How To Write An Economics Paper?

Elmer Sterken

March 16, 2004

1 Introduction

This note helps you in writing an economics paper. The first thing to keep in mind is that is *fun*! You need to like what you do, otherwise it will be a torture (and probably a waste of time). Secondly, the paper has to meet certain requirements. This note hopefully provides some assistance and gives you information on the selection of a topic, designing a structure of your activities, the set-up of the paper, the style, and finishing it in the appropriate way finally. It also gives you the focus of the valuation of the quality of your work:. Moreover, I give some advice in presenting the paper.

2 Selecting a topic

The most important element of the whole process is the brainwave that leads to the selection of the topic. It is of the *utmost importance* that you select the topic yourself. Copying ideas from others is not a good advice. As you can see below originality counts to a large extent, so try to present something new. How do you get the valuable brainwaves? In economics there are ten ways to get inspiration: reading, reading, reading, ..., and reading. Where do you start reading? Of course you start with the main textbooks you used in class. But next to that the library (via Internet) is a prominent source. the library provides a large number of electronic journals. For instance, all economics journals produced by Elsevier can be found on: http://www1.elsevier.com/homepage/sae/econworld/menu.htm and for the most interesting journals it is good to go to: www.jstor.org, where you can find the volumes of the top-journals up to few years ago. It is also advisable for getting the big picture to look at the *Journal of Economic Literature*. Here you can find a full description of subfields in economics. See http://www.vanderbilt.edu/AEA/. In any case it is also good to go to the library itself, sit down, and read the paper copies of journals. It is definitely more inspiring than sitting behind your PC.

So it is first your interest that hints at a special topic. Next we go to practicle problems: finding the relevant models, the required data, other views on the topic, etc. The main problem is to find these source within time available. Once you have all this it is time to write an abstract. Writing this abstract

helps in focusing thoughts. Normally this is one page that includes: a concise statement of the problem, a short review of the literature (two key references), a description of the research design (model, empirics, testing) and the intended contribution of your work.

After finishing the abstract it is wise to go one step further: think about the theory/models, try to find data, and other relevant literature. How do you find the relevant model? Again, reading the journals is the ultimate way. Try to find a model that is close to what you want (finding the precise model you had in mind creates a problem: there is nothing left for you). Use this model setup and change the things you think that need to be changed. Do this in a precise way. A model should be supportive to your ideas. There is a basic principle in modelling is KISS: keep it simple stupid. So it can be helpful to strip a model to its bare necessities. Drop unuseful equations, use homogeneous sectors, get rid of too many indices, etc. Give the key solution to the model and relate the outcomes to the assumptions. If you assume risk aversion of agents it will come as no surprise that they will like bonds more than equity.

How do you find the required data? This can be hard, but again the library can be very helpful. In macroeconomics a lot of the data are consistently supplied by the IMF (International Financial Statistics), the World Bank (World Development Indicators), the OECD, Eurostat, central banks (like the ECB: www.ecb.de), etc. On the micro level it might be a little harder. But for firm-level data you can use Amadeus or for bank-data Bankscope. There is a lot more data than you can imagine.

Finding other papers related to your topic is rather easy once you know the way to the library. Nowadays search engines on the internet can also provide useful tips. The probability that you will find more papers than you can review is quite large. So selecting the really relevant literature is essential. You need to think of criteria that help you in narrowing the focus of the review. What are the essential characteristics of ...? See hereafter for more details.

3 Format and style of the paper

3.1 Format

Let's start with the most essential one: the format of the paper. The typical outline of your paper should be:

1. The header: give the title of the paper, the name of the author, the date of production. In a footnote you can give the address to contact the author. Please add the so-called JEL-code (see the *Journal of Economic Literature*). The header of the paper should not take too much space on the first page. *Do NOT produce a table of contents!*.

