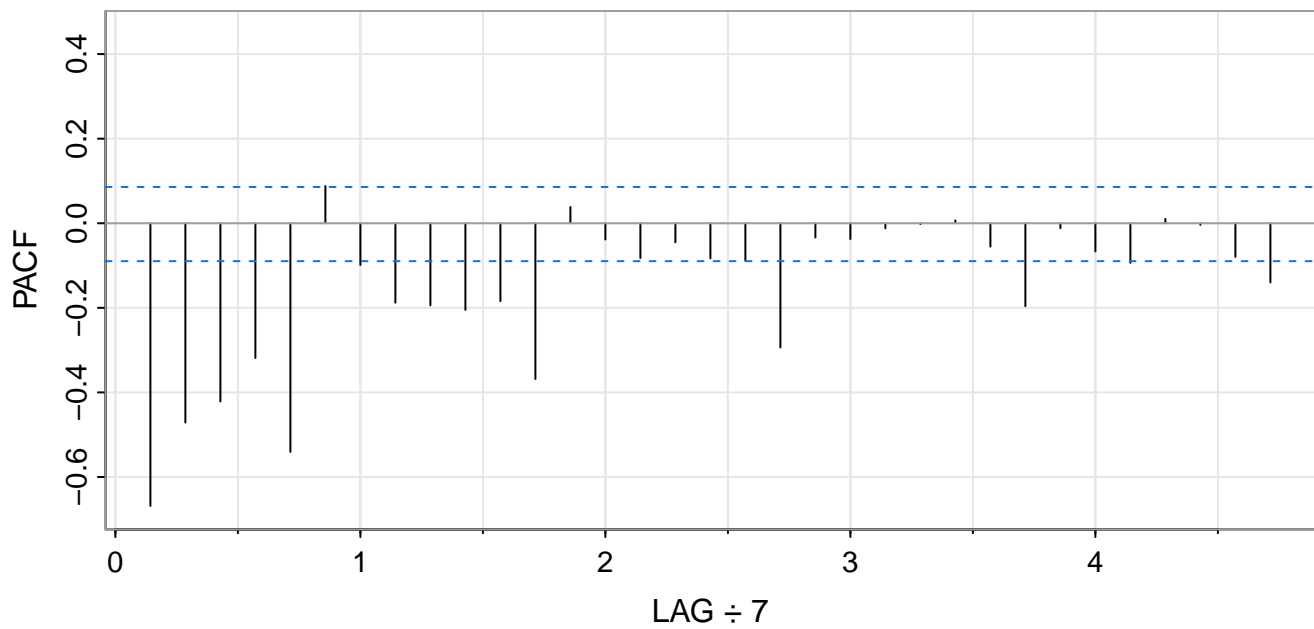
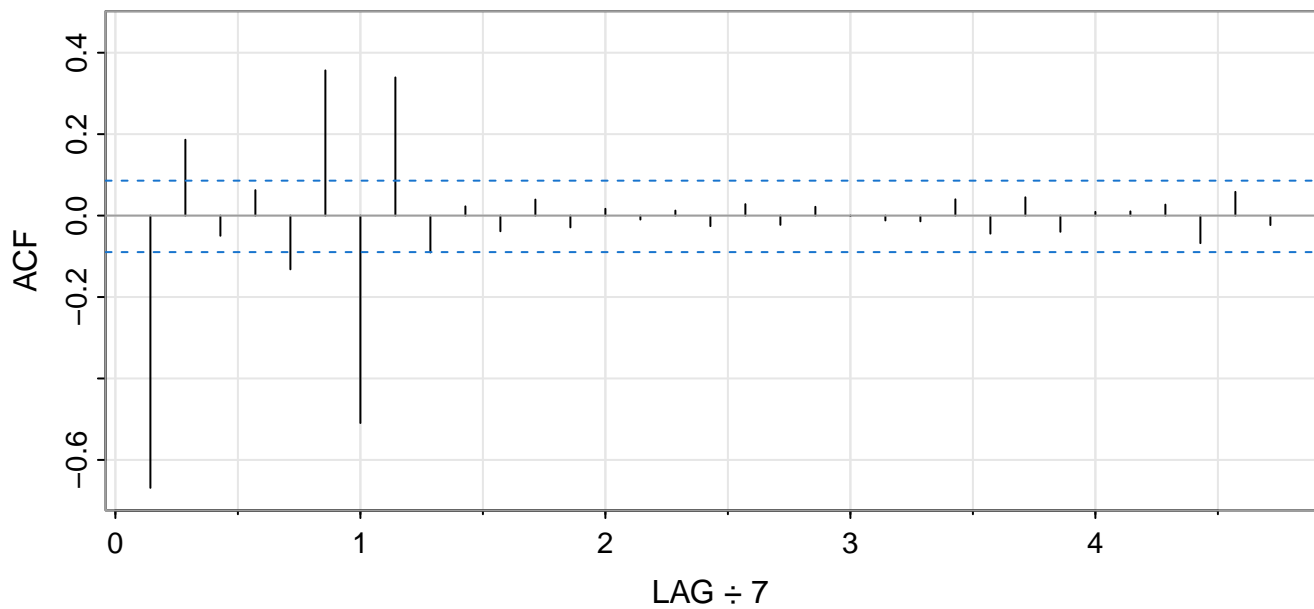
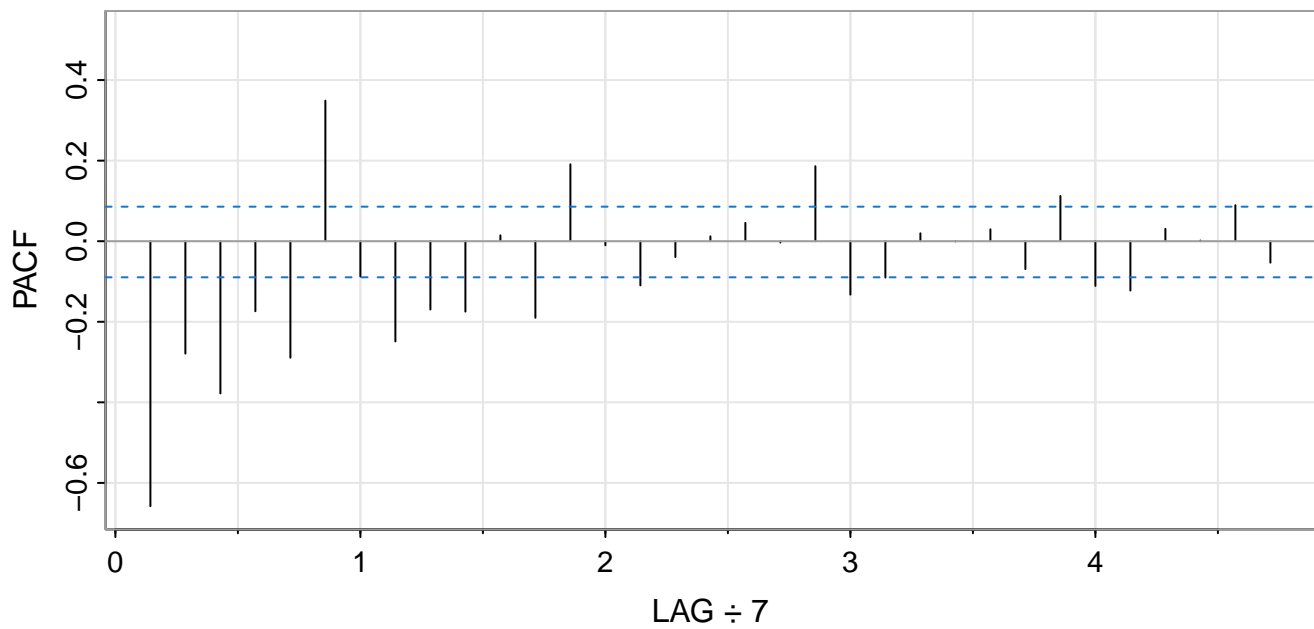
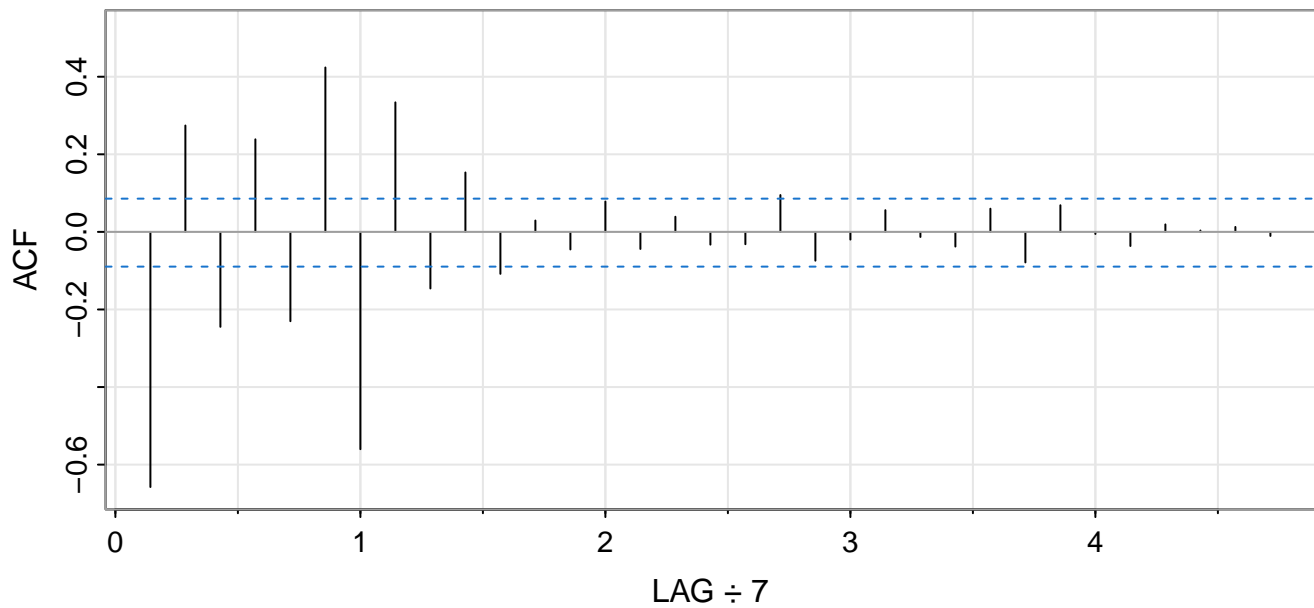


