Assignment
Learning and Computational Intelligence in Economics and Finance (CF963-7-AU) 2016-2017
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1. Introduction:

This is an assignment on algorithmic trading. This assignment accounts for 20% of your total marks in this course. This assignment should be submitted electronically. The deadline of this assignment is ***11:59:59am, Thursday 15th December 2016 (Week 11)***.

2. Objective:

The primary objective of this assignment is to assess your ability to handle data. It helps to develop your ability to extract information from data and use them for trading.

3. Given:

You are given a number of FTSE and indices daily closing prices:
http://cswww.essex.ac.uk/CSP/Download/Data/20161017-FinanceData/FTSE100.zip
http://cswww.essex.ac.uk/CSP/Download/Data/20161017-FinanceData/Indices.zip

4. Your task:

(a) You should pick one period in one time series and explain what information you can to get out of it. For example, is this a risky asset? How risky is it? How do you measure risk?

(b) You should pick a period in a second time series. Do the same with this series and compare the results with (a). State clearly what conclusions you may draw from the comparison.

(c) How would you examine the hypothesis: "if the price rose yesterday, then price will rise today; if the price fell yesterday, then price will fall today"?

You may do your analysis in Excel, or write your program in Matlab, Python, Java, or VB (in Excel) as you see fit.

5. Submission requirements:

You should submit electronically a report of no more than 1,000 words. You can include more information in an appendix if needed. Please submit all spreadsheet and programs that support your report (they do not count in the word count). If you write a Java program for this assignment, then please submit your executable code as well as the source codes.

6. Assessment criteria for this assignment:

In assessing your submission, I shall use the following criteria:

- Clarity: you must clearly explain what you have done.
- Reproducibility: you must provide enough information to enable others to reproduce your results.
- Correctness: are the calculations correct?
- Soundness: are your conclusions supported by your calculations?
- Insight: have you discovered any valuable but not necessarily obvious information about the data?

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