The CONTENTS Procedure

Data Set Name	WORK.IMPORT	**Observations**	274
Member Type	DATA	**Variables**	5
Engine	V9	**Indexes**	0
Created	05/09/2023 17:02:10	**Observation Length**	40
Last Modified	05/09/2023 17:02:10	**Deleted Observations**	0
Protection		**Compressed**	NO
Data Set Type		**Sorted**	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
Data Set Page Size	131072
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	3265
Obs in First Data Page	274
Number of Data Set Repairs	0
Filename	/saswork/SAS_workA3E70000E1F6_odaws04-usw2.oda.sas.com/SAS_workEF360000E1F6_odaws04-usw2.oda.sas.com/import.sas7bdat
Release Created	9.0401M7
Host Created	Linux
Inode Number	1610704794
Access Permission	rw-r--r--
Owner Name	u60818803
File Size	256KB
File Size (bytes)	262144

Alphabetic List of Variables and Attributes					
#	**Variable**	**Type**	**Len**	**Format**	**Label**
2	Consumer Price Index (1982-84=1)	Num	8	COMMA15.3	Consumer Price Index (1982-84=1)
5	FEDFUNDS	Num	8	15.2	FEDFUNDS
1	Month	Num	8	MMDDYY10.	Month
3	nomoil	Num	8	15.2	nomoil
4	realoil	Num	8	COMMA15.13	realoil
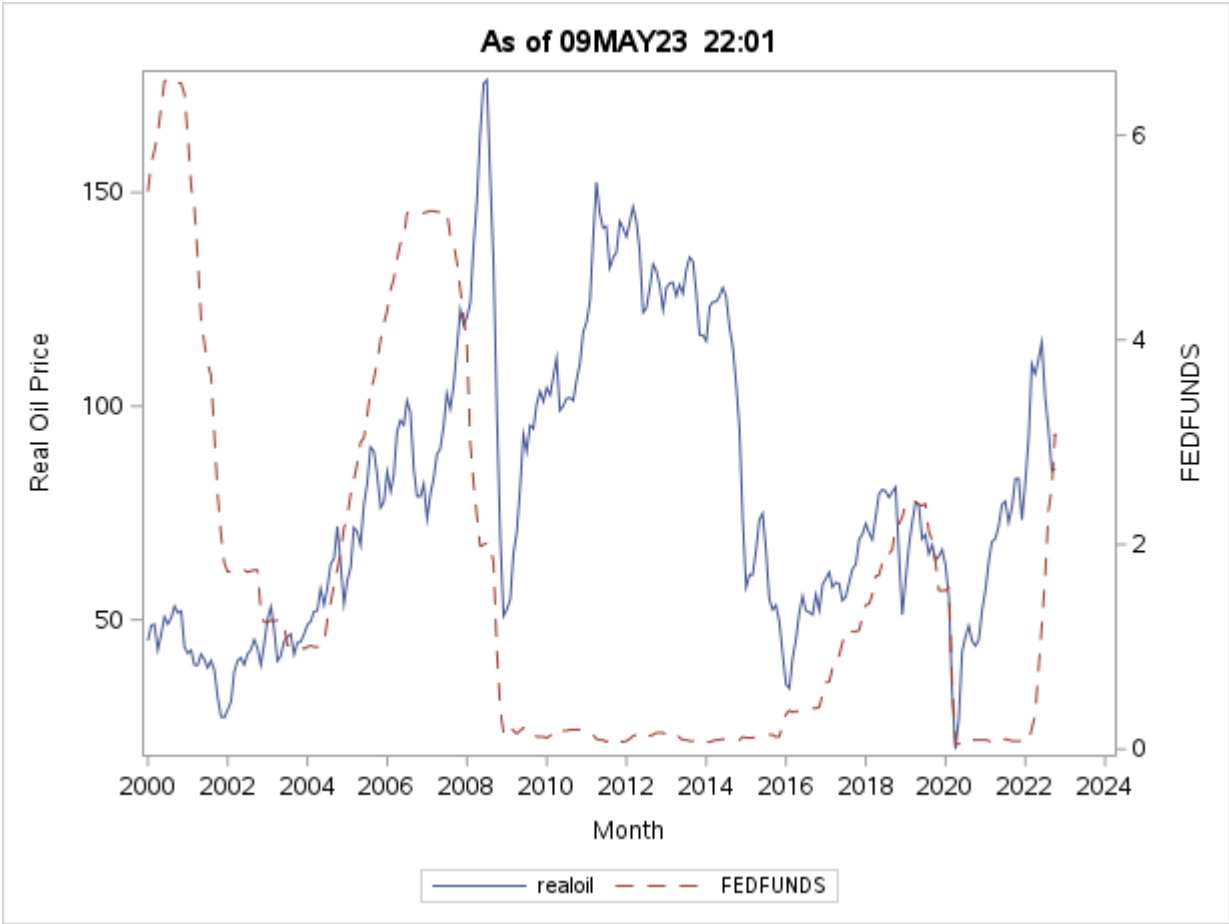
As of 09MAY23 22:01

Variable	Label	Mean	Std Dev	Minimum	Maximum	Median	N
realoil	realoil	80.1283134	33.8142687	19.7565494	176.3212699	72.7437814	274
FEDFUNDS	FEDFUNDS	1.6277007	1.8639047	0.0500000	6.5400000	1.0050000	274