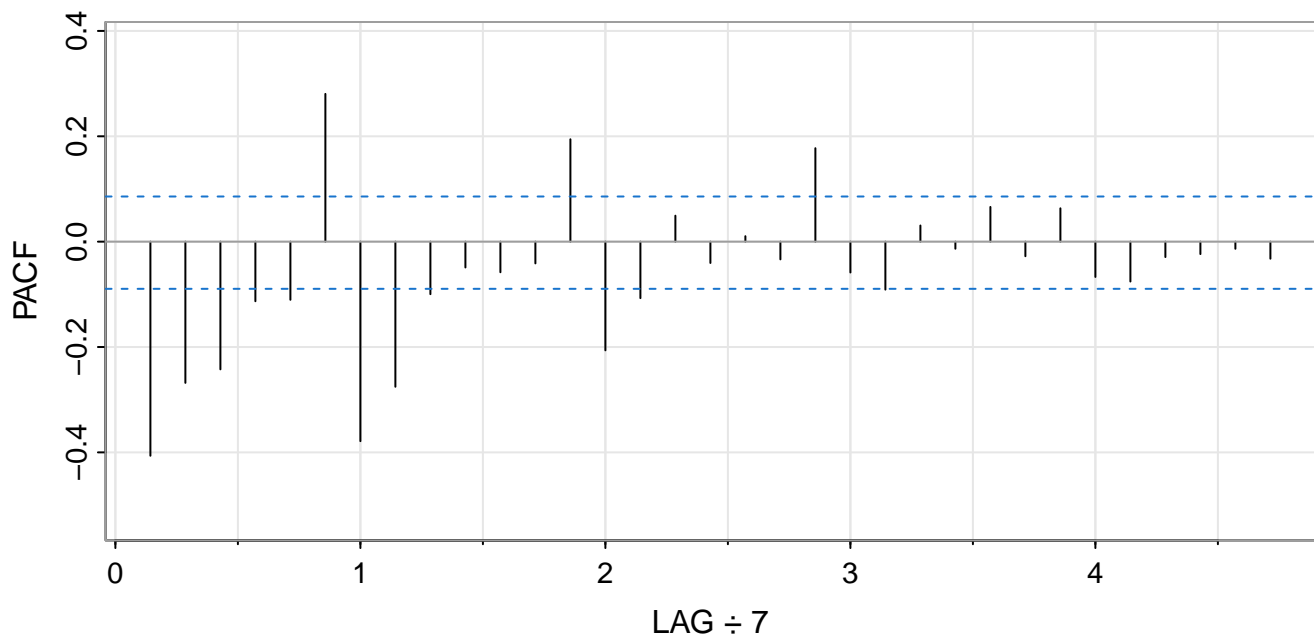
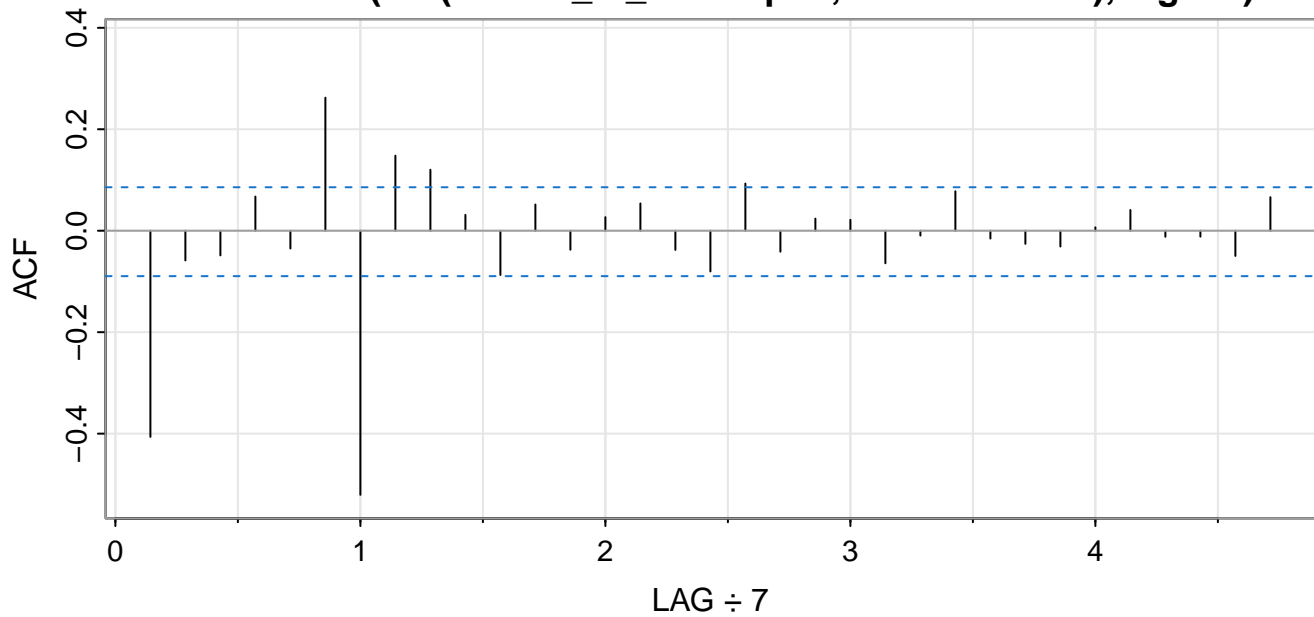
Series: `diff(diff(confirmed_ts_developed, difference = 3), lag = 7)`



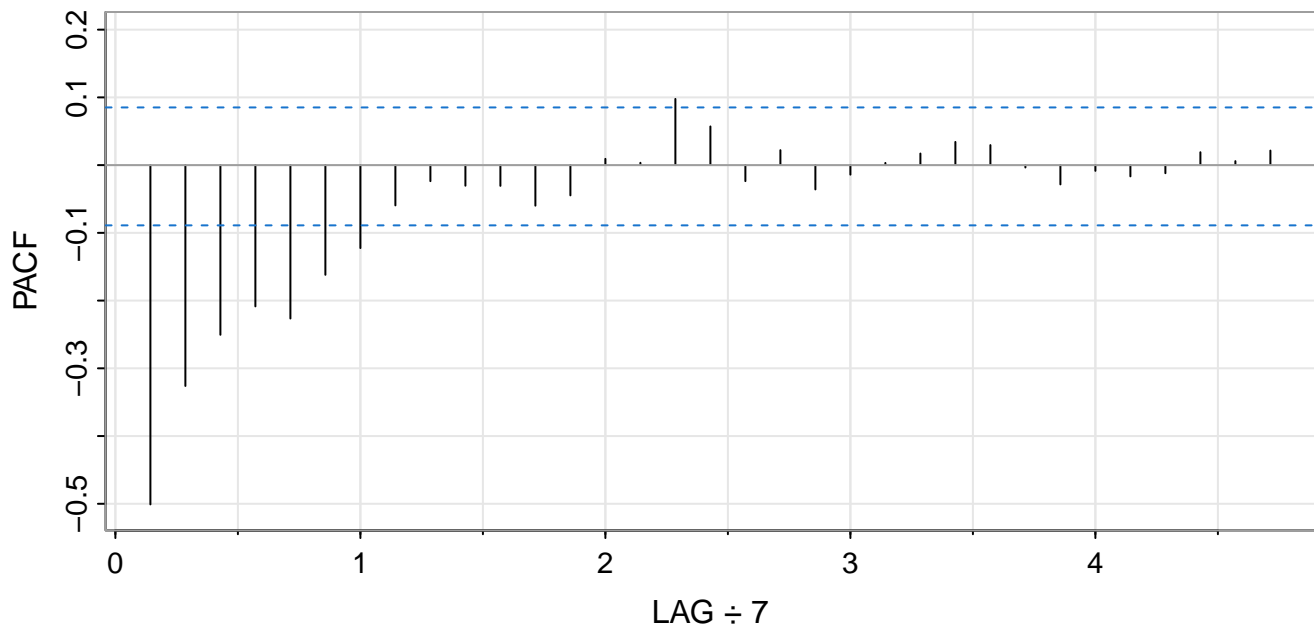
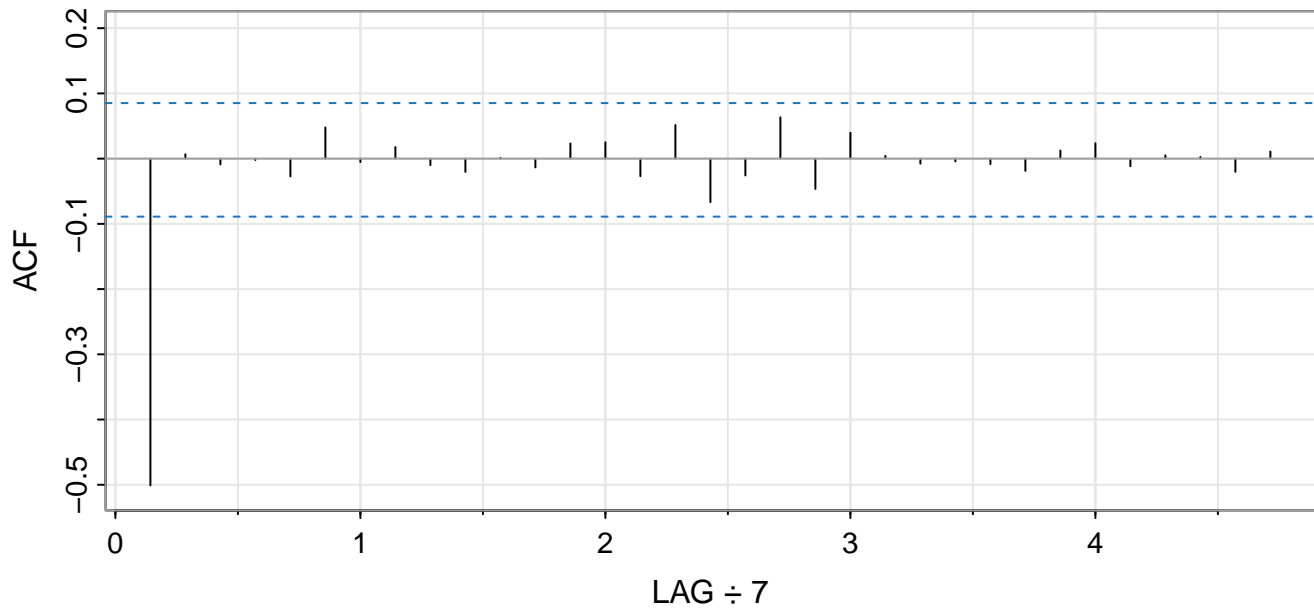
**Series: diff(diff(confirmed\_ts\_undeveloped, difference = 2), lag = 7)**



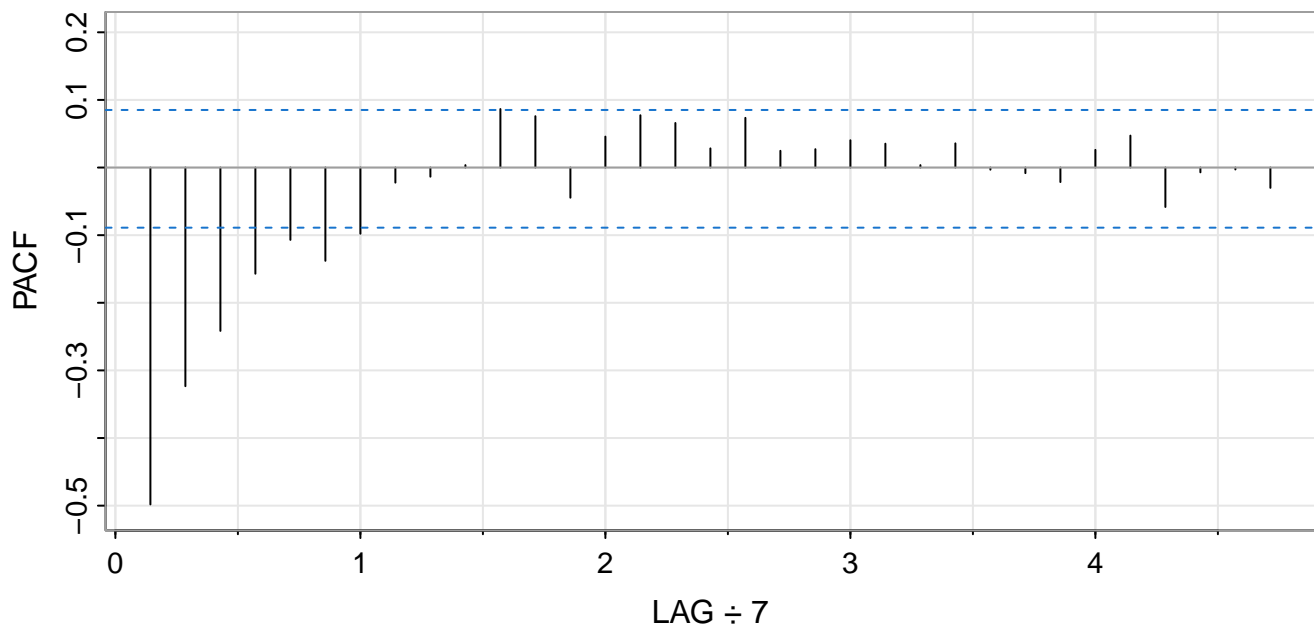
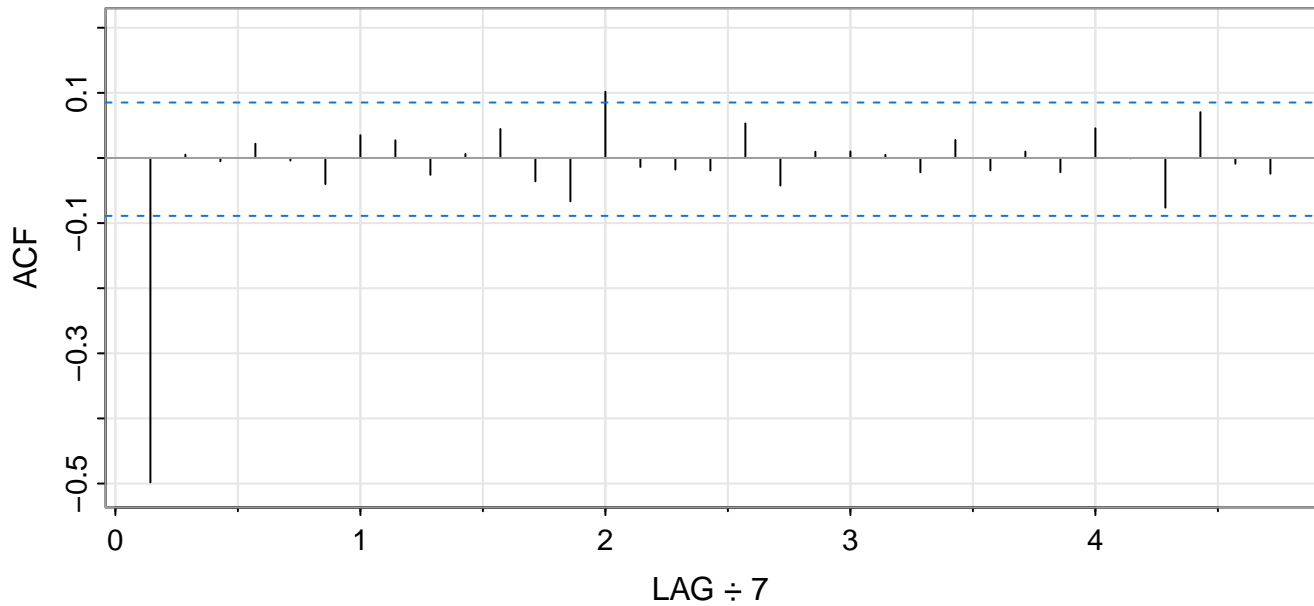
**Series:  $\text{diff}(\text{diff}(\text{deaths\_ts\_developed}, \text{difference} = 2), \text{lag} = 7)$**



