

- a) The estimated coefficient of β_5 is statistically significant and positive. This could be caused by a reverse causality effect as high crime rates of a county are likely to force an increase in the police per capita. Further, the estimates might be biased if police rates are correlated with unobserved factors affecting the crime rates.

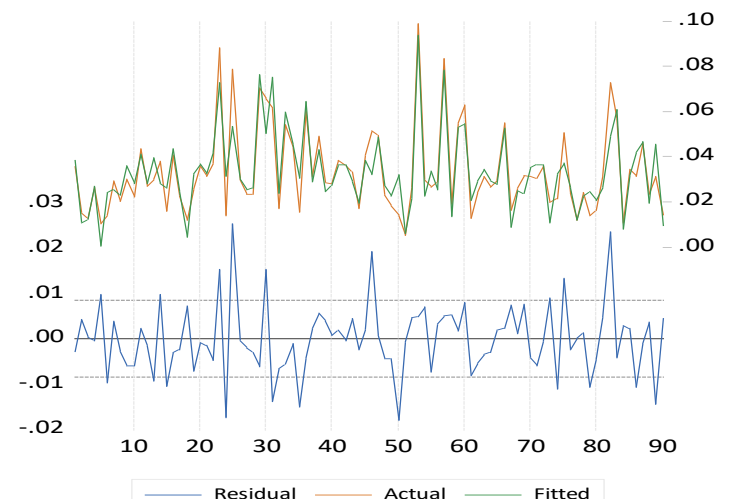
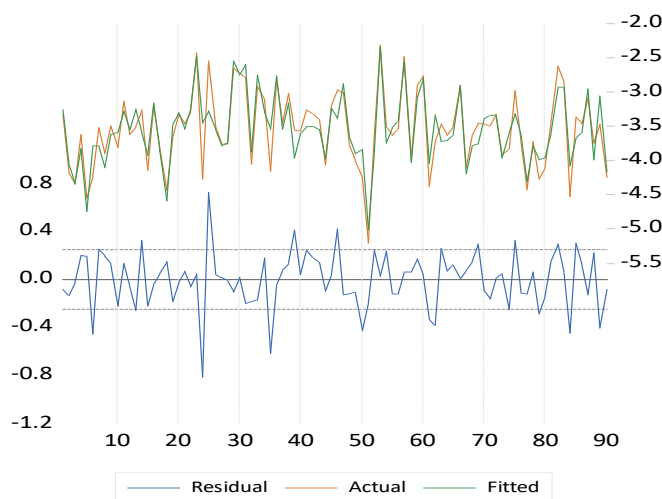
Dependent Variable: LOG(CRM RTE)
 Method: Least Squares
 Date: 02/08/23 Time: 12:50
 Sample: 1 90
 Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.668607	0.791564	-3.371310	0.0012
LOG(PRBARR)	-0.441426	0.082163	-5.372570	0.0000
LOG(PRB CONV)	-0.337108	0.055361	-6.089294	0.0000
LOG(PRBPRIS)	-0.002253	0.123411	-0.018255	0.9855
LOG(AVGSEN)	-0.132212	0.110178	-1.199981	0.2338
LOG(POLPC)	0.331385	0.083658	3.961171	0.0002
LOG(DENSITY)	0.375488	0.055127	6.811367	0.0000
WEST	-0.143378	0.123644	-1.159602	0.2497
CENTRAL	-0.202295	0.073261	-2.761294	0.0072
URBAN	-0.145293	0.132157	-1.099400	0.2750
LOG(PCTMIN)	0.210076	0.051011	4.118260	0.0001
LOG(PCTYMLE)	-0.093648	0.152631	-0.613557	0.5413
R-squared	0.816871	Mean dependent var	-3.541727	
Adjusted R-squared	0.791046	S.D. dependent var	0.548744	
S.E. of regression	0.250839	Akaike info criterion	0.195558	
Sum squared resid	4.907790	Schwarz criterion	0.528866	
Log likelihood	3.199902	Hannan-Quinn criter.	0.329967	
F-statistic	31.63003	Durbin-Watson stat	2.378182	
Prob(F-statistic)	0.000000			

