

APPENDICES

Appendix 1

Sampling Frame

APPENDIX 1 : SAMPLING FRAME AND DATA COLLECTION STATUS

Local Commercial Bank	Year (See Notes)						Status of Collection		Remark
	1995	1996	1997	1998	1999	2000	Qty Available	Qty Collected	
Maybank	1	1	1	1	1	1	6	6	
Phileo Allied	1	1	1	1	1		5	5	
The Pacific Bank	1	1	1	1	0		5	4	1 data set missing
Bank Bumiputera Malaysia	0	0	0	0	0		5	0	5 data set missing
Bank of Commerce	1	1	1	1	1	1	6	6	
DCB/RHB	1	1		1	1	1	5	5	
Kwang Yik	1						1	1	
Sime Bank	0	0	0	0			4	0	4 data set missing
Public Bank	1	1	1	1	1	1	6	6	
Hock Hua	1	1	1	1	1		5	5	
Perwira Affin/Affin	1	1	1	1	1	1	6	6	
BSN	0	0	1	1	1		5	3	2 data set missing
Hong Leong	1	1	1	1	1	1	6	6	
Wah Tat	1	1	1	1	1		5	5	
Arab Malaysia	1	1	1	1	1	1	6	6	
Bank Utama	1	1	1	1	1	0	6	5	1 data set missing
Eon Bank	1	1	1	1	1	1	6	6	
Oriental Bank	0	0	1	1	1	1	6	4	2 data set missing
Southern Bank	1	1	1	1	1	1	6	6	
BHL	1	1	1	1	1		5	5	
Multipurpose	1	1	1	1	1	1	6	6	
International Bank	1	1	1	1	1	1	5	5	
Sabah Bank Berhad	1	1	1	0	0		5	3	2 data set missing
Bank Islam Malaysia	1	1	1	1	1	1	6	6	
Total No Of Report Available	24	23	22	23	22	13			
Total No Of Report Collected	20	19	20	20	19	12			
TOTAL							127	110	
PERCENTAGE OF DATA COLLECTED								87%	

Note 1 :  → Merging or other restructuring, no annual report issued for that year

Note 2 : '1' → Data collected

Note 3 : '0' → Data not collected

Appendix 2

Preliminary Test on Linear and Curvilinear Relationship between RROA and SD.

Multiple Regression

Preliminary Test Of Linear Relationship Between RROA And SD

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SD(a)		Enter
a All requested variables entered.			
b Dependent Variable: RROAX			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204(a)	.042	.030	.7574
a Predictors: (Constant), SD				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.044	1	2.044	3.563	.063(a)
	Residual	47.042	82	.574		
	Total	49.086	83			
a Predictors: (Constant), SD						
b Dependent Variable: RROAX						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.703	.243		2.890	.005
	SD	-5.712E-02	.030	-.204	-1.888	.063
a Dependent Variable: RROAX						

Multiple Regression

Preliminary Test Of Curvilinear Relationship Between RROA And SD²

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SD2(a)		Enter
a All requested variables entered.			
b Dependent Variable: RROAX			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.250(a)	.063	.051	.7491
a Predictors: (Constant), SD2				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.069	1	3.069	5.469	.022(a)
	Residual	46.017	82	.561		
	Total	49.086	83			
a Predictors: (Constant), SD2						
b Dependent Variable: RROAX						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.540	.141		3.830	.000
	SD2	-4.153E-03	.002	-.250	-2.339	.022
a Dependent Variable: RROAX						

Appendix 3

SSPS Output for Hierarchical Regression Analyses

Using Original Data Sets.