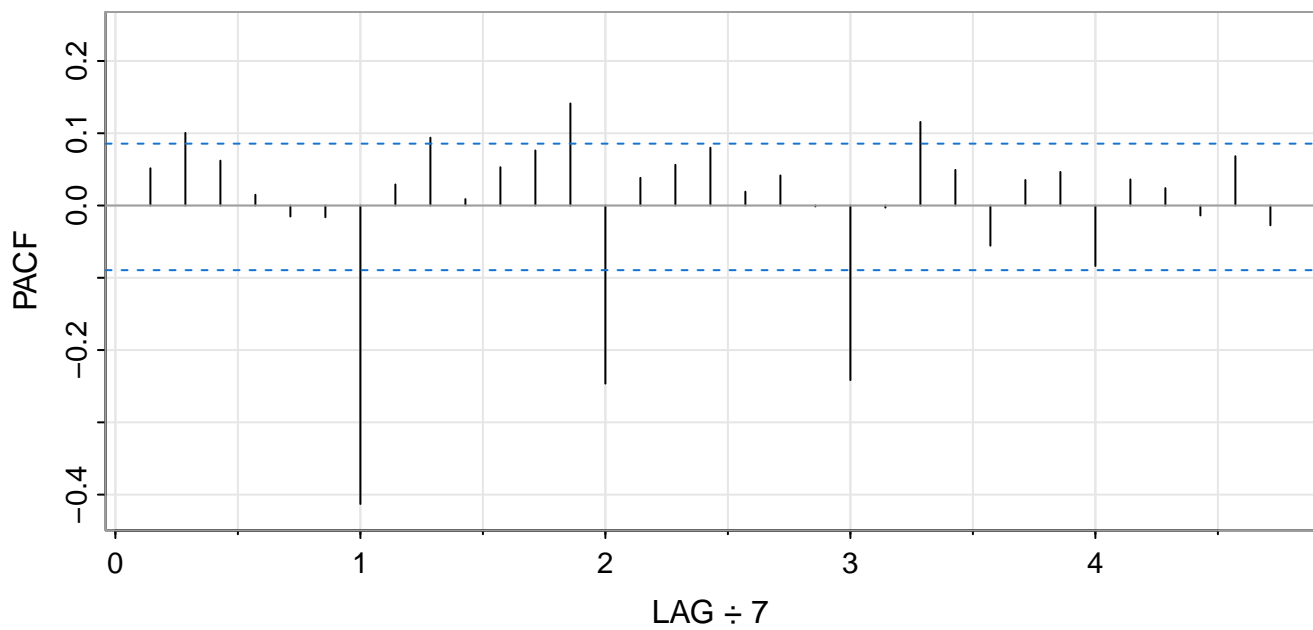
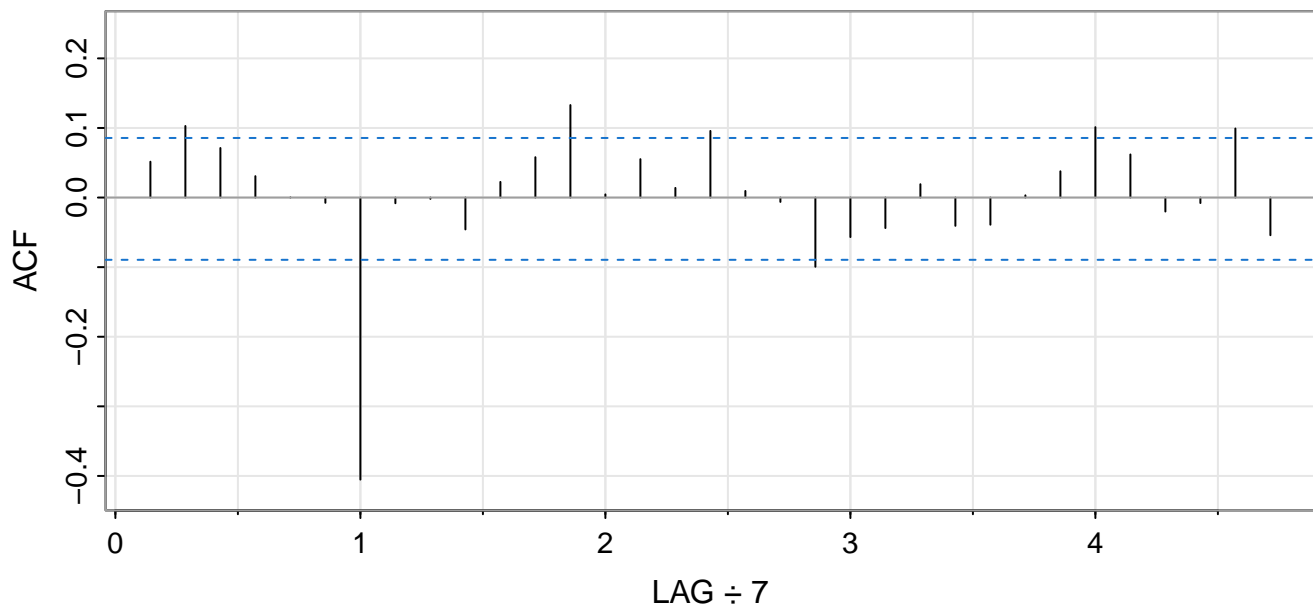
Series: diff(deaths\_ts\_undeveloped, difference = 2)



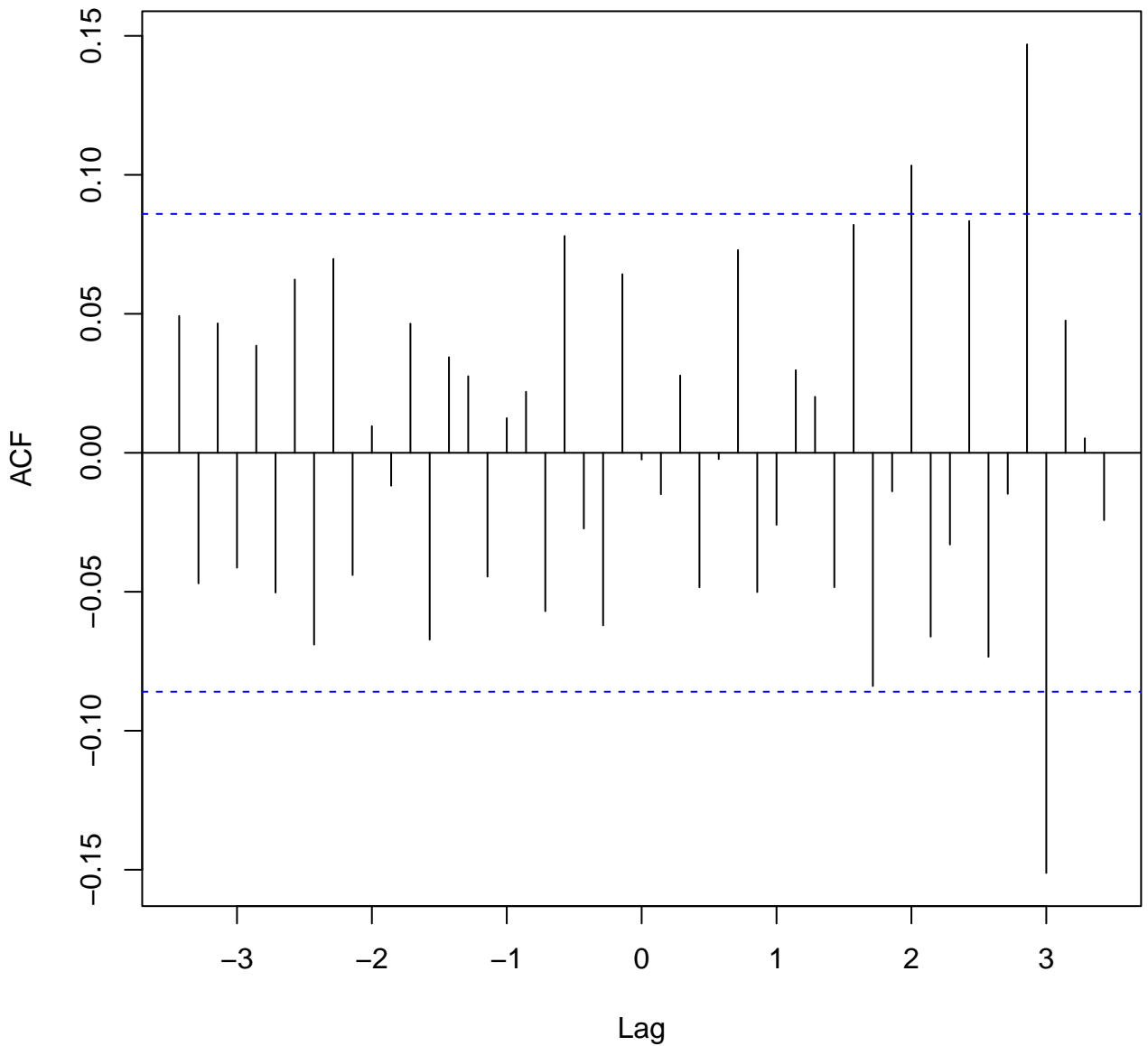
Series: diff(diff(recovered\_ts\_developed))



