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INTRODUCTION

The dissertation is a required part of the MSc Programmes delivered in the Economics Department.

The Dissertation is a chance for you to do serious research. It provides you with an opportunity to undertake a piece of individual research work and really examine an aspect of the subject you are studying closely. You could consider it as an extended essay or assignment. However, although a dissertation can be seen as a difficult piece of work, it is a good idea to think of it as providing a real opportunity to explore something that you are really interested in within your course. Working on it should be a very exciting time for you.

You will work under supervision of a member of the department’s staff, perhaps even contributing to research that the person is actually carrying out. Most dissertations involve the spectrum of activities common to research: conceptualization and planning, literature review, theoretical modelling, data collection, statistical and econometric analysis, and writing. You may be wondering what a completed dissertation looks like. There are some in the library for you to peruse. When you examine them, notice how varied they are. There is no single ‘recipe’ for a dissertation.

Dissertations are expected to use econometric or statistical techniques. You will be expected to use your knowledge and skills from the EC5040 Econometrics course. Notwithstanding this general principle, if you wish to write a dissertation which does not use econometric or statistical techniques then it is your responsibility to find a suitable supervisor who is prepared to supervise you on their chosen topic.

1.1. Learning Outcomes

Upon completion of the dissertation students should:

- Understand in depth key previous research in the focused subject of the dissertation.

- Be able to apply methodical approaches to real research problems. Methods include planning of projected research steps, recording of progress and ideas, literature review, and data collection and econometric analysis.

- Be able to present research findings in an organized, compelling, concise form.

- Be aware of the policy implications of their work and be able to relate
it to any existing body of economic literature.

LOGISTICS

2.1 Key dates

MSc. Finance

<table>
<thead>
<tr>
<th>November</th>
<th>Choose your dissertation topic</th>
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<tr>
<td>Mid-January</td>
<td>Before this date set up a meeting with your dissertation supervisor and meet with them at least once</td>
</tr>
<tr>
<td>End January</td>
<td>Submit preliminary dissertation proposal to the Departmental Office</td>
</tr>
<tr>
<td>End February</td>
<td>Before this date arrange a second meeting with your supervisor to discuss your preliminary proposal and obtain feedback</td>
</tr>
<tr>
<td>March</td>
<td>Send your revised proposal to the Departmental Office</td>
</tr>
<tr>
<td>End August</td>
<td>Hand in dissertation</td>
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MSc Economics

<table>
<thead>
<tr>
<th>End January</th>
<th>Choose your dissertation topic</th>
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<tbody>
<tr>
<td>End January</td>
<td>Before this date set up a meeting with your dissertation supervisor and meet with them at least once</td>
</tr>
<tr>
<td>Mid-February</td>
<td>Submit preliminary dissertation proposal to the Departmental Office</td>
</tr>
<tr>
<td>End February</td>
<td>Before this date arrange a second meeting with your supervisor to discuss your preliminary proposal and obtain feedback</td>
</tr>
<tr>
<td>March</td>
<td>Present your final dissertation proposal to a member of academic staff who will assess it. The mark will count towards your final dissertation course mark</td>
</tr>
<tr>
<td>End August</td>
<td>Hand in dissertation</td>
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2.2 Choice of topic and student-supervisor matchups

For **MSc Economics**, you will be provided with a list of topics and associated dissertation supervisors and you can additionally choose an alternative topic so long as a faculty member is willing to supervise you. You should choose your dissertation topic by the end of January. You should then set up a meeting with your supervisor and meet with them at least once before the end of January.

For **MSc Finance**, you will be provided with a list of topics and each topic is associated with a dissertation supervisor. You should choose your dissertation topic by the end of November/early December (exact deadlines will be provided). You should then set up a meeting with your allocated supervisor.
and meet with them at least once before mid-January.

The final assignment of students to topics and supervisors is liable to change as a result of varying staff availability. The course coordinator reserves the right to make changes of supervisors, reallocate topics or cancel topics depending on supervisor availability.

2.3 Dissertation proposal and (for MSc economics only) presentation

As your work progresses, you will be asked to submit a dissertation proposal and, for MSc Economics only, to present it in front of some academic staff members who will assess it.

For MSc Economics you will be asked to submit a preliminary dissertation proposal to the Departmental Office in the middle of February. You will then be asked to arrange a second meeting with your supervisor before the end of February to discuss the preliminary proposal and obtain feedback. You will present your preliminary proposal by the end of March to member(s) of academic staff who will assess you and the mark will count towards your final dissertation course mark.

For MSc Finance you will be asked to submit a preliminary dissertation proposal to the Departmental Office at the end of January. You will then be asked to arrange a second meeting with your supervisor before the end of February to discuss the preliminary proposal and obtain feedback. You will submit a revised proposal to the Departmental Office in March. This is not formally assessed, but will be taken as indication of progress by your supervisor.