Model 1 : Multiple Regression (Without Treatment)

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	RLAGX, MG, EFF, MS(a)	.	Enter

a All requested variables entered.

b Dependent Variable: RROAX

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.586(a)	.344	.311	.6384	.660

a Predictors: (Constant), RLAGX, MG, EFF, MS

b Dependent Variable: RROAX

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.885	4	4.221	10.356	.000(a)
	Residual	32.202	79	.408		
	Total	49.086	83			

a Predictors: (Constant), RLAGX, MG, EFF, MS

b Dependent Variable: RROAX

Model 1 : Multiple Regression (Without Treatment)

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.287	.268		1.071	.288	-.247	.821		
MS	3.552	1.400	.241	2.537	.013	.765	6.338	.920	1.087
EFF	-3.760	3.807	-.092	-.988	.326	-11.338	3.818	.957	1.045
MG	-2.967	.725	-.380	4.092	.000	-4.410	-1.524	.963	1.038
RLAGX	.116	.045	.244	2.591	.011	.027	.205	.936	1.068

Dependent Variable: RROAX

Collinearity Diagnostics(a)

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	MS	EFF	MG	RLAGX
1	1	3.117	1.000	.01	.03	.01	.03	.00
	2	1.040	1.731	.00	.03	.00	.01	.81
	3	.537	2.410	.00	.70	.00	.12	.17
	4	.265	3.429	.02	.13	.12	.70	.00
	5	4.170E-02	8.645	.97	.11	.87	.15	.02

a. Dependent Variable: RROAX

Model 2 : Multiple Regression (Without Treatments)

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SD, MG, RLAGX, EFF, MS(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: RROAX			

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.596(a)	.355	.313	.6372	.675
a Predictors: (Constant), SD, MG, RLAGX, EFF, MS					
b Dependent Variable: RROAX					

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.418	5	3.484	8.580	.000(a)
	Residual	31.668	78	.406		
	Total	49.086	83			
a Predictors: (Constant), SD, MG, RLAGX, EFF, MS						
b Dependent Variable: RROAX						

Model 2 : Multiple Regression (Without Treatments)

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.597	.380		1.569	.121	-.160	1.354		
MS	3.174	1.435	.215	2.212	.030	.317	6.032	.872	1.147
EFF	-2.869	3.879	-.070	-.740	.462	-10.590	4.853	.919	1.088
MG	-3.040	.726	-.389	-4.185	.000	-4.486	-1.594	.956	1.046
RLAGX	.110	.045	.232	2.449	.017	.021	.200	.924	1.082
SD	-3.091E-02	.027	-.110	-1.146	.255	-.085	.023	.891	1.122

Dependent Variable: RROAX

Collinearity Diagnostics(a)

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	MS	EFF	MG	RLAGX	SD
1	1	3.954	1.000	.00	.02	.01	.02	.00	.01
	2	1.059	1.933	.00	.04	.00	.01	.77	.00
	3	.545	2.694	.00	.69	.00	.08	.19	.00
	4	.296	3.656	.00	.09	.04	.78	.00	.04
	5	.122	5.693	.00	.00	.37	.00	.04	.43
	6	2.399E-02	12.839	.99	.16	.58	.12	.00	.52

a. Dependent Variable: RROAX

Model 3 : Multiple Regression (Without Treatment)

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SD2, MG, RLAGX, EFF, MS, SD(a)		Enter
a All requested variables entered.			
b Dependent Variable: RROAX			

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.639(a)	.409	.363	.6140	.769
a Predictors: (Constant), SD2, MG, RLAGX, EFF, MS, SD					
b Dependent Variable: RROAX					

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.062	6	3.344	8.870	.000(a)
	Residual	29.024	77	.377		
	Total	49.086	83			
a Predictors: (Constant), SD2, MG, RLAGX, EFF, MS, SD						
b Dependent Variable: RROAX						

Model 3 : Multiple Regression (Without Treatment)

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	-.541	.565		-.958	.341	-1.665	.583		
MS	2.827	1.389	.192	2.035	.045	.061	5.593	.864	1.158
EFF	-2.250	3.744	-.055	-.601	.550	-9.706	5.206	.915	1.093
MG	-3.036	.700	-.389	4.338	.000	-4.430	-1.642	.956	1.046
RLAGX	.115	.043	.241	2.644	.010	.028	.201	.923	1.084
SD	.296	.126	1.057	2.346	.022	.045	.547	.038	26.422
SD2	-1.988E-02	.008	-1.197	2.648	.010	-.035	-.005	.038	26.584

a Dependent Variable: RROAX

Collinearity Diagnostics(a)