2. Introduction. This is the place to present the basic problem of the paper. Try to give the motivation why this problem is so important. Also explain what the interested reader might learn from your work: who should be

interested in the results? At the end of this section briefly describe the contents that will follow in the next section.

3. Review of the literature. Your problem is not new. Summarize the relevant literature. The best thing to do is to identify *key concepts* in this literature you are interested in that you want the reader to remember. Make a table of these concepts and the attributes given in the various papers you reviewed. In this overview at least the papers that motivated you need to be mentioned. It is *extremely important* to note that you do not need to review all literature, only the stuff you think that is relevant.

4. The model. If you use a model (either a formal mathematical model or a statistical model or a more conceptual model), explain it clearly. Be brief, keep it simple, and don't use inessential jargon. If you use a formal model it is necessary to explain the basic assumptions. Illustrate the plausibility of the assumptions. After that formulate the key hypotheses. For instance: I estimate a consumption function $C = \alpha Y + \beta$. The assumption is that income Y affects private consumption C. My hypothesis is that $\alpha = 0.8$.

5. The data. Describe the data, sources of the data, and your reservations concerning the data. If there are many variables to be introduced use an appendix to give the sources. Explain the main descriptive statistics of the data in a table. For instance give the mean, median, and standard deviation of the key variables in a table.

6. Results. Explain the statistical methods you use. Present the results and link the outcomes with the hypotheses you formulated. Give more formal tests if required. For instance, give a t-test of the significance of the estimate of α in the consumption equation $C = \alpha Y + \beta$.

7. Summary and conclusions. Give a very, very, very short summary and go to conclusions. These conclusions can include policy advise, food for further thought (possible extensions) and the limitations of the analysis.

8. References. Produce a *consistent* list of references. Use one style format (see hereafter).

3.2   Style

Styling your paper is an essential part of the job. Style relates to the use of English, the structure, decent numbering of figures and equation, consistent use of symbols, clear referencing, etc. Let us review these things one by one. First of all: use 12-point fonts, 1.5 line spacing and wide margins (4cm) at least in drafts of your paper. Small letter fonts really trouble reading your work. If you use 1 line spacing, it is hard to write comments on the paper. So 12-point fonts, 1.5 spacing and wide margins on all sides!!!

1. Language. Be precise in formulating your thoughts. Reread your paper more than once before handing in, use spell-checkers and grammar instructions. Typo's are likely to downgrade the final assessment of the paper.

2. Structure. Use clear headings of sections and subsections. Number sections consecutively. Do not use too many subsections and paragraphs: this makes the paper hard to read.

3. If you use figures and tables: number them and make each figure or table self-explanatory! Be transparent in the figures: label the axes, label the functions, explain the symbols you use, highlight the important features, give a concise title, and if relevant, repeat the necessary equations. For tables even more precision is required. A table should contain a one-shot overview of all the relevant material. Give a topic-covering title to the table in the header. Explain below the header what is happening in the table. What is the model that generated the numbers in the table? Explain all symbols used, give equations estimated. In a footnote to the table: give the sources of the data used. Take care of mathematical precision in the table. For instance if all values of variable x are like 0.001 or 0.002, it is better to relabel the variable into $x.10^{-3}$ and put 1.436 and 1.976 as figures. Do not denote the one by 1.436 and the other by 1.98: use the same order of precision!

4. Throughout the paper: check for consistency. In words this means that you are not allowed to reformulate your hypotheses halfway, give a reverse interpretation of Mister A and B's (200x) paper in the conclusions, use the same symbols for the same variables.