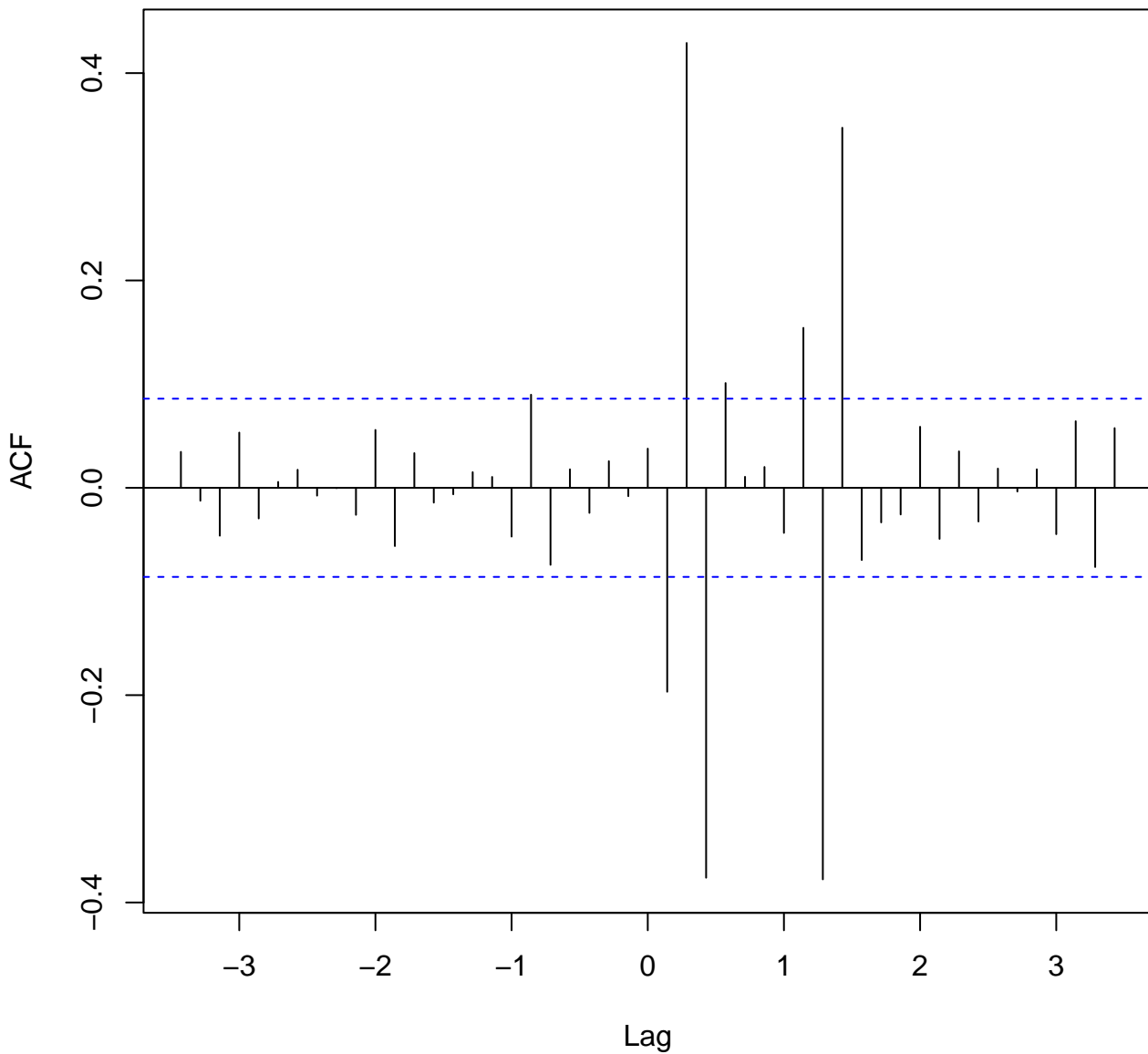
**Series: `diff(diff(recovered_ts_undeveloped, difference = 1), lag = 7)`**



