

Assignment Project Exam Help

An Introduction

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1. IF THERE IS A CRYSTAL BALL

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*Crystal ball: Please tell
me tomorrow's Hang
Seng Index*

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2. CRYSTAL BALL AND FORECASTERS **WANTED!!**

2.1. Econometrician, Based Beijing.

- The Economist Intelligence Unit has an unrivalled reputation for providing international companies with authoritative analysis on business, political and economic issues. We are *seeking a econometrician* with a particular focus on model building and an excellent understanding of the Chinese economy.
- We offer analysts the opportunity to work in a challenging, fast paced environment where enthusiasm and flair for the subject are the norm. You will be *responsible for developing and maintaining forecasting models for China*. Your remit will include working closely with local data suppliers to enhance the quality of the data and ensuring the accuracy, reliability and consistency of the economic forecasts. You will also be involved in bespoke research and analysis for our clients.

- You must be able to demonstrate *in-depth knowledge of applied economics and model building*. You will also have an outstanding track record in delivering projects utilising economic models and be able to present the forecast results *in non-technical language* to clients. A thorough understanding of Chinese data and data sources is crucial, as is fluency in Mandarin.
- If you want to develop your skills and career within a dynamic editorial business, then please send your CV (preferably by e-mail) with a covering letter and details of current salary to recruitmentfive@economist.com or by post to Recruitment Office, 26 Red Lion Square, London WC1R 4HQ.
- Closing date for all applications is *22nd September 2006*.

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2.2. Long-term Forecast of Economic Growth and Electricity Consumption – An invitation for consultancy.

- CLP Planning conducts long-term (10 years) load forecast every year for the purpose of
 - determining generation plant *capacity* required and transmission & distribution development.
 - On the financial front, the result from the load forecast is used for *internal business planning and budgeting, and annual Tariff Review*.
 - In addition, the forecast is also a major planning assumption in the Financial Plan, a long term (5-year) investment plan submitted to government.
- *Given the importance of the electricity forecast, a reliable and credible forecast model, therefore, is an essential planning tool* for CLP Power HK Ltd. (CLPP).

3. WHO TO HIRE?

Consider a company hiring an economist to produce macroeconomic forecasts.

- The 10 short-listed applicants appear equally qualified.
 - Equally good writing skills, communication skills, etc.

How do we select the best one?

- Give them a written test.
 - Give them a sample of data from 1960:01 to 2000:12. Ask them to produce forecast for 2001:01 to 2007:12. Compare their forecasts with the realized values.
 - Hire the one with the most accurate forecast.

4. OUR INTENDED LEARNING OUTCOMES

On completion of this course, we hope you will at least “marginally” qualified for these jobs. That is, students should be able to:

CILO1: *Collect data, select the appropriate model to produce out-of-sample forecast, and write a short report based on the results.*

CILO2: *Understand and evaluate basic forecasting results of research reports.*

- Helps avoid re-inventing the wheels

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5. USES OF FORECASTS

Forecasts help

- Formulate government policy
- Formulate private decision
- Formulate investment strategy

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5.1. Forecasts needed to formulate government policy.

- Should we build the Tseung Kwan O - Lam Tin Tunnel (TKO-LTT)?
 - Forecast of population growth in the Tsueng Kwan O and the growth road traffic connecting to the East Kowloon is essential.
- More generally, should we build more infra-structure (public housing, elderly homes, hospitals, roads, etc.)?
 - Forecast of population and population structure is essential.
- Should we revise the Comprehensive Social Security Assistance Scheme (CSSA) payment?
 - Forecast of inflation rate facing the CSSA recipients is essential.
- Should we revise the statutory minimum wage in Hong Kong?
 - Forecast of inflation rate facing the workers under the minimum wage and the demand conditions for such workers is essential.
(On 1 May 2019, the SMW rate is raised from \$34.5 per hour to \$37.5 per hour. <https://www.labour.gov.hk/eng/news/mwo.htm>)
- Should a central bank raise the interest rate target?
 - Forecast of inflation and GDP growth is essential.

5.2. Forecasts needed to formulate investment decision of private companies.

- Should CLP build more capacity?
 - Forecast of electricity demand is essential.
- Should Orient Overseas Container Line (OOCL, a wholly-owned subsidiary of Orient Overseas (International) Limited (OOIL), a public company (0316)) expand its fleet?
 - Forecast of container transportation demand is essential.
- Should the property developers speed up or slow down its property development?
 - Forecast of property prices is essential.
- Should the Western Harbour Tunnel raise its toll?
 - Forecast of traffic flow is essential.

5.3. Forecasts needed to formulate personal investment decision.

- Should I buy HSBC?
 - Forecast of HSBC performance or its stock price relative to alternative types of investment is essential.
- Should I buy property?
 - Forecast of property price relative to alternative types of investment is essential.

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6. SKILLS TO ACQUIRE OR SHARPEN

- (1) Statistical skills: Acquired mainly by lecture and readings, assessed via tests mainly, and via projects slightly.
- (2) Computational skills: Acquired mainly by self-learning, assessed via tests slightly, and via projects slightly.
- (3) Writing skills: Acquired mainly by practice with guidance by instructor, assessed via projects.
- (4) Global outlook and ability to understand research: Acquired a little by lecture and readings, mainly by participation in "learning commons".

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7. ASSESSMENT

Due to the recent very special circumstances in Hong Kong....

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	Assessment	Weight
A1	Forecasting Projects	50%
A2	Final Exam	50%

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	Assessment	Weight
A1	Forecasting Projects	100%

7.1. Forecasting Projects:

- TWO projects in total.
- All projects are meant to be completed individually.
- Each student will have to work on a set of economic time series that is different from the others.
- Paper will be checked by Turnitin.
- While the detailed assessment rubric may differ slightly across projects, the criteria of assessment can be broadly divided into two aspects:

(1)	Statistical Analysis:	60%
(2)	Clarity (Readability):	40%

- Due to the level of difficulty of the projects, the projects will carry different weights.

Project #1:	40%
Project #2:	60%

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- Late submissions are accepted within one week of the due date (based on the time stamp appeared in our course website). A penalty of 10% will automatically apply to late submissions if it is submitted within one day after the due day, and an additional 10% penalty for each additional day.

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7.2. Self-practice exercises:

Self-practice exercises are posted in the course website. They covered the basic statistical concepts and the use of R. It will not be graded.

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8. R - THE STATISTICAL SOFTWARE FOR THE COURSE

"R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To download R, please choose your preferred CRAN mirror."

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<http://www.r-project.org/>

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8.1. R-studio.

"RStudio IDE is a powerful and productive user interface for R. It's free and open source, and works great on Windows, Mac, and Linux."

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"RStudio is an integrated development environment (IDE) for R. It includes a console, syntax-highlighting editor that supports direct code execution, as well as tools for plotting, history, debugging and workspace management."

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<http://www.rstudio.com/>

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9. SHOULD I TAKE THIS COURSE?

Students will likely benefit the most from this course if

- they have never taken Time Series Analysis
- they have somewhat background in computing
- they have somewhat background in statistics/econometrics
- they have somewhat writing skills

Students will likely benefit very little from the course if

- they have previously taken a course of Time Series Analysis

Students will likely have very hard time in this course if

- they have an extremely weak background in computing
- they have an extremely weak background in statistics/econometrics
- they have extremely weak writing skills.