

https://dspace.org/

A Study of The Variation of Price-Earnings with Intrinsic Market Value Indicators

Mlilo, Mncedisi

2011-10-24
http://hdl.handle.net/10539/10639

Downloaded from a DSpace repository. https://dspace.org/

APPENDIX B: STATISTICAL OUTPUT

APPENDIX B – I

Table B1: Descriptive Stats from Statistica

	Valid N	Mean	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis
PE5Y	628	21.97	0.00	1428.14	91.61	11.09	144.74
PE4Y	628	22.15	0.00	1108.10	85.32	9.62	105.45
PE3Y	628	21.40	0.00	1368.59	91.26	11.77	157.26
PE2Y	628	20.87	0.00	1337.50	91.30	11.06	137.36
PE1Y	628	18.39	0.00	2425.00	103.89	20.33	462.43
SPREAD5Y	363	0.21	-3.99	17.35	1.62	6.46	56.06
SPREAD4Y	383	0.14	-4.96	13.66	1.38	4.85	38.58
SPREAD3Y	400	0.14	-6.48	18.21	1.62	5.13	50.88
SPREAD2Y	453	0.16	-8.59	27.27	2.11	6.59	75.52
SPREAD1Y	543	-0.02	-40.08	27.20	3.26	-3.70	71.87
SALESG5Y	628	0.13	-0.26	13.80	0.65	15.81	317.50
SALESG4Y	628	0.11	-0.38	3.91	0.38	6.02	45.43
SALESG3Y	628	0.10	-0.64	4.56	0.36	6.14	52.89
SALESG2Y	628	0.08	-0.72	6.77	0.46	8.49	94.27
SALESG1Y	628	0.02	-0.76	2.49	0.15	9.05	137.01

