**DEPARTMENT OF ECONOMICS**

University College Cork - National University of Ireland, Cork

**MSCBA and PDBA**

# **EC6011 Business Forecasting**

**2023/24 Dr Jun Gao**

**EC6011 Continuous Assessment: Team Project**

You are required to prepare a team report. Your tasks are:

1. Select two countries. Define one country as the home country and the other country as the foreign country.
2. Based on the two countries selected in a), obtain data for at least ten years. Your dataset should include the following variables:
   1. Nominal Exchange rate between the home country’s currency and the foreign country’s currency;
   2. Real Exchange rate between the home country’s currency and the foreign country’s currency;
   3. Consumer price index in the home country;
   4. Consumer price index in the foreign country.

*Please note that the sample period and data frequency of the above three variables should be consistent.*

**Then use your own dataset and a software package (e.g., R, STATA, Python, MATLAB, etc.) to obtain the results and answer the following parts:**

1. Create the log of nominal exchange rate, the log of real exchange rate, the log of consumer price index in the home country and the log of consumer price index in the foreign country.
2. Analyse the properties of the variables created in c).
3. Test the validity for the absolute form of Purchasing Power Parity.
4. Test the validity for the relative form of Purchasing Power Parity.
5. Model and forecast the **real exchange rate** using the Box-Jenkins modelling procedure. Estimate at least 6 models.

Comment on your results and write a report. You can also use existing literature to support the above points.

**This is a team assignment.** You have been allocated to a team. Please check Canvas to see what team you are in. For each team, **please identify a group leader** who is responsible for submitting the report and other relevant documents.

All graphs/estimations/calculation work are to be carried out in an econometric software package. The report is to be presented in a **Microsoft Word** document. Assignments should be presented in a report format i.e. have an introduction, main body and conclusions, followed by references and appendices (appendices are optional).

Reports are to be word processed (double spaced with 12cpi) and to include a word count. The maximum word count is **5000** words – a penalty of 1% per 100 words over this limit will be applied. **Any literature or data used must be cited and referenced correctly.** See the style guide posted on Canvas for correct citation and referencing.

Each team is also required to submit records of Team Meetings along with the final project.

The deadline is **13.00 on Friday 5th of April 2024**. Reports are to be submitted through Canvas. The following statement should appear on the cover page:

***“We hereby declare that this work is entirely our own and has not been submitted as part of any other examination or assignment.  Any use of the work of others in this assignment is duly acknowledged.”***

By submitting the report, you are pledging that all work submitted is your own and has not been produced by, or copied from, someone else. Plagiarism/Cheating is viewed as a serious offence by the Department of Economics and University College Cork; see [guide to exams for staff and students on Exams Office](https://www.ucc.ie/en/exams/procedures-regulations/)Penalties will be administered and may include suspension or expulsion from the University.Free-riding is also seen as a serious offence and penalties will be administered if evidence of free-riding is found.

Penalties are applied for late submission. Where work is submitted up to and including 7 days late, 10% of the total marks available shall be deducted from the mark achieved. Where work is submitted up to and including 14 days late, 20% of the total marks available shall be deducted from the mark achieved. Work submitted 15 days late or more shall be assigned a mark of zero. Please consult the Department Policy on Late Submissions posted on Canvas. This assignment counts for 50% of your final mark in EC6011.

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**Assignment Submission Checklist**

When submitting an assignment please ensure that you follow this checklist. Take the time to go through each point and make sure you have completed it before submitting.

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| Include a title page with your  Names  Student Numbers  Course and Year  Title of Assignment  Word Count  Submission Deadline | □  □  □  □  □  □ |
| --- | --- |
| Include the Student Declaration on the title page | □ |
| Ensure all pages have a page number | □ |
| Include a table of contents | □ |
| Justify the text of the assignment | □ |
| Label all Figures and Tables consecutively | □ |
| Cite and quote throughout the assignment in accordance with the Style Guide | □ |
| Ensure that you have a reference list and that it conforms to the Style Guide | □ |
| Ensure that you have clearly indicated using headings and/or part numbers your answers to each element of the assignment | □ |
| Ensure that the font used is Times New Roman and it is size 12 with double spacing. | □ |