The SAS System

The AUTOREG Procedure

Dependent Variable	return

The SAS System

The AUTOREG Procedure

Ordinary Least Squares Estimates			
SSE	0.64491032	**DFE**	1509
MSE	0.0004274	**Root MSE**	0.02067
SBC	-7422.8343	**AIC**	-7428.1541
MAE	0.01447432	**AICC**	-7428.1515
MAPE	115.633514	**HQC**	-7426.1729
Durbin-Watson	2.2221	**Total R-Square**	0.0000

Parameter Estimates

Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
Intercept	1	0.001001	0.000532	1.88	0.0600

Algorithm converged.

The SAS System

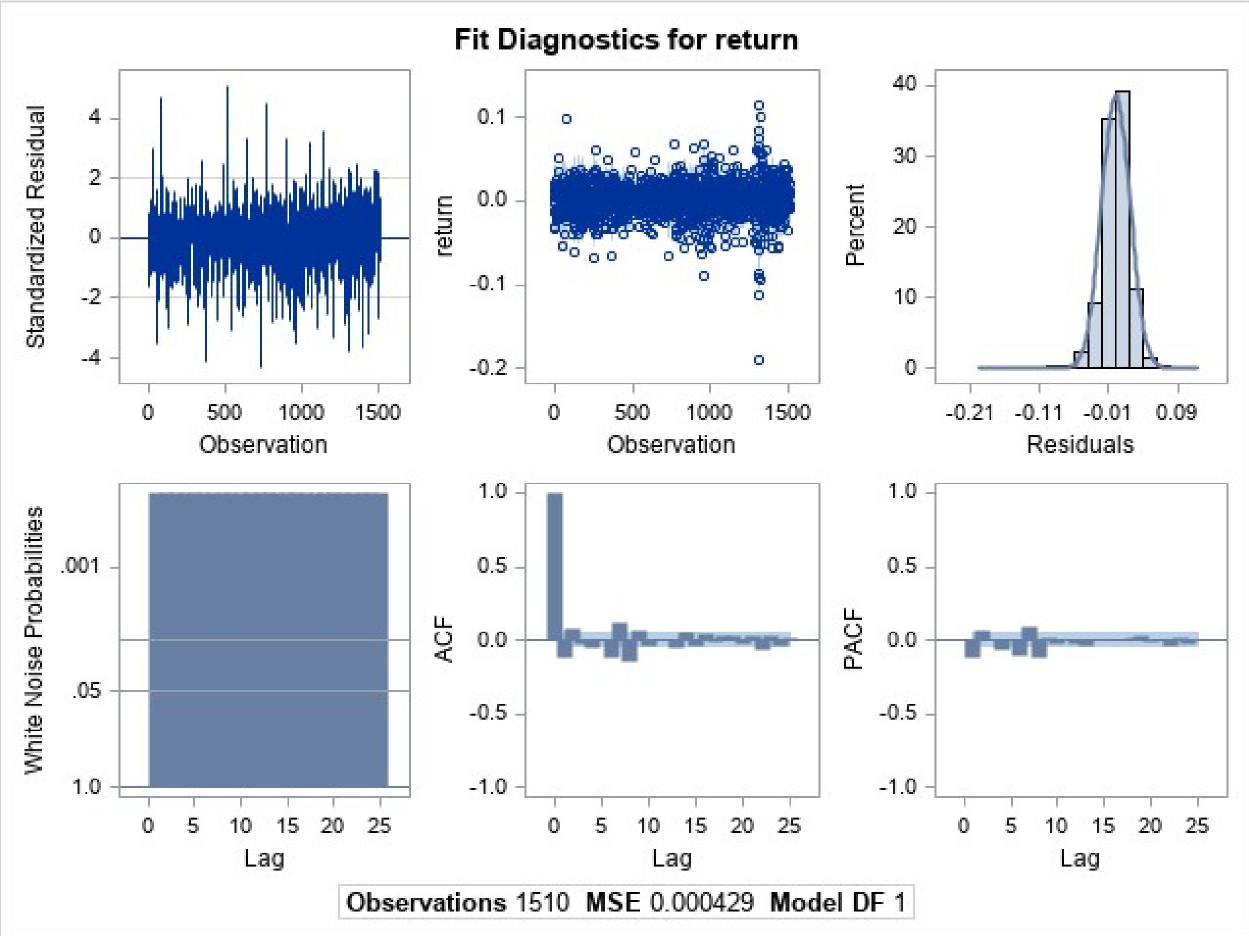
The AUTOREG Procedure

Exponential GARCH Estimates			
SSE	0.64513263	**Observations**	1510
MSE	0.0004272	**Uncond Var**	.
Log Likelihood	3887.23444	**Total R-Square**	.
SBC	-7737.8696	**AIC**	-7764.4689
MAE	0.01449064	**AICC**	-7764.429
MAPE	108.348373	**HQC**	-7754.563
		Normality Test	267.5311
		Pr > ChiSq	<.0001

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**
Intercept	1	0.000618	0.000467	1.32	0.1863
EARCH0	1	-0.2360	0.0479	-4.92	<.0001
EARCH1	1	0.1126	0.0158	7.11	<.0001
