

Assignment 1
Learning and Computational Intelligence in Economics and Finance (CF963-7-AU)
2012-2013
Set by Edward Tsang, University of Essex

1. Introduction:

This is an assignment on data processing. This assignment accounts for 15% of your total marks in this course. This assignment should be submitted electronically. The deadline of this assignment is *11:59:59am, Wednesday 14th November 2012*.

2. Objective:

The objective of this assignment is to familiarize you with data and the concept of “*directional changes*”.

3. Given:

The spread sheet associated to this assignment contains 1000 days’ closing price of the FTSE100 Index between 2008 and 2010.

4. Your task:

Your task is to show when directional changes have taken place under a threshold of 5% in the time series. You may write a program (in either Matlab or Java) to do so, or you can use Excel if you prefer. It is your job to show clearly when directional changes have taken place. You may also show why.

Bonus will be given to submissions that can handle any threshold. You must show clearly how one can input other thresholds.

5. Submission requirements:

Please submit a spreadsheet or a program. If you write a Java program for this assignment, then please submit your executable code as well as the source codes.

Please submit electronically. Please name your file or folder with your registration number, surname and optionally your initials. E.g. 12345-Tsang-E.

6. Assessment criteria for this assignment:

Submissions will be assessed by correctness followed by clarity. Your submission must show the directional changes correctly. It should also show, as convincingly as possible, that it has identified the directional changes correctly.

7. Please refer to the Student’s handbook on the Departmental Policy on Plagiarism and Late Submission

Assignment 2
Learning and Computational Intelligence in Economics and Finance (CF963-7-AU)
2012-2013
Set by Edward Tsang, University of Essex

1. Introduction:

This is an assignment on data processing. This assignment accounts for 15% of your total marks in this course. This assignment should be submitted electronically. The deadline of this assignment is *11:59:59am, Wednesday 12th December 2012*.

2. Objective:

The objective of this assignment is to test your ability to design a trading rule based on the concept of directional changes.

3. Given:

The spread sheet associated to this assignment contains 1000 days' closing price of the FTSE100 Index between 2008 and 2010.

4. Your task:

(a) Design a trading rule based on directional changes; and

(b) Use the data in the spread sheet provided to assess the effectiveness of your trading rule.

5. Submission requirements:

Submit a report of no more than 500 words (not including appendix, which does not have a limit in word count), explaining clearly the trading rule. You should also provide a fair assessment of your trading rule on the data in the spread sheet.

Please submit electronically. Please name your file or folder with your registration number, surname and optionally your initials. E.g. 12345-Tsang-E.

6. Assessment criteria for this assignment:

This is an open-ended assignment.

You must explain your trading strategy clearly. It is your responsibility to show that your implementation is correct. You must also explain clearly how much return your trading rule makes in the data provided. Your assessment of your trading rule must be fair.

The best way to write the report is to imagine that you have to show your trading rules to a client, who has access to multiple submissions. You must give the client confidence in using your rule.

7. Please refer to the Student's handbook on the Departmental Policy on Plagiarism and Late Submission