Empirical Finance Dissertations
BEAM018/BEFM018

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MSc Finance and Investment
MSc Financial Management
MSc Finance and Management
MSc Financial Analysis and Fund Management

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Empirical finance dissertations

- **Empirical finance dissertations** involve taking a theory or ‘model’ from finance, formulating a testable hypothesis, testing it on some data, and drawing some conclusions.

- They are inherently quantitative, but to a degree that can be tailored to suit an individual student’s background and inclination.

- The key to a good finance dissertation is (a) an interesting problem and (b) appropriate data.

- Fortunately, finance generates *lots* of interesting problems.

- And the school is endowed with *lots* of data.
The nature of an empirical finance dissertation

• Take a theory or model from finance, for example…

*The efficient markets hypothesis*

• Formulate a testable hypothesis…

*Stock returns are serially uncorrelated*

• Obtain some data…

*Monthly return data for the FTSE 100 index for the period 1965-2000.*

• Test the hypothesis…

*Compute the autocorrelation coefficient and test whether it is significantly different from zero*

• Interpret your results…

*Stock returns are serially correlated and so the stock market is inefficient*

• Draw some conclusions…

*There’s lots of money to be made*
The topic

- A good strategy is to find a paper that undertakes an empirical study and to replicate it

- The requirement of a Master's dissertation is that it contains an element of originality

- This could be added by using data for another country (e.g. the UK instead of the US), for another security (e.g. bonds instead of stocks), or for another time period (e.g. the 1990's instead of the 1980's)

- To facilitate your choice of topic, we will provide a list of published studies that span a range of topics in finance

- Having identified a suitable topic, you should start to think about how you are going to undertake your research
The data

- The critical question is whether you can get the data
- A lot of data is available on databases within the School (e.g. Bloomberg, Datastream, CRSP etc.)
- If the data that you require is not available from one of these sources, you need to think carefully about whether it can be obtained from an alternative source
- The internet offers an increasing amount of financial data, and often a carefully planned search in Yahoo or MSN will help you find what you need
- Think carefully about exactly what data is required: Do you need daily, weekly or monthly data? Do returns need to include dividends? Must debt be measured using market or book value? Do you need data that spans a long period or a large number of firms?
- Once you have established that the data is available, you can plan your empirical analysis
- What if the data is not available? If the data is really not available then the best thing to do is to adjust your research objectives - for example, you could analyse a different country instead
The Dissertation Process

- Academic research is a slow and sometimes painful process

- But it can be made much easier through careful planning and regular contact with your supervisor

- Most empirical finance research involves statistical or econometric analysis

- This can be undertaken using one of a range of software packages, such as Excel, RATS, Shazam, PcGive

- Choose a package that is suited to your needs: there is no need to use a sophisticated statistics package to run a simple regression!

- **Always keep back-up copies of your data, your results and your dissertation**

- Useful websites for academic articles include

  - [www.jstor.org](http://www.jstor.org)
  - [www.webofscience.com](http://www.webofscience.com)
  - [www.ex.ac.uk/library](http://www.ex.ac.uk/library)
Writing up your dissertation

• In writing up your dissertation, you should stick to a standard format

• Note that because of space considerations, the structure of a dissertation is rather different to that of a typical published article

• Therefore, although you will be closely following an academic article, you should not necessarily adopt its style when writing up your dissertation
Writing up your dissertation

• Introduction

Introduce the topic; Explain why the topic is interesting; Describe your contribution; Preview your results and conclusions; Outline the structure of the dissertation

• Background

Describe theoretical framework; Discuss the institutional details that are relevant to your research

• Literature Review

Critically review the relevant literature

• Method and Data

Formulate hypotheses to be tested; Carefully describe the data that you use in your research, including its source; Provide summary statistics and graphical analysis of your data; Carefully explain the statistical and econometric methods that you use

• Results

Summarise and discuss your results; Relate results to hypotheses

• Conclusions

Summarise your findings and draw conclusions; Highlight limitations of your work (and there will be many!); Discuss possible directions of future research in this area
Writing up your dissertation (continued)

- References

  List all the papers you have cited, using the Harvard referencing system

- Appendices

  If results are interesting then put them in the main text! Only put material in an appendix if it is not central to your work
Some empirical dissertations that past students have done

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<th>Topic</th>
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<td>Financing and investment in internal capital markets</td>
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<td>Returns, risks and price difference on Chinese stock market</td>
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<td>Empirical analysis of agency wsa and capital structure</td>
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<td>Empirical test of the Black Scholes call option pricing model</td>
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<td>Benefits of investing in emerging markets prone to short-sale constraints and commodity fluctuations</td>
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<td>Asset allocation with hedged and non-hedged foreign stocks and bonds</td>
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<td>Determinants of the capital structure for Chinese firms</td>
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<td>Are earnings and dividend yield good valuation indicators for share price of the IT industry in NASDAQ</td>
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<td>Conditional CAPM and cross sectional returns in HK securities market</td>
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<td>Causal relations among stock prices, Interest rate inflation and real activity based on HK</td>
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<td>The predictability of industry return index: an empirical evidence from the UK</td>
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<td>Is there a lottery premium in the UK stock market</td>
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<td>Modelling international price relationship &amp; interdependences between the stock index and stock index futures markets of the UK and US</td>
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<td>Value vs growth strategies of large corporations</td>
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<td>South African perspective on the optimal construction of internationally diversified equity portfolios hedged against exchange rate risk</td>
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<td>Equity returns following bond rating revisions</td>
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<td>Stock selection, market timing, and mutual funds performance: an empirical investigation in Thai market</td>
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<td>Under-pricing of Initial Public Offering in China</td>
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<td>UK technology stocks: were they special?</td>
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<td>Stock return inflation and real activity: Evidence from South Africa</td>
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