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Distribution of realoil

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Distribution of FEDFUNDS
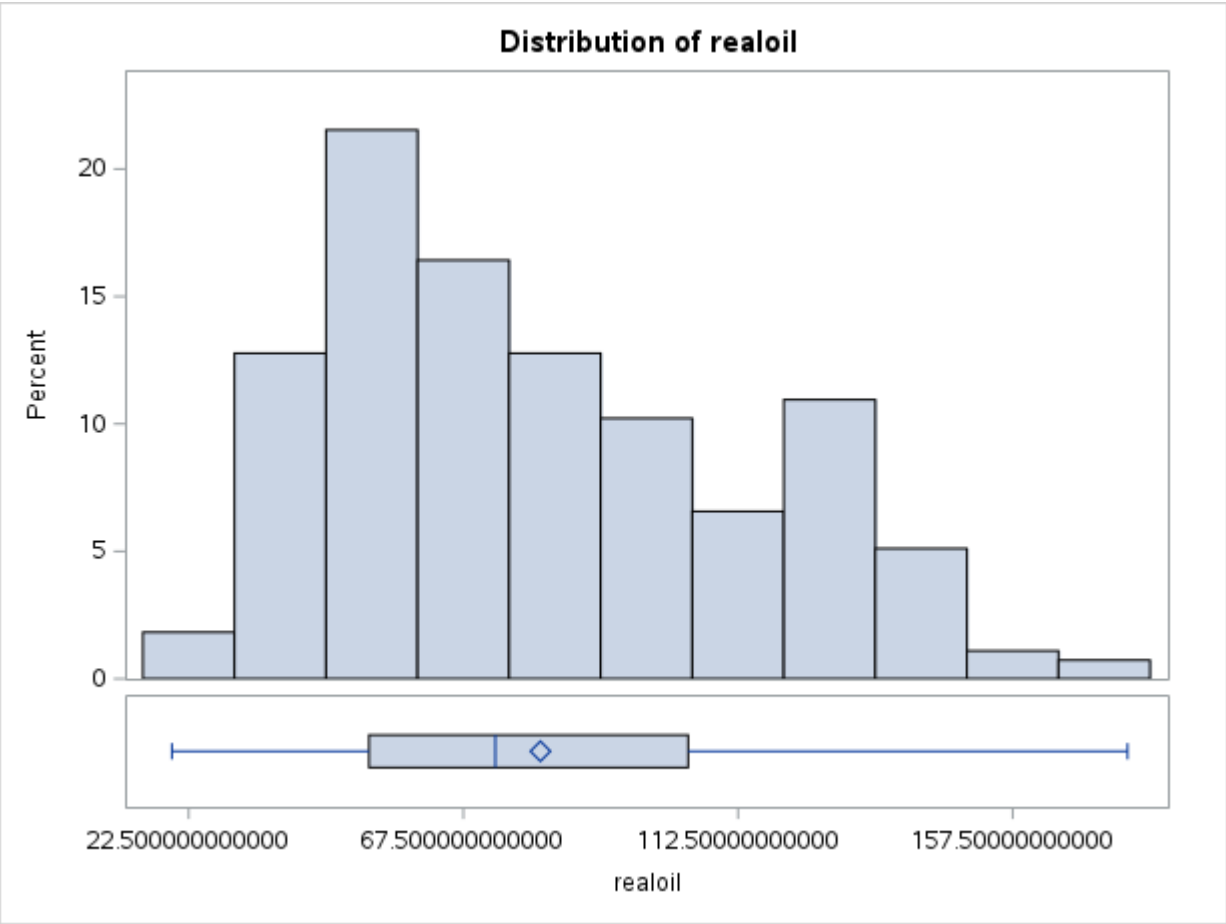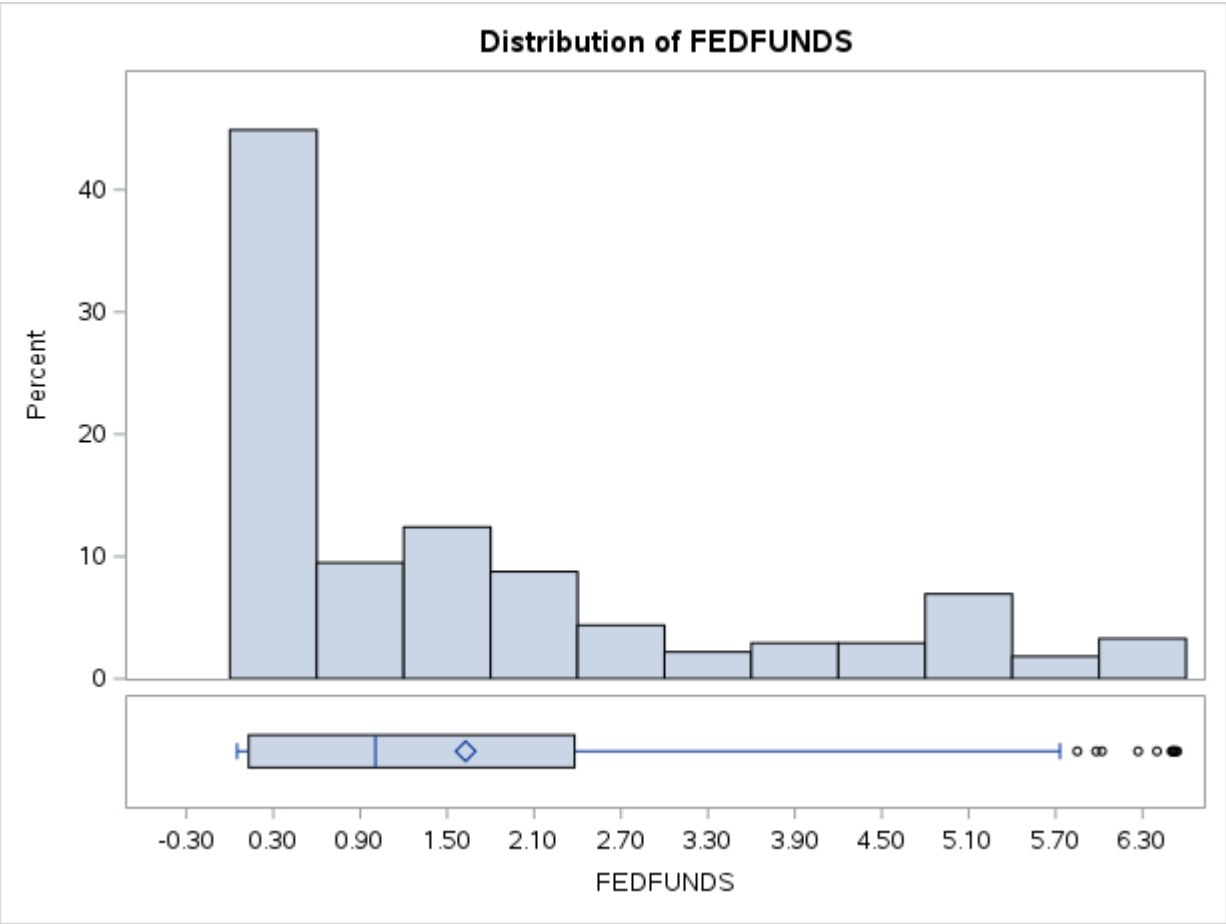
As of 09MAY23 22:01

2 Variables:	realoil FEDFUNDS

Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
realoil	274	80.12831	33.81427	21955	19.75655	176.32127	realoil
FEDFUNDS	274	1.62770	1.86390	445.99000	0.05000	6.54000	FEDFUNDS

Pearson Correlation Coefficients, N = 274 Prob > |r| under H0: Rho=0		
	realoil	FEDFUNDS
realoil realoil	1.00000	-0.21083 0.0004
FEDFUNDS FEDFUNDS	-0.21083 0.0004	1.00000