2.4 Submission date

Your dissertation must be submitted by noon on the Thursday of the 50th week of the academic year, which is Thursday 31st August.

Late submissions of the final dissertation will not be accepted. For the penalties with regards to late submission, and submission of extenuating circumstances, please read the relevant sections in the departmental postgraduate student handbook available on the postgraduate taught vault of the economics web pages.

In cases of extreme illness, some students with medical certificates may be able to receive extensions by submitting medical evidence to the Department Office. This will be dealt with on a case by case basis.

You will be required to submit a PDF file of your dissertation, along with any data and STATA or MATLAB files. Instructions for submission will be made nearer the time. Data and files from Stata/MATLAB or other statistical package are submitted electronically according to instructions that will be
provided.

You will also be required to submit your dissertation to Turnitin via Moodle which is a plagiarism test program.

More information and full instructions about the submission process will be sent out to you in the summer prior to submission.

THE BIG QUESTIONS

3.1 What topic should I choose?

Your choice of topic should be something that you are interested in and which is within your capabilities. It needs to be feasible in the sense that data exists for your analysis and it can be completed in less than 3 months. Your choice is practically and logistically constrained by the availability of data and a suitable supervisor.

To improve job prospects, you may want to narrow your topic to relate it to the kind of job you hope to get. Discuss this with your supervisor. The dissertation also provides a means to demonstrate your writing, mathematical skills, and econometric abilities. This background can help when you apply for jobs or PhD programs. A good dissertation also enables your lecturers to write you a more informed reference when applying for jobs at the end of your degree!

3.2 How much time will it take?

It will take you all summer from after your exams to the deadline. We ask you to prepare a dissertation proposal and do some initial planning in term 2. This ensures you have completed some initial work prior to exams.

YOUR DISSERTATION AND YOUR SUPERVISOR

4.1 Your dissertation and your supervisor

Be proud of the work you are doing on the dissertation. It is an unusual chance for you to learn and accomplish in a detailed research area of your choice. You may eventually know more than your supervisor about your specific topic and should be able to give a seminar on it.

Your supervisor is available to help you get started, and to provide feedback after you accomplish substantial pieces of work.
You will probably find that maintaining a notebook or folder dedicated to your dissertation is a good idea. Never visit your supervisor without it. As you continue with the dissertation and accomplish major steps, return to the supervisor for feedback and direction. It’s a good idea to get their views on what your next major step(s) should be.

You may expect a minimum of two hours of supervision in total (although most supervisors will be happy to give you more time). It is your responsibility to arrange meetings, and the supervisor is expected to make him/herself reasonably available for the purpose.

What is the best way to start dissertation research? There is no one answer to this question, but here’s a good approach to adopt, side by side with supervisory meetings:

- Find a relevant article that you admire in a leading economics journal, and then try to emulate the article. This can in fact be taken to the limit where you get the data of an existing study and replicate (or attempt to replicate) the findings of the author. In some cases this can itself be a dissertation in itself.

- Imitate its approach, but apply it to a new country or a new sample of data or a new industry. Or, use a similar sort of approach to go beyond the original study, addressing questions or problems that it (and other studies) did not answer.

- Make sure that you accomplish something that you and other economists will find an interesting, worthwhile contribution.

4.2 Face-to-Face, telephone and e-mail contact

It is the student’s responsibility to initiate face to face contact by attending the supervisor’s office hours or seeking a separate appointment at a mutually convenient time if the student has a good reason why s/he cannot attend office hours.

It is expected that supervisions take place during the supervisor’s office hours and therefore that a student will have to share their supervisor’s time with other students. Supervisors may use their discretion and schedule group meetings to cover generic issues with several students at once.

A student is free to email their supervisor but it is impossible for supervisors to respond to all emails and supervisors reserve the right not to give detailed guidance via email.

4.3 Arrangements for reading and commenting on drafts
It is not the responsibility of the supervisor to read and comment on the entire dissertation just prior to submission. However, at the discretion of the supervisor he/she may be prepared to read extracts of the dissertation to help the student with clarity or technical issues up to one month prior to the submission deadline but not after that.

4.4 Provision of data and computer work

The default position is that it is the responsibility of the student to get their own data for their dissertation. It may be the case that there are topics for which member of staff may be able to assist with data sources which are not routinely available.

The student must expect to do all their own computer work. It is not the responsibility of the supervisor to provide detailed STATA or MATLAB programming advice. Notwithstanding this guideline the supervisor may provide computer code to clean complex datasets if they deem this appropriate.

RESOURCES AND REFERENCES

5.1 Lectures and reading

There are two components of the course: a short central training component ‘Research Methods’ and the STATA or MATLAB course that applies to all students, and your actual own work. The former gives advice on essential skills of how to approach a dissertation, how to conduct a literature review, how to find data. You have already used the library for coursework, analysed data with STATA or MATLAB, and written essays – so some of this material should not be new to you. Since students write very diverse dissertations the lectures focus only on the skills which are generic and hence, training consists only of a few sessions to get you started.