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	MS	EFF	MG	RLAGX	SD	SD2
1	1	4.677	1.000	.00	.01	.00	.01	.00	.00	.00
	2	1.094	2.068	.00	.06	.00	.00	.69	.00	.00
	3	.575	2.852	.00	.62	.00	.01	.28	.00	.00
	4	.395	3.443	.00	.01	.00	.55	.00	.00	.01
	5	.222	4.586	.01	.13	.21	.28	.02	.00	.01
	6	3.459E-02	11.629	.23	.17	.78	.14	.01	.01	.03
	7	2.800E-03	40.869	.77	.00	.00	.00	.00	.99	.95

a Dependent Variable: RROAX

Appendix 4

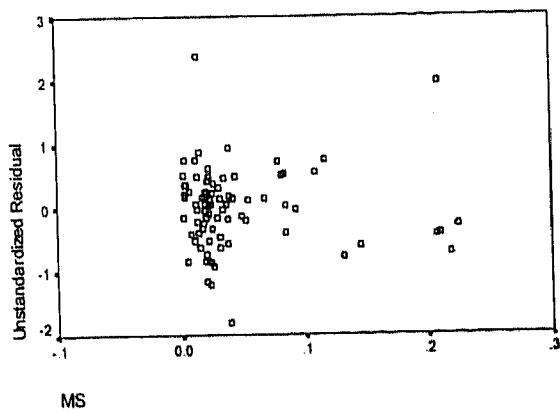
Residual Distribution vs Variables

Using Original Data Sets for All Models.

Model 1 : Residual Distribution vs Variables (Without Treatment)

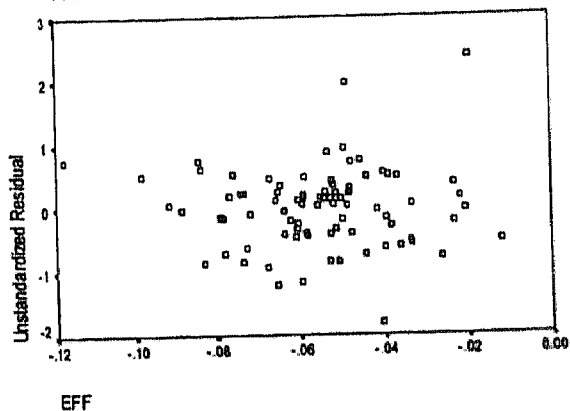
Model 1 (Without Treatment)

Residual Distribution vs MS



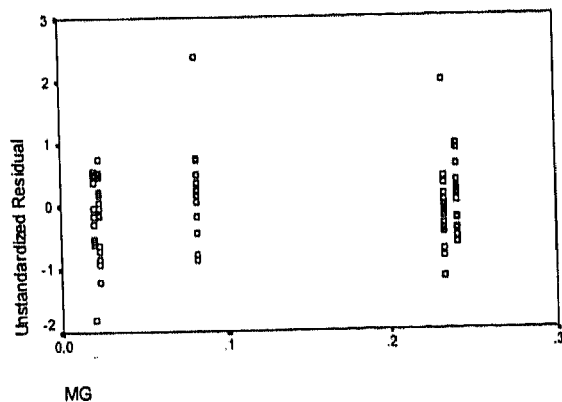
Model 1 (Without Treatment)

Residual Distribution vs EFF



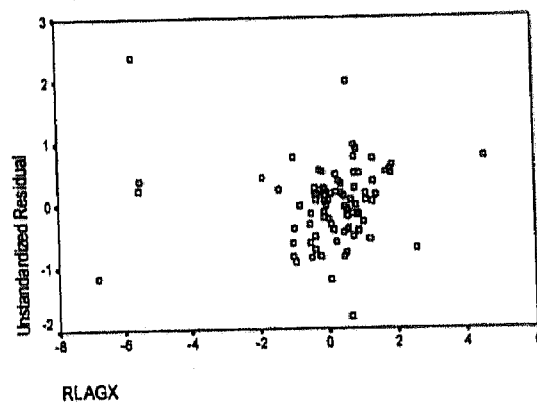
Model 1 (Without Treatment)