Dependent Variable: CRM RTE
 Method: Least Squares
 Date: 02/08/23 Time: 12:52
 Sample: 1 90
 Included observations: 90

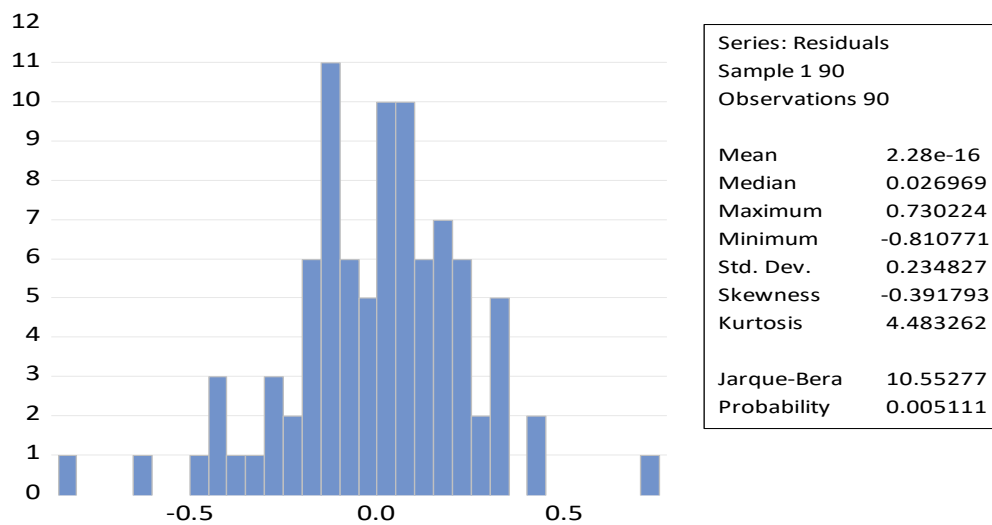
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.034877	0.008256	4.224145	0.0001
PRBARR	-0.058835	0.008995	-6.541046	0.0000
PRB CONV	-0.019197	0.002988	-6.425059	0.0000
PRBPRIS	0.002498	0.011713	0.213255	0.8317
AVGSEN	-0.000376	0.000388	-0.967861	0.3361
POLPC	7.825862	1.285968	6.085582	0.0000
DENSITY	0.005869	0.001240	4.731226	0.0000
WEST	-0.006817	0.003781	-1.802862	0.0753
CENTRAL	-0.005108	0.002578	-1.981122	0.0511
URBAN	0.000578	0.006005	0.096250	0.9236
PCTMIN	0.000242	8.90E-05	2.718209	0.0081
PCTYMLE	0.055197	0.041279	1.337148	0.1851
R-squared	0.821475	Mean dependent var	0.033510	
Adjusted R-squared	0.796299	S.D. dependent var	0.018887	
S.E. of regression	0.008524	Akaike info criterion	-6.568222	
Sum squared resid	0.005668	Schwarz criterion	-6.234914	
Log likelihood	307.5700	Hannan-Quinn criter.	-6.433813	
F-statistic	32.62858	Durbin-Watson stat	2.466647	
Prob(F-statistic)	0.000000			

- b) The dependent variable differs among the models.
 c) Logs on the left, levels on the right (note the different scaling)



Both models have similar residual plots that exhibit highest peaks around observations 24 and 25. Several outliers provide some evidence of possible misspecification.

d) logs- normality and homoskedasticity rejected, linearity not rejected



Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	3.387224	Prob. F(11,78)	0.0007
Obs*R-squared	29.09394	Prob. Chi-Square(11)	0.0022
Scaled explained SS	38.05948	Prob. Chi-Square(11)	0.0001

