



**FE5001**

**Assessment Component 02**

**Individual Coursework Assignment 2020/21**

**Spring Term**

**1. Individual Coursework Assignment (50%)**

**Due by 21/May/2021, Friday, 3pm (Word Limit: 2000 words)**

1. Download FTSE100 Index (can be changed into other dataset e.g. S&P500 Index) from Bloomberg Database for a minimum 60 observations (12 months X 5 years), more data collected will be preferred. The objective is to build an ARMA model for the price changes (or other dataset changes). Recall that there are three stages involved: identification, estimation and diagnostic checking. The first stage is carried out by looking at the autocorrelation and partial autocorrelation coefficients to identify any structure in the data. You can use 12 lags to start up for the estimation of autocorrelation and partial autocorrelation. Then you are asked to give your analysis based on the results you achieved (such as model orders). [25 marks]

2. Forecasting using the ARMA models over the same period and provide your prediction analysis. Make sure the forecasts are comparable, in terms of the forecast horizon, and whether you are forecasting the log-level (e.g., e) or the difference (e.g., Δe). [ 25 marks]

3. Download any UK listed company’s stock price and calculate its stock returns for the same period, test for unit roots (12 maximum lags by default) and test if it is cointegrated with FTSE100 Index by using the Engle Granger Approach. [30 marks]

4. Discuss the advantages of constructing a panel of data rather than using pooled data. What are the relative advantages and disadvantages of the fixed versus random effects specifications and how would you choose between them for application to a particular problem? [20 marks]

**It is recommended to write your report with the structure of:**

* **Cover Page with your coursework title, student ID, Module Code and Name, Date for Submission, Word Counts**
* **Introduction**
* **Main Body used for answering these questions**
* **Conclusion**
* **References**
* **Appendix (with EViews Tables and Figures)**

**Assessment Criteria and Issues**

* The individual coursework assignment deadline is due by 21/May/2021, Friday, 3pm.
* Submission of coursework must be electronically online on Turnitin Assessment System, available on Weblearn.
* I expect your individual coursework assignment is at a minimum 1800-2000 words (including in-text references, but excluding end-text references, tables, figures, Appendix).
* The essay/report will require students to use information from Bloomberg database, as well as referring to academic literature to demonstrate understanding of major conceptual and practical problems.
* As should be obvious from the above, there is a requirement for you to research, collect, present and analyse actual data. Sources of information must be included and referenced in your discussion as well as the date obtained.
* Points and/or arguments presented and made should be substantiated with data/evidence. I am interested in your own views, but it should be clear through the referencing system whether they are personal or evidenced by the views/data of others.
* A bibliography should be included using the Harvard system. This at least entails that every reference included in the bibliography is referenced in the main body of the text and that there are no references included in the bibliography that are not mentioned in the main body.
* Clarity of expression - please pass through MS Word ’Spelling & Grammar’ or equivalent.
* Plagiarism means presenting another person’s work as your own. Some examples of it are:
  + The inclusion in a student’s assignment of more than a single phrase from another person’s work without the use of quotation marks and due acknowledgement of the source.
  + The summarizing of another’s work by simply changing a few words or altering the order of presentation, without proper acknowledgement.
  + The use of the ideas or intellectual data of another person without acknowledgement of the source or the submission or presentation of work as if it were the student’s, when in fact they are substantially the ideas or intellectual data of another person.
  + Copying the work of another person (be it a co-student or any other source), including figures, text, etc.  Students are rightly expected to draw upon other people’s ideas but in an appropriate manner. Students will certainly use books and journals to assist with their studies and in students may have access to other people’s work on computer disk or over a computer network. When undertaking coursework assignments they may legitimately make reference to publication made by others.  However, other people’s work must be used in a principled way, with due acknowledgement of authorship. Students, in acknowledgement of the work of others must use a recognized standard and for business students this is the Harvard system of referencing. The consequences of plagiarism are extremely serious. This should be borne in mind at all times and especially when students are completing their assignments. In cases of plagiarism and other forms of cheating, University regulations will be strictly applied. If you have any concerns about plagiarism, you must discuss them with your lecturer or seminar tutor before submitting your final work for marking.