Residual Distribution vs MG

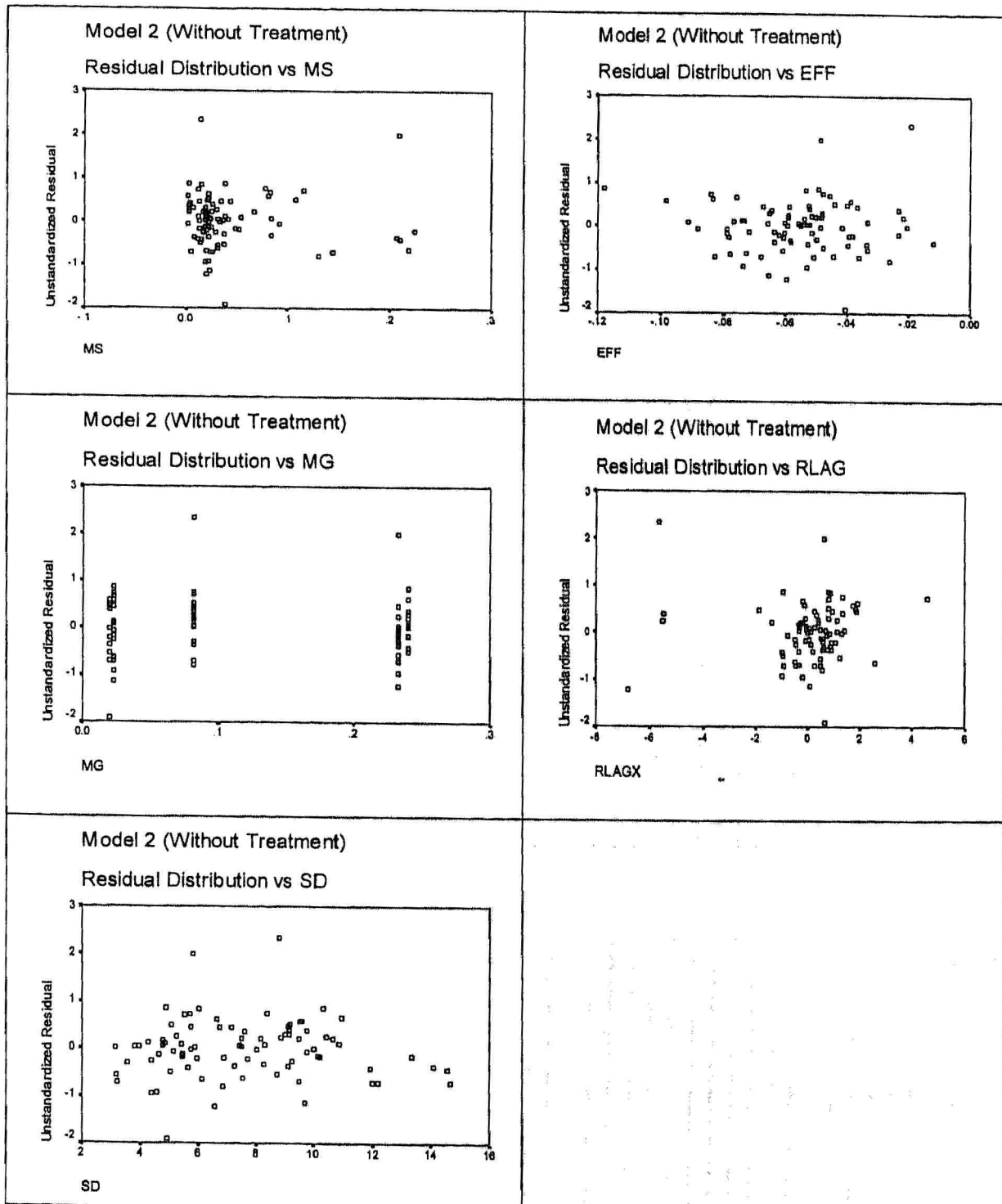


Model 1 (Without Treatment)

