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General tips for MSc thesis writing

- Ambition level:

A master's thesis is not a dissertation and it is therefore not expected to be an original research paper, although every now and then somebody does manage to accomplish this. It's unusual however, and you should not be disappointed or stressed when you feel that your idea doesn't meet such a standard.

In my view, a master's thesis should reflect your ability to analyze a narrowly defined topic using the tools you have mastered in the preceding semesters – possibly expanding your toolkit somewhat - and write down the results in a coherent and articulate manner.

Typically, at the MSc level, an empirical project has a much higher probability of passing all hurdles than a theoretical paper. This is because very few undergraduate students in economics have acquired enough theoretical tools (read: math and statistics) to do theoretical work. Unless of course you are confident you have far above average mathematical knowledge and skills.

Therefore you should keep in mind that the stated requirement of originality is a relative statement: I interpret this as requiring you to refrain from simply copying work by others. It doesn't preclude the possibility that you redo a study on a new dataset, for example for a new group of countries, or for a more recent time period. Staying close to existing literature has the benefit of offering you more guidance in what you do. At the same time, you need to make sure that you understand the logic behind the sequence of things (analysis) that you do in the same spirit as other researchers before you.

- Find a topic that (i) you enjoy working on, and (ii) is doable within the time you have

As any paper, a master's thesis starts with an idea. Try, however, to think simultaneously about the availability of appropriate data to do your analysis. If there is no data available, empirical analysis becomes difficult. You should think about things like the width (cross-sectional dimension), the length (time-series dimension), the frequency (daily, monthly etc.), the quality (survey, official, self-reported, etc.) and the availability (confidentiality, cost, format, time it takes, etc) of the data. If you're a foreign student, maybe you know of data in your home-country that few or no people are aware of here. As a rule of thumb, hand-collecting data yourself may not be such a good idea for an MSc thesis, because things typically take more time than you think at the start. But as I said before, exceptions do occur.

A way to increase the probability of doing something new or finding a new angle to an established topic is to think about datasets that you could get access to with a minor effort. This could, for example, be possible because you have a relationship with a former employer, who maintains a database with information that has something unique.

Above all, however, think about what interests you. Eventually, your thesis will be part of your academic work and a signal to future employers about your abilities and interests.

- Structure

Think of a good structure for building up your argument: start with some stylized fact about the economic phenomenon you are interested in; then briefly describe a problem, puzzle or question you want to address. Then summarize the relevant research literature and use that literature to formulate one or more hypotheses. Here it is particularly important to think of a close connection between theory and hypotheses. Don't formulate hypotheses that cannot be derived from the literature – unless you feel confident that you can formulate a new theory yourself. The literature does not have to have formulated these hypotheses explicitly, but they may be embedded in theoretical papers, for example.

- Transparency

Making assumptions is a way to narrow down your research question. Transparency about your assumptions is crucial for your readers. This holds irrespective of whether you have a theoretical model or not

- Literature

Whatever topic you pick, somebody is likely to have written a paper on a related issue. So when you believe you have an idea, start by checking the available literature. The UofG library has subscriptions on all relevant journals. New, yet unpublished papers can usually be found at the NBER, CEPR, SSRN and Repec.

When you start working on your thesis, try to base most of your literature review on articles published in high ranking economics and finance journals and unpublished papers by people who have already published in such journals before. This protects you from getting confused by articles that haven't passed a serious peer-review process and are therefore more likely to contain errors, inconsistencies or just unclarity. Of course, there are also brilliant and path-breaking papers that don't make it or haven't yet made it through peer-reviewing. But for thesis writing I consider it more important that you are not confused by low-quality papers, even if this occurs at the cost of not exposing yourself to a small number of unpublished papers with brilliant ideas.

I have posted a few journal rankings on my university website. There is no "true" or "best" ranking, but I find the rankings posted on my website sufficiently adequate. Broadly speaking one can feel safe by using approximately the top 10-15 finance journals and top 20-30 of economics journals. These lists partially overlap.

- Making sure that you can answer the questions you pose

After formulating your hypotheses, operationalize how you will test them. In most cases of MSc thesis writing – because students tend to do empirical work, not theory - this involves writing down one or more equations that you will estimate. You then need to translate your hypotheses into an assertion about (for example) the value of a particular coefficient, the explanatory power of a model vis-à-vis a competing model et cetera.

Think carefully about which equation you need to estimate to answer the question in your hypothesis/es. Which result do I need to reject or not reject the null hypothesis? Differently phrased: make sure that the way you formulate your model (i.e., the equation(s) I mentioned above) enables you to obtain the results you need to (be able to) reject the null hypothesis. It is not uncommon that students start an empirical analysis and later on realize that the null hypothesis is formulated in such a way that they would in fact never be able to reject it with the results from their empirical analysis.

- Pitfalls and common mistakes
 - Be aware that “an equation” is not the same as “estimating coefficients in an equation”. Once you have operationalized your hypothesis, the next challenge is to think of a method that allows you to properly estimate those parameters. Very often, ordinary least squares (OLS) is not the proper method because of complications (i.e., deviations from the assumptions underlying OLS) like (i) endogeneity of one of the variables on the right hand side, (ii) relations between equations, (iii) a discrete dependent variable or non-iid regression errors.
 - There are some classical examples of how you can lose time while preparing and working on your thesis. One way is to start writing a long literature survey before you have narrowed down/defined your thesis topic. Try to comprehend the main idea in research papers that you have selected for reading, but avoid writing down very long surveys. For most people it’s more difficult to keep a text short than to make it long. Also, avoid locking yourself up in your room or apartment. Discuss your ideas with other people, and do the same for them. That will help you discover how you can improve upon your own thoughts. Don’t try to answer very broad questions. Instead, aim for a narrowly-defined topic and describe carefully in your paper what the assumptions are that you need to make in your analysis.
- **Style:**
 - Keep sentences short
 - Use active rather than passive forms
 - Make sure that you clearly explain how you interpret your results and why you can draw the conclusions that you present.
 - Do not put tables or figures in your paper if you don’t refer to them or describe the results or insights presented in them.
 - Tables and figures must be self-contained, i.e., the reader should be able to understand the results that are presented without having to search through the main text in order to get enough context. Typically, a caption/heading contains information about the sample period, estimation method, a clear description of the dependent variable and where useful a reference to a numbered equation in the manuscript.
- **Communication about your thesis:**
 - Please always send me both a PDF and a WORD version of your manuscript. Conversion from Word to PDF sometimes leads to loss of formulas or tables.
 - Even when you send me an early draft of your thesis or of your proposal: Do not send me a draft that is not yet properly structured.
 - When you send me a new version, please track changes, so that I can see where you altered your manuscript.