As of 09MAY23 22:01
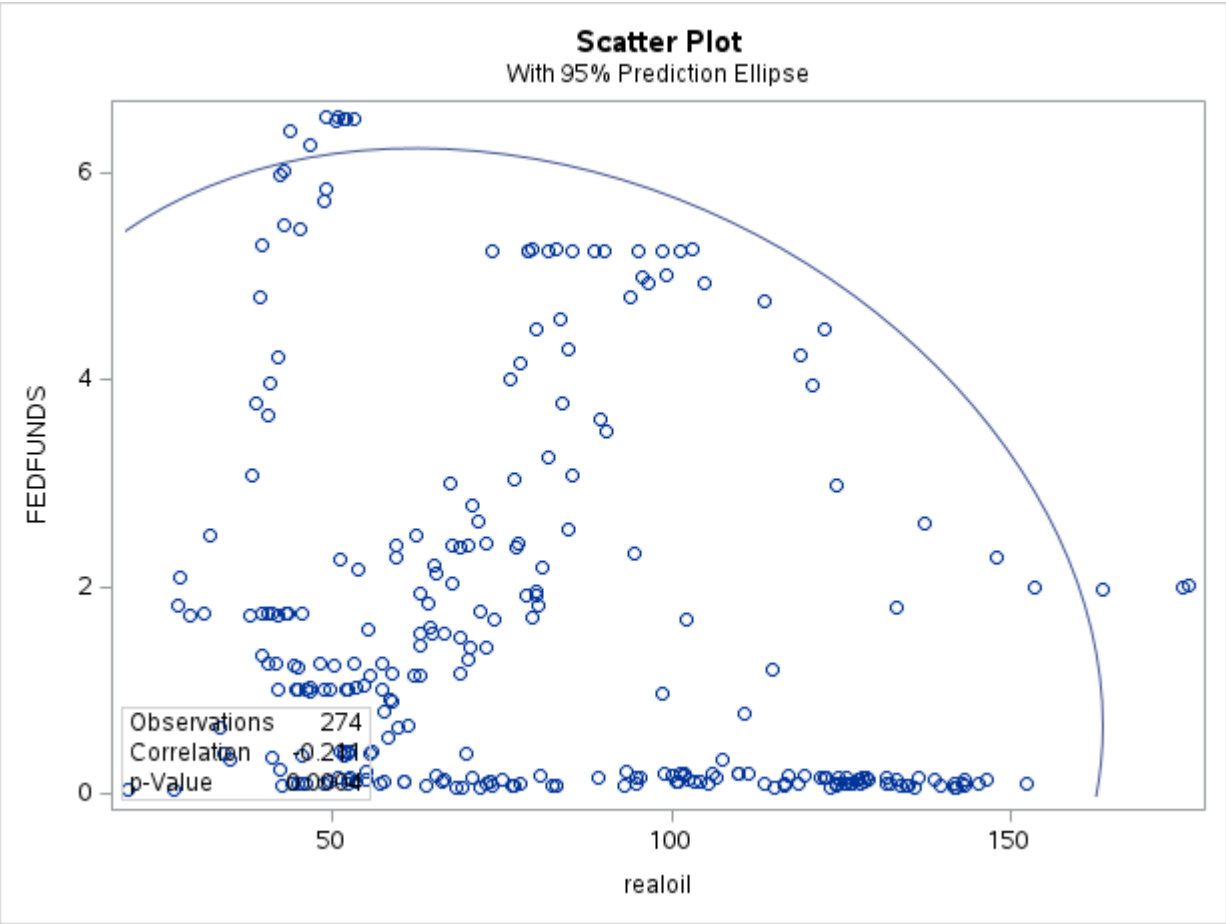
Scatter Plot
With 95% Prediction Ellipse

Observations	274
Correlation	0.2...
p-Value	0.000...

(x-axis: realoil, y-axis: FEDFUNDS)

As of 09MAY23 22:01

Model: MODEL1
Dependent Variable: realoil realoil

Number of Observations Read	274
Number of Observations Used	274

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	14876	7437.78397	6.78	0.0013
Error	271	297274	1096.95179		
Corrected Total	273	312150			

Root MSE	33.12026	R-Square	0.0477
Dependent Mean	80.12831	Adj R-Sq	0.0406
Coeff Var	41.33403		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	67.42220	19.99424	3.37	0.0009
Month	Month	1	0.00095030	0.00099473	0.96	0.3403

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
FEDFUNDS	FEDFUNDS	1	-3.14906	1.28718	-2.45	0.0151