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 02/08/23 Time: 13:26
Sample: 1 90
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.026328	0.163830	-0.160702	0.8727
LOG(PRBARR)^2	0.008560	0.011034	0.775780	0.4402
LOG(PRBCONV)^2	0.050107	0.010978	4.564299	0.0000
LOG(PRBPRIS)^2	0.033444	0.020939	1.597176	0.1143
LOG(AVGSEN)^2	-0.001985	0.008751	-0.226894	0.8211
LOG(POLPC)^2	-0.001435	0.002481	-0.578382	0.5647
LOG(DENSITY)^2	-0.009290	0.018492	-0.502395	0.6168
WEST^2	-0.079922	0.042423	-1.883939	0.0633
CENTRAL^2	-0.051803	0.026216	-1.975984	0.0517
URBAN^2	-0.044657	0.056855	-0.785455	0.4346
LOG(PCTMIN)^2	-0.003125	0.003495	-0.894103	0.3740
LOG(PCTYMLE)^2	0.022035	0.012601	1.748713	0.0843

R-squared	0.323266	Mean dependent var	0.054531
Adjusted R-squared	0.227829	S.D. dependent var	0.102344
S.E. of regression	0.089933	Akaike info criterion	-1.855936
Sum squared resid	0.630861	Schwarz criterion	-1.522628
Log likelihood	95.51712	Hannan-Quinn criter.	-1.721527
F-statistic	3.387224	Durbin-Watson stat	1.794985
Prob(F-statistic)	0.000726		

Ramsey RESET Test
Equation: UNTITLED

Omitted Variables: Squares of fitted values
Specification: LOG(CRM RTE) C LOG(PRBARR) LOG(PRBCONV)
LOG(PRBPRIS)LOG(AVGSEN) LOG(POLPC) LOG(DENSITY)
WEST CENTRAL URBAN LOG(PCTMIN) LOG(PCTYMLE)

	Value	df	Probability
t-statistic	0.513201	77	0.6093
F-statistic	0.263375	(1, 77)	0.6093
Likelihood ratio	0.307316	1	0.5793

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.016730	1	0.016730
Restricted SSR	4.907790	78	0.062920
Unrestricted SSR	4.891060	77	0.063520

LR test summary:

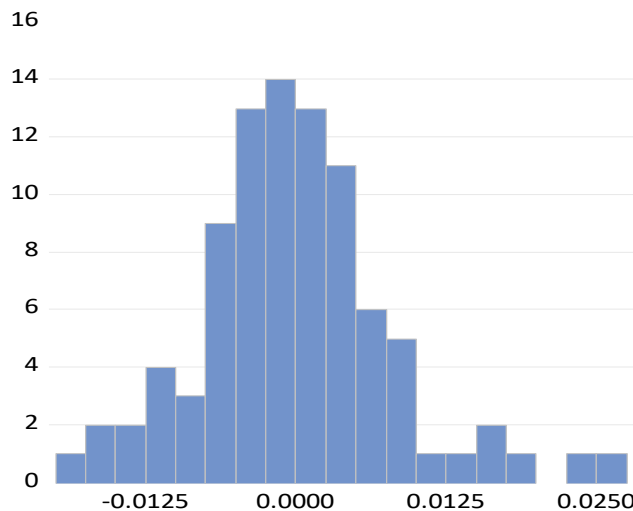
	Value
Restricted LogL	3.199902
Unrestricted LogL	3.353560

Unrestricted Test Equation:
Dependent Variable: LOG(CRM RTE)
Method: Least Squares
Date: 02/08/23 Time: 13:29
Sample: 1 90
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.220017	1.181779	-1.878539	0.0641
LOG(PRBARR)	-0.275909	0.332918	-0.828759	0.4098
LOG(PRBCONV)	-0.209121	0.255517	-0.818424	0.4156
LOG(PRBPRIS)	0.007005	0.125303	0.055908	0.9556
LOG(AVGSEN)	-0.085235	0.143646	-0.593368	0.5547
LOG(POLPC)	0.224340	0.224883	0.997587	0.3216
LOG(DENSITY)	0.243903	0.262315	0.929807	0.3554
WEST	-0.102265	0.147822	-0.691810	0.4911
CENTRAL	-0.135372	0.149745	-0.904018	0.3688
URBAN	-0.055539	0.219589	-0.252921	0.8010
LOG(PCTMIN)	0.128442	0.167122	0.768552	0.4445
LOG(PCTYMLE)	-0.054606	0.171189	-0.318979	0.7506
FITTED^2	-0.049186	0.095842	-0.513201	0.6093