5.2 Library Resources

The Economics Librarian, might be able to help you in your search of data and references.

Dissertations of course require articles and books on specialized topics. Undoubtedly you will not find them in any one library, but fortunately the University of London library system, together with other major libraries in London, provide some of the world’s best library resources.

Libraries likely to be particularly useful include those at the London School of Economics, School of Oriental and African Studies, Senate House, and the British Library. Remember, some of these hold official statistics in specialized collections. You could also try the Economic or Commerce departments of foreign embassies in London, as some of these hold useful official documents.
As a Royal Holloway student, you can use the other University of London libraries (including LSE, Senate House, UCL, Imperial, Birkbeck, SOAS, etc.). Before travelling to another library, ask at the Bedford Library inquiries desk; in some cases they need to fill out a form for you for entrance and/or borrowing privileges. For the British Library, you need to have a special need to use the library – find out what books (etc.) you need that are available there and not at other libraries, and have your dissertation advisor write a letter asking British Library staff to let you use the library. You may be asked to apply for a card. This is a simple procedure, and will allow you to order documents from the BL stacks in Woolwich: these are normally fetched overnight.

If you cannot find some important resource in London libraries, you may be able to obtain it by interlibrary loan. The Department Office has interlibrary loan certificates available by special request. These are free to you, but their use is limited since loans are costly to college, and take up library staff time. Your dissertation supervisor must sign the loan form. Books and articles may take weeks to arrive, so plan ahead if possible!

Key resources are bibliographic search sources available via the library’s web page at Royal Holloway. EconLit lets you search for literature in economics. The Social Science Citation Index includes not only economics but also related literatures in other social sciences, and it enables you find out who cited a work after it was published. Three large databases of journal articles include many important economics journals whose articles can be downloaded, and which can be searched. If you haven’t taken the library introduction to MetaLib, do so now.

The Computer Centre runs courses which teach you to use databases.

5.3 References on Writing Style.

The following will help you:

Strunk, W and E.B. White (1959-) The Elements of Style. £5. Various publishers. This slim guide distils essential writing skills. 808.02 STR

Turabian, K. (1996) and other years. A Manual for Writers of Term Papers, Theses and Dissertations. £ 10. Particularly good on presentation. 808.02 TUR


5.4 Books on Completing Research Dissertations.

You may also wish to look at books on research skills. Some general books on dissertation writing and research are:


5.5 Books on STATA

A short guide to common STATA commands and some basic tips are included as a course resource on the Moodle Course website. The library holds readings for STATA, e.g. at the following class marks:


Manuals for STATA (multiple volumes). The full manuals for STATA. The slim "Getting Started" guide is a good introduction. Restricted loan 001.6425 STA

5.6 Books on MATLAB
A short tutorial on the basic commend for MATLAB is part of the MATLAB course resources in Moodle. If you want to further your understanding of MATLAB you can have a look at the following books:


5.7 Research Methodology in Economics


5.8 Books to inspire you or provide you with critical insight

5.9 References on econometrics

There are literally hundreds of books on Econometrics. A good place to start is the books you should have used last year like:

Oxford University Press.

More advanced books are:

Wooldridge, J Introductory Econometrics, 2nd Ed, South Western College Press, 2003. (330.01 WOO)

Greene, W. ‘Econometric Analysis’, 5th Ed

Johnston, and DiNardo, Econometric Methods, 4th Edition

Wiley, 2004 (330.01 STO)

Stock, J. and Watson ‘Introduction to Econometrics’
Addison Wesley


Cameron, C and Trivedi, P (2005) 'Micro econometrics: Methods and Applications', Cambridge University Press,

But basic ‘wordy’ guides which cut out much of the notation are:


5.10 References on econometrics projects.

Specific references which have guides to writing an econometrics project are:

Chp 19 in Wooldridge ‘Introductory Econometrics’ -> talks about Posing a question, deciding on an appropriate dataset, entering and storing data, cleaning data, writing an empirical paper, style hints, Sample empirical projects.

Appendix A in Intriligator ‘Econometric Models, Techniques and Applications’ has similar advice but also section guidance on contents of project.

A very useful book which has excellent chapters on many different areas of economics with data and exercises for you to test yourself is:

E. Berndt ‘The Practice of Econometrics: Classic and Contemporary’. Guided exercises are the best around to practice a topic and see if it suits you.
5.11 Economics / Finance references

Obviously the references for each dissertation will be different. Your supervisor will help you find appropriate references. Since your dissertations should be modelled on the style of papers in quality economics journals then it is appropriate to seek out the article closest to your chosen topic and try to imitate it.