5. Referencing is a discipline on its own. There are two basic rules: consistence and completeness. There needs to be a one-to-one match between references in the text and the list of literature used in the end. Refer in the text to John Smith (19xx), or John Smith and Keith Richards (19xx), or to John Smith et al. (19xx) in case of three or more authors. Depending on the publication-type use a consistent referencing at the end of the paper. So use:

   Smith, John (19xx), Habit Formation in Publishing Economics Texts, *Journal of Nonsense*, vol. 12, pages 1-30.

   for a journal article. Note the italics for the journal name. Give the volume of the journal, since some journals have more volumes per year. For books use:

   Smith, John and Keith Richard (19xx), *How To Write Nonsense in Economics*, Rolling Stones Press, London.

for a book. Note that the book title is in italics. Give the name and place of the publisher. For a chapter in a contributed volume use:

Smith, John, Keith Richard, and Stuart O'Grady (19xx), How to Cycle Down Under? in: Jean-Michel LeBlanc (ed.), *The Tour de France Revisited*, Equipe Press, Paris, Chapter 7, pages 567-587.

Give the full set of references in *alphabetical* order of the last name of the first author. Start this part of the paper with REFERENCES. One can vary the style of referencing between papers, but be consistent within one paper. So use full first names or initials consistently throughout, or use vol. 15, pages 13-17 or vol. 15, pp 13-17, or 15, 13-17 consistently to denote the volume and the page numbers.

4 Finishing the paper

Writing a paper is an iterative process. The best way to proceed after writing the abstract is finishing a version of your work right away (without interference of anybody else), unless you face problems in computing your model, statistical analysis, etc. for which you would like 'professional' advice. Confine the professional advice to things you really cannot solve yourself. In lots of cases in writing an empirical paper one is worried about 'not getting the right results'. Don't be: no result is a result. So don't be afraid to find no significant correlation or no significant parameter. Anyhow, halfway advice is mostly technical and rather exceptional.

Now you have the first draft of the paper. You checked the format and the style carefully. In such a case it still is wise to let the draft rest for one or two days. Reread your work after this period and you will notice some mistakes in the details. Change the things you like and hand in the corrected draft. Now we start iterating between your commentors and yourself. In lots of cases this iteration converges into a final proof (if not, it might be in your interest to widen the group of readers!). This proof is now ready for precise typesetting. Typesetting can be helpful: start new (sub)-sections at the top of the page (as do with figure and tables). Avoid so-called widows and orphans: single line of paragraphs at the bottom and top of a page. Do the page numbering, make boxes if you like to highlight details, etc. You will notice this typesetting will be rewarded!

5 Assessment

The assessment of your paper is an assessment of:

1. The description of the goal of the paper (originality, relevance);

2. The originality of the setup of the project;

3. The quality of use of theory and methods;

4. The structure of the paper;

5. The style;

6. The degree of independent production of the paper;

7. The oral presentation and participation during the presentation-seminars.

All these items are valued in principal *equally*.

6   Presenting your paper

Writing a paper is exciting: it can be even more exciting to present your work. In presenting the paper one thing must be clear: you are selling your work, so at the end the opinion of the audience is the only thing that counts. So the game is to transfer what you regard essential to the audience in a very limited amount of time. A presentation can be used to improve the quality of the final paper.

Nowadays it is common to use (electronic) slides to highlight the key features of your work. Slide number one contains the title and your name. Slide two gives the summarized contents of your presentation, while slide three presents the motivation of it all. After that, depending on the time available, you present a literature overview, theory, your model, main hypothesis, methodology/methods, and main results. Use some time to conclude and to reflect on your results.

There is one basic rule in producing slides: do not put too much information on one slide! Use large fonts (say 28+-point fonts). Do not copy full tables, but highlight only the figures you want to focus on. Graphs and figures help in presenting the key facts/assumptions/outcomes.

In presenting the paper, make sure that you do not block the view on the screen. Also allow the audience to ask about unclear statements, but try to postpone discussion till after your presentation. So allow questions for clarification during your talk. Do not pretend to know answers to all questions: you do not need to do so. Admit mistakes (if you thinks you made some) and do not fool around to hide problems. Allow for other opinions, but do not be weak on your own opinions. Remember that the final results will be what the audience remembers one hour after your presentation!