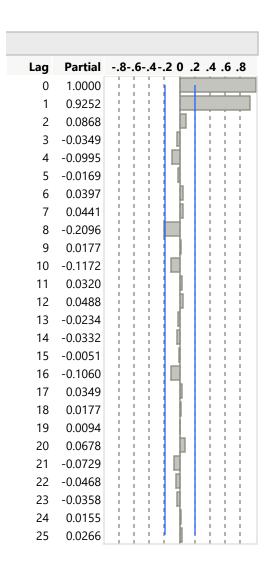


Mean	6.1045339
Std	1.7178333
N	98
Zero Mean ADF	0.5750817
Single Mean ADF	-3.567047
Trend ADF	-2.597504

Time Series Basic Diagnostics

0 1.0000 1 0.9252 2 0.8684 3 0.8090 4 0.7404 5 0.6772 6 0.6237 7 0.5783 8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087 25 -0.1233	Lag	AutoCorr	8642 0 .2 .4 .6 .8	Ljung-Box Q	o-Value
1 0.9252 2 0.8684 3 0.8090 4 0.7404 5 0.6772 6 0.6237 7 0.5783 8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	0	1.0000			
3	1	0.9252		86.4745	<.0001*
3 0.8090 230.979 0.0001* 4 0.7404 288.135 0.0001* 5 0.6772 336.458 0.0001* 6 0.6237 377.896 0.0001* 7 0.5783 413.913 0.0001* 8 0.5063 441.822 0.0001* 9 0.4505 464.170 0.0001* 10 0.3808 480.323 0.0001* 12 0.2724 500.339 0.0001* 13 0.2251 506.181 0.0001* 14 0.1823 510.056 0.0001* 15 0.1407 512.395 0.0001* 16 0.0930 513.429 0.0001* 17 0.0498 513.729 0.0001* 18 0.0166 513.780 0.0001* 20 -0.0267 513.869 0.0001* 21 -0.0459 514.701 0.0001* 22 -0.0661 514.701 0.0001* 23 -0.0911 515.786 0.0001* 515.786	2	0.8684		163.462	<.0001*
4 0.7404 5 0.6772 6 0.6237 7 0.5783 8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	3	0.8090	i i /ı i	230.979	<.0001*
5 0.6772 6 0.6237 7 0.5783 8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	4	0.7404	1 1/1 1 1	288.135	<.0001*
6 0.6237 7 0.5783 8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	5	0.6772	1 1 1 1	336.458	<.0001*
8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	6	0.6237		377.896	<.0001*
8 0.5063 9 0.4505 10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	7	0.5783		413.913	<.0001*
10 0.3808 11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	8	0.5063		441.822	<.0001*
11 0.3204 12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	9	0.4505		464.170	<.0001*
11 0.3204 491.885 <.0001*	10	0.3808		480.323	<.0001*
12 0.2724 13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	11	0.3204		491.885	<.0001*
13 0.2251 14 0.1823 15 0.1407 16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087	12	0.2724	i i i i i i i i i	500.339	<.0001*
14 0.1823 510.056 <.0001*	13	0.2251		506.181	<.0001*
15	14	0.1823		510.056	<.0001*
16 0.0930 17 0.0498 18 0.0166 19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087 513.429 <.0001*	15	0.1407	i i i i <u> </u> i i i i i	512.395	<.0001*
17 0.0498 513.729 <.0001*	16	0.0930	- i i i i i i i i	513.429	<.0001*
18	17	0.0498		513.729	<.0001*
19 -0.0120 20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087 513.780 <.0001* 514.137 <.0001* 514.701 <.0001* 515.786 <.0001* 517.351 <.0001*	18	0.0166		513.762	<.0001*
20 -0.0267 21 -0.0459 22 -0.0661 23 -0.0911 24 -0.1087 513.869 <.0001* 514.137 <.0001* 514.701 <.0001* 515.786 <.0001* 517.351 <.0001*	19	-0.0120		513.780	<.0001*
21 -0.0459	20	-0.0267		513.869	<.0001*
22 -0.0661 23 -0.0911 515.786 <.0001* 24 -0.1087 517.351 <.0001*	21	-0.0459		514.137	<.0001*
23 -0.0911	22	-0.0661		514.701	<.0001*
24 -0.1087	23	-0.0911	i i i i i i i i i i i	515.786	<.0001*
	24	-0.1087		517.351	<.0001*
	25	-0.1233		519.393	<.0001*



Model Comparison

Report	Graph	Model	DF	Variance	AIC	SBC	RSquare	-2LogLH	Weights
✓		— ARI(1, 1)	95	0.1188867	70.861127	76.010549	0.956	66.861127	0.453321
✓		— ARI(3, 1)	93	0.1164455	70.872770	81.171614	0.958	62.87277	0.450690
		— ARI(5, 1)	91	0.117851	73.965844	89.414110	0.959	61.965844	0.095990

Difference: (1-B)^1 1.5 0.0593701 Mean Std 0.3736233 1.0 Ν 97 0.5 Zero Mean ADF -14.4173 0.0 Single Mean ADF -14.93654 -0.5 Trend ADF -16.76399 -1.0 2020-03-01 2020-04-01 2020-06-01 2020-05-01

date

8					
6.100211 0.243579 98 4 2- 1- 0 2020-03-01 2020-05-01 2020-07-01 date 1.0 0.5 0.0 -0.5 -0.5	date 1.0 -0.5 -0.0 -0.5	7-6-6-6-5-4-3-2020-03-01 1.0 0.5-0.0	0.241757	6.124012	
	15 20 0 5 10 15 20	-1.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			