# death\_develop & confirm\_develop

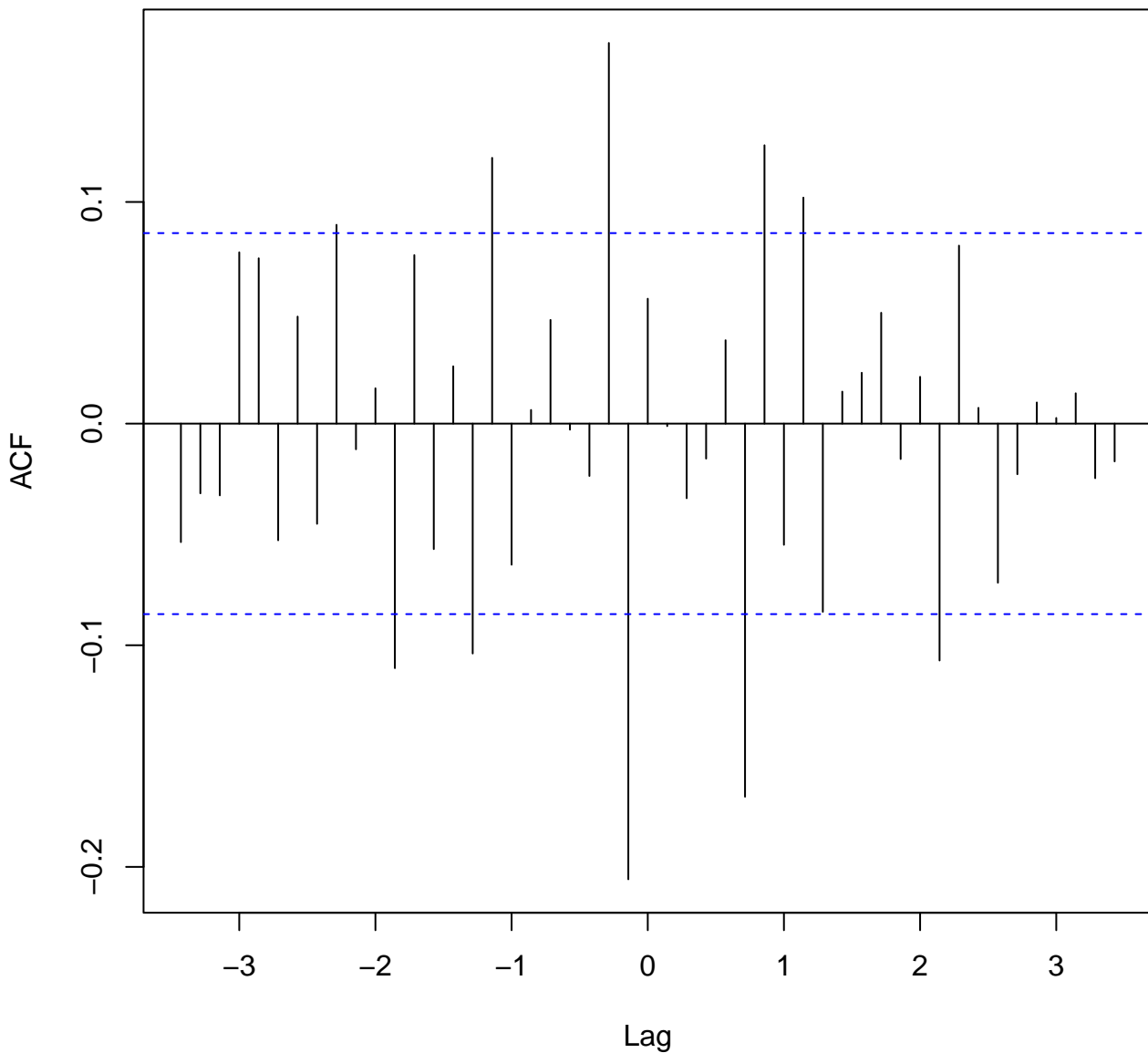


# recover\_develop & confirm\_develop

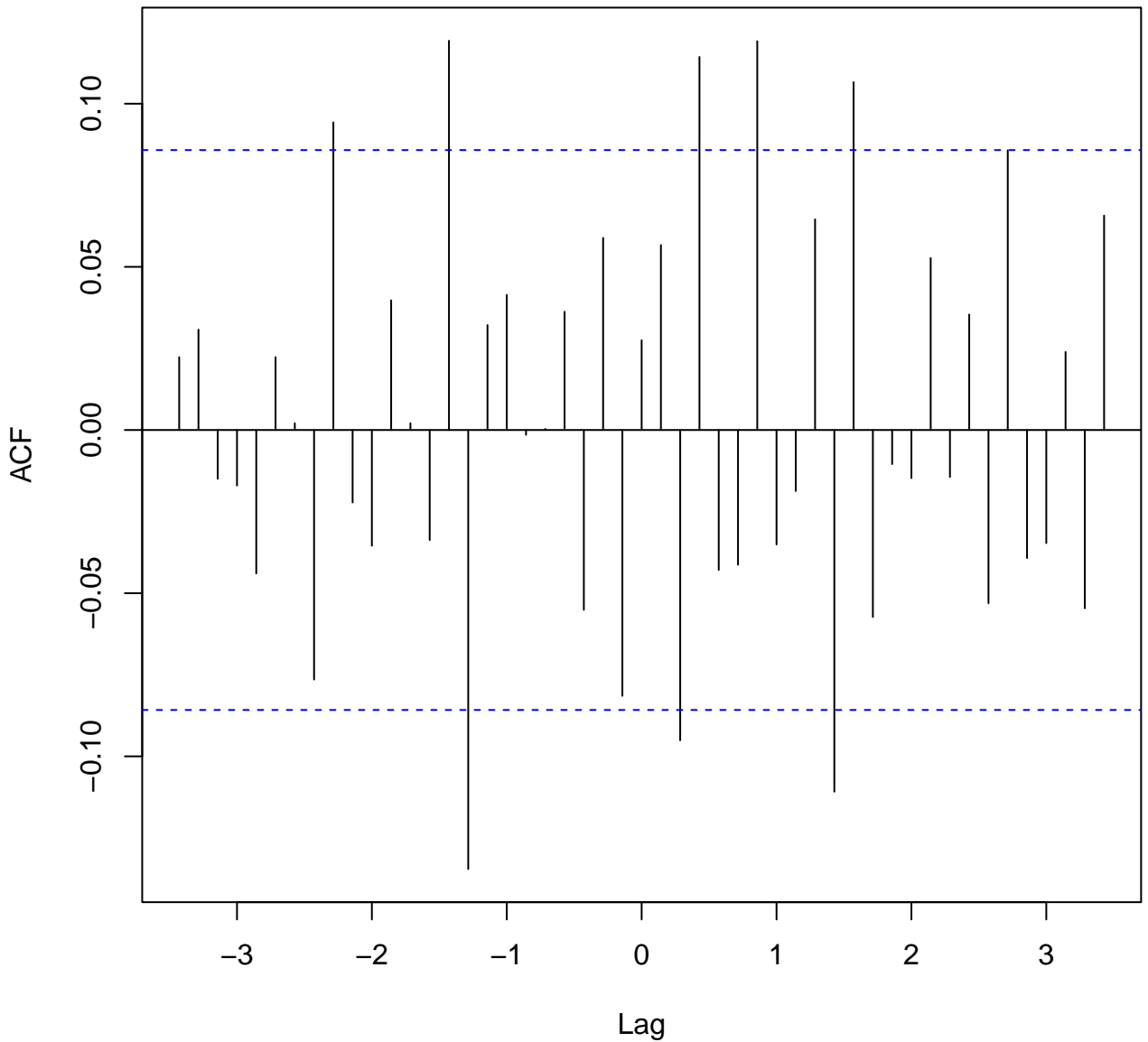




# confirm\_undevelop & recover\_undevelop

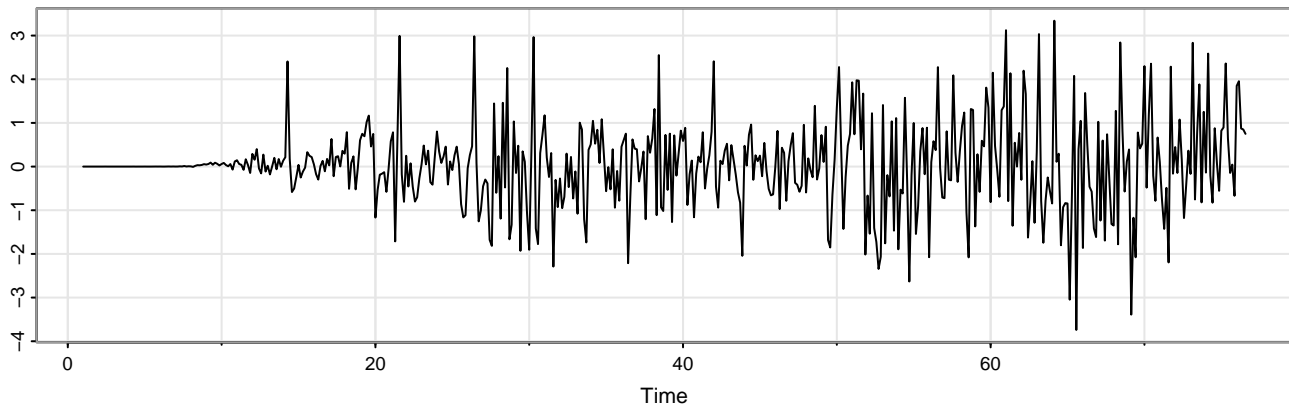


# death\_undevelop & recover\_undevelop

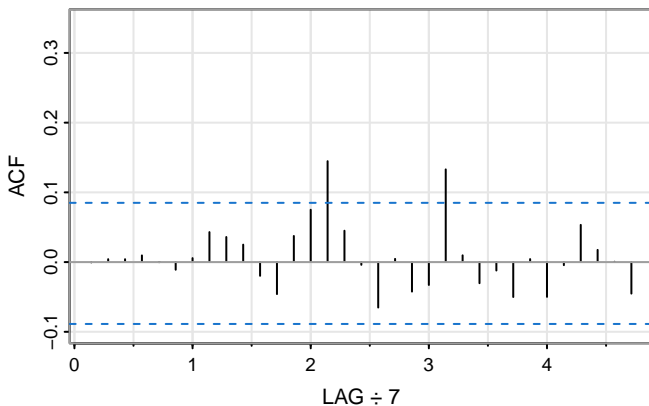


Model:  $(1, 2, 6) \times (0, 1, 1)_7$

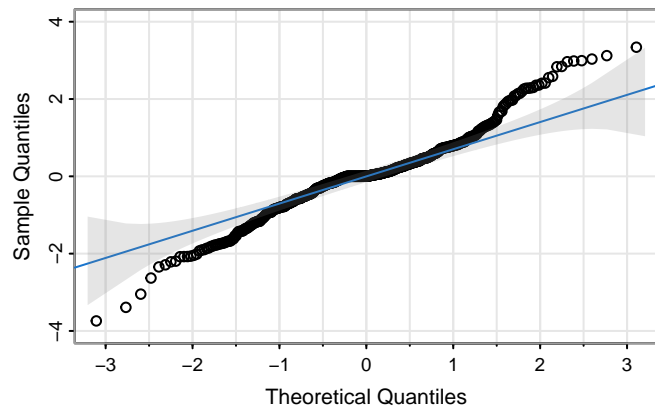
### Standardized Residuals



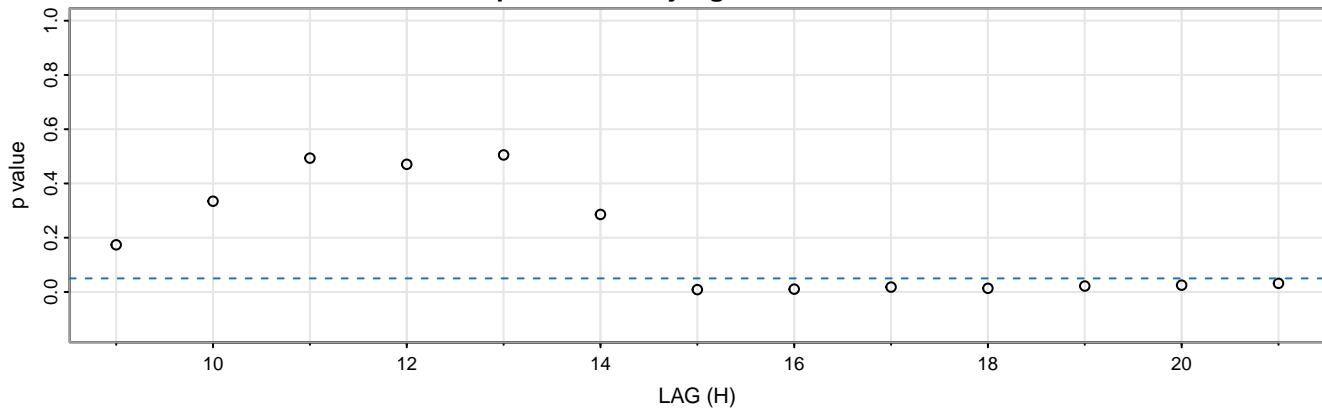
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals

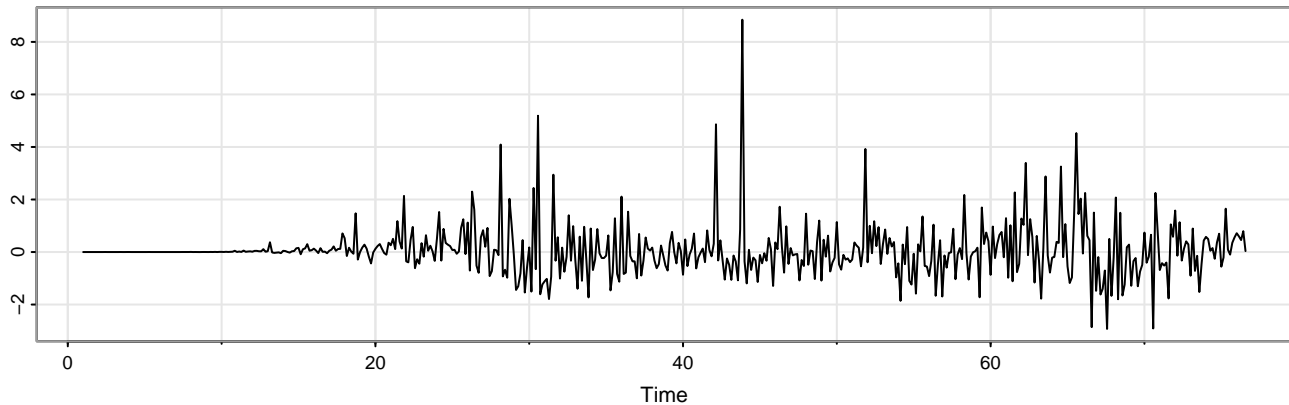


### p values for Ljung-Box statistic

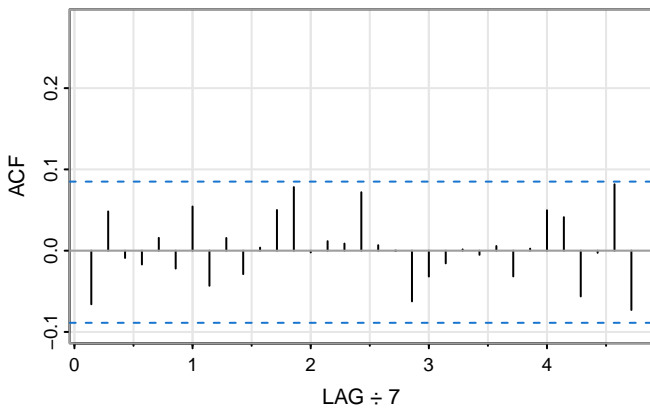


Model:  $(1,1,1) \times (0,1,1)_7$

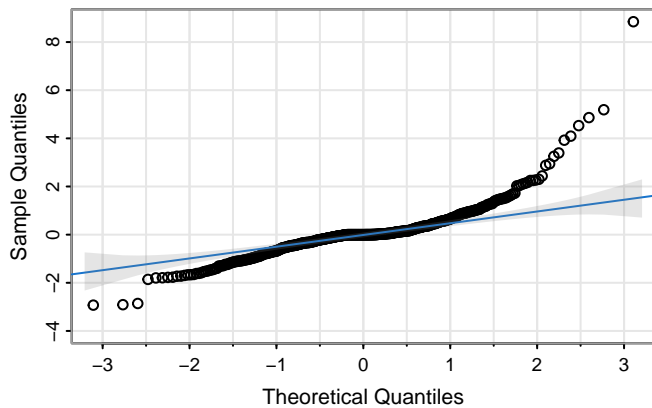
### Standardized Residuals



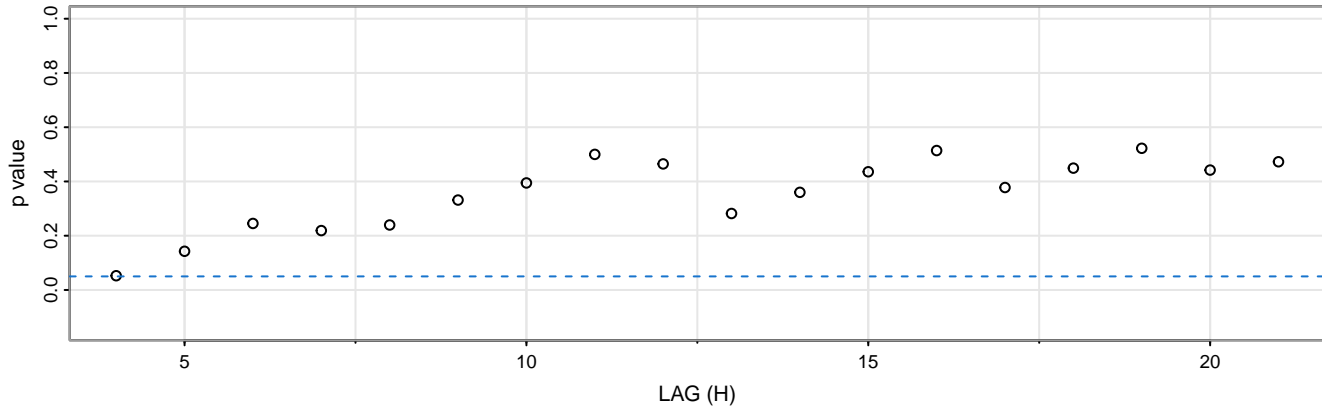
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals

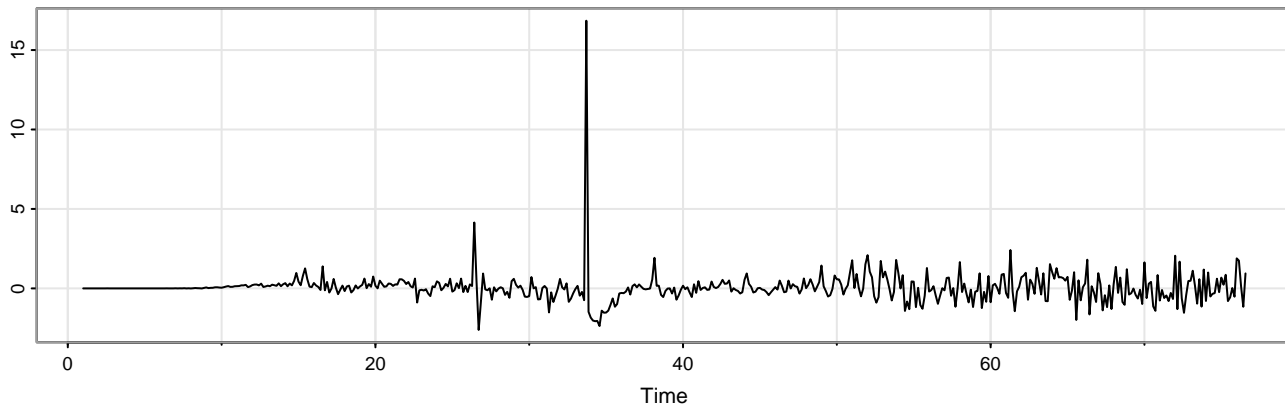


### p values for Ljung-Box statistic

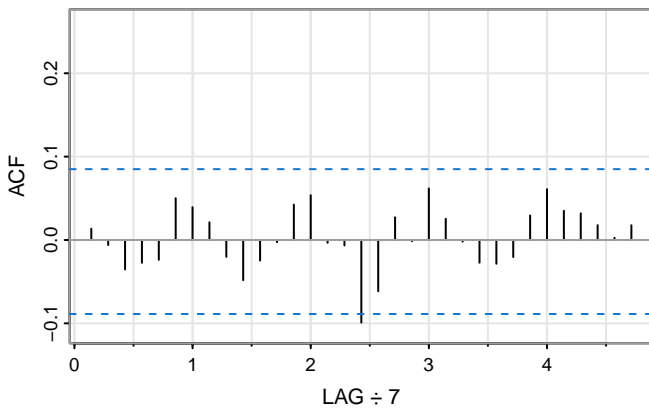


Model: ( 1,2,2 )

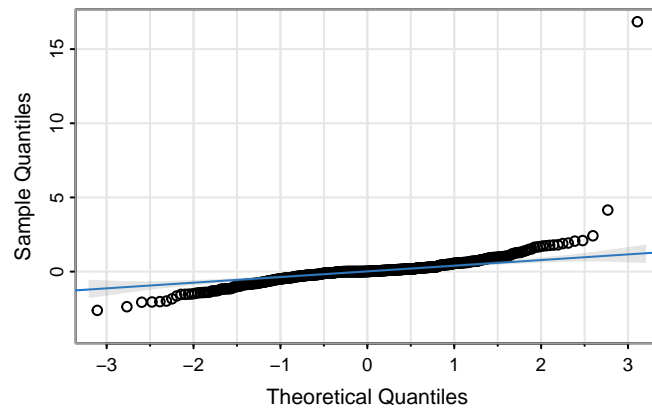
### Standardized Residuals



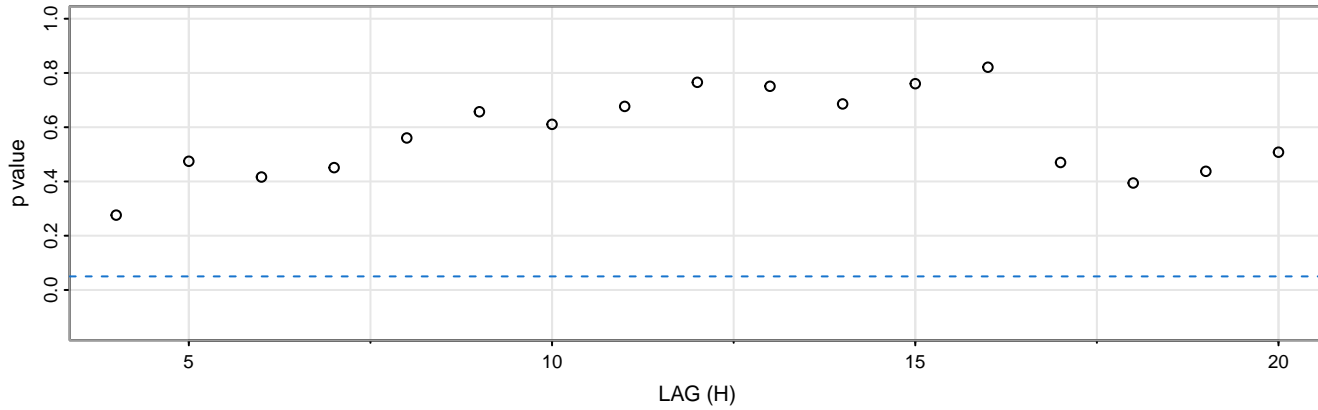
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals

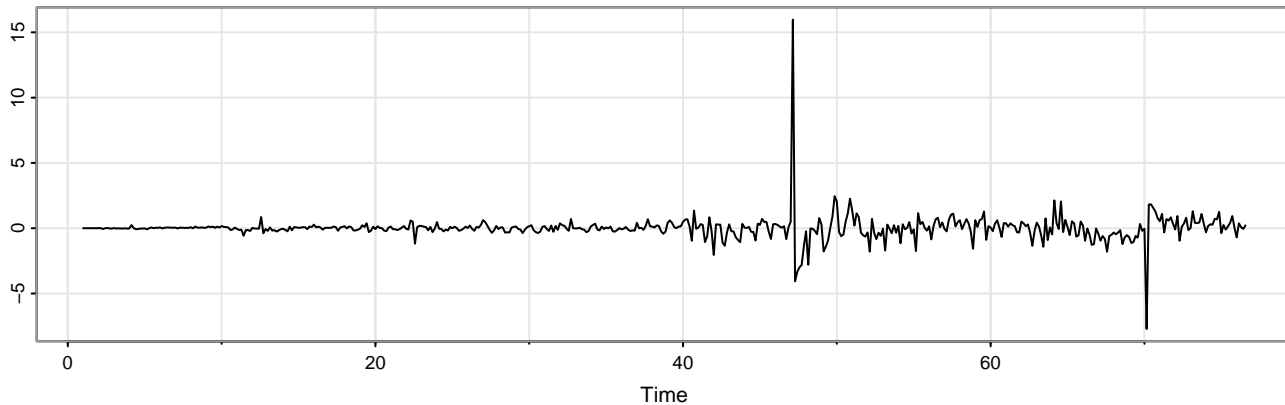


### p values for Ljung-Box statistic

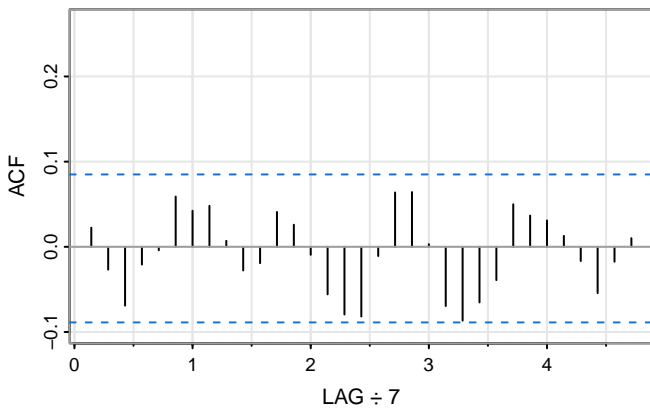


Model:  $(0,3,2) \times (0,1,1)_7$

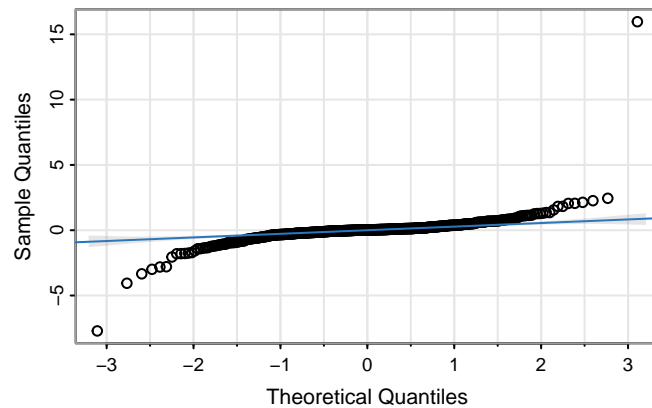
### Standardized Residuals



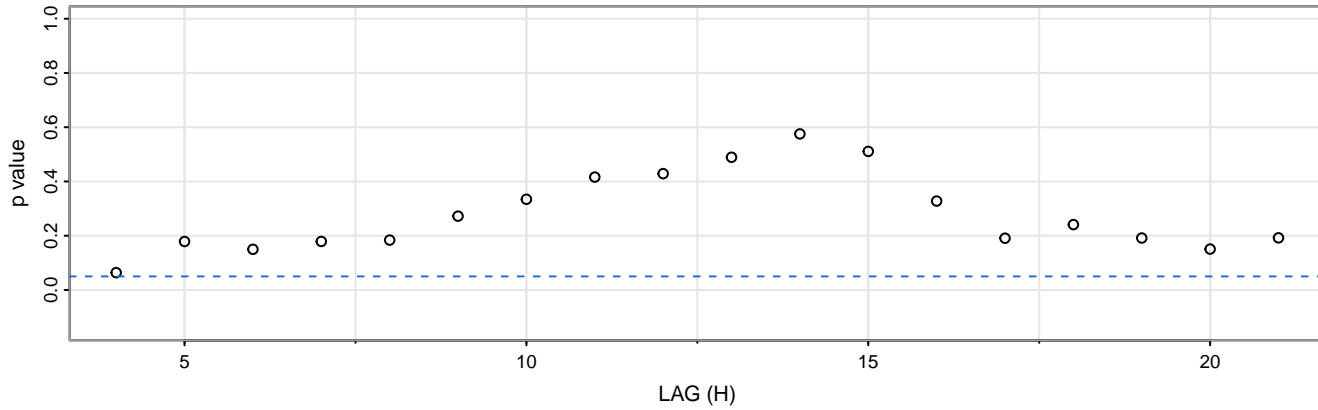
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals

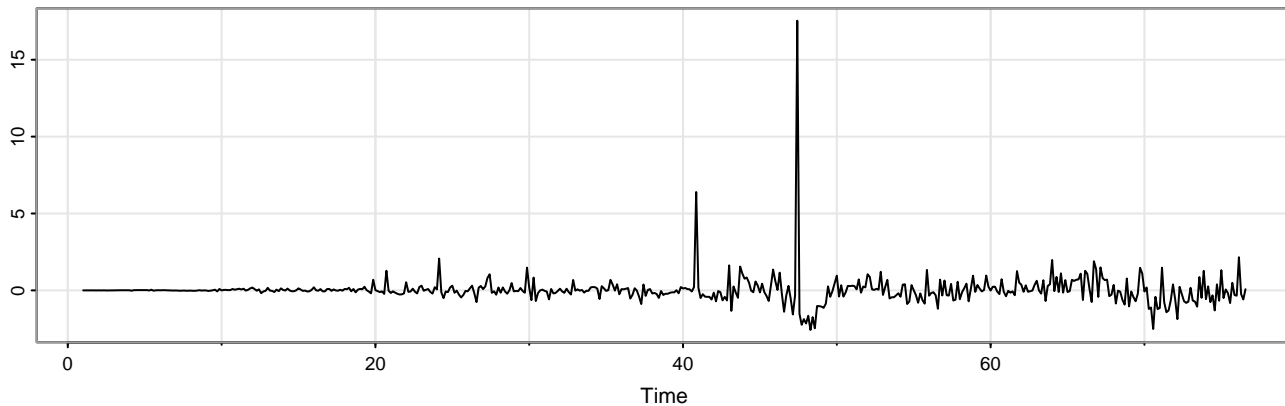


### p values for Ljung-Box statistic

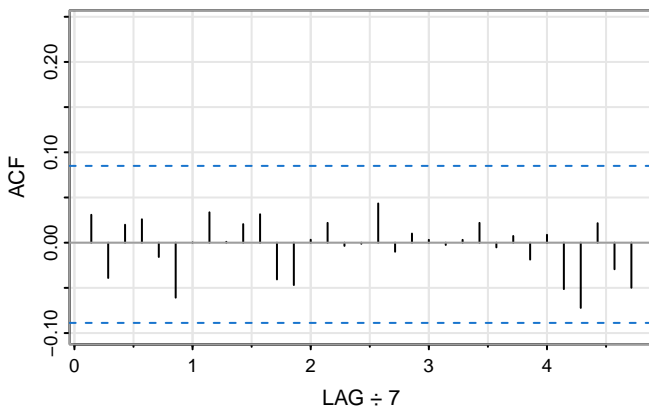


Model:  $(1,2,2) \times (0,0,2)_7$

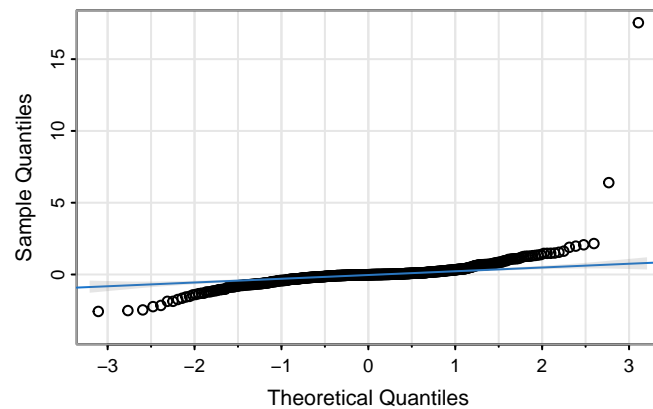
### Standardized Residuals



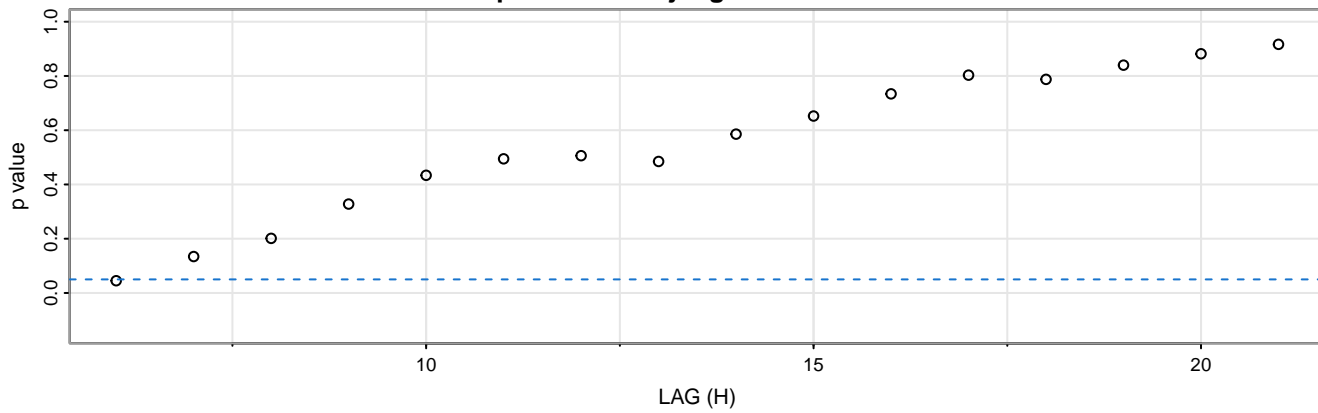
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals

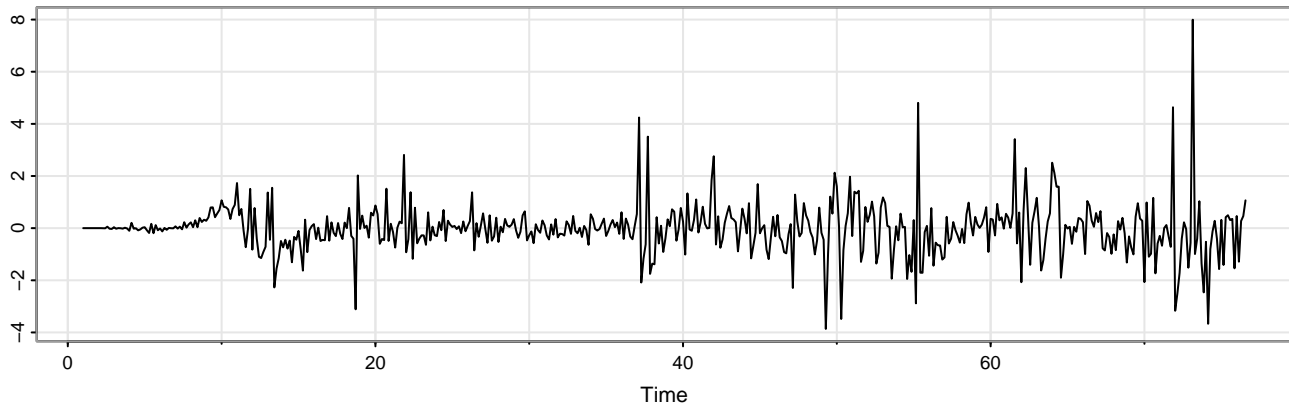


### p values for Ljung-Box statistic

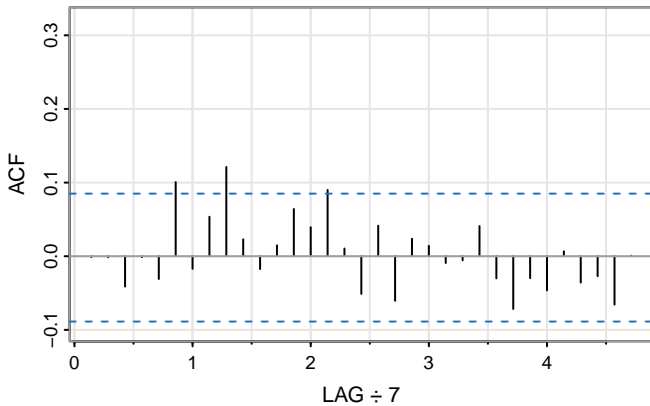


Model:  $(0,2,2) \times (0,1,1)_7$

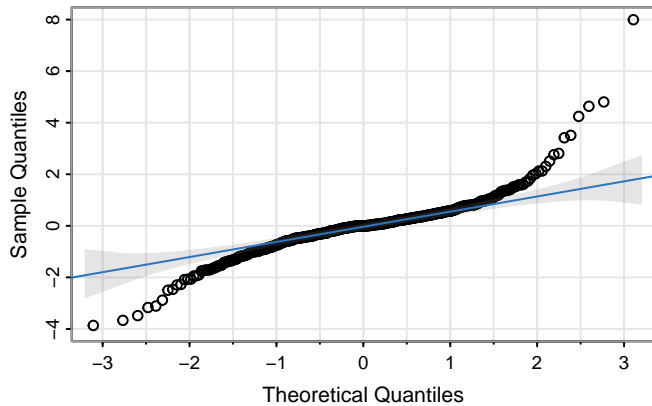
### Standardized Residuals



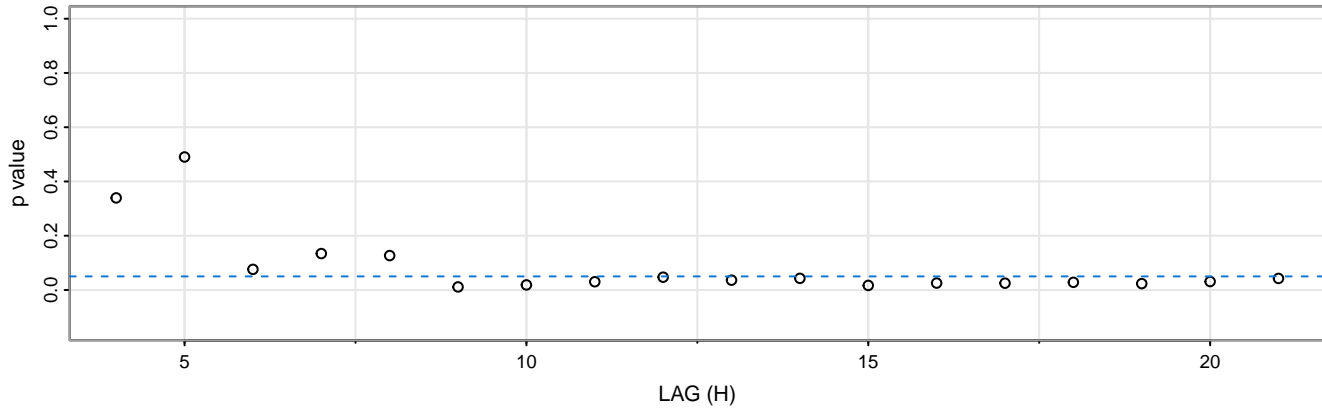
### ACF of Residuals



### Normal Q-Q Plot of Std Residuals



### p values for Ljung-Box statistic





confirmed\_ts\_developed

9.0e+07  
1.0e+08  
1.1e+08  
1.2e+08  
1.3e+08  
1.4e+08

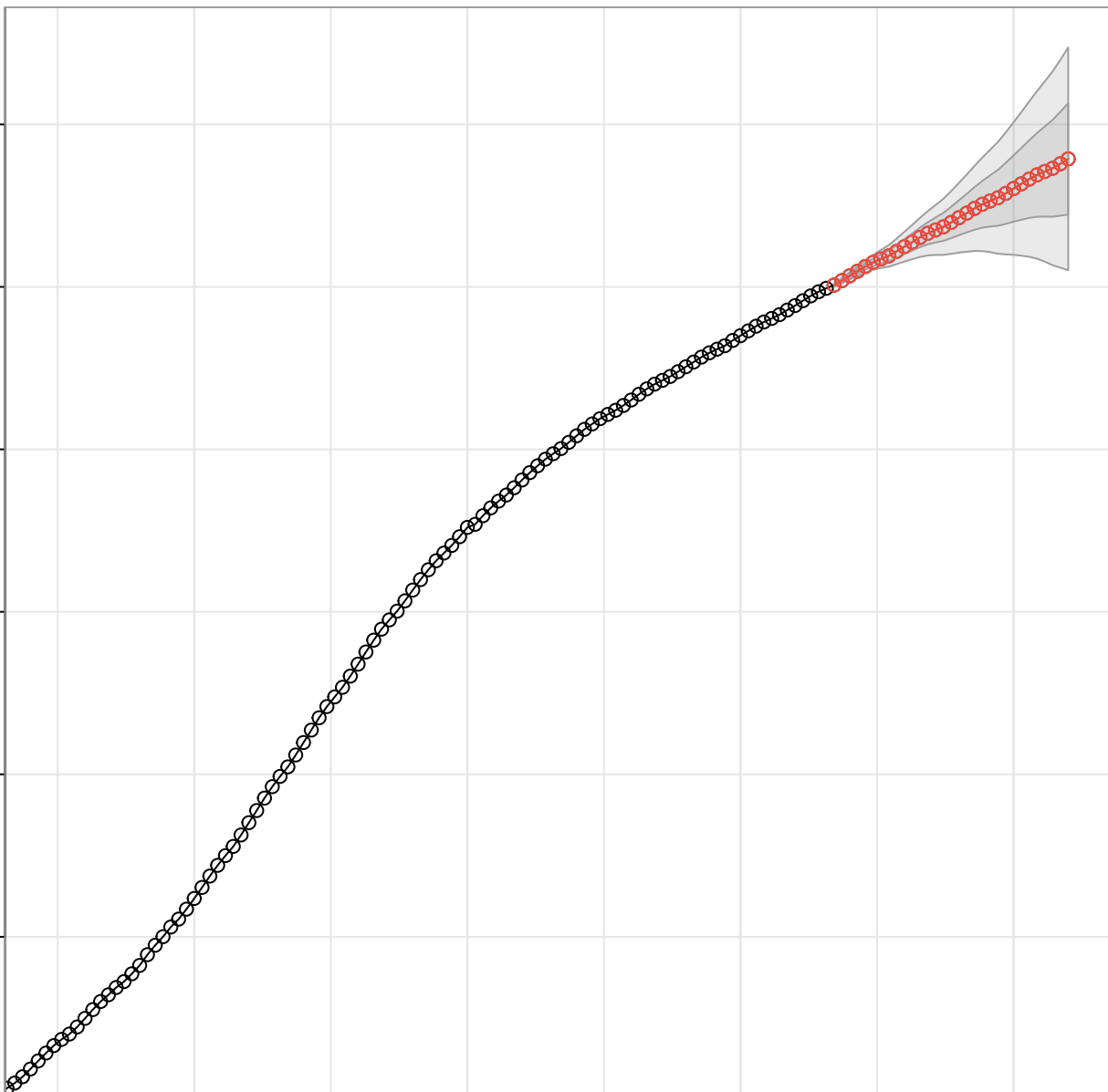
65

70

75

80

Time



