide examples for defining sub-sections and sub-sub-sections.

### *2.1. Example Sub-Section*

### *2.2. Another sub-section*

#### *2.2.1. This one has a sub-sub-section*

## 3. Data and Methodology

### *3.1. Sample Selection*

I downloaded some data from WRDS.

### *3.2. Methodology*

Papers usually have equations. Here is an example DiD equation:

$$\begin{aligned}\ln(\text{Dependent Measure}) = \alpha + \beta_1 \text{Post} + \beta_2 \text{Treatment} + \beta_3 (\text{Post} \times \text{Treatment}) \\ + A \times \text{Controls} + B \times \text{FE} + \epsilon,\end{aligned} \tag{1}$$

where *Post* equals 1 for observations in the post-shock period and 0 otherwise, *Treatment* equals 1 for observations with the treatment and 0 otherwise, *Controls* is a vector of variables listed as "Control Variables" in Appendix [ Table 1], and $FE$ are fixed effects.

Here is the regression equation that we use to test Hypothesis 1 , which was defined in Background and Hypotheses Development.

[1] There are also footnotes.

Footnote: Note that since we have dynamically defined and referred to Hypothesis 1 you can click on it to jump to the place in the text where H1 is defined. We can do the same thing for Research Question 1.

$$ROA_{i,t+1} = \alpha + \beta_1 ROA_{i,t} + \beta_2 LOSS_{i,t} + \beta_3 (ROA_{i,t} \times LOSS_{i,t}) + A \times \text{Controls}_{i,t} + B \times \text{FE} + \epsilon_{i,t+1}, \tag{2}$$

where $ROA_{i,t+1}$ ($ROA_{i,t}$) is return on assets for firm $i$ in year $t+1$ ($t$), calculated as earnings before special items divided by ending total assets. $LOSS_{i,t}$ is an indicator variable that equals 1 for observations with negative earnings before special items and 0 otherwise, and *Controls* is a vector of variables listed as "Control Variables" in Appendix 1. $FE$ are various fixed effects.

### *3.3. Results*

We can use LaTeX references to refer/link readers to the tables as we discuss them. If you click the below table numbers they should take you to the associated table. These dynamic references will automatically renumber themselves if additional tables are added or the tables are reordered. Academic papers rarely use bulleted lists, but here is one for fun, and to clearly list the tables that are included in this template:

- Table 2 is an example sample selection table.
- Table 3 is a basic frequency table.
- Table 4 provides descriptive statistics, created using R.
- Table 5 provides a correlation matrix, created in R.
- Table 6 provides an example regression table, created in R.

  Here are some examples of inline table references, including references to the relevant equation and hypothesis. Table 5 and Table 6 present the results from estimating Eq. 1. The significantly negative coefficients on $LOSS_t \times ROA_t$ in Columns (4) and (5) provide some evidence consistent with Hypothesis 1. However, it seems to be important to control for firm characteristics when testing this hypothesis.
- The full results are shown in Table 6.
- **Key Findings:** Basic Model: The ROA coefficient is **0.839**. And the standard error is 0.002. Here we take values from the table to generate direct output.

  We can also link a graph or chart here.

## 4. Appendix

Table 1: Variable Definition

| Variable | Definition |
|---|---|
| **Main Dependent and Independent Variables** | |
| $\text{ROA}_{i,t}$ | Return on assets for firm $i$ in year $t$, calculated as earnings before special items divided by ending total assets. In terms of Compustat data items, it is defined as $(\text{ib} - \text{spi})/\text{at}$. |
| $\text{LOSS}_{i,t}$ | An indicator variable that equals 1 for observations with negative earnings before special items and 0 otherwise. |
| **Control Variables** | |
| SIZE | Market value of equity as of the end of fiscal year $t$ (Source: Compustat). |
| R&D | Research and development expense scaled by ending total assets (xrd/at). |
| TA | Ending total assets (at). |

Table 2: **Note:** Note: This table describes the sample selection procedure.

| Sample Selection Step | Firm-Years |
|---|---|
| Initial data download from WRDS | 194,728 |
| After removing financial and utility firms | 136,393 |
| After requiring lead ROA data | 127,867 |
| After applying additional screening criteria | 86,702 |
| With matching data from secondary database | 71,408 |
| Less: firm-years missing control variables | -3,500 |
| Final Analysis Sample | 163,269 |