R-squared	0.817496	Mean dependent var	-3.541727
Adjusted R-squared	0.789053	S.D. dependent var	0.548744
S.E. of regression	0.252032	Akaike info criterion	0.214365
Sum squared resid	4.891060	Schwarz criterion	0.575449
Log likelihood	3.353560	Hannan-Quinn criter.	0.359975
F-statistic	28.74232	Durbin-Watson stat	2.381079
Prob(F-statistic)	0.000000		

levels – normality and linearity rejected, homoskedasticity not rejected



Series: Residuals	
Sample 1 90	
Observations 90	
Mean	-1.92e-18
Median	-0.000400
Maximum	0.025528
Minimum	-0.017932
Std. Dev.	0.007980
Skewness	0.530007
Kurtosis	4.207922
Jarque-Bera	9.685147
Probability	0.007887

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	1.086584	Prob. F(11,78)	0.3830
Obs*R-squared	11.95874	Prob. Chi-Square(11)	0.3668
Scaled explained SS	14.40733	Prob. Chi-Square(11)	0.2113

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 02/08/23 Time: 13:48
Sample: 1 90
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000126	5.37E-05	2.346777	0.0215
PRBARR^2	-0.000480	0.000170	-2.821966	0.0061
PRBCONV^2	-5.02E-05	2.16E-05	-2.320154	0.0229
PRBPRIS^2	-6.69E-05	0.000198	-0.338225	0.7361
AVGSEN^2	-7.28E-08	2.43E-07	-0.300207	0.7648
POLPC^2	8.634548	2.902450	2.974918	0.0039
DENSITY^2	-1.38E-06	1.88E-06	-0.736672	0.4635
WEST^2	3.22E-06	4.33E-05	0.074381	0.9409
CENTRAL^2	-1.00E-05	3.30E-05	-0.304042	0.7619
URBAN^2	2.99E-07	7.17E-05	0.004166	0.9967
PCTMIN^2	1.55E-08	1.78E-08	0.868866	0.3876
PCTYMLE^2	-0.001403	0.001875	-0.748130	0.4566
R-squared	0.132875	Mean dependent var	6.30E-05	
Adjusted R-squared	0.010588	S.D. dependent var	0.000113	
S.E. of regression	0.000113	Akaike info criterion	-15.21794	
Sum squared resid	9.93E-07	Schwarz criterion	-14.88463	
Log likelihood	696.8072	Hannan-Quinn criter.	-15.08353	
F-statistic	1.086584	Durbin-Watson stat	1.963747	
Prob(F-statistic)	0.383024			

Ramsey RESET Test

Equation: EQ02

Omitted Variables: Squares of fitted values

Specification: CRM RTE C PRBARR PRBCONV PRBPRISAVGSEN
POLPC DENSITY WEST CENTRAL URBAN PCTMIN
PCTYMLE

	Value	df	Probability
t-statistic	2.795182	77	0.0065
F-statistic	7.813042	(1, 77)	0.0065
Likelihood ratio	8.697951	1	0.0032

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.000522	1	0.000522
Restricted SSR	0.005668	78	7.27E-05
Unrestricted SSR	0.005146	77	6.68E-05

LR test summary:

	Value
Restricted LogL	307.5700
Unrestricted LogL	311.9190

Unrestricted Test Equation:

Dependent Variable: CRM RTE

Method: Least Squares

Date: 02/08/23 Time: 13:49

Sample: 1 90

Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.029587	0.008141	3.634377	0.0005
PRBARR	-0.032084	0.012884	-2.490220	0.0149
PRBCONV	-0.011447	0.003987	-2.870986	0.0053
PRBPRIS	0.000253	0.011262	0.022500	0.9821
AVGSEN	-8.15E-05	0.000387	-0.210608	0.8337
POLPC	3.676219	1.929979	1.904797	0.0605
DENSITY	0.000129	0.002373	0.054500	0.9567
WEST	-0.004091	0.003755	-1.089534	0.2793
CENTRAL	-0.001316	0.002820	-0.466694	0.6420
URBAN	-0.003255	0.005919	-0.549966	0.5839
PCTMIN	9.79E-05	9.96E-05	0.983016	0.3287
PCTYMLE	0.013773	0.042270	0.325838	0.7454
FITTED^2	8.484903	3.035546	2.795182	0.0065