It is also a good idea to scan current or recent copies of journals to review what are the ‘hot’ topics in economics and finance.

A good place to start with any literature review is the North Holland Handbook series chapters which provide up-to-date reviews of literature and usually huge numbers of references. There are Handbooks in most areas of economics- including labour economics, health economics, public economics, econometrics, financial economics, etc.

Replication Studies – quite a few journals (e.g. Journal of Human Resources, Journal of Applied Econometrics) have a data replication policy which means that they require authors to allow their data to be accessed by others for checking but potential for further work. This can be a good source of data.

5.12 Methodology

There may not be an absolute need to use mathematics or econometric analysis in a dissertation, but for many research topics econometric analysis is necessary for good research and the default is that the EC5000 dissertation is a piece of applied econometric research. If constructing mathematical theories or using econometrics is appropriate to your research topic, you are expected to gain whatever skills are necessary to carry out the work properly. Some advice on statistical analysis methods will be available, for students who need to refresh their skills with regression or to become aware of other approaches for statistical analysis.

Dissertations using economic history methods, survey work, anthropological
work, theoretical model building, or other approaches are just as appropriate as those using econometrics. But you must absorb and use well the methods appropriate to your work.

If you wish to discuss the quantitative analysis in your dissertation you should discuss what methods are appropriate with your dissertation supervisor. Choosing how and why to carry out statistical analyses requires knowledge of the specific topic, hence, is a matter for you to take up with the individual dissertation supervisor. It’s polite to observe Staff office hours. And it’s sensible to START EARLY.

**EARLY STAGES**

6.1 Steps to getting it done

Step 1: Establish priorities

The dissertation will require a substantial investment of time which you have previously devoted to other activities. Thus, it is necessary for you to decide what sacrifices you are willing to make in order to finish the dissertation. The dissertation is rarely the first priority. Many of you will list family, friends, research, teaching, and searching for jobs as higher priorities. This is okay. If the dissertation is low on your priority list, however, you will allocate less time per week to work on it, and it will take a longer time to finish it. If you rank the dissertation high on your priority list, but it is actually a low priority, you will probably feel discouraged with the slow pace of progress. An honest assessment of the priorities can help you avoid month of frustration and guilt.

Step 2: Develop a Strategic Plan

The dissertation can seem like such a long, complex and unpredictable project that it seems to lack beginning, middle and end stages. A strategic plan imposes a structure on the project and prevents you from drifting aimlessly for long periods of time. A plan should include a timeframe for finishing the dissertation and plans for accomplishing this goal. The foundation for your strategic plan will be a contract you develop with yourself that specifies the time commitment you are making to the dissertation. The contract will help motivate you to work during tedious or difficult phases and provides the incentive to make sacrifices (e.g., “I need to work 40 hours per week in order to finish the dissertation in 3 months”) After you have set a timeframe for completion, subdivide the dissertation into smaller project and develop goals for each step.

Step 3: Manage time efficiently

A time management plan will incorporate the priorities and strategic plans
you have already made and provide you with a weekly schedule to meet your goals. The dissertation will require a substantial investment of time which you may have previously devoted to family, friends, work, leisure, recreation, etc. But, these sacrifices don’t have to overwhelm your entire life. In fact, you shouldn’t plan to work on the dissertation all day, every day. Many people have observed the tendency of a project to take up the time allotted for it. Therefore, rather than allowing the dissertation to fit into whatever time you happen to have leftover in your schedule, it is more productive to decide when and how often you want to work on it. Allocate specific times during the week e.g. Fridays and Sunday - that will be dissertation time and remain faithful to these commitments. You should leave enough flexibility in your schedule that you can occasionally skip dissertation work times and make them up later in the week. The more your dissertation is like a job responsibility, the more likely you are to make consistent, steady progress.

Step 4: Organize the work space

A dissertation usually requires the full 5 months to complete, so it will be helpful to find a work space which is conducive to your work habits. You will want to consider what physical resources you need to write a dissertation, including a desk, computer, lamp, chair, books, shelves, files etc. The more organized your space, the less time you will spend searching for materials, journal articles, gathering books, etc. Ideally, the work space will be organized so that you can begin work immediately whenever you have scheduled dissertation time. There are two other considerations related to the work space. First, print out early drafts of the dissertation and arrange them by section in a folder. This will make your progress more tangible and real. You will also feel a sense of accomplishment as you finish draft sections and see them printed in a folder. Second, back-up your computer hard drive and store the disks in a safe place so that you don’t risk losing valuable work. (You would not believe the number of students who lose all their files in the week of handing in of the dissertation!!!)