As of 09MAY23 22:01
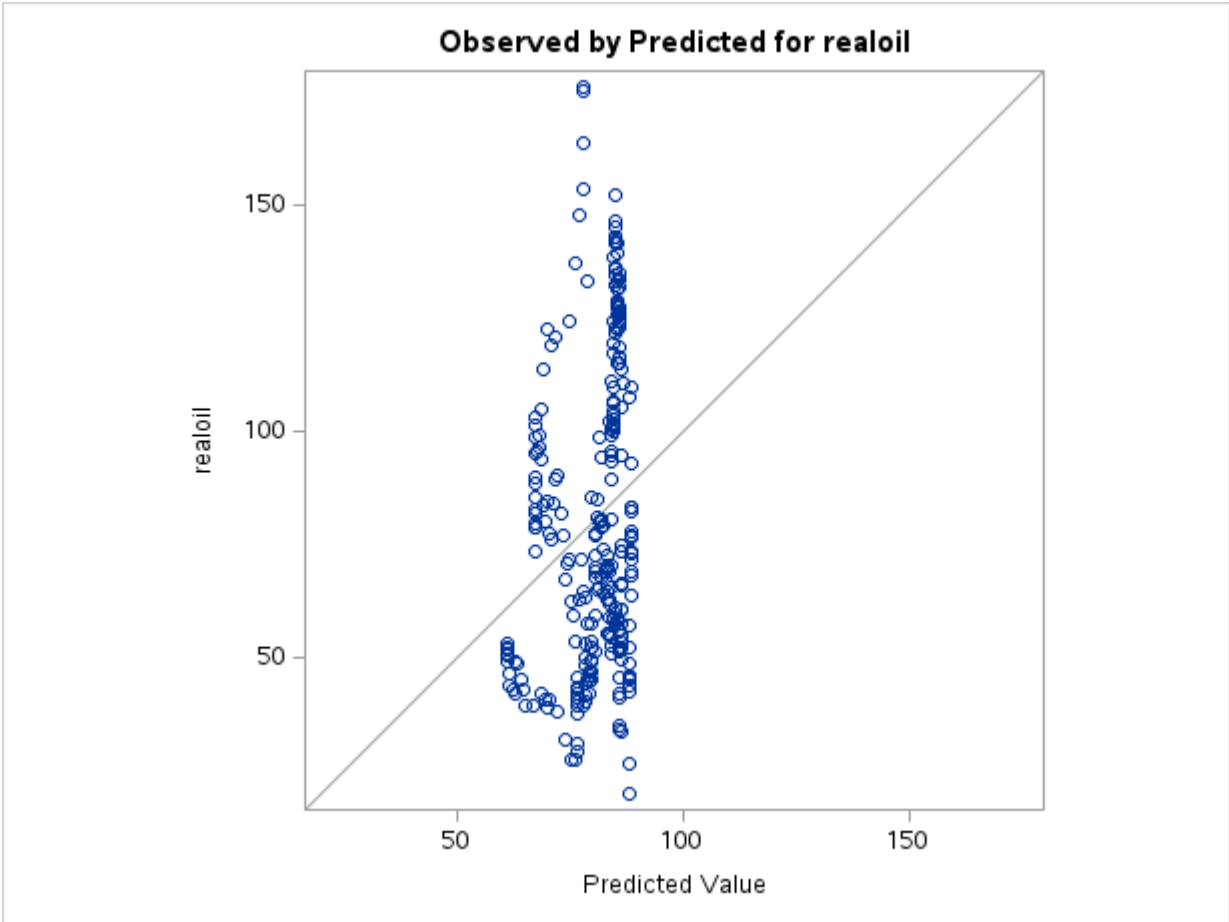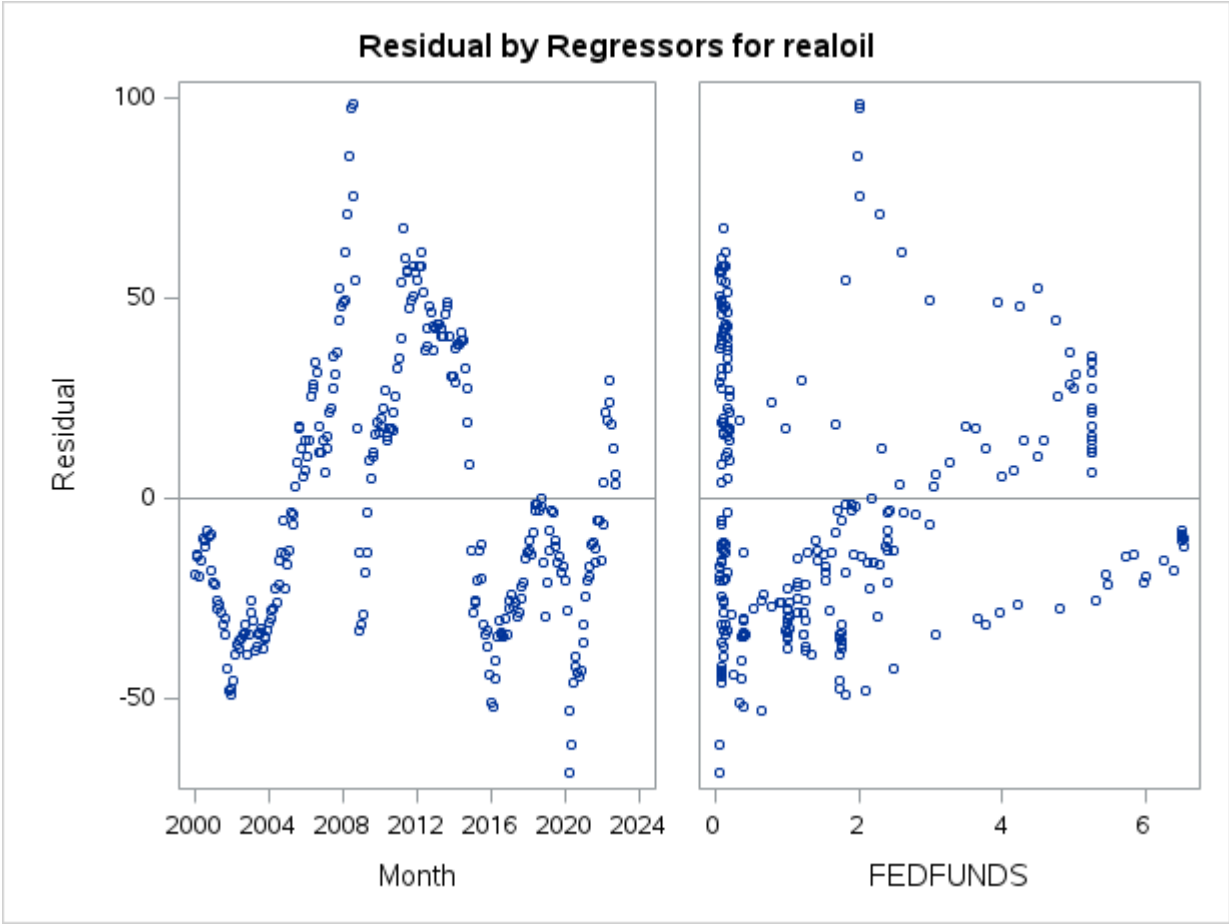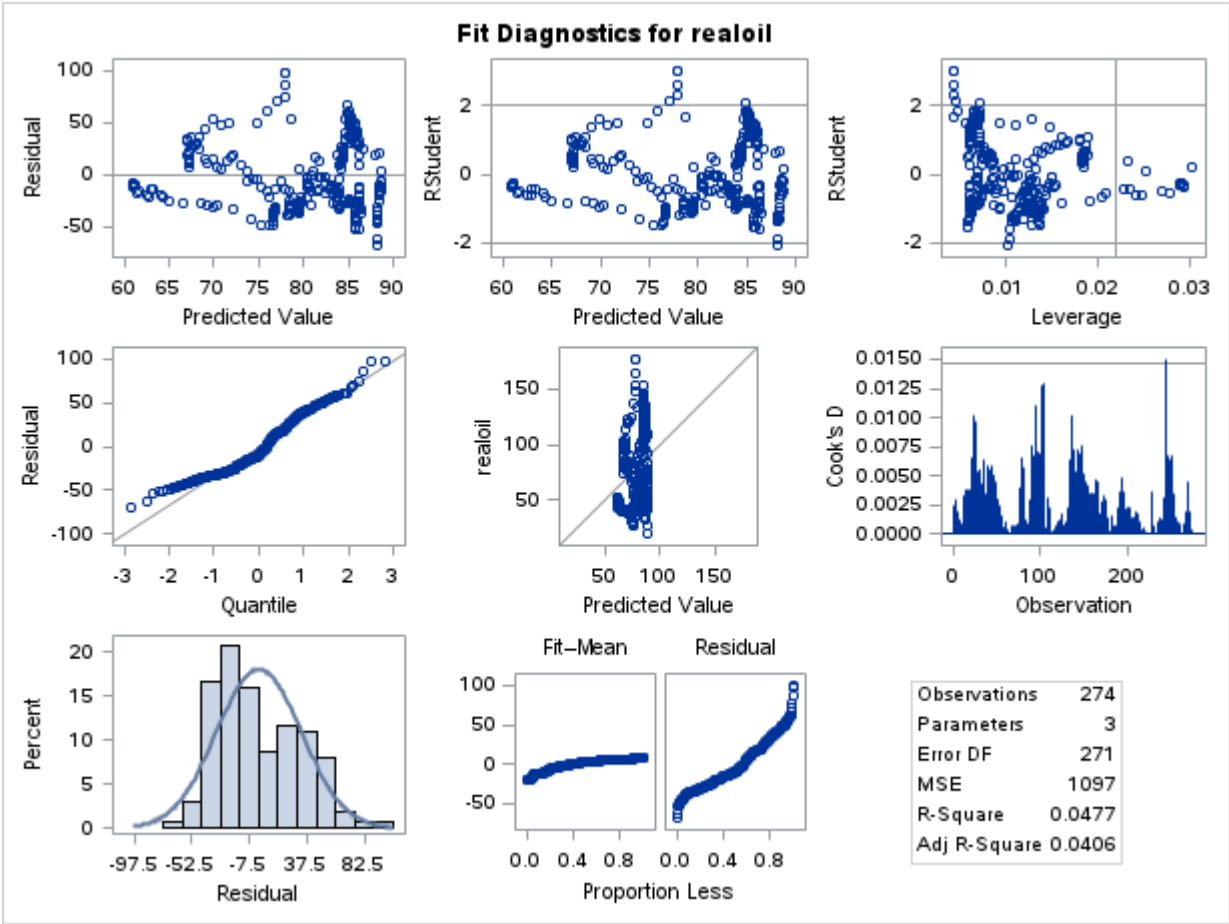
Model: MODEL1
Dependent Variable: realoil realoil