R-squared	0.837921	Mean dependent var	0.033510
Adjusted R-squared	0.812662	S.D. dependent var	0.018887
S.E. of regression	0.008175	Akaike info criterion	-6.642644
Sum squared resid	0.005146	Schwarz criterion	-6.281560
Log likelihood	311.9190	Hannan-Quinn criter.	-6.497034
F-statistic	33.17312	Durbin-Watson stat	2.436323
Prob(F-statistic)	0.000000		

e) removing variables with p-value greater than 0.05, starting with the variable with highest p-value

logs – log(prbpris), log(pctymle), urban, log(avgsen), west

Dependent Variable: LOG(CRM RTE)

Method: Least Squares

Date: 02/08/23 Time: 16:48

Sample: 1 90

Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.262198	0.486969	-6.698982	0.0000
LOG(PRBARR)	-0.433478	0.077422	-5.598933	0.0000
LOG(PRB CONV)	-0.337172	0.051590	-6.535615	0.0000
LOG(POLPC)	0.277946	0.077026	3.608451	0.0005
LOG(DENSITY)	0.335329	0.045152	7.426621	0.0000
CENTRAL	-0.130321	0.060395	-2.157822	0.0338
LOG(PCTMIN)	0.253697	0.028271	8.973756	0.0000
R-squared	0.805785	Mean dependent var	-3.541727	
Adjusted R-squared	0.791745	S.D. dependent var	0.548744	
S.E. of regression	0.250419	Akaike info criterion	0.143226	
Sum squared resid	5.204916	Schwarz criterion	0.337656	
Log likelihood	0.554810	Hannan-Quinn criter.	0.221632	
F-statistic	57.39341	Durbin-Watson stat	2.244338	
Prob(F-statistic)	0.000000			

levels – prbris, urban, avgsen, pctmile, west, central

Dependent Variable: CRM RTE

Method: Least Squares

Date: 02/08/23 Time: 13:58

Sample: 1 90

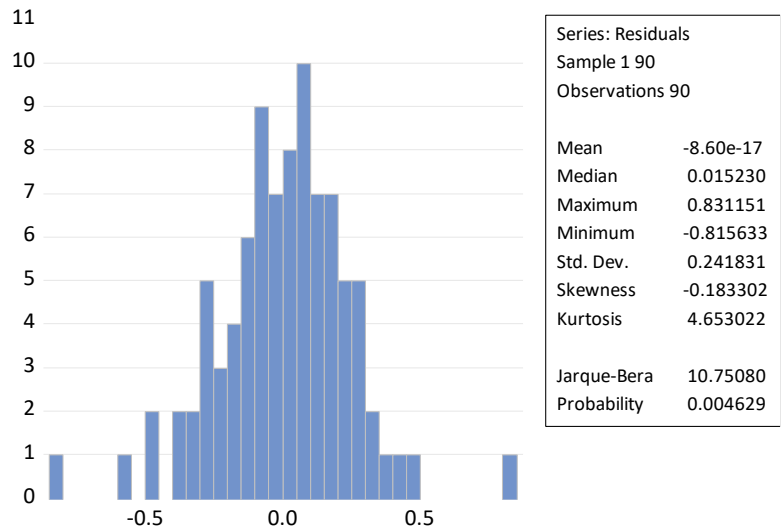
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.033448	0.003541	9.447264	0.0000
PRBARR	-0.066136	0.008497	-7.783068	0.0000
PRB CONV	-0.021622	0.002849	-7.588132	0.0000
POLPC	8.139469	1.175639	6.923440	0.0000
DENSITY	0.005551	0.000716	7.756349	0.0000
PCTMIN	0.000374	5.54E-05	6.751632	0.0000
R-squared	0.804617	Mean dependent var	0.033510	
Adjusted R-squared	0.792987	S.D. dependent var	0.018887	
S.E. of regression	0.008593	Akaike info criterion	-6.611320	
Sum squared resid	0.006203	Schwarz criterion	-6.444666	
Log likelihood	303.5094	Hannan-Quinn criter.	-6.544115	
F-statistic	69.18491	Durbin-Watson stat	2.281874	
Prob(F-statistic)	0.000000			