Table 3: Summary of Firms by Decade

| Year | Total Firms | Loss Firms | Pct. Losses |
|---|---|---|---|
| 1970 - 1979 | 25,101 | 1,978 | 7.88% |
| 1980 - 1989 | 29,125 | 5,315 | 18.25% |
| 1990 - 1999 | 38,024 | 9,579 | 25.19% |
| 2000 - 2009 | 37,100 | 12,822 | 34.56% |
| 2010 - 2019 | 28,434 | 9,671 | 34.01% |
| 2020 - 2022 | 5,514 | 2,516 | 45.63% |
| Total | 163,298 | 41,881 | 25.65% |

Table 4: Summary Statistics

| | N | Mean | SD | Min | P25 | Median | P75 | Max |
|---|---|---|---|---|---|---|---|---|
| roa_lead_1 | 163,298 | -0.002 | 0.173 | -0.898 | -0.009 | 0.040 | 0.078 | 0.237 |
| roa | 163,298 | 0.006 | 0.159 | -0.803 | -0.003 | 0.042 | 0.079 | 0.243 |
| loss | 163,298 | 0.256 | 0.437 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| rd | 163,298 | 0.040 | 0.086 | 0.000 | 0.000 | 0.000 | 0.038 | 0.511 |
| at | 163,298 | 1449.837 | 4555.996 | 11.021 | 41.910 | 142.534 | 679.370 | 33637.256 |
| mve | 163,298 | 1568.688 | 5317.423 | 2.127 | 29.790 | 125.510 | 651.281 | 40596.033 |

Table 5: Correlation Matrix

| | roa_lead_1 | roa | loss | rd | at | mve |
|---|---|---|---|---|---|---|
| roa_lead_1 | 1.000 | 0.771 | -0.569 | -0.506 | 0.096 | 0.118 |
| roa | 0.771 | 1.000 | -0.688 | -0.570 | 0.094 | 0.119 |
| loss | -0.594 | -0.756 | 1.000 | 0.354 | -0.106 | -0.114 |
| rd | -0.105 | -0.111 | 0.202 | 1.000 | -0.068 | -0.017 |
| at | 0.159 | 0.153 | -0.201 | -0.067 | 1.000 | 0.854 |
| mve | 0.252 | 0.268 | -0.197 | 0.122 | 0.852 | 1.000 |

Table 6: Regression

| | Base | No FE | Year FE | Two-Way FE | With Controls |
|---|---|---|---|---|---|
| ROA[t] | 0.839*** | 0.756*** | 0.769*** | 0.639*** | 0.624*** |
| | (0.002) | (0.006) | (0.015) | (0.017) | (0.018) |
| LOSS | | −0.030*** | −0.028*** | −0.015*** | −0.017*** |
| | | (0.001) | (0.004) | (0.002) | (0.002) |
| ROA[t] × LOSS | | 0.032*** | 0.012 | −0.285*** | −0.293*** |
| | | (0.007) | (0.022) | (0.021) | (0.023) |
| Num.Obs. | 163,298 | 163,298 | 163,298 | 161,635 | 161,635 |
| R2 | 0.594 | 0.597 | 0.603 | 0.707 | 0.707 |
| R2 Within | | | 0.580 | 0.184 | 0.186 |

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Standard errors in parentheses