Fit Diagnostics for realoil

Observations	274
Parameters	3
Error DF	271
MSE	1097
R-Square	0.0477
Adj R-Square	0.0406

Residual by Regressors for realoil

As of 09MAY23 22:01

Model: MODEL1
Dependent Variable: realoil realoil

Number of Observations Read	274
Number of Observations Used	274

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	13874	13874	12.65	0.0004
Error	272	298275	1096.59960		
Corrected Total	273	312150			

Root MSE	33.11495	R-Square	0.0444
Dependent Mean	80.12831	Adj R-Sq	0.0409
Coeff Var	41.32740		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	86.35385	2.65810	32.49	<.0001
FEDFUNDS	FEDFUNDS	1	-3.82474	1.07527	-3.56	0.0004

As of 09MAY23 22:01
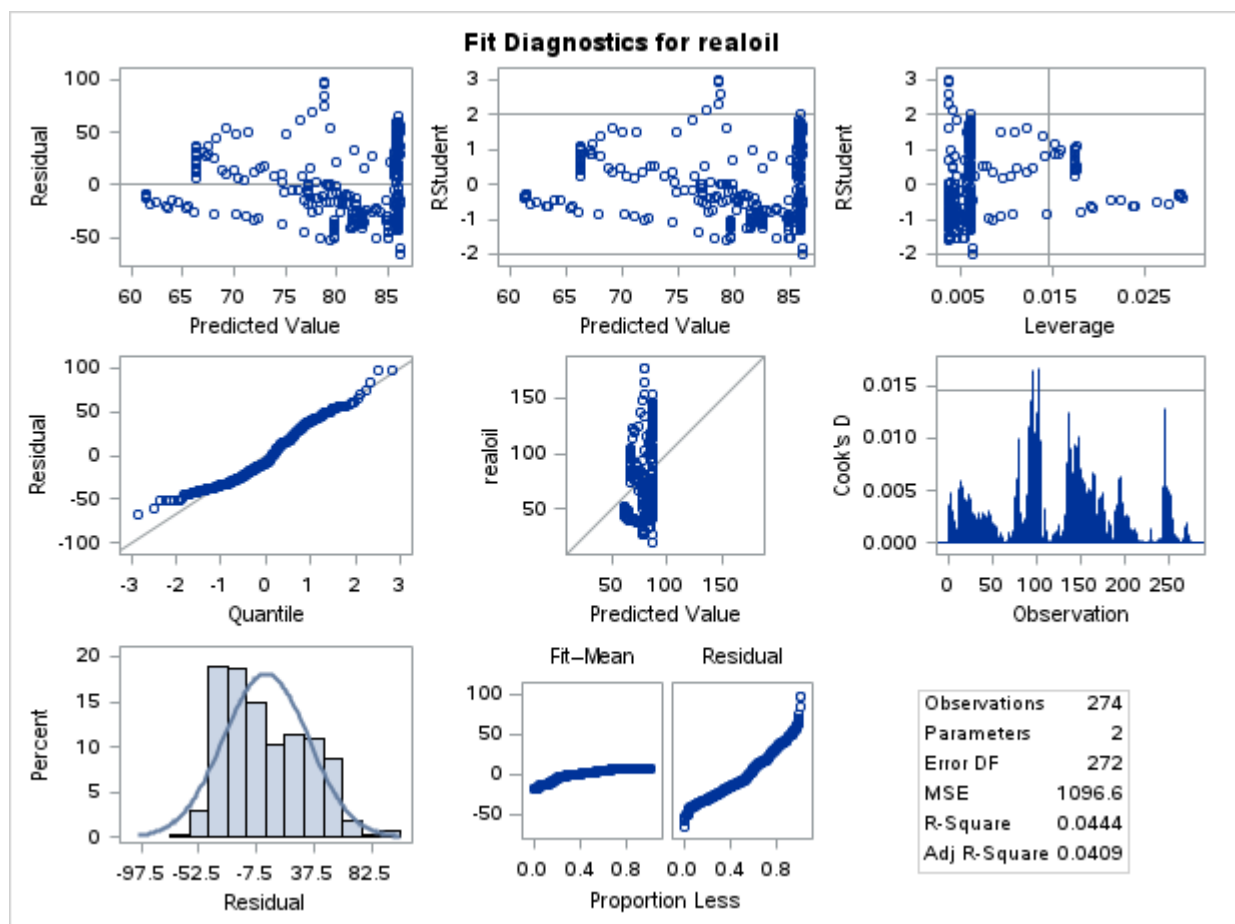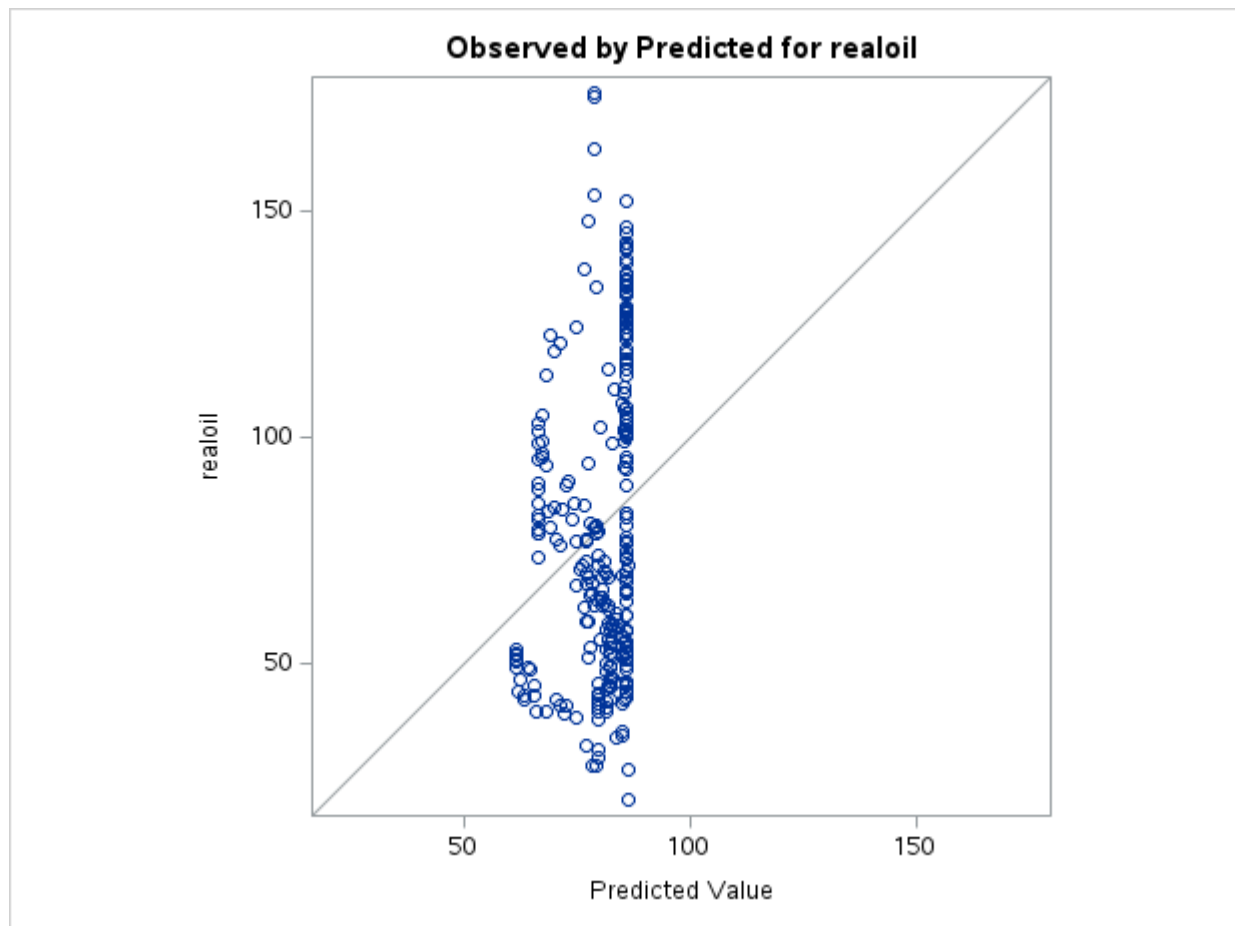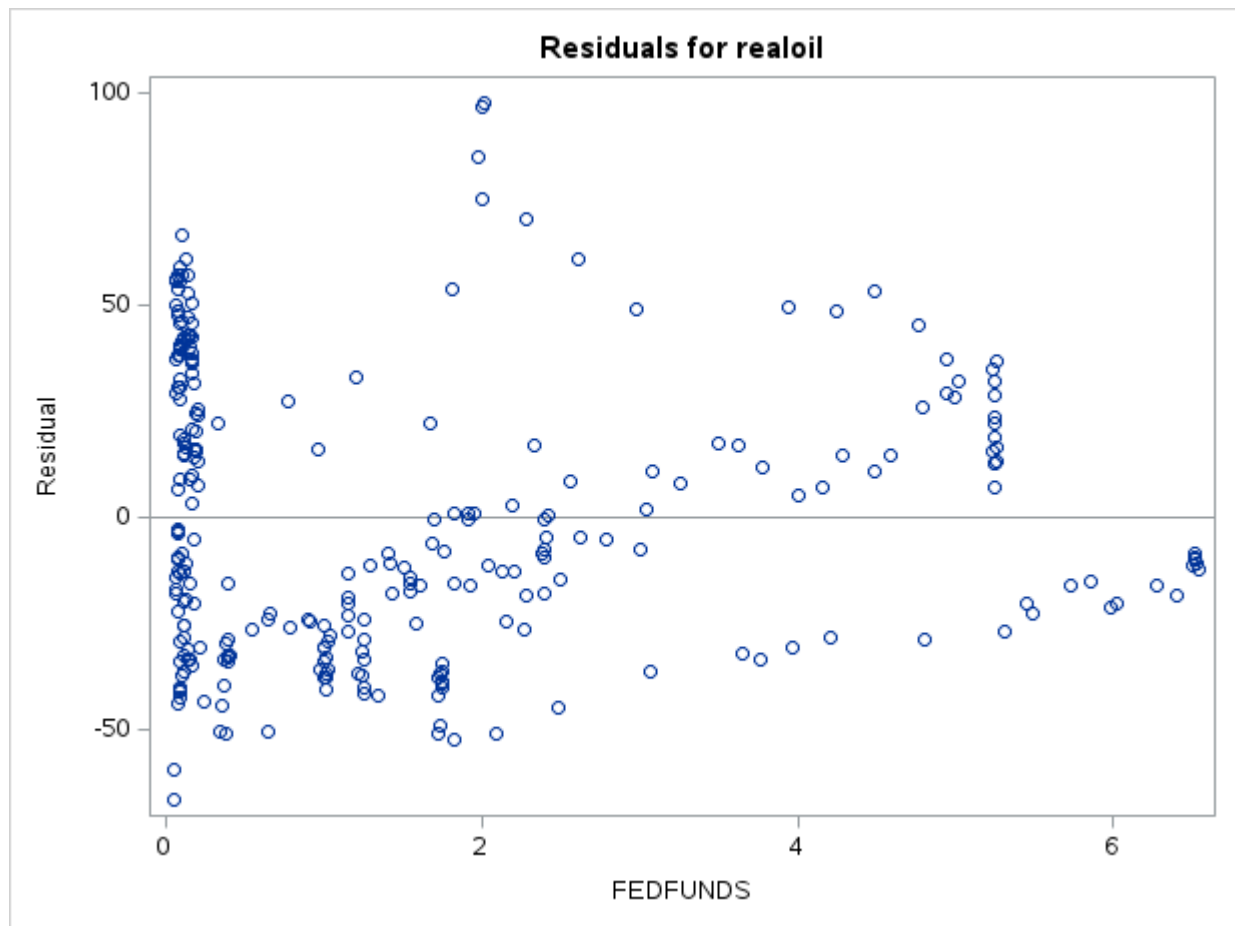
Model: MODEL1
Dependent Variable: realoil realoil