F-statistic provides strong evidence against the joint insignificance of the remaining explanatory variables in both models.

f) logs restricted

- normality rejected, heteroskedasticity rejected, linearity not rejected
- R squared higher in the unrestricted model, adjusted R squared higher and the information criteria lower in the restricted model



Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	3.891721	Prob. F(6,83)	0.0018
Obs*R-squared	19.76044	Prob. Chi-Square(6)	0.0031
Scaled explained SS	30.69659	Prob. Chi-Square(6)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 02/08/23 Time: 16:55
Sample: 1 90
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.066173	0.115085	0.574996	0.5668
LOG(PRBARR)^2	0.002135	0.010955	0.194905	0.8459
LOG(PRBCONV)^2	0.049490	0.011675	4.238962	0.0001
LOG(POLPC)^2	-0.001160	0.002541	-0.456552	0.6492
LOG(DENSITY)^2	-0.016324	0.013495	-1.209600	0.2299
CENTRAL^2	-0.025753	0.022695	-1.134767	0.2597
LOG(PCTMIN)^2	0.001308	0.002327	0.562207	0.5755

R-squared	0.219560	Mean dependent var	0.057832
Adjusted R-squared	0.163143	S.D. dependent var	0.111154
S.E. of regression	0.101683	Akaike info criterion	-1.659323
Sum squared resid	0.858176	Schwarz criterion	-1.464893
Log likelihood	81.66953	Hannan-Quinn criter.	-1.580917
F-statistic	3.891721	Durbin-Watson stat	1.596984
Prob(F-statistic)	0.001792		

Ramsey RESET Test

Equation: MODEL1

Omitted Variables: Squares of fitted values

Specification: LOG(CRM RTE) C LOG(PRBARR) LOG(PRBCONV)
LOG(POLPC) LOG(DENSITY) CENTRAL LOG(PCTMIN)

	Value	df	Probability
t-statistic	1.199396	82	0.2338
F-statistic	1.438551	(1, 82)	0.2338
Likelihood ratio	1.565208	1	0.2109

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.089737	1	0.089737
Restricted SSR	5.204916	83	0.062710
Unrestricted SSR	5.115178	82	0.062380

LR test summary:

	Value
Restricted LogL	0.554810
Unrestricted LogL	1.337414

Unrestricted Test Equation:

Dependent Variable: LOG(CRM RTE)

Method: Least Squares

Date: 02/08/23 Time: 17:03

Sample: 1 90

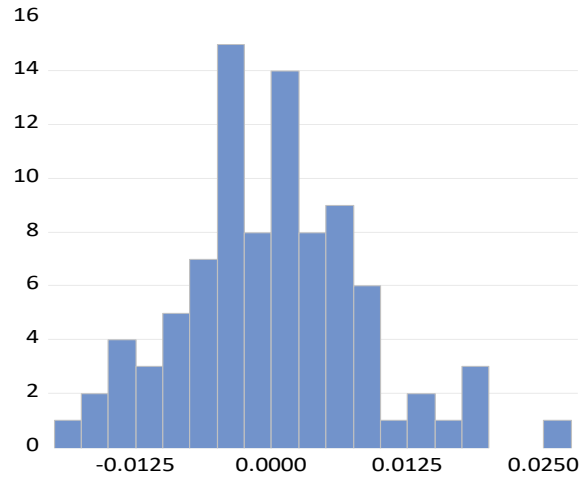
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.047540	1.123167	-1.823006	0.0719
LOG(PRBARR)	-0.129615	0.264853	-0.489382	0.6259
LOG(PRBCONV)	-0.101006	0.203516	-0.496305	0.6210
LOG(POLPC)	0.117162	0.154507	0.758294	0.4504
LOG(DENSITY)	0.132738	0.174811	0.759328	0.4498
CENTRAL	-0.050484	0.089773	-0.562358	0.5754
LOG(PCTMIN)	0.078465	0.148796	0.527336	0.5994
FITTED^2	-0.093446	0.077911	-1.199396	0.2338