Step 5: Maintain a healthy balance

The search for balance between the dissertation requirements and other life responsibilities is a difficult one. The dissertation is such a time-consuming project that it can seem impossible to find enough time for other activities in your life. If you begin to feel angry, resentful, frustrated, overwhelmed, and depressed on a consistent basis, you may want to consider whether your life has become unbalanced while writing the dissertation. In order to maintain a healthy balance, it is often helpful to devote time every day and week to your physical, social, intellectual, emotional and spiritual well-being.

6.2 The Dissertation Proposal

Your proposal should explain precisely what you will study, and how you will go about your research. Of course, plans may change over time, so what you write in the proposal is not binding. Typically, proposals should be
approximately 3 pages long. Proposals are not merely choice-of-topic forms. They will vary depending on the topic chosen, but unless your supervisor suggests otherwise, your proposal should cover these topics:

- What is the dissertation about? ] **Statement of**
- Why is this topic worth studying? ] **research problem**
- What question or (few) questions are you answering? ] **Research question / objectives**
- What are your and others’ theories about what’s going on? (Be specific and cite relevant literature). ] **Explanations**
- Which theory is appropriate, and how am I using it? ] **Formulate hypotheses**
- What information do you need to collect, and where will you get the information? ] **List of variables and data sources**
- How will you analyze the data? What approach will you take for any theoretical work / modelling? ] **Research methodology**
- Timeline or timetable for your project

Write a preliminary list of the sections in the final dissertation. Consult some articles (see “The Final Dissertation” above) before doing this. Remember, these are section headings, not chapter titles. ] **Organize**

What are critics of your dissertation likely to say? How can you address the main criticisms from the start? ] **Tighten argument**

Do you have any special concerns? Goals? Needs? If so, include them in your proposal to discuss with your supervisor. (N.B.: Normally only a supervisor reads your proposal, so do not expect feedback from other staff.) ] **Specifics**

In essence the Dissertation Proposal should set out:

- Statement of research problem, question and motivation
- Research Objectives
- Hypotheses and Methodology
- Available data source – list of variables
- Econometric strategy
- Contents page
- Key References in Literature

**THE FINAL DISSERTATION**

Your final dissertation should be stimulating for you and for readers. It should make a good case why the research was worth pursuing. It should clearly explain the methods you used, why you used them, and why you drew the conclusions you made.

To repeat, dissertations should be modelled on the style of papers in quality economics journals – see above for appropriate journals.
Dissertations can be a maximum of 10,000 words in length (including all References and other written material) pages of figures and tables of econometric results do not count towards your word limit but should not exceed 10 pages in total). You may submit Appendices with your dissertation - for example - to clarify or enable us to check your data sources or provide other material necessary to understand the research you have done - but we are not obliged to read it in the assessment.

At about 400-500 words per page, this amounts to about 18-25 typical journal pages. In other words, dissertations tend to have the length of typical articles in economics journals. Individual dissertations can vary in length (up to the maximum); there is no minimum requirement about length. You will need to state your research results clearly and concisely, so that you communicate your findings in a reasonably short space, leaving out irrelevant material. A checklist for your final dissertation is attached at the end of this document.

7.1 The Structure of Your Dissertation

This section offers you a model on how to lay out and structure your dissertation. As a general guide, dissertations very often contain 6 main sections.

Abstract

This is the whole paper condensed to a paragraph. (It could be longer, but one paragraph is usually most appropriate.) It is important to include three things; the main problem addressed, an outline of the solution offered, and any conclusions reached. Do not hold back on any of these - you are writing an academic paper, not a thriller, so giving the game away before the conclusion does not matter!

1. Introduction & motivation (10%)

'The context'. Why do this study? Why now? The aims of the study. The introduction is very important and is possibly best compiled by answering a series of questions as follows.

- What is the central question? Why is it important?
- Is there a problem? What is it? Why does it need to be solved?
- What is your hypothesis?
- Who will benefit from your investigation? In what sense will they benefit?
- Are there policy implications?
- In what sense will my contribution add to what is already known?
- How in general terms are you going to solve the problem, e.g., what data and what econometric estimation?
- What are the constraints, challenges or limitations of the study?
- A good way to end the introduction is to state the dissertation objectives.
2. Literature review (20%)

This is a review of what is already known and of the main themes or issues. It covers past research from relevant journals articles and books. It is a summary of what other people have written and published around the theme of your research. It is very important that you acknowledge the authorship of other people’s work.

The literature section can, and should be drafted very early. As you find the literature, read it, and write about it. Think of the literature review as a patchwork quilt - made up of paragraphs you have written about individual texts. Highlight the findings that are relevant to your theses. Be selective and focused in your literature review - don’t let it get too long or stray off your main question. Be critical of the literature - don’t just report it.

3. Economic theory and econometric model (20%)

What does economic theory tell us about your central question – what is the model framework? What is the corresponding econometric model and what are the central empirical modelling problems?

4. Data (10%)

Where did you get your data from? What are its features and limitations? You should provide summary descriptive statistics. This is a presentation of the data - not a discussion in this section. It may involve the creation of tables, charts, histograms, etc., each of which should have an appropriate title or heading.