* p<0.1, ** p<0.05, *** p<0.01

Figure 1: **Frequency of Losses by Industry**

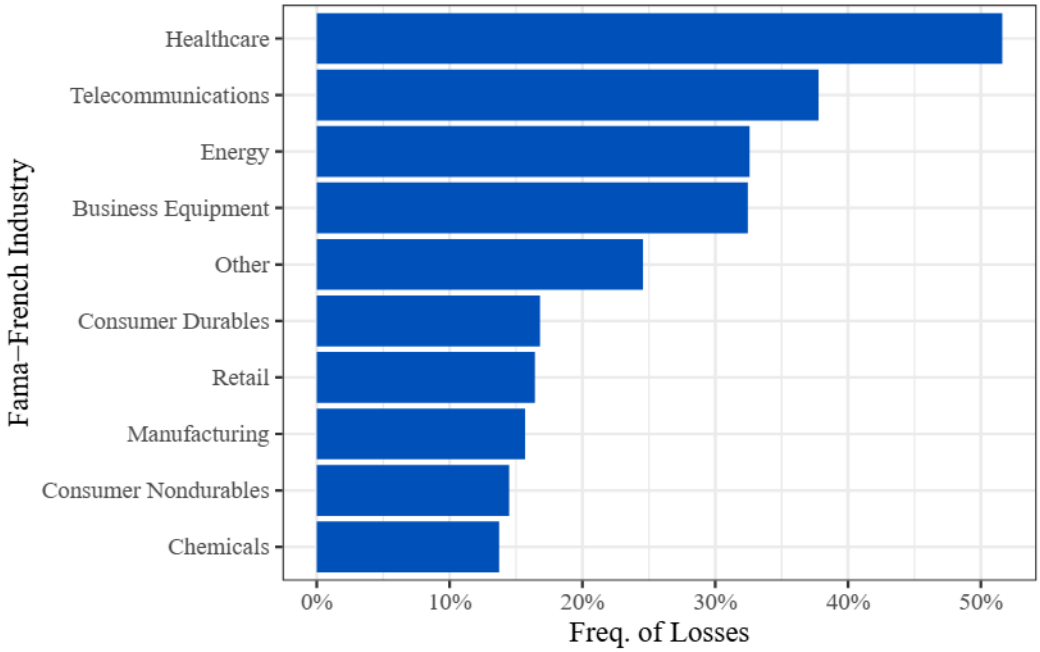
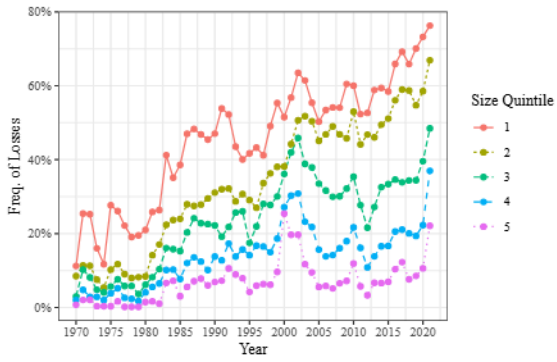
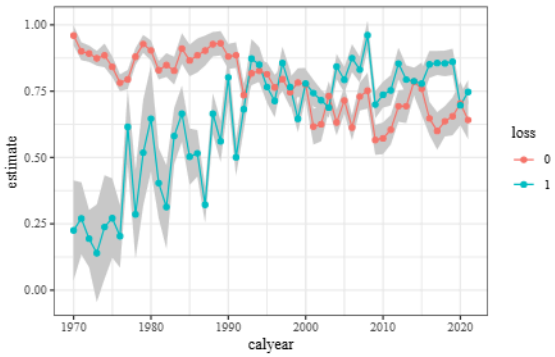



Figure 2: Comparison of Loss Frequency and ROA Persistence




(a) Frequency of Losses by Size Quintile




(b) ROA Persistence by Loss Status

## References


Blankespoor, E., deHaan, E., Wertz, J., Zhu, C., 2019. Why do individual investors disregard accounting information? The roles of information awareness and acquisition costs. Journal of Accounting Research 57, 53–84.

Bradshaw, M.T., Christensen, T.E., Gee, K.H., Whipple, B.C., 2018. Analysts' GAAP earnings forecasts and their implications for accounting research. Journal of Accounting and Economics 66, 46–66.

Dirk, B., Christensen, T.E., Ciesielski, J.T., Whipple, B.C., 2018. Non-GAAP reporting: Evidence from academia and current practice. Journal of Business Finance & Accounting 45, 259–294.

Doyle, J.T., Lundholm, R.J., Soliman, M.T., 2006. The extreme future stock returns following I/B/E/S earnings surprises. Journal of Accounting Research 44, 849–887.

Easton, P.D., Kapons, M.M., Monahan, S.J., Schütt, H.H., Weisbrod, E.H., 2024. Forecasting earnings using k-nearest neighbors. The Accounting Review 99, 115–140.

Hayn, C., 1995. The information content of losses. Journal of accounting and economics 20, 125–153.

Lawrence, A., Sloan, R., Sun, E., 2018. Why are losses less persistent than profits? curtailments vs. conservatism. Management Science 64, 673–694.

Livnat, J., Mendenhall, R.R., 2006. Comparing the post–earnings announcement drift for surprises calculated from analyst and time series forecasts. Journal of Accounting Research 44, 177–205.