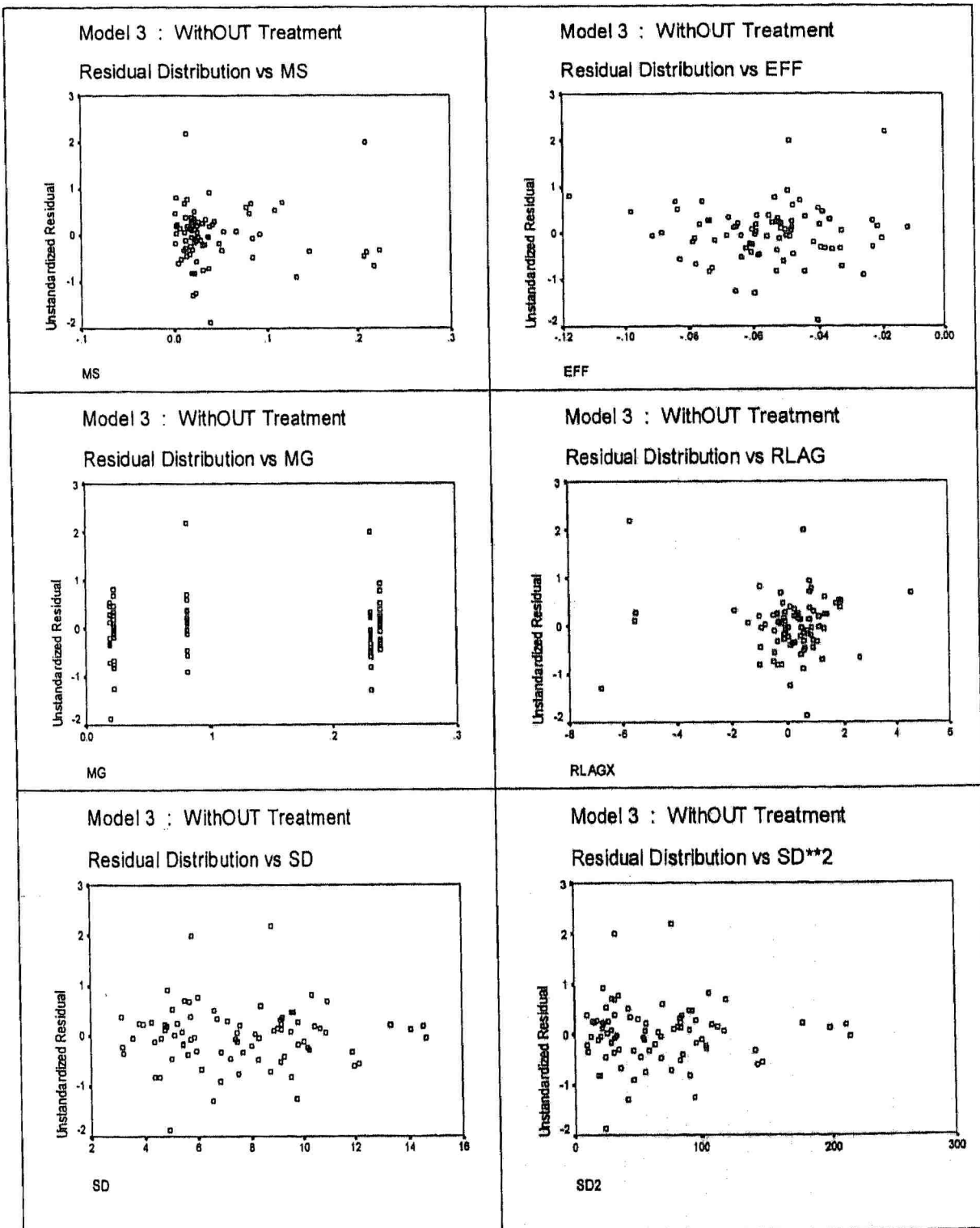
Residual Distribution vs RLAG



Model 2 : Residual Distribution vs Variables (Without Treatment)



Model 3 : Residual Distribution vs Variables (Without Treatment)



Appendix 5

SSPS Output For Hierarchical Regression Analyses Using Treated Data Sets for Heteroscedascity Phenomena for Model 2 and Model 3.

