US Unemployment Trends

Initial Model Selection

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STAT 626: Time Series Analysis

Unemployment Trends
Group 4
Outline
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Outline

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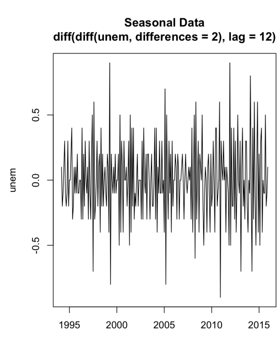
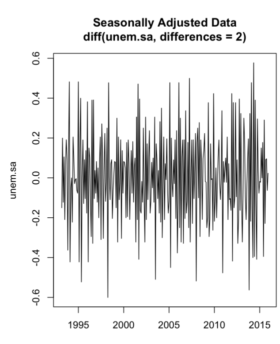
Second differences with and without seasonal adjustments





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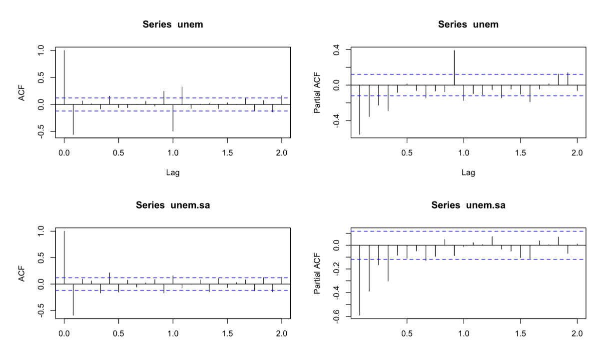
ACF & PACF Plots

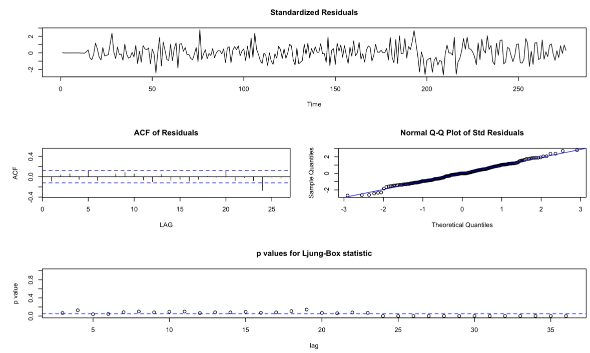


Models Considered

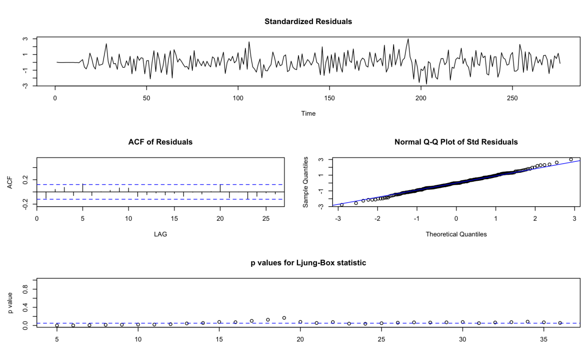
Table: Model Summaries

#	Data	Order	Seasonal Order	XRegs	AIC	BIC
1	Unem	0,2,1	1,1,0	N	-2.27	-3.23
2	Unem	0,2,1	3,1,0	N	-2.44	-3.37
3	Unem	4,2,1	3,1,0	N	-2.44	-3.32
4	Unem.sa	0,2,1	1,0,0	N	-2.61	-3.58
5	Unem.sa	1,2,1		N	-2.63	-3.60
6	Unem.sa	0,2,1	1,0,0	Y	-2.58	-3.49
7	Unem.sa	1,2,1		Y	-2.60	-3.49

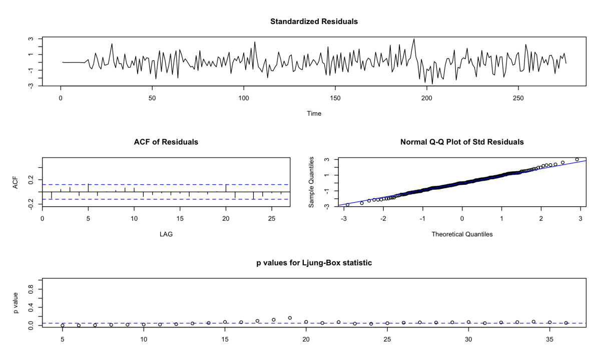
Model 1: SARIMA$(0,2,1) \times (1,1,0)_{12}$



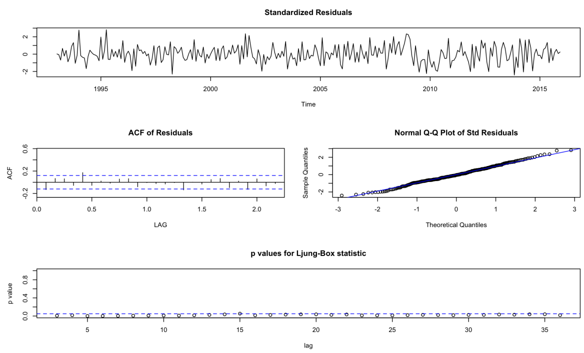
Model 2: SARIMA$(0,2,1) \times (3,1,0)_{12}$



Model 3: SARIMA$(4,2,1) \times (3,1,0)_{12}$



Model 4: SARIMA$(0, 2, 1) \times (1, 0, 0)_{12}$



Model 5: ARIMA$(1, 2, 1)$

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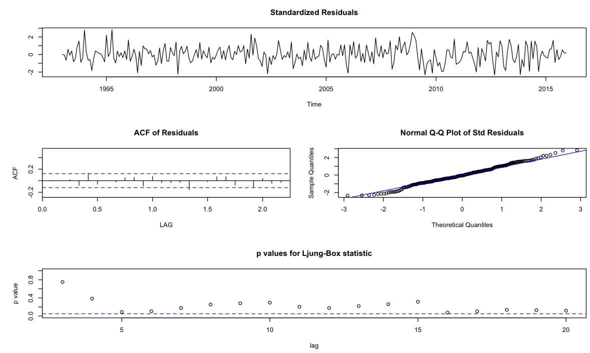

Model 6: SARIMA$(0, 2, 1) \times (1, 0, 0)_{12}$ with Regressors

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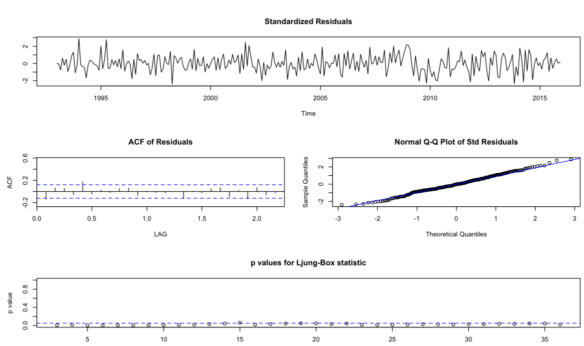

Model 7: ARIMA$(1, 2, 1)$ with Regressors

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