confirmed\_ts\_undeveloped

2.0e+07

1.8e+07

1.6e+07

1.4e+07

1.2e+07

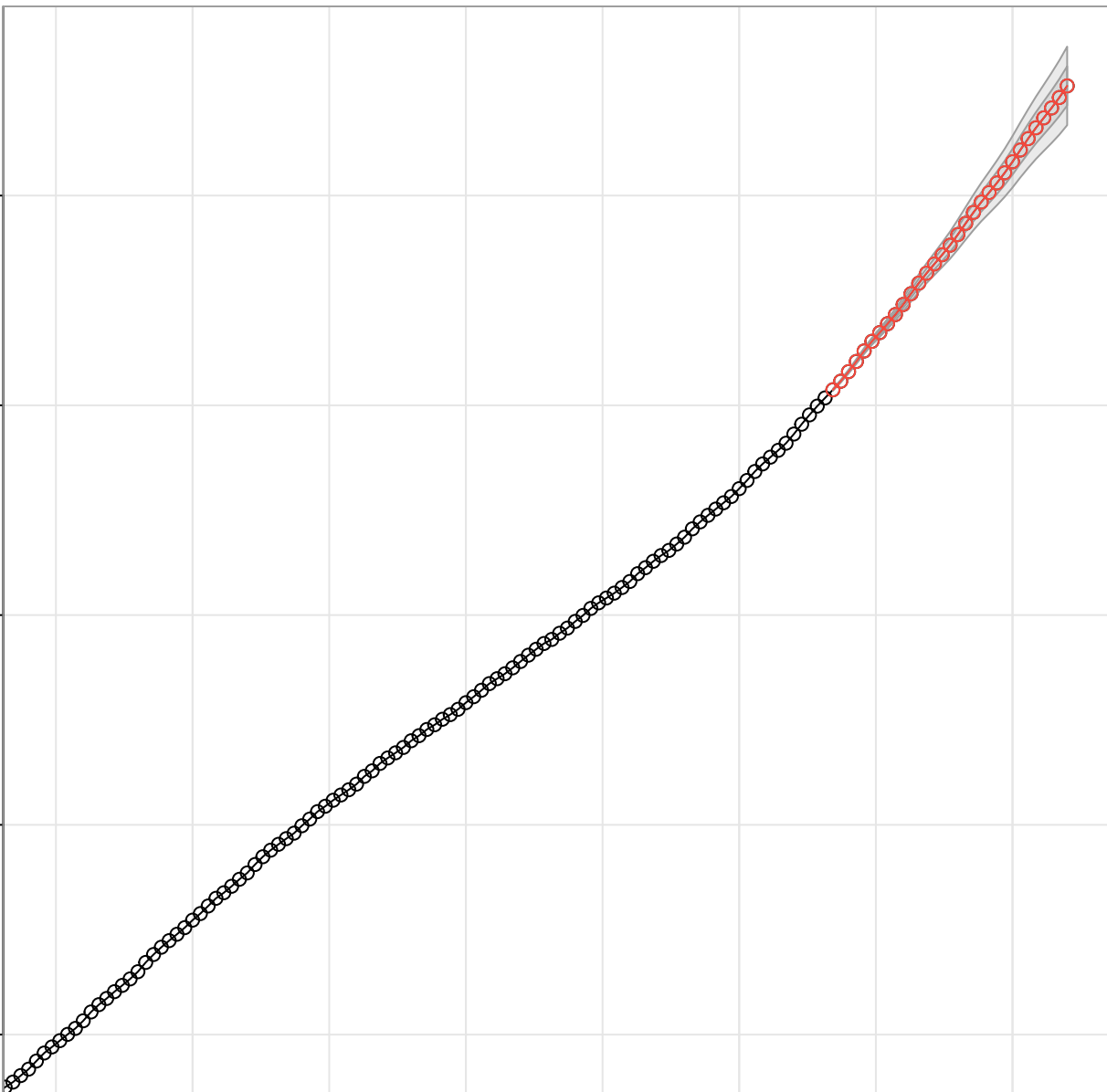
65

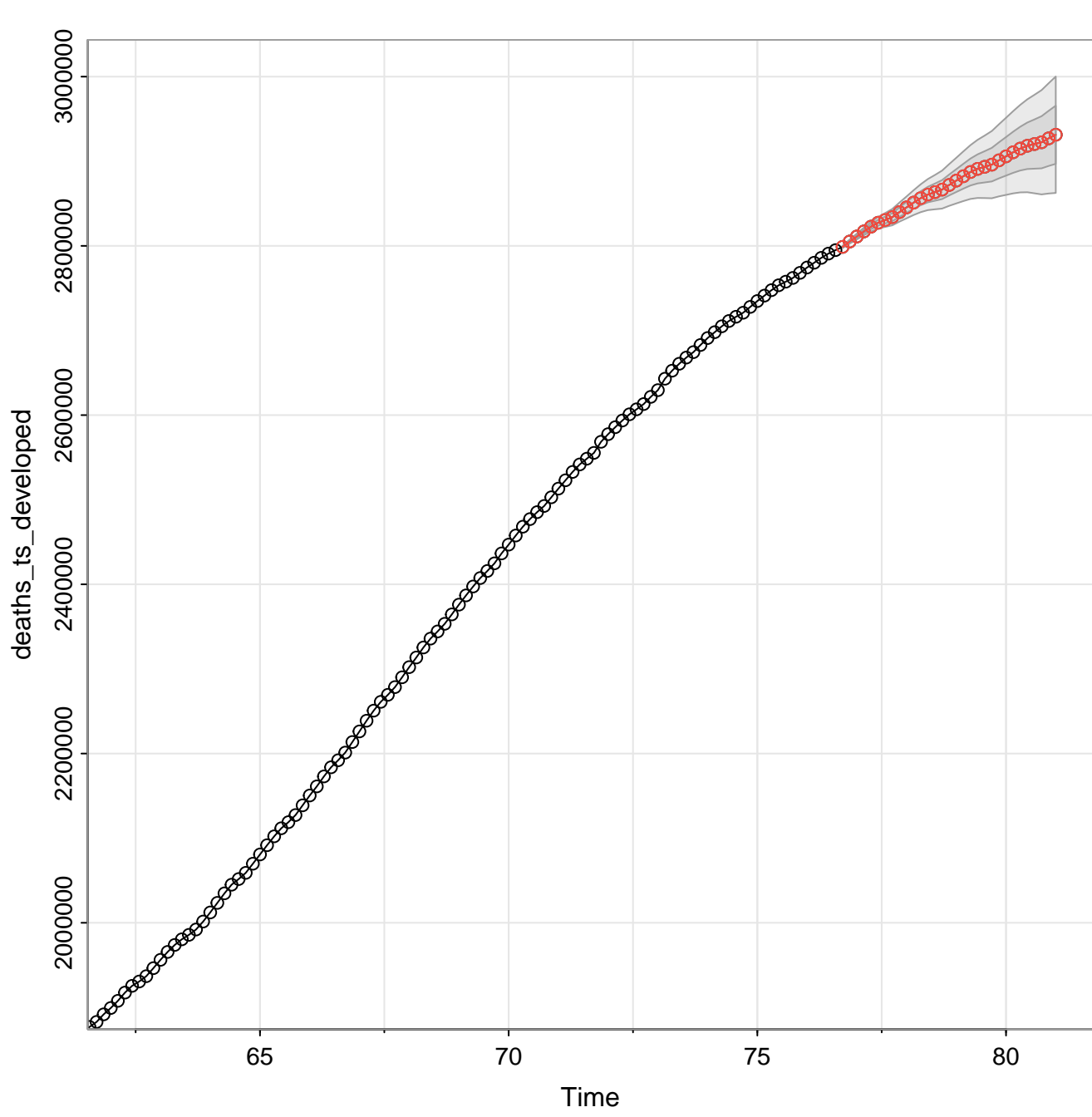
70

75

80

Time





deaths\_ts\_undeveloped

Time

600000

550000

500000

450000

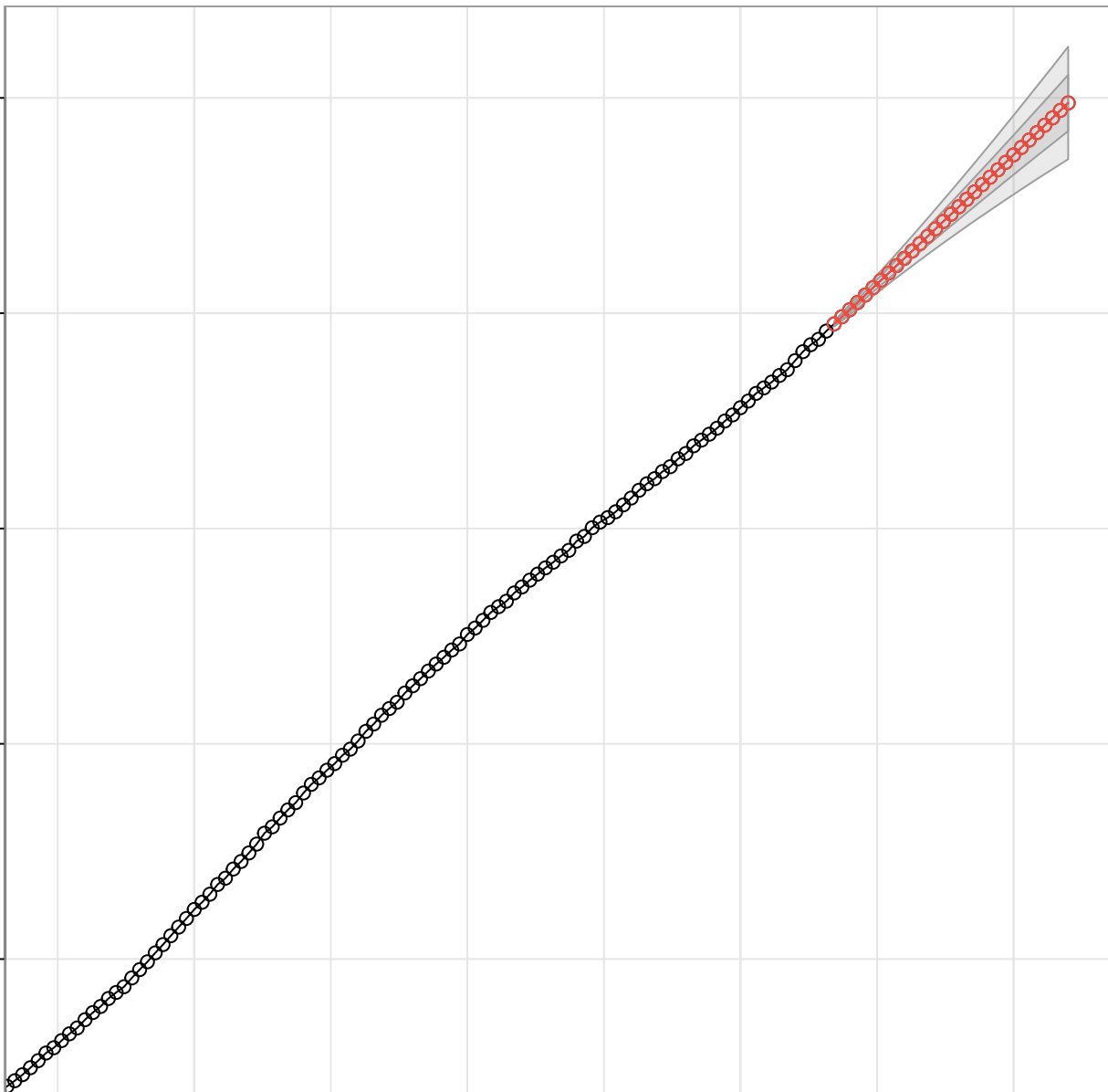
400000

65

70

75

80



recovered\_ts\_developed

6.0e+07  
7.0e+07  
8.0e+07  
9.0e+07  
1.0e+08  
1.1e+08

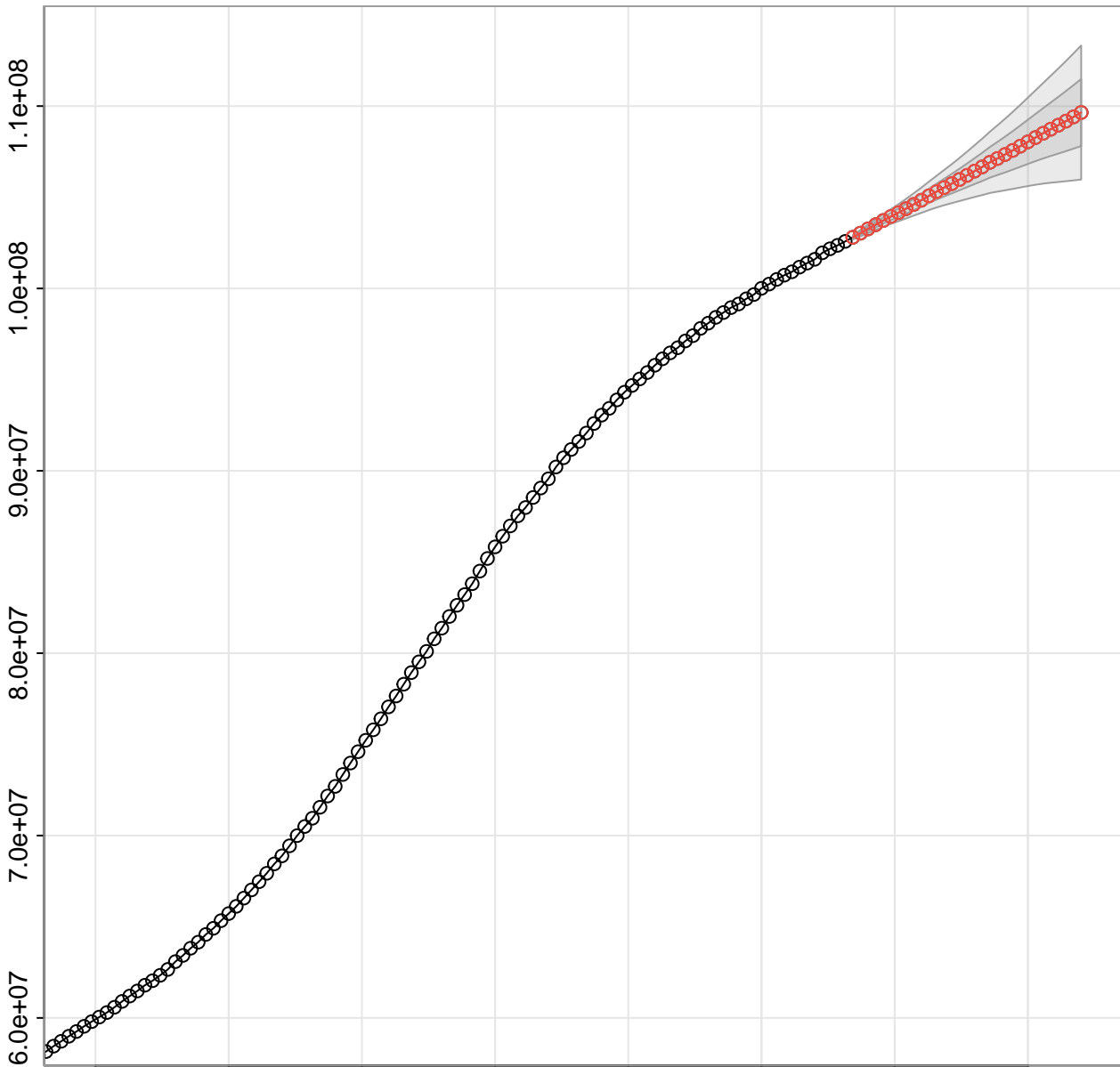
65

70

75

80

Time



recovered\_ts\_undeveloped

1.2e+07  
1.4e+07  
1.6e+07  
1.8e+07

Time

65

70

75

80