5. Analysis, presentation, interpretation of results (30%)

This is the main body of the dissertation. It is where you explore the question that you have posed and give a chain of reasoning that will justify the conclusions that you present.

It should not be written as one block of text, but should be broken up into relevant sections. You may wish to draw attention to these sub-sections by giving them individual headings, but more often, this becomes cumbersome and they are better left simply as paragraphs.

Footnotes should be used sparingly, if at all. Generally, all points should be made in the text of the discussion - and if they cannot, then you must ask if they need to be made at all.

This section should cover:
- Interpretation of findings. What patterns have emerged?
- The difference between your findings and those of other people. The difference between the views of various other authors.
- How do the main points you are making change the way you think
6. Conclusion/ Summary / Policy implications (10%)

(a) Summary of main findings as a series of statements.
(b) Conclusions and directions for further research.
(c) Recommendations.

References/Bibliography

It is vital that you give full references to the literature that you have consulted. This is appropriate in an academic paper and you risk accusations of plagiarism if you do not! Use the Harvard System or other form of referencing. To indicate a reference in the body of the text, the name of the author, page and date should be given, say (Smith, W; 1984 pp. 321). Explicit reference should be given for both quoted text, which must be distinguished by quotation marks, and any paraphrased text. You may choose to further distinguish quotations by indentation, change of type face, etc. Where you have abbreviated quoted text, the cuts should be indicated by three dots (...), called ellipsis.

Any source referred to must appear in the bibliography section, giving: the name/s of the author/s, the title, the date of publication, in the case of a journal paper - the name of the journal, in the case of a book - the publisher.

Appendices

Acknowledgements

If you received help from anyone in the preparation of the dissertation, then it should be acknowledged here. If you have not received any help, then you have not approached the task effectively! Almost certainly library staff will have helped you search indexes, teaching staff may have discussed points with you, contacts in industry may have sent you documents or given you interviews.

The easiest way to build a dissertation is inside-out. Begin by writing the sections that describe your research (2, 3, and 4 in the above outline). Collect terms as they arise and keep a definition for each. Define each technical term precisely and formally. Work on your econometric analysis and organise your results into section 5. After reading the middle sections and possibly rerunning your econometric model, write the conclusions. Write the introduction next. Finally, complete an abstract.

7.2 Some General Advice

Two important adjectives used to describe a dissertation are “original” and “substantial”. The research performed to support a dissertation should be both, and the dissertation must show it to be so. In particular, a dissertation
highlights original contributions.

The scientific method means starting with a hypothesis and then collecting evidence to support or deny it. Before one can write a dissertation defending a particular thesis, one must collect evidence that supports it. Thus, the most difficult aspect of writing a dissertation consists of organizing the evidence and associated discussions into a coherent form.

The essence of a dissertation is critical thinking – analysis and concepts form the heart of the work.

A dissertation concentrates on principles: it states the lessons learned, and not merely the facts behind them.

In general, every statement in a dissertation must be supported either by a reference to published scientific literature or by original work. Moreover, a dissertation does not merely repeat the details of critical thinking and analysis found in published sources; it uses the results as fact and refers the reader to the source for further details.

Each sentence in a dissertation must be complete and correct in a grammatical sense. Moreover, a dissertation must satisfy the stringent rules of formal grammar (e.g., no contractions, no colloquialisms, no slurs, no undefined technical jargon, no hidden jokes, and no slang, even when such terms or phrases are in common use in the spoken language). Indeed, the writing in a dissertation must be crystal clear. Shades of meaning matter; the terminology and prose must make fine distinctions. The words must convey exactly the meaning intended, nothing more and nothing less.

Each statement in a dissertation must be correct and defensible in a logical and scientific sense. Moreover, the discussions in a dissertation should satisfy the rules of economic and econometric logic applied.

Good writing is essential in a dissertation. However, good writing cannot compensate for a paucity of ideas or concepts. Quite the contrary, a clear presentation always exposes weaknesses.

7.3 Definitions and Terminology:

Each technical term used in a dissertation must be defined either by a reference to a previously published definition (for standard terms with their usual meaning) or by a precise, unambiguous definition that appears before the term is used (for a new term or a standard term used in an unusual way).

Each term should be used in one and only one way throughout the dissertation.

The easiest way to avoid a long series of definitions is to include a statement: “the terminology used throughout this document follows that given in
The introductory section can give the intuition (i.e., informal definitions) of terms provided they are defined more precisely later.

### 7.4 Terms and Phrases to Avoid:

- **adverbs**
  Mostly, they are very often overly used. Use strong words instead. For example, one could say, “Writers abuse adverbs”.

- **jokes or puns**
  They have no place in a formal document.