Model 2 : Multiple Regression (With Treatment For Heterodascity (1/SD))

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	1/SD, RLAGX/SD, MS/SD, MG/SD, EFF/SD(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: RROAX/SD			

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.671(a)	.450	.413	8.102E-02	.982
a Predictors: (Constant), 1/SD, RLAGX/SD, MS/SD, MG/SD, EFF/SD					
b Dependent Variable: RROAX/SD					

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.403	5	8.061E-02	12.280	.000(a)
	Residual	.492	75	6.565E-03		
	Total	.895	80			
a Predictors: (Constant), 1/SD, RLAGX/SD, MS/SD, MG/SD, EFF/SD						
b Dependent Variable: RROAX/SD						

**Model 2 : Multiple Regression
(With Treatment For Heterodascity (1/SD))**

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.900E-02	.025	.757	.451		
	MS/SD	1.560	1.236	.129	1.262	.211	.699
	EFF/SD	-7.457	3.795	-.307	-1.965	.053	.301
	MG/SD	-2.507	.590	-.440	-4.250	.000	.684
	RLAGX/SD	.233	.047	.437	4.907	.000	.923
	1/SD	-9.537E-02	.326	-.054	-.293	.770	.216

a Dependent Variable: RROAX/SD

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.900E-02	.025	.757	.451		
	MS/SD	1.560	1.236	.129	1.262	.211	.699
	EFF/SD	-7.457	3.795	-.307	-1.965	.053	.301
	MG/SD	-2.507	.590	-.440	-4.250	.000	.684
	RLAGX/SD	.233	.047	.437	4.907	.000	.923
	1/SD	-9.537E-02	.326	-.054	-.293	.770	.216

A Dependent Variable: RROAX/SD

**Model 3 : Multiple Regression
(With Treatment For Heterodascity (1/SD**2))**

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	1/SD2, RLAGX/SD2, MS/SD2, MG/SD2, EFF/SD2, SD/SD2(a)		Enter
a All requested variables entered.			
b Dependent Variable: RROAX/SD2			

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.665(a)	.443	.398	1.518E-02	1.234
a Predictors: (Constant), 1/SD2, RLAGX/SD2, MS/SD2, MG/SD2, EFF/SD2, SD/SD2					
b Dependent Variable: RROAX/SD2					

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.355E-02	6	2.259E-03	9.800	.000(a)
	Residual	1.705E-02	74	2.305E-04		
	Total	3.061E-02	80			
a Predictors: (Constant), 1/SD2, RLAGX/SD2, MS/SD2, MG/SD2, EFF/SD2, SD/SD2						
b Dependent Variable: RROAX/SD2						

**Model 3 : Multiple Regression
(With Treatment For Heterodascity (1/SD**2))**

Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolera nce	VIF
1	(Constant)	-1.396E-02	.012	-1.134	.261		
	MS/SD2	1.474	1.293	.148	1.140	.445	2.246
	EFF/SD2	-7.612	4.355	-.504	-1.748	.085	11.053
	MG/SD2	-2.236	.559	-.547	-4.000	.000	2.487
	RLAGX/SD2	.258	.057	.419	4.561	.000	.894
	SD/SD2	.218	.150	.666	1.449	.152	28.075
	1/SD2	-.751	.470	-.839	-1.600	.114	36.524

a Dependent Variable: RROAX/SD2

Collinearity Diagnostics(a)

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				Constant	MS/SD2	EFF/SD2	MG/SD2	RLAGX/SD2	SD/SD2	1/SD2
1	1	4.893	1.000	.00	.01	.00	.01	.00	.00	.00
	2	.954	2.265	.00	.02	.00	.00	.79	.00	.00
	3	.571	2.926	.00	.32	.00	.15	.11	.00	.00
	4	.402	3.488	.02	.11	.00	.11	.08	.00	.00
	5	.160	5.527	.01	.18	.09	.52	.01	.00	.01
	6	1.696E-02	16.987	.03	.35	.89	.17	.01	.02	.30
	7	3.141E-03	39.468	.93	.00	.01	.03	.00	.98	.69

