

How to Write a Paper?

Nikolaus Hautsch

Chair of Econometrics
Institute for Statistics and Econometrics
Humboldt-Universität zu Berlin



Typical Structure of a Paper

1. Abstract
2. Introduction
3. Literature Review and/or Theoretical Framework
4. Econometric/Empirical Framework
5. Data & Descriptive Statistics
6. Empirical Results
7. Summary and Conclusions
8. References
9. Appendix

Abstract

- ▶ Communicate the *one* major and novel contribution.
- ▶ Not more than 150 words.
- ▶ Write very concrete. Don't waste space with meaningless and vague statements.
- ▶ State the major research question, model (if not standard), data (if innovative) and major results.
- ▶ Give at least three representative keywords (possibly not contained in the title) after the abstract.

Getting the Introduction Started

- ▶ Before you start writing: Identify and distill *the* central contribution of your paper.
- ▶ First paragraph: Introduce to the overall topic. What are we talking about?
- ▶ Second paragraph: State in compact form what your paper is about (without going into more details). State *the* central and novel contribution. Put the punchline right up front!



The next introductory paragraphs ...

- ▶ Give more background information on your specific contribution. If necessary, give the most important underlying references.
- ▶ Motivate your research objective and state your research questions.
- ▶ Explain how your paper contributes to the existing literature.
- ▶ Explain (in compact form!) your approach and state the used data (if interesting).
- ▶ State the major findings (not all specific details).
- ▶ Give the structure of the remainder of the paper.

Literature Review

- ▶ Only needed as an extra section if you provide it in more detailed way. Otherwise imbedded in introduction or next section.
- ▶ Don't overload the reader and don't write a survey!
- ▶ Carefully select the relevant(!) literature and not just all what you could find.
- ▶ Categorize and systematize the literature in a meaningful and transparent way.
- ▶ Quote properly in the form, e.g., 'Hautsch and Hess (2007)'

Notation

- ▶ Use a proper, transparent and consistent (!) notation. Make it simple but still unequivocal.
- ▶ Try to use common notation (e.g., r_t for log returns and not, e.g., h_t .)
- ▶ Introduce your notation carefully. If it is complicated, remind the reader to some definitions from time to time (... risk aversion θ is ...)
- ▶ Check your formulas carefully. Avoid obvious errors.
- ▶ Show main derivations and relationships. Lengthy derivations should go into the appendix.



Tables and Figures

- ▶ Don't overload the reader with empirical results.
- ▶ Most important tables/figures should be put directly in the text. Less important ones might be put in the appendix. Irrelevant ones should be skipped.
- ▶ Tables and figures must be readable (font size, colors!)
- ▶ Tables and figures should be designed in a way such that they are maximally informative.
- ▶ Tables and figures should be self-explaining (proper legends, explanations)!

Empirical Results

- ▶ Don't just replicate what the reader anyway sees from the tables and figures (e.g., ... the t -statistic is 2.35 ...)
- ▶ Directly interpret results and draw conclusions.
- ▶ The result sections are often boring and written in a mechanical way. Avoid that and make it interesting!
- ▶ Work out and systematize the major findings. You might even number them in the text.
- ▶ Start with the *main* result!
- ▶ Don't waste space with preliminary results.

Conclusions

- ▶ Short and sweet!
- ▶ Very briefly and compactly explain again what you have done in the paper.
- ▶ Do not repeat all of your results. Give *the* main message!
- ▶ Give some general conclusions but don't start speculating.
- ▶ Do not put all your plans for future research at the end!



References

- ▶ Quote papers properly and completely (!)
- ▶ All papers quoted in the text must appear in the references and vice versa.
- ▶ Quote in the 'Econometrica style'.
- ▶ If you quote working papers, check for updated versions or forthcoming.

Appendix

- ▶ Mathematical appendix for lengthy derivations and proofs.
- ▶ Extra category for tables and figures.
- ▶ Use also a consistent and transparent structure.
- ▶ Note: The appendix should provide useful extra information!
- ▶ The appendix is not a 'waste dump' for everything you have produced.
- ▶ Assess whether you (as a reader!) would find your appendix useful.

General Remarks on Organization

- ▶ Readers are impatient and don't have much time. Readers skim!
- ▶ Most readers just want to know the main story and your basic result!
- ▶ Organize your paper such the readers can easily skim and can get to the point.
- ▶ Don't organize your paper in a "novel style". Get to the central result as fast as possible – not at the very end!



General Remarks

- ▶ Keep it short! Every word counts!
- ▶ Every sentence should say something.
- ▶ Don't replicate phrases. Saying it once (but understandable) is enough!
- ▶ Discipline yourself. "Do I really have to say this? Can I formulate more compactly (but still understandable)?"
- ▶ Be precise regarding your wording. Avoid meaningless sentences.
- ▶ Avoid obvious sloppiness! Use spell-checkers.

Specific Remarks on Writing

- ▶ Normal sentence structure: subject, verb object.
- ▶ Use active tense. Not: "... it is assumed that ..." or "... it should be noted that ..."
- ▶ Use present tense.
- ▶ Write concrete and not abstract. Don't use fancy words.
- ▶ Don't use double adjectives (... very important results ...)
- ▶ Avoid technical jargon.

- ▶ It is usually the case that most good writers find that everything before the "that" should be deleted. Right?
- ▶ Don't use too much "this". E.g., "this shows ...", "this means ..."
- ▶ Don't abbreviate authors' names.
- ▶ *Don't* overuse italics.
- ▶ Use footnotes only for things a typical reader genuinely can skip. If it is important put it in the text, otherwise skip it.
- ▶ Don't use bullet point lists.

Conclusions

- ▶ Good scientific writing is very difficult!
- ▶ Put the punchline right up front.
- ▶ Be as clear as possible.
- ▶ Get rid of any nebula and noise.
- ▶ Don't try to impress people with (typically dispensable) technicalities or details.
- ▶ Make it maximally easy (and not complicate!) for your readers to read your paper and to understand the main contribution.
- ▶ Assess your paper from the viewpoint of a referee. Referees don't have much time and want to quickly understand what your main contribution is.