EGARCH1	1	0.9697	0.006032	160.77	<.0001
THETA	1	-0.8808	0.1711	-5.15	<.0001

The SAS System

The AUTOREG Procedure



The SAS System

The AUTOREG Procedure

Dependent Variable	return

The SAS System

The AUTOREG Procedure

Ordinary Least Squares Estimates			
SSE	0.64491032	**DFE**	1509
MSE	0.0004274	**Root MSE**	0.02067
SBC	-7422.8343	**AIC**	-7428.1541
MAE	0.01447432	**AICC**	-7428.1515
MAPE	115.633514	**HQC**	-7426.1729
Durbin-Watson	2.2221	**Total R-Square**	0.0000

Parameter Estimates

Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
Intercept	1	0.001001	0.000532	1.88	0.0600

ERROR: Convergence not attained in 50 iterations. Interpret the estimates with care.

The SAS System

The AUTOREG Procedure

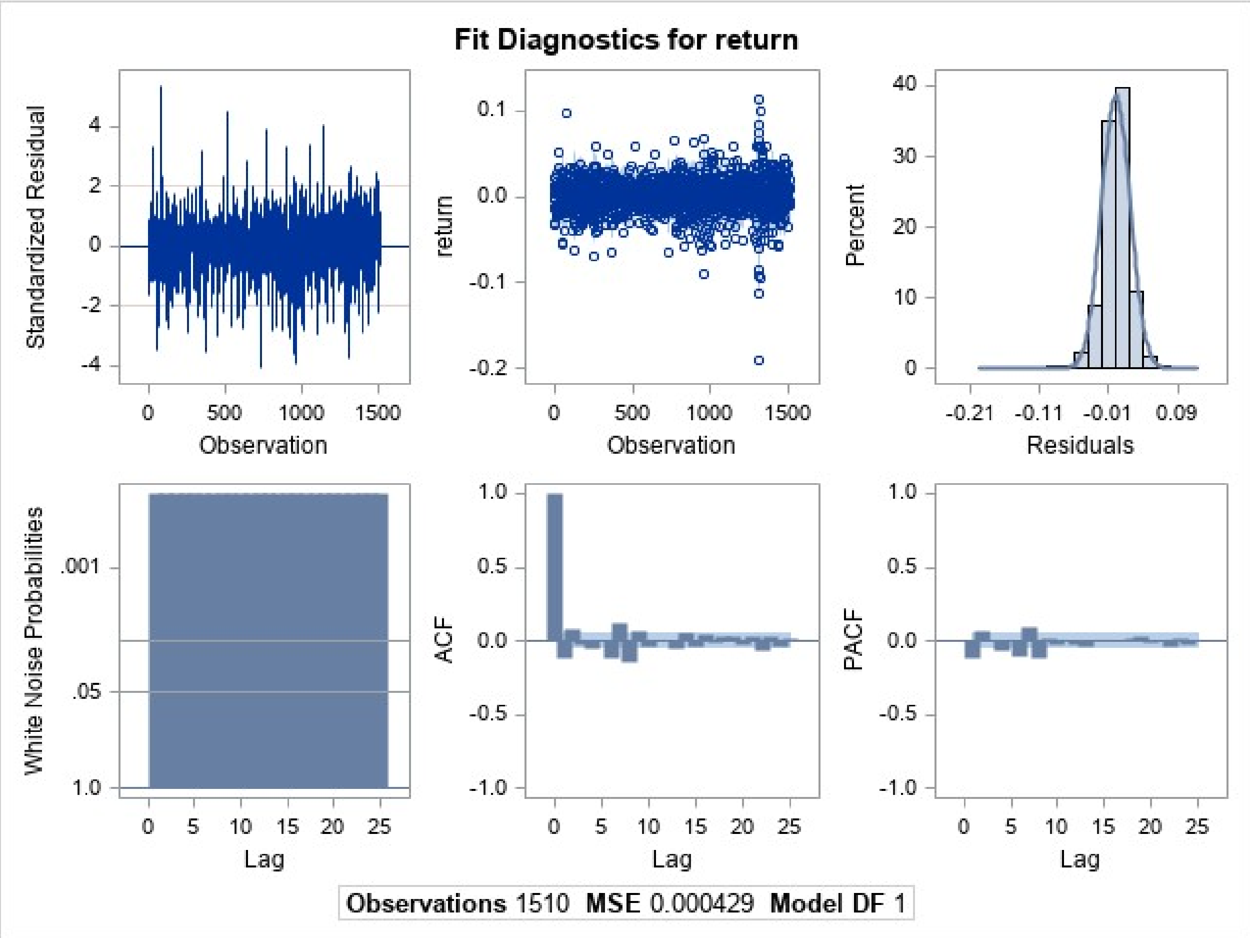
Exponential GARCH Estimates			
SSE	0.64526015	**Observations**	1510
MSE	0.0004273	**Uncond Var**	.
Log Likelihood	3872.34354	**Total R-Square**	.
SBC	-7693.448	**AIC**	-7730.6871
MAE	0.01449569	**AICC**	-7730.6125
MAPE	106.635679	**HQC**	-7716.8188
		Normality Test	239.5240
		Pr > ChiSq	<.0001