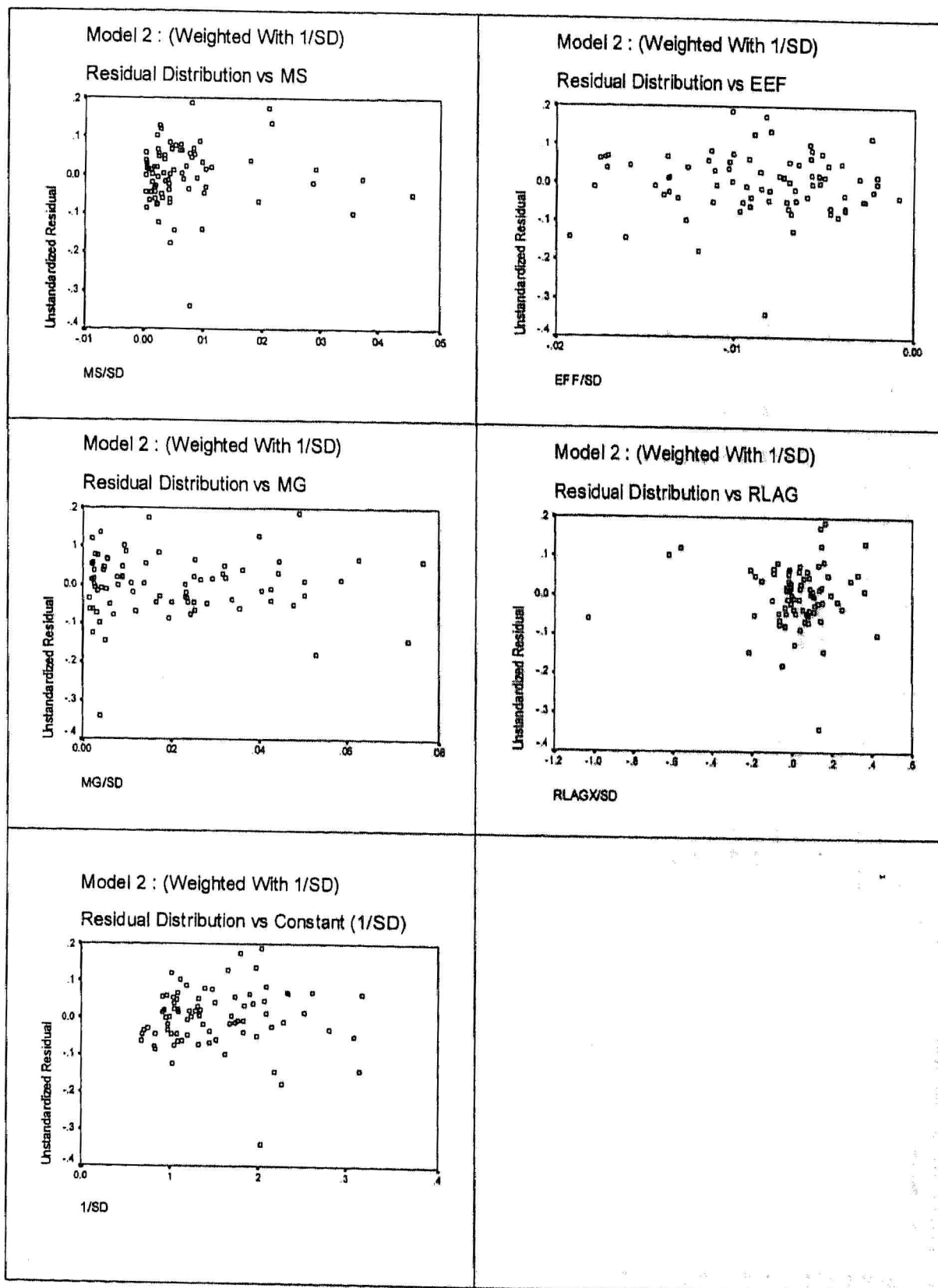
a Dependent Variable: RROAX/SD2

Appendix 6

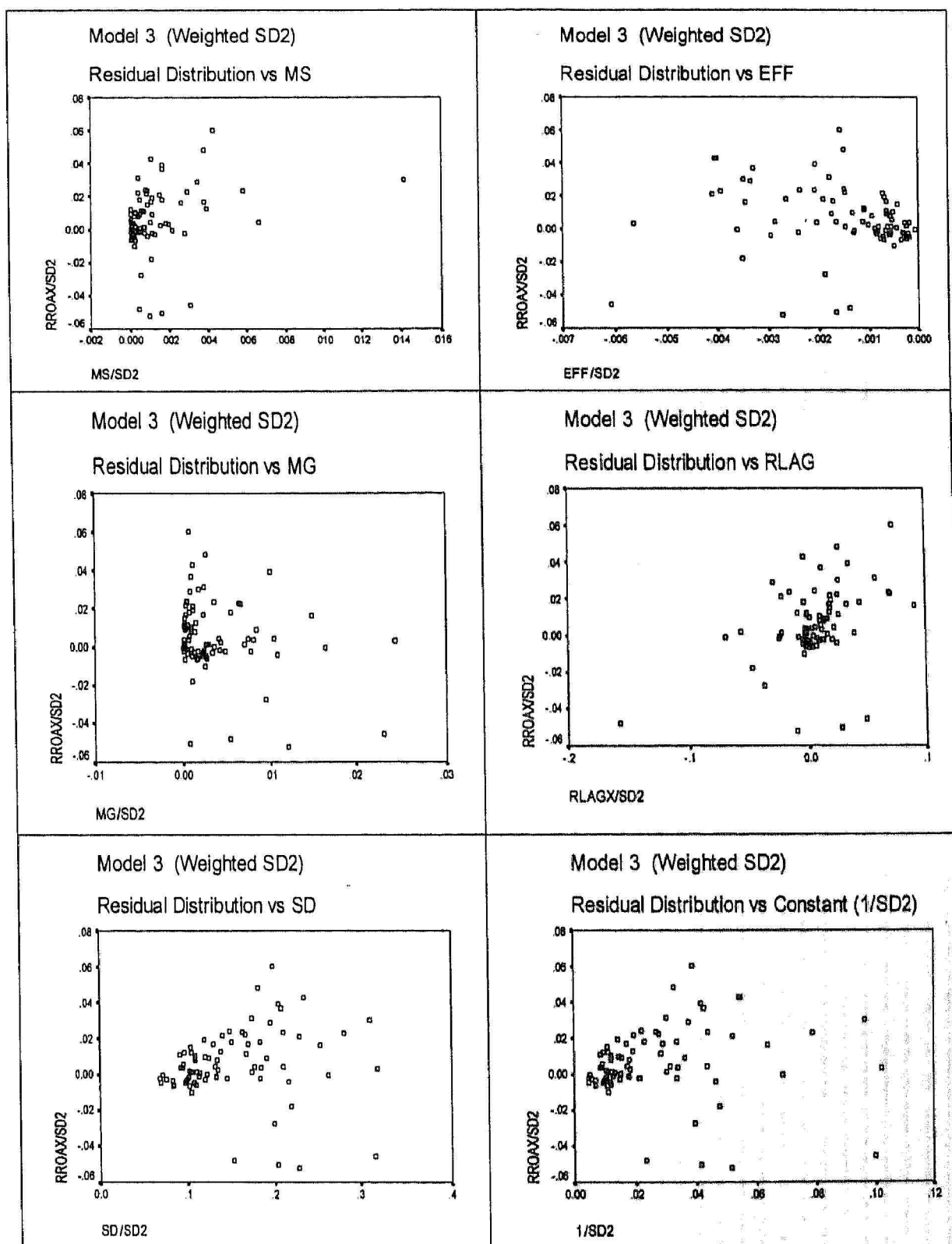
Residual Distribution vs Variables

**Using Treated Data Sets for Heteroscedascity Phenomena
for Model 2 and Model 3.**

Model 2 : Residual Distribution vs Variables (Weighted 1/SD)



Model 3 : Residual Distribution vs Variables (Weighted SD²)



Appendix 7

Scatter Diagram of Variables Using Original Data Sets

1 Scatter Diagram Dependent Variable vs Independent Variables