- **“bad”, “good”, “nice”, “terrible”, “stupid”**
  An economics dissertation does not make moral judgements. Use “incorrect/correct” to refer to factual correctness or errors. Use precise words or phrases to assess quality (e.g., “estimation method A requires less computation than method B”). In general, one should avoid all qualitative judgements.

- **“true”, “pure”**
  In the sense of “good” (it is judgemental).

- **“perfect”**
  Nothing is.

- **“an ideal solution”**
  You’re judging again.

- **“today”, “modern times”**
  Today is tomorrow’s yesterday.

- **“soon”**
  How soon? Later tonight? Next decade?

- **“we were surprised to learn...”**
  Even if you were, so what?

- **“seems”, “seemingly”,**
  It doesn’t matter how something appears;

- **“would seem to show”**
  all that matters are the facts.

- **“in terms of”**
  usually vague

- **“based on”, “as the basis of”**
  careful; can be vague
• “different”
  Does not mean "various"; different than what?

• “in light of”
  colloquial

• “lots of”
  vague & colloquial

• “kind of”
  vague & colloquial

• “type of”
  vague & colloquial

• “something like”
  vague & colloquial

• “just about”
  vague & colloquial

• “number of”
  vague; do you mean "some", "many", or "most"? A quantitative statement is preferable.

• “due to”
  colloquial

• “probably”
  only if you know the statistical probability (if you do, state it quantitatively)

• “obviously, clearly”
  be careful; obvious/clear to everyone?

• “simple”
  Can have a negative connotation, as in "simpleton"

• “along with”
  Just use “with”

• “actually, really”
  define terms precisely to eliminate the need to clarify

• “the fact that”
  makes it a meta-sentence; rephrase
• “You will read about...”
  The second person has no place in a formal dissertation.

• “I will describe...”
  The first person has no place in a formal dissertation. If self-reference is essential, phrase it as “Section 10 describes...”

• “we” as in “we see that”
  A trap to avoid. Reason: almost any sentence can be written to begin with “we” because “we” can refer to: the reader and author, the author and supervisor, or some other unspecified group.

• “...a famous researcher...”
  It doesn’t matter who said it or who did it. In fact, such statements prejudice the reader.

• Be careful when using “few, most, all, any, every”.
  A dissertation is precise. If a sentence says “Most computer systems contain X”, you must be able to defend it. Are you sure you really know the facts? How many computers were built and sold yesterday?

• “must”, “always”
  Absolutely?

• “should”
  Who says so?

• “proof”, “prove”
  Would a mathematician agree that it’s a proof?

• “show”
  Used in the sense of “prove”. To “show” something, you need to provide a formal proof.

• “can/may”
  Your mother probably told you the difference.

Tense:

Write in the present tense. For example, say “The estimates suggest .....” instead of “The estimates suggested...”

Focus On Results and not Circumstances in Which They Were Obtained:

``After working eight hours on the computer that night, I realized...” has no place in the dissertation. It doesn’t matter when you realized it or how long you worked to obtain the answer. Stick to the plain facts. Describe the results without
dwelling on your reactions or events that helped you achieve them.

Avoid Self-Assessment (both praise and criticism):

Both of the following examples are incorrect: “The method outlined in Section 2 represents a major breakthrough in the analysis of active labour market policy because...”. “Although the technique in the next section is not earth shattering...."

7.5 Marking of Your Final Dissertation.

Here is what we reward:

- A well motivated economic question
- A brief and critical review:
  - for a narrow question the existing literature will be small
  - critically evaluate what others have done.
- A succinct statement of what you are offering that others have not.
- Some analysis.
- Clarity:
  - work that is candid and easy to follow.
- It is really important that you show that you understand your data.
- You must explain what might be wrong with the estimation method used
- You do not have to use sophisticated techniques.

Here is what we penalize:

- Vague rambling descriptions of the previous literature.
- Work that is not explained
- Data that is not defined or adequately described (we REALLY hate this one)
- Econometric tests that are not applicable
- Econometric work that is clearly crazy (another pet hate).
- Dropping important variables that are not significant.
- Causal inferences based simply on correlations
- Unwarranted conclusions
- Incomplete bibliography
- No page numbers.

Your dissertation will be marked by two members of staff, one of whom may be your dissertation supervisor.

OTHER IMPORTANT MATTERS

8.1 Ethics and data protection act

As in all dealings with people, if you are doing a survey or an experiment, or your study involves the collection of primary data then this requires the
researcher to be sensitive. Whether the population you study is in the UK or overseas, you must be respectful as you collect and interpret your data. Remember to take special care when communicating with a culture or society different from your own.

If your research topic does involve surveys or experiments with human subjects, or if other ethical questions arise about your work, you (the student) are responsible for ensuring that the research is ethically sound. Discuss your plans with your supervisor and, if necessary, revise the planned research to ensure it is ethical. It is the responsibility of the student to make sure that any data they collect or use complies with the provisions of the Data Protection Act 1998.

