

The MSc Finance Dissertation: Company Analysis, Industry Analysis, Theoretical Finance and Empirical Finance

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Agenda

1. The **Company Analysis** and **Industry Analysis** Dissertations
 - The Research Process
 - The Two Dissertation Types
 - Some Do's and Don'ts
 - Research Timeframes
 - Structure of the Dissertation
 - The Dissertation Proposal
2. The **Theoretical Finance** and **Empirical Finance** Dissertations

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The Research Process

Preliminary checklist for intended research area:

- Clear research question
- Check Report and Financial Statements available
- Identify sources for your industry
- Understanding of company analysis framework (FSA)
- Achievable within limited time period

Literature search:

- Media search (FT, Wall Street Journal, etc.)
- Contact your firms /visit investor relations part of website
- Analyst industry reports (Datamonitor etc.)
- Macroeconomic environment (Datamonitor, Datastream)

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The Research Process

Data collection:

- Collect key items first
- Add further data/variables if time permits
- Keep a record of the definition of the data items and the date of collection
- Be clear what variable you are examining (how defined?)

Recommendation/Valuation:

- Use company analysis framework as per FSA
- Examine a number of valuation models and *simulate value using a DCF technique* (such as FCF)
- Show your valuation calculations
- Explain underlying variables and their source
- Compare intrinsic with market values

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The Research Process

Writing-up:

- Show how your discussion has given rise to your recommendation
- Explain what the implications of your results are
- Give a clear conclusion, reminding the reader of your individual recommendations

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The Two Dissertation Types

Investment Analysis:

- Choose country, sector, 4 companies
- In-depth research study
- Give recommendations of a quality to be read by institutional fund managers

Industry Analysis:

- Similar to investment analysis above
- BUT no need for buy/sell recommendations (and more difficult!)
- More focused on projecting the future developments in an industry
- Needs a good industry dataset:
 - Costs
 - Sales
 - Suppliers
 - Competition

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Some Do's

DO:-

- Use analysis frameworks covered in FSA (or your own customised version of them – be consistent and objective)
- Demonstrate clearly how your discussion of each firm is linked to your recommendation
- Clearly reference all data used and give the date it was collected/relates to
- Use the *Harvard Referencing System*
- Use charts and diagrams to illustrate the data (Title? Axes? Period? Country? Firm? Key?)
- Show units and magnitude (decimals)
- Explain basis for any forecast data

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Some Don'ts

DON'T:-

- Merely describe – *analyse!*
- Waffle/give long introduction (e.g. no need for long company histories)
- Include vast appendices
- Exceed the word limit
- Produce long lists/bullet points
- Present very small diagrams
- Take firm-released non-financial data at 'face value' – *be sceptical/objective!*

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Research Timeframes

Stage	Time required %
Identifying appropriate sector/firms	10
Collecting financial accounts and market data	20
Completing analysis tables and graphs	15
Interpreting and discussing ratios and trends	20
Sensibly valuing each company	20
Writing a meaningful conclusion	10
Editing, writing-up and binding	5
Total	100

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Structure of the Company Analysis Dissertation

1. Introduction
2. Macroeconomic and industry analysis
3. Analysis of firm A
4. Analysis of firm B
5. Analysis of firm C
6. Analysis of firm D
7. Summary and conclusions

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Structure of the Industry Analysis Dissertation (suggested)

1. Introduction
2. Macroeconomic analysis (impact upon your industry)
3. Analysis of key players, trends and issues (definition, business model, products and processes, sales, market shares, margins, key financial analysis items, PEST)
4. Industry analysis (potential and actual profits - Porter)
5. Competitive strategy analysis (cost leadership vs. differentiation)
6. Corporate strategy analysis (value-creation from managing multiple businesses)
7. Industry outlook (forecasts (*e.g. earnings*), valuations (*e.g. multiples*) and their basis)
8. Summary and conclusions (from a portfolio analysis perspective)

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How to conduct an empirical project

- Importance of project:
 - Shows that you are not just able to answer tutorial questions and problems.
 - Gives you the opportunity to work on something you are really interested in (your country; job; or simply hobby)
 - Gives you the opportunity to show originality and independence and earn good marks (and future references)
- Selecting the topic
 - This is the most important step
 - If you already have something in mind (a question that you've been interested in answering for a long time), then this is the best topic for you.
 - If you don't have an interest, then you need to work a bit harder:
 - Read journal articles.
 - A good starting point are the relatively easy journals
 - Applied financial economics; European journal of finance; Journal of applied finance

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What you can work on

- Basically anything that demonstrates some research capability in finance.
- An empirical piece of work.
 - This involves quantitative analysis of data
- A survey of a recent methodology
 - e.g. empirical evidence on the existence of anomalies
 - e.g. recent developments in financial engineering
- A critical review of an area of finance
 - e.g. Behavioural finance
 - e.g. Time series tests of the CAPM
- A simulation study
 - e.g. The power of a given test (for example, the power of unit root test in the presence of missing values)

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Sources of Information

- Journals:
 - Top journals include Journal of Finance; Journal of Financial Economics, and the Review of Financial Studies.
 - Mid-range journals include: Journal of Empirical Finance; Journal of Banking and Finance; Financial Analysts Journal.
 - A good practice is use EBSCO or another electronic journal facility to search for keywords.
- Data: There is plenty of web sites
 - Use Datastream when possible.
 - Use local stock exchange (bourse) when possible.
 - There is also data in other free websites such as yahoo finance.

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Project Topics?

- CAPM, Conditional CAPM, Multifactor Mdl.
- Anomalies: January Effect, May effect?
- Contagion, conditional correlation
- Long memory in volatility and correlation
- Realised/Integrated volatility
- Realised beta
- Event studies: Long run, Short run
(News impact, IPO, Merger, Acquisition....)

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Project Topics?

- Testing EMH:
 - Anomalies: January Effect, May effect?
 - Over-reaction hypothesis
 - Predictability of returns
 - Performance of fund managers
- Risk Management:
 - Value at Risk
 - CAViAR
- Bonds: Credit ratings
- Bid-ask spreads
- Hedge Ratio

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Typical dissertation structure

- Introduction / Aims and objectives
- Literature review
- Methodology
- Empirical results / Discussion of results
- Conclusions / Limitations / Future research

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Introduction / Aims and objectives

- Introduction to the topic
- Outline of key areas
- Motives / Rationale
- Indication of research question / research objectives

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Literature review

- Only relevant literature to be included
- Analysis and synthesis of views of others
- Critical interpretation of existing literature

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Methodology

- Discussion of research programme
- Review of existing research methods
- Overview of research model / instrument
- Discussion about sample, data and variables
- Any limitations envisaged

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Empirical results / Discussion of results

- Descriptive statistics
 - Neatly in tables and graphs
- Regression / Survey results
 - In a meaningful format
- DISCUSSION of results
 - Not just presentation of results
- LINKING results back to concepts covered in the literature review
- LINKING results to aims and objectives of the study

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Conclusions

- Evaluate the effectiveness of study
- Address research question / aims and objectives
- Recommendations
 - Only if necessary
- Limitations of study
- Recommendations for future study

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