Parameter Estimates

Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
Intercept	1	0.000520	0.000460	1.13	0.2586
EARCH0	1	-0.8203	0.1774	-4.62	<.0001
EARCH1	1	0.2051	0.0233	8.80	<.0001
EARCH2	1	0.2071	0.0244	8.49	<.0001
EGARCH1	1	-0.0555	0.0106	-5.24	<.0001
EGARCH2	1	0.9502	0.0119	79.85	<.0001
THETA	1	-0.0316	0.0783	-0.40	0.6861

The SAS System

The AUTOREG Procedure



The SAS System

The AUTOREG Procedure

Dependent Variable	return

The SAS System

The AUTOREG Procedure

Ordinary Least Squares Estimates			
SSE	0.64491032	**DFE**	1509
MSE	0.0004274	**Root MSE**	0.02067
SBC	-7422.8343	**AIC**	-7428.1541
MAE	0.01447432	**AICC**	-7428.1515
MAPE	115.633514	**HQC**	-7426.1729
Durbin-Watson	2.2221	**Total R-Square**	0.0000

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**
Intercept	1	0.001001	0.000532	1.88	0.0600

ERROR: Convergence not attained in 50 iterations. Interpret the estimates with care.

The SAS System

The AUTOREG Procedure

Exponential GARCH Estimates			
SSE	0.64491162	**Observations**	1510
MSE	0.0004271	**Uncond Var**	.
Log Likelihood	3895.5375	**Total R-Square**	.
SBC	-7725.1962	**AIC**	-7773.075
MAE	0.01447323	**AICC**	-7772.955
MAPE	116.208185	**HQC**	-7755.2444
		Normality Test	201.9391
		Pr > ChiSq	<.0001

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**
Intercept	1	0.001031	0.000446	2.31	0.0208
EARCH0	1	-0.8285	0.1653	-5.01	<.0001
EARCH1	1	0.1101	0.0147	7.51	<.0001
EARCH2	1	0.1604	0.0213	7.54	<.0001
EARCH3	1	0.0950	0.0125	7.61	<.0001
EGARCH1	1	-0.4028	0.006002	-67.12	<.0001
EGARCH2	1	0.3346	0.008353	40.06	<.0001
EGARCH3	1	0.9643	0.006636	145.32	<.0001
THETA	1	-0.9831	0.1701	-5.78	<.0001

The SAS System

The AUTOREG Procedure