Difference: (1-B)^1

Lag	AutoCorr	8642 0 .2 .4 .6 .8	Ljung-Box Q	p-Value
0	1.0000			
1	-0.4071		16.5773	<.0001*
2	0.3178		26.7876	<.0001*
3	-0.1112		28.0500	<.0001*
4	0.1470		30.2817	<.0001*
5	-0.0707		30.8038	<.0001*
6	0.2661		38.2787	<.0001*
7	0.0935		39.2110	<.0001*
8	0.1324		41.1014	<.0001*
9	0.0866		41.9195	<.0001*
10	-0.0428		42.1215	<.0001*
11	-0.0209		42.1701	<.0001*
12	0.0701		42.7247	<.0001*
13	0.0929		43.7116	<.0001*
14	0.1072		45.0409	<.0001*
15	0.1148		46.5846	<.0001*
16	-0.0367		46.7440	<.0001*
17	-0.0568		47.1312	0.0001*
18	0.0347		47.2779	0.0002*
19	-0.0630		47.7669	0.0003*
20	0.0715		48.4051	0.0004*
21	0.0587		48.8404	0.0005*
22	0.1098		50.3829	0.0005*
23	-0.1020		51.7325	0.0005*
24	-0.0020		51.7331	0.0008*
25	-0.0538		52.1186	0.0012*

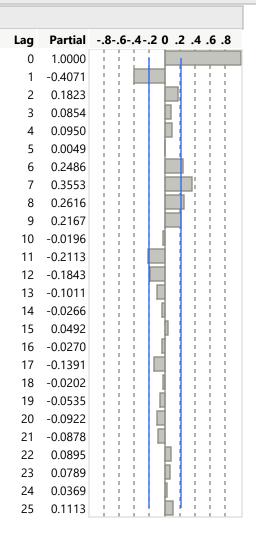
Model: ARI(1, 1)

Model Summary

DF	95	Stable	Yes
Sum of Squared Errors	11.2942369	Invertible	Yes
Variance Estimate	0.1188867		
Standard Deviation	0.34479951		
Akaike's 'A' Information Criterion	70.8611273		
Schwarz's Bayesian Criterion	76.0105493		
RSquare	0.95649287		
RSquare Adj	0.9560349		
MAPE	6.19220365		
MAE	0.24566594		
-2LogLikelihood	66.8611273		

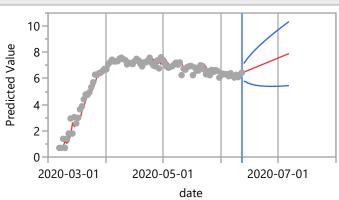
Parameter Estimates

						Constant	
Term	Lag	Estimate	Std Error	t Ratio	Prob> t	Estimate	Mu
AR1	1	-0.4034265	0.0921269	-4.38	<.0001*	0.08310023	0.05921238
Intercept	0	0.0592124	0.0247591	2.39	0.0187*		



Model: ARI(1, 1)





Model: ARI(5, 1)

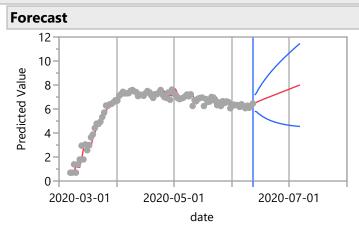
Model Summa	arv
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DF	91	Stable	Yes
Sum of Squared Errors	10.7244452	Invertible	Yes
Variance Estimate	0.11785105		
Standard Deviation	0.3432944		
Akaike's 'A' Information Criterion	73.965844		
Schwarz's Bayesian Criterion	89.4141099		
RSquare	0.95859744		
RSquare Adj	0.95632258		
MAPE	6.10021108		
MAE	0.24357875		
-2LogLikelihood	61.965844		

Parameter Estimates

						Constant	
Term	Lag	Estimate	Std Error	t Ratio	Prob> t	Estimate	Mu
AR1	1	-0.3513983	0.1010664	-3.48	0.0008*	0.05781761	0.06132979
AR2	2	0.1889429	0.1066977	1.77	0.0799		
AR3	3	0.1092890	0.1090751	1.00	0.3190		
AR4	4	0.1008063	0.1067879	0.94	0.3477		
AR5	5	0.0096271	0.0917535	0.10	0.9167		
Intercept	0	0.0613298	0.0355274	1.73	0.0877		

Model: ARI(5, 1)



Model: ARI(3, 1)

Model Summary			
DF	93	Stable	Yes
Sum of Squared Errors	10.8294358	Invertible	Yes
Variance Estimate	0.11644555		
Standard Deviation	0.34124119		
Akaike's 'A' Information Criterion	70.8727697		
Schwarz's Bayesian Criterion	81.1716137		
RSquare	0.95821794		
RSquare Adj	0.95687013		
MAPE	6.12401153		
MAE	0.24175669		
-2LogLikelihood	62.8727697		

Parameter Estimates

						Constant	
Term	Lag	Estimate	Std Error	t Ratio	Prob> t	Estimate	Mu
AR1	1	-0.3434766	0.1009946	-3.40	0.0010*	0.06379767	0.06070783
AR2	2	0.2107887	0.1048515	2.01	0.0473*		
AR3	3	0.0817908	0.1029938	0.79	0.4291		
Intercept	0	0.0607078	0.0322013	1.89	0.0625		



