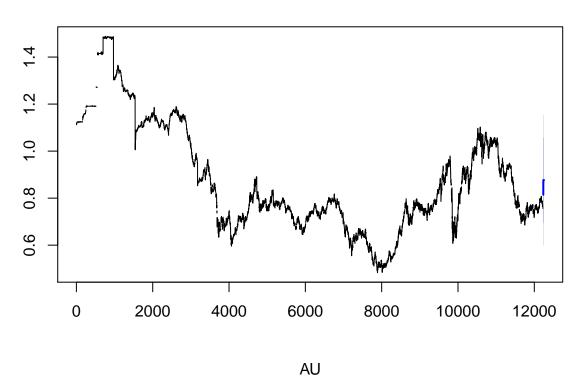
Final Project - ARIMA Models

David Modjeska and Dominic Murphy, Harvard CS102, Autumn 2017 December~2017

Forecasts from ARIMA(0,0,2) with non-zero mean



ARIMA FIT

Series: y

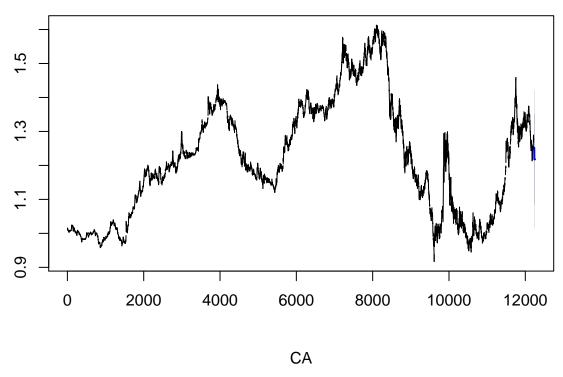
ARIMA(0,0,2) with non-zero mean

Coefficients:

ma1 ma2 mean 1.7871 0.9469 0.8767 s.e. 0.0066 0.0041 0.0022

sigma^2 estimated as 0.003948: log likelihood=14728.14 AIC=-29448.28 AICc=-29448.28 BIC=-29418.64

Forecasts from ARIMA(0,0,2) with non-zero mean



ARIMA FIT

Series: y

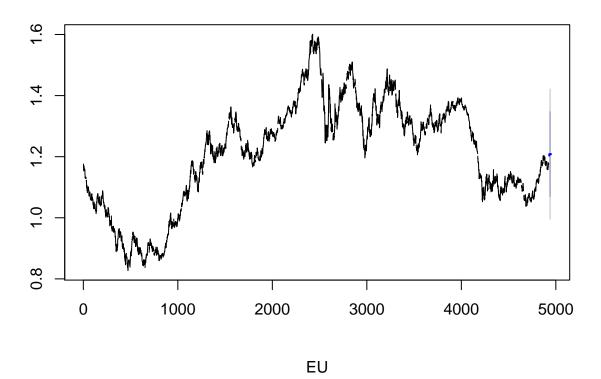
ARIMA(0,0,2) with non-zero mean

Coefficients:

 $\begin{array}{ccccc} & \text{ma1} & \text{ma2} & \text{mean} \\ & 1.7454 & 0.9451 & 1.2179 \\ \text{s.e.} & 0.0056 & 0.0038 & 0.0016 \end{array}$

sigma^2 estimated as 0.002199: log likelihood=18264.67 AIC=-36521.34 AICc=-36521.34 BIC=-36491.69

Forecasts from ARIMA(0,0,2) with non-zero mean



ARIMA FIT

Series: y

ARIMA(0,0,2) with non-zero mean

Coefficients:

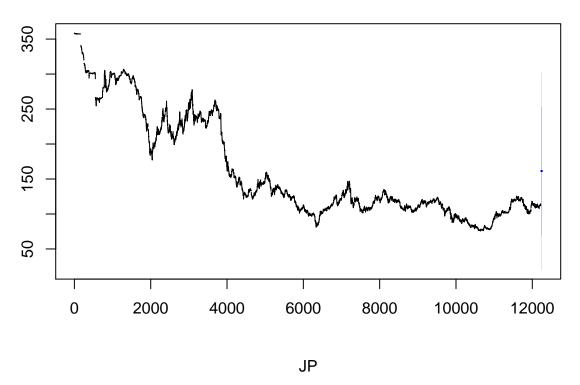
 ma1
 ma2
 mean

 1.6703
 0.9186
 1.2083

 s.e.
 0.0087
 0.0068
 0.0026

sigma^2 estimated as 0.002577: log likelihood=7044.6 AIC=-14081.2 AICc=-14081.19 BIC=-14055.18

Forecasts from ARIMA(0,0,0) with non-zero mean



ARIMA FIT

Series: y

ARIMA(0,0,0) with non-zero mean

Coefficients:

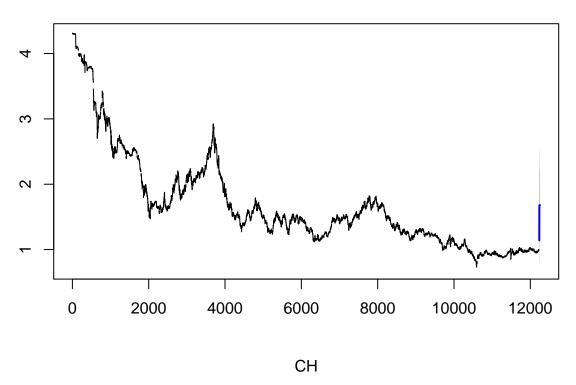
mean 161.3986

s.e. 0.6762

sigma^2 estimated as 5171: log likelihood=-67213.57

AIC=134431.1 AICc=134431.1 BIC=134446

Forecasts from ARIMA(0,0,3) with non-zero mean



ARIMA FIT

Series: y

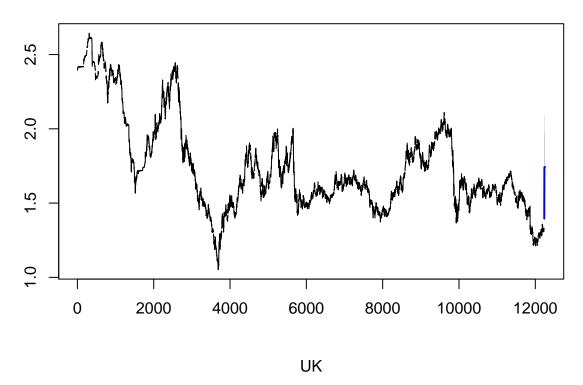
ARIMA(0,0,3) with non-zero mean

Coefficients:

ma1 ma2 ma3 mean 2.3208 2.2427 0.8955 1.6792 s.e. 0.0053 0.0068 0.0042 0.0072

sigma^2 estimated as 0.01453: log likelihood=7039.83 AIC=-14069.66 AICc=-14069.65 BIC=-14032.6

Forecasts from ARIMA(0,0,4) with non-zero mean



ARIMA FIT

Series: y

ARIMA(0,0,4) with non-zero mean

Coefficients:

ma1 ma2 ma3 ma4 mean 2.2902 2.7861 2.0108 0.7368 1.7422 s.e. 0.0086 0.0129 0.0098 0.0061 0.0034

sigma^2 estimated as 0.001725: log likelihood=19827.84 AIC=-39643.69 AICc=-39643.68 BIC=-39599.22