R-squared	0.809133	Mean dependent var	-3.541727
Adjusted R-squared	0.792839	S.D. dependent var	0.548744
S.E. of regression	0.249760	Akaike info criterion	0.148057
Sum squared resid	5.115178	Schwarz criterion	0.370263
Log likelihood	1.337414	Hannan-Quinn criter.	0.237664
F-statistic	49.65979	Durbin-Watson stat	2.307936
Prob(F-statistic)	0.000000		

levels restricted

- normality not rejected, homoskedasticity rejected, linearity just rejected on the 5% significance level
- R squared and adjusted R squared higher in the unrestricted model, however lower information criteria favor the restricted model



Series: Residuals	
Sample 1 90	
Observations 90	
Mean	-2.39e-18
Median	-4.38e-06
Maximum	0.027013
Minimum	-0.018308
Std. Dev.	0.008348
Skewness	0.475524
Kurtosis	3.618324
Jarque-Bera	4.825560
Probability	0.089566

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	3.155714	Prob. F(5,84)	0.0117
Obs*R-squared	14.23223	Prob. Chi-Square(5)	0.0142
Scaled explained SS	16.23080	Prob. Chi-Square(5)	0.0062

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 02/08/23 Time: 14:07
Sample: 1 90
Included observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.98E-05	1.98E-05	5.034322	0.0000
PRBARR^2	-0.000483	0.000149	-3.246568	0.0017
PRBCONV^2	-5.78E-05	1.92E-05	-3.013854	0.0034
POLPC^2	8.670070	2.457694	3.527725	0.0007
DENSITY^2	-9.85E-07	1.09E-06	-0.901812	0.3697
PCTMIN^2	1.64E-08	1.19E-08	1.371837	0.1738

R-squared	0.158136	Mean dependent var	6.89E-05
Adjusted R-squared	0.108025	S.D. dependent var	0.000112
S.E. of regression	0.000106	Akaike info criterion	-15.40345
Sum squared resid	9.42E-07	Schwarz criterion	-15.23680
Log likelihood	699.1554	Hannan-Quinn criter.	-15.33625
F-statistic	3.155714	Durbin-Watson stat	1.934038
Prob(F-statistic)	0.011665		

Ramsey RESET Test

Equation: EQ02

Omitted Variables: Squares of fitted values

Specification: CRM RTE C PRBARR PRBCONV POLPC DENSITY PCTMIN

	Value	df	Probability
t-statistic	1.991596	83	0.0497
F-statistic	3.966456	(1, 83)	0.0497
Likelihood ratio	4.201369	1	0.0404

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.000283	1	0.000283
Restricted SSR	0.006203	84	7.38E-05
Unrestricted SSR	0.005920	83	7.13E-05

LR test summary:

	Value
Restricted LogL	303.5094
Unrestricted LogL	305.6101

Unrestricted Test Equation:

Dependent Variable: CRM RTE

Method: Least Squares

Date: 02/08/23 Time: 14:08

Sample: 1 90

Included observations: 90

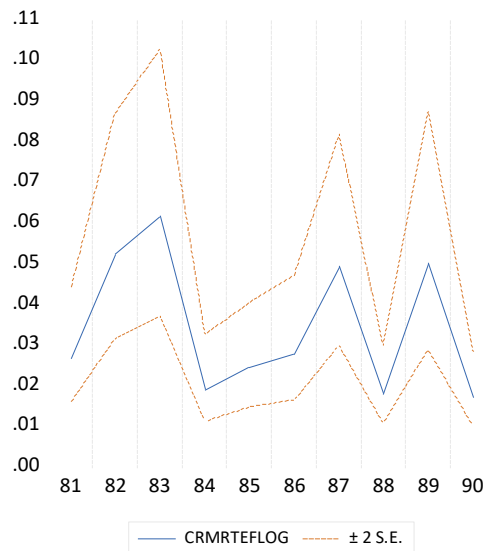
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.030249	0.003833	7.892623	0.0000
PRBARR	-0.045387	0.013353	-3.399100	0.0010
PRBCONV	-0.015172	0.004281	-3.543773	0.0007
POLPC	5.154443	1.892463	2.723669	0.0079
DENSITY	0.001460	0.002171	0.672184	0.5033
PCTMIN	0.000230	9.04E-05	2.544902	0.0128
FITTED^2	5.828710	2.926652	1.991596	0.0497