Observed by Predicted for realoil

Fit Diagnostics for realoil

Observations	274
Parameters	2
Error DF	272
MSE	1096.6
R-Square	0.0444
Adj R-Square	0.0409

Residuals for realoil

As of 09MAY23 22:01

Dependent Variable	realoil
	realoil

As of 09MAY23 22:01

Ordinary Least Squares Estimates			
SSE	9711.17722	DFE	267
MSE	36.37145	Root MSE	6.03087
SBC	1772.39433	AIC	1754.36532
MAE	4.63678878	AICC	1754.59088
MAPE	6.60361181	HQC	1761.60334
Durbin-Watson	1.9445	Total R-Square	0.9687

Parameter Estimates					
Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
Intercept	1	3.0173	1.0756	2.81	0.0054
Oil_1	1	1.4744	0.0543	27.17	<.0001
Oil_2	1	-0.5080	0.0541	-9.39	<.0001
FFR_1	1	-2.1464	2.0860	-1.03	0.3044

Parameter Estimates					
Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
FFR_2	1	1.9726	2.0715	0.95	0.3418

As of 09MAY23 22:01
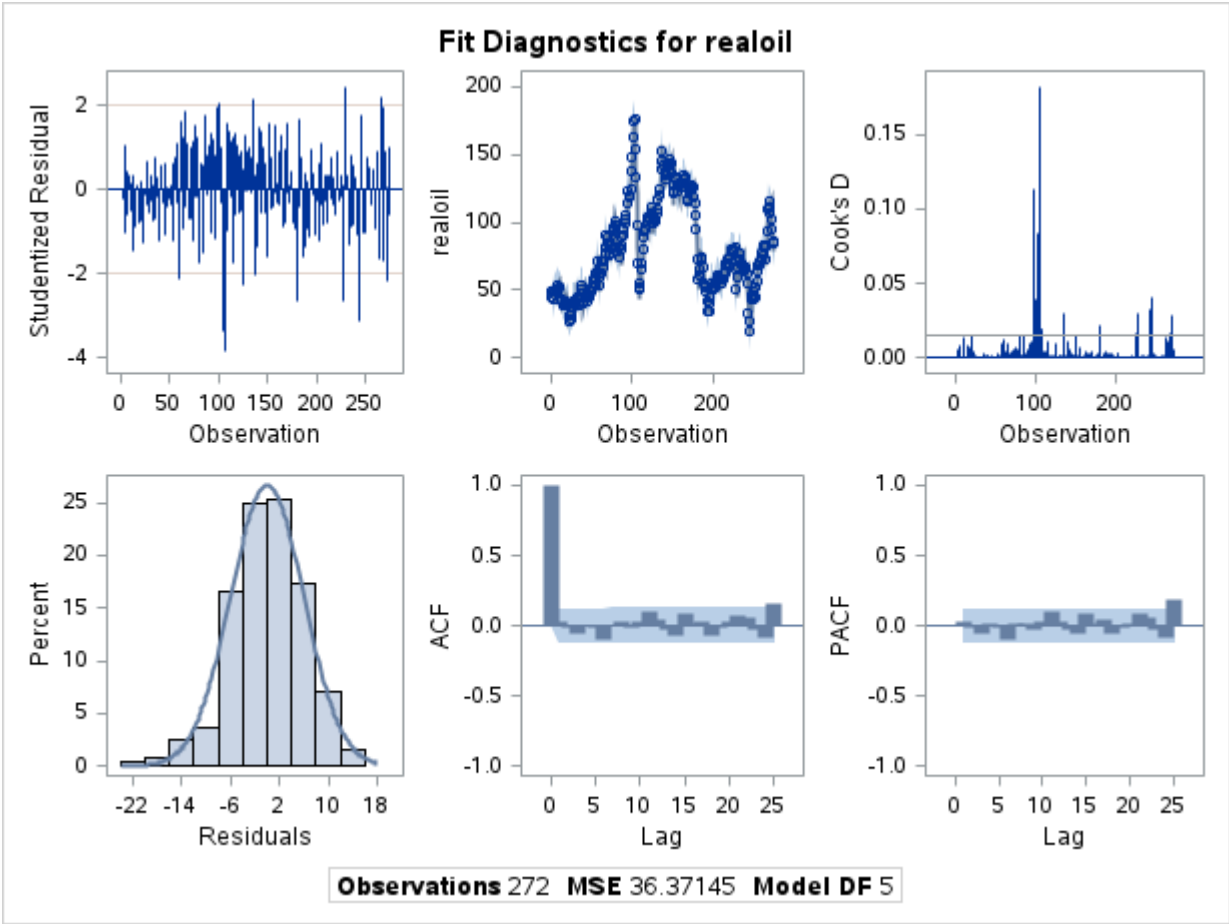
Fit Diagnostics for realoil