8.2 Plagiarism

Ethics aren’t confined to your dealings with the ‘outside’ world, but must be a key ingredient of your academic conduct. Please review the section in your handbook headed Plagiarism, and be sure not to plagiarize any part of your dissertation. Any data, writing, or illustrative material you use must be suitably and fully referenced to enable a reader to look up the source. The work on the dissertation must be your own.

Any case of plagiarism will be dealt with severely. If your dissertation is deemed plagiarised, you’re gambling with more than a course. A plagiarized dissertation will mean not that you’ve failed a course but not taken it at all... a core course. You would lose your Masters.

Remember, plagiarism is cheating. You would expect severe penalties for cheating in the exam hall, and must expect the same costs and disgrace if you cheat on your dissertation. There are cases of plagiarism being discovered after a degree has been awarded, and the degree withdrawn.

8.3 Use of research results

In some cases dissertation research could form part of research staff members are actually carrying out. In a few cases, your work may even contribute to their publications. The norm is that your assistance will be acknowledged appropriately according to the contribution you make, as is generally true in research. No official guarantees can be made, because staff would not involve students in their own research if it jeopardized their ability to publish. If you are concerned about intellectual property rights, you can develop your own project and find a member of staff willing to supervise you.

Some students may develop their research to the point where it is suitable for journal submission as a joint publication (subject to approval from your dissertation supervisor). Journal publication is only possible and worth contemplating if you do a thorough and careful job in consultation with your dissertation supervisor. Some journal papers have been co-authored or authored by people finishing their postgraduate degrees, when they have
sufficient interest and commitment.

Checklist for final dissertation writing

- **Thesis statement clear and well-defined?**
  - It must summarize a conclusion you’ve reached.
  - Your conclusion should be stated. Don’t expect it to be “obvious” to readers.
  - It must say something interesting about your topic.

- **Do the arguments used in the text, and any theoretical or econometric work, support the thesis statement?**
  - When combined, they provide a strong argument in favour of your case. That is, your data and discussion should clearly help you to reach your conclusion.
  - To the extent possible and practical, you should address major counter-arguments that critics might make, and show why your thesis statement is right despite their counterarguments.

- **Have you presented objective evidence to prove the point for the arguments in the text?**
  - Ideally, you use quantitative evidence that pertains to the whole population you are analyzing, or to a sample appropriate to the arguments you make.
  - You clearly identify the sources from which you got your evidence (both qualitative and quantitative evidence). In general, if a reader wants to look up any specific bit of information in your report, she should know where to find it, including the relevant page number.
  - For quantitative evidence that you collected, you state specifically the procedure you used to collect the information, and why you used that approach.

- **Data Work**
  - Have you clearly described and documented your sources
  - Have you made the limitations of the data clear.
  - Have you explained your data recoding (and if necessary included your . do files on your disc?)
  - Have you taken care of missing value codes properly.
  - If you are using time series data do you have more than 40 (T) observations?
  - If you are using cross series data do you have more than 200 (N) observations?
  - If you are using panel data do you have more than NxT big enough to merit panel data estimation techniques?

- **Econometric Work**
  - Are the estimation techniques used appropriate?
  - Have you interpreted the size and sign of the coefficients correctly?
  - Have you reported the relevant and only the relevant
diagnostic statistics?
- Are you sure your model is not misspecified?
- If yours is time series data have you tested for stationarity?
- If yours is cross section data what conditions the identification of your model and how restrictive are the necessary assumptions?
- Have you carried out the relevant robustness checks?

- For dissertations with theoretical work: Are your theoretical models relevant to the topic at hand, and clearly presented?
  - You should clearly distinguish between assumptions and implications.
  - You must show proofs, concisely as in leading journals.
  - You must re-read your text to ensure no errors remain.
  - You must use standard symbols, to the extent they exist and within your dissertation your notation should be consistent.
  - You must relate your work to others' work, to the extent appropriate to your topic.

- Are citations and references done properly?
  - Use a standard format for citations and references. For a style guide, use a major economics journal.
  - All items that you cite must appear in your bibliography.
  - Citations must include relevant page numbers. Eg., “Whomever and Whoever (1997, p. 82).”
  - Underneath each table and figure, you must state the source(s). The full citation must then appear in the bibliography.
  - You state where you got the information, not where someone else got it.

- Have you edited well?
  - Correct any remaining grammatical or spelling errors.
  - Give the text a final reading: is it clear and understandable?
  - Edit out information that is irrelevant to your thesis. Remove any repetition or redundant information.
  - You may wish to consult a writing guidebook, such as those listed above.

- Have you included, at the very beginning, a 100-150 word abstract?
  - The abstract should concisely summarize your research method and key conclusions. Write it last.