R-squared	0.813528	Mean dependent var	0.033510
Adjusted R-squared	0.800048	S.D. dependent var	0.018887
S.E. of regression	0.008445	Akaike info criterion	-6.635780
Sum squared resid	0.005920	Schwarz criterion	-6.441350
Log likelihood	305.6101	Hannan-Quinn criter.	-6.557374
F-statistic	60.35122	Durbin-Watson stat	2.236579
Prob(F-statistic)	0.000000		

g) logs restricted

Dependent Variable: LOG(CRM RTE)
 Method: Least Squares
 Date: 02/08/23 Time: 17:12
 Sample: 1 80
 Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.916962	0.517993	-5.631283	0.0000
LOG(PRBARR)	-0.439749	0.079399	-5.538443	0.0000
LOG(PRB CONV)	-0.270739	0.056074	-4.828282	0.0000
LOG(POLPC)	0.329649	0.082087	4.015839	0.0001
LOG(DENSITY)	0.336533	0.046208	7.283052	0.0000
CENTRAL	-0.128638	0.063474	-2.026636	0.0464
LOG(PCTMIN)	0.264542	0.030080	8.794563	0.0000
R-squared	0.812991	Mean dependent var	-3.549065	
Adjusted R-squared	0.797620	S.D. dependent var	0.547847	
S.E. of regression	0.246458	Akaike info criterion	0.120183	
Sum squared resid	4.434136	Schwarz criterion	0.328610	
Log likelihood	2.192674	Hannan-Quinn criter.	0.203748	
F-statistic	52.89245	Durbin-Watson stat	2.200387	
Prob(F-statistic)	0.000000			



Forecast: CRM RTE FLOG
 Actual: CRM RTE
 Forecast sample: 81 90
 Included observations: 10
 Root Mean Squared Error 0.010287
 Mean Absolute Error 0.008285
 Mean Abs. Percent Error 27.84619
 Theil Inequality Coef. 0.132112
 Bias Proportion 0.003568
 Variance Proportion 0.035055
 Covariance Proportion 0.961377
 Theil U2 Coefficient 0.498763
 Symmetric MAPE 25.60493

levels restricted

Dependent Variable: CRM RTE
 Method: Least Squares
 Date: 02/08/23 Time: 14:20
 Sample: 1 80
 Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.032139	0.003876	8.292810	0.0000
PRBARR	-0.069045	0.009012	-7.661498	0.0000
PRB CONV	-0.019942	0.003541	-5.632084	0.0000
POLPC	8.885059	1.279170	6.945956	0.0000
DENSITY	0.005590	0.000736	7.596592	0.0000
PCTMIN	0.000370	6.02E-05	6.137786	0.0000
R-squared	0.810675	Mean dependent var	0.033281	
Adjusted R-squared	0.797882	S.D. dependent var	0.018991	
S.E. of regression	0.008538	Akaike info criterion	-6.616556	
Sum squared resid	0.005394	Schwarz criterion	-6.437904	
Log likelihood	270.6622	Hannan-Quinn criter.	-6.544929	
F-statistic	63.37228	Durbin-Watson stat	2.225521	
Prob(F-statistic)	0.000000			



Forecast: CRM RTE F1
 Actual: CRM RTE
 Forecast sample: 81 90
 Included observations: 10
 Root Mean Squared Error 0.009486
 Mean Absolute Error 0.007341
 Mean Abs. Percent Error 21.52598
 Theil Inequality Coef. 0.120848
 Bias Proportion 0.000609
 Variance Proportion 0.017614
 Covariance Proportion 0.981777
 Theil U2 Coefficient 0.390772
 Symmetric MAPE 20.68424

- h) RMSE of the forecast is lower in the levels restricted model than in the restricted log model (0.010287 > 0.009486) indicating that this model is better for forecasting