UNIVERSITY OF CAMBRIDGE
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Contest Quiz 3

Question Sheet

This quiz involves forecasting with ARIMA models covered in the third lecture.

Question 1

Go to http://www.oanda.com/currency/historical-rates/ and generate a csv file with daily exchange rate data for US Dollar (USD) against Euro (EUR) by setting parameters as follows (the choice of the time window is yours to make) and selecting "download".

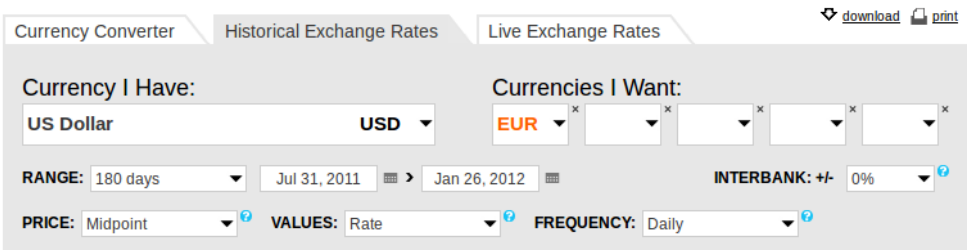

Figure 1: Parameter Settings

Use the data to produce a comma separated vector of exchange rate forecasts, e.g., using ARIMA models, for next week Wednesday, 14 Mar 2012, to Tuesday, 20 Mar 2012. For example: $0.7687, 0.7722, 0.7733, 0.7729, 0.7726, 0.7760, 0.7816$

Points are assigned on the following basis. The forecast performance of each of the N groups is evaluated using the Mean Absolute Percentage Error ($MAPE$). The group with the best forecast, $MAPE_{(1)}$, gets 100 points, the group with the worst forecast, $MAPE_{(N)}$, gets 10 points. For all other groups, points for group i with $MAPE_i$ are calculated based on the linear transformation

$$100 - 90 \times \frac{MAPE_i - MAPE_{(1)}}{MAPE_{(N)} - MAPE_{(1)}}$$