Observations 272 MSE 36.37145 Model DF 5

As of 09MAY23 22:01

Dependent Variable	realoil
	realoil

As of 09MAY23 22:01

Ordinary Least Squares Estimates			
SSE	9769.67727	DFE	269
MSE	36.31850	Root MSE	6.02648
SBC	1762.81634	AIC	1751.99893
MAE	4.62945276	AICC	1752.08848
MAPE	6.54632557	HQC	1756.34174
Durbin-Watson	1.9273	Total R-Square	0.9685

Parameter Estimates					
Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|
Intercept	1	2.6437	0.9439	2.80	0.0055
Oil_1	1	1.4630	0.0529	27.64	<.0001
Oil_2	1	-0.4952	0.0528	-9.37	<.0001

As of 09MAY23 22:01

Fit Diagnostics for realoil

Observations 272   MSE 36.3185   Model DF 3
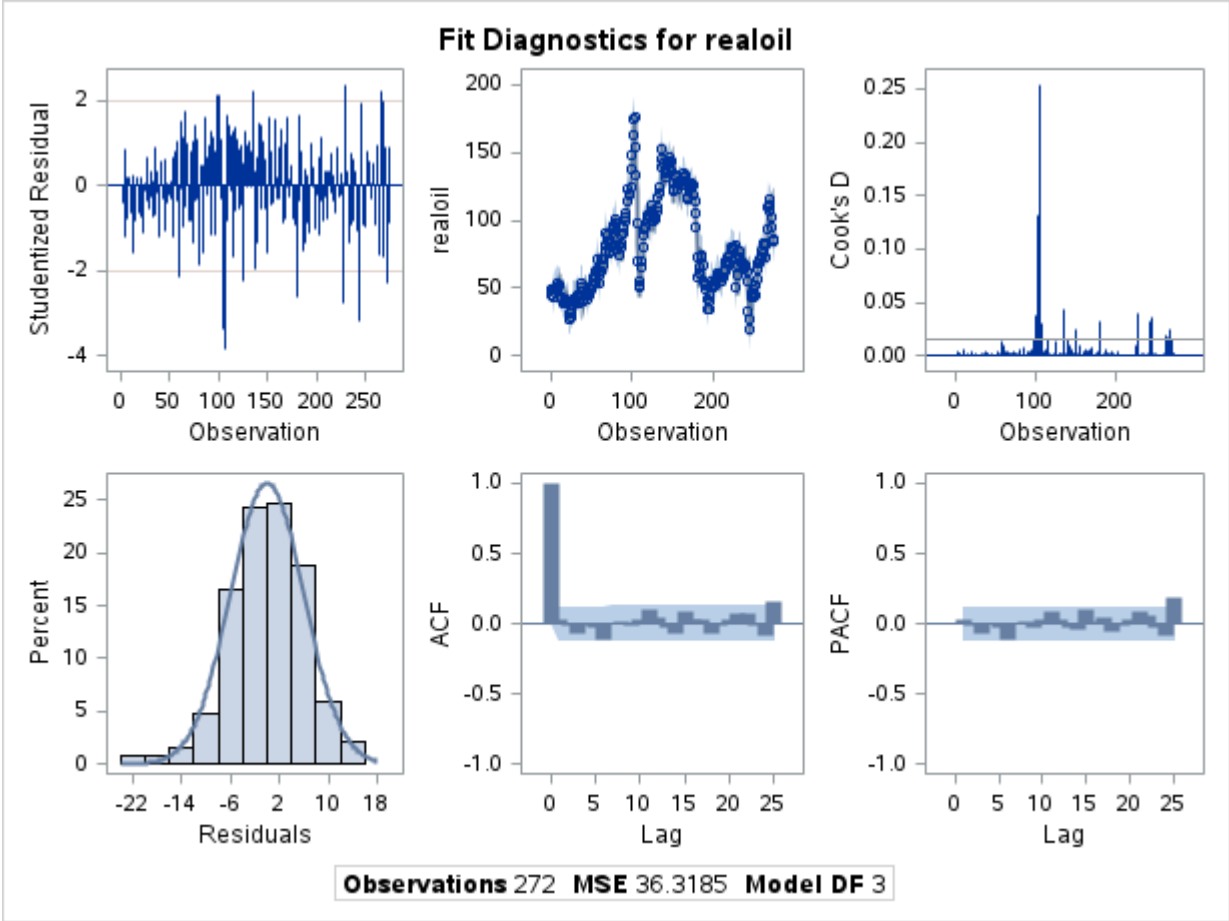
As of 09MAY23 22:01

Granger Test

test1	p_val1
0.8102269	0.4458395

test2	p_val2
1.6505738	0.4381093

As of 09MAY23 22:01

Number of Observations	274

Number of Pairwise Missing	0

Simple Summary Statistics							
Variable	Type	N	Mean	Standard Deviation	Min	Max	Label
realoil	Dependent	274	80.12831	33.81427	19.75655	176.32127	realoil
FEDFUNDS	Independent	274	1.62770	1.86390	0.05000	6.54000	FEDFUNDS

As of 09MAY23 22:01

Type of Model	ARX(1,0)
Estimation Method	Least Squares Estimation

Model Parameter Estimates						
Equation	Parameter	Estimate	Standard Error	t Value	Pr > |t|	Variable
realoil	CONST1	1.95119	1.22849	1.59	0.1134	1
	XL0_1_1	0.01410	0.23198	0.06	0.9516	FEDFUNDS(t)
	AR1_1_1	0.97720	0.01269	77.02	0.0001	realoil(t-1)

Variance Estimate for the Innovation
realoil
48.02994

Log-likelihood	-663.496

Information Criteria	
AICC	1335.141
HQC	1340.787
AIC	1334.991
SBC	1349.429
FPEC	48.55774

Forecasts						
Variable	Obs	Time	Forecast	Standard Error	95% Confidence Limits	
realoil	275	NOV2022	85.50847	6.93036	71.92521	99.09174
	276	DEC2022	85.55300	9.68994	66.56107	104.54494
	277	JAN2023	85.59617	11.73425	62.59746	108.59488
	278	FEB2023	85.63801	13.39836	59.37770	111.89831
	279	MAR2023	85.67854	14.81400	56.64364	114.71345
	280	APR2023	85.71782	16.04970	54.26100	117.17465
	281	MAY2023	85.75587	17.14678	52.14881	119.36293
	282	JUN2023	85.79272	18.13256	50.25356	121.33188
	283	JUL2023	85.82840	19.02629	48.53756	123.11925
	284	AUG2023	85.86295	19.84220	46.97294	124.75295
	285	SEP2023	85.89639	20.59119	45.53840	126.25437
	286	OCT2023	85.92875	21.28182	44.21714	127.64035