Research Masters — Quantitative Methods 2
Final Paper Instructions

As your final paper, you are asked to write a **quantitative analysis of a social science research question**. It must use quantitative data to address a substantive issue, using one of the methods learned this semester in Methods 2 – maximum likelihood estimation, multi-level modelling, causal inference approaches learned, or time-series analysis. The paper is **due by May 3, 2024**, and should be emailed to the professors at brenda.vancoppenolle@sciencespo.fr and jan.rovny@sciencespo.fr

You will be asked to **provide a short abstract** of your paper in the midterm exam **due in week 7 (March 18)**. The abstract should 1) state a preliminary title, 2) summarize the subject of the paper, 3) identify the dependent variable, 4) set out the method to be used in the analysis, and 5) identify a suitable dataset. The abstract should be maximum 300 words.

The final paper should be between **4000 and 6000 words long**, and it should contain the following sections:

I. Introduction
The introduction should explain the interest behind studying the specific substantive topic. It should introduce the **research question**, outline and explain the main finding. It should suggest how it has been studied in the past, and how this current study adds to the previous literature. Finally, it should give an overview of how the paper proceeds.

II. Theory
The theoretical section should explain the substantive topic at hand, it should discuss (some of) the relevant **literature** that has studied it before, and it should highlight the research question posed by the paper, and its relevance in the context of the literature. It should then propose specific **hypotheses** (it can be 1 or more, but should not be more than 4) related to and answering the research question. These hypotheses need to be logically justified.

III. Methodology
The methodological section should discuss how the hypotheses stated in the theoretical section will be tested. It should **discuss the dataset/s** to be used in the paper, and spend time to discuss how the specific concepts implicated by the hypotheses will be operationalized using specific variables in the dataset. It should potentially provide some descriptive statistics about the key variables (these can be in the paper if relevant, or can be moved to the appendix). It should discuss the nature of the **data**, and which specific **method** is best suited for testing the posited hypotheses with this data. It should briefly explain the logic and appropriateness of the method. It should **specify a model** (a regression equation), and discuss its validity, while considering the key issues of model specification — functional form and omitted variables.

IV. Analyses and Results
This section should **provide the results** of the statistical analysis (tables and any figures), and discuss the specific results shown in them. It should consider the substantive and statistical meaning of the findings, and relate to what this means for the posited hypotheses – are they supported or rejected.

V. Diagnostics
This section should briefly **consider any problems** that may arise in the given method chosen, such as outliers, error distribution, multicollinearity, heteroscedasticity, or other method-specific issues.

VI. Conclusion

This section should return to the substantive topic, restate its relevance, and mention how this paper has addressed it. It should **summarize the central results** of the analysis and suggest how it relates to the state of our knowledge of the topic.

VII. Appendix [does not count towards final word count]
This section should contain details concerning your dataset, such as descriptive statistics of the used variables. It may also contain more detailed outputs of your analyses, such as additional tables or figures, or details concerning the measurement of particular concepts or variables.