APPENDIX B – II

Figure B1: Histogram of Sales Growth Data for One-Year Average

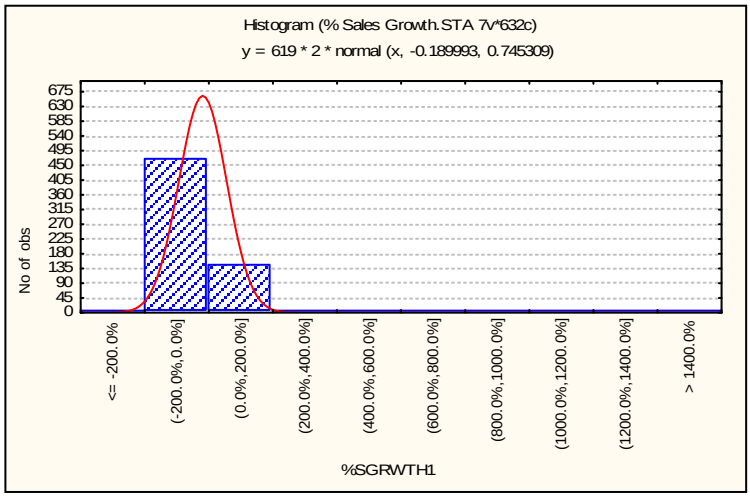


Figure B2: Histogram of Sales Growth Data for Two-Year Average

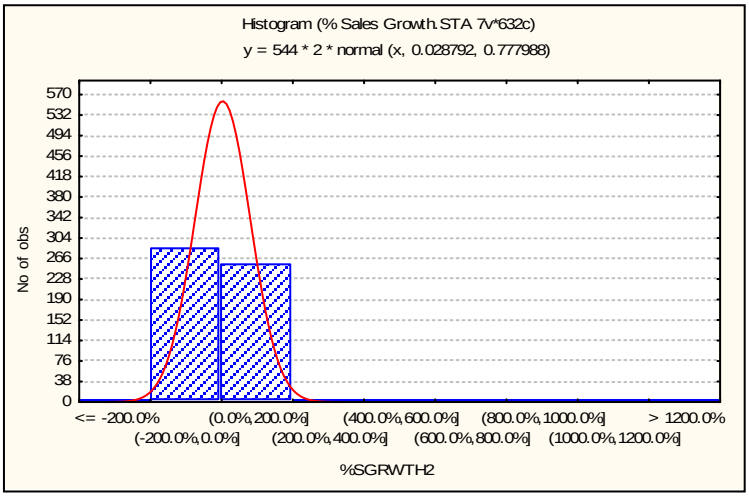


Figure B3: Histogram of Sales Growth Data for Three-Year Average

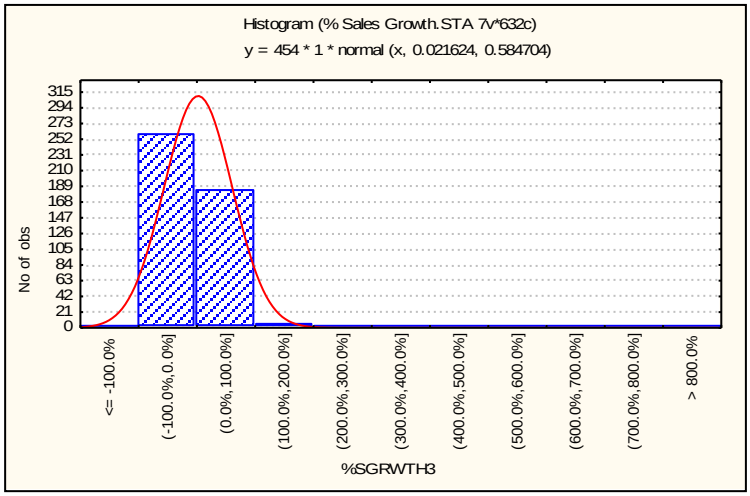


Figure B4: Histogram of Sales Growth Data for Four-Year Average

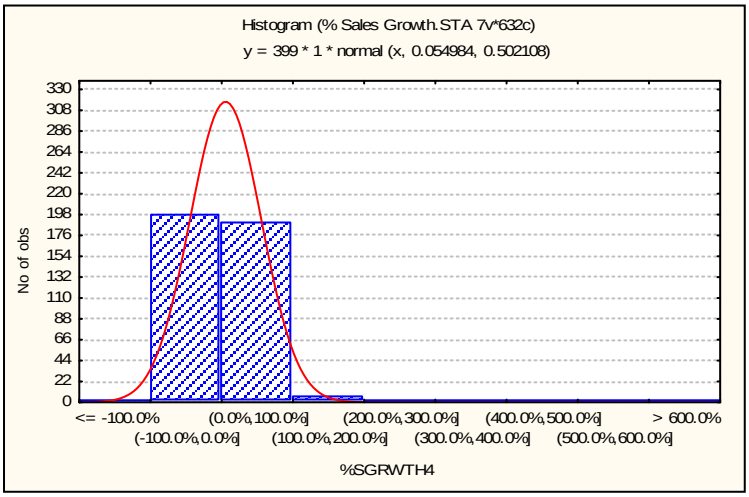


Figure B5: Histogram of Sales Growth Data for Five-Year Average

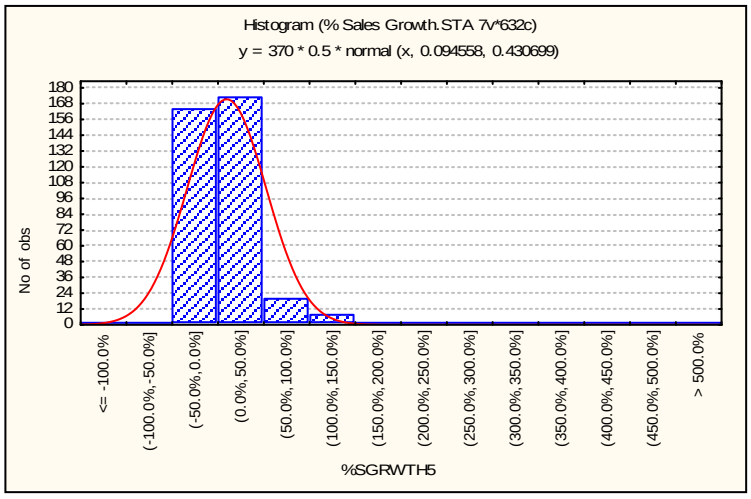


Figure B6: Histogram of (ROIC-k) Data for One-Year Average

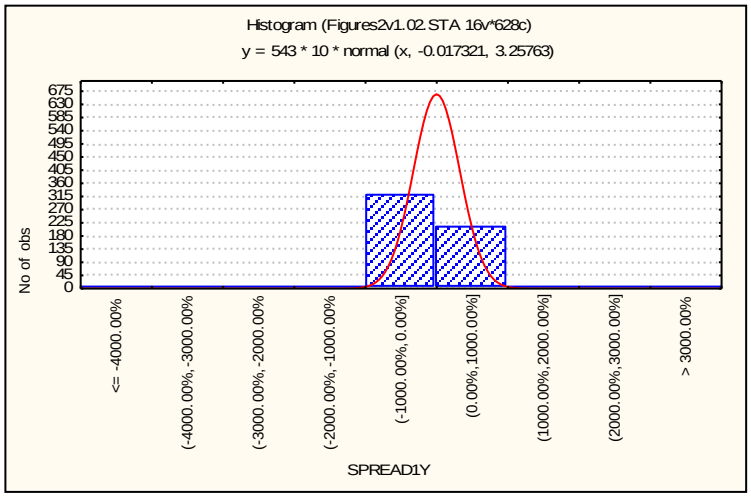


Figure B7: Histogram of (ROIC-k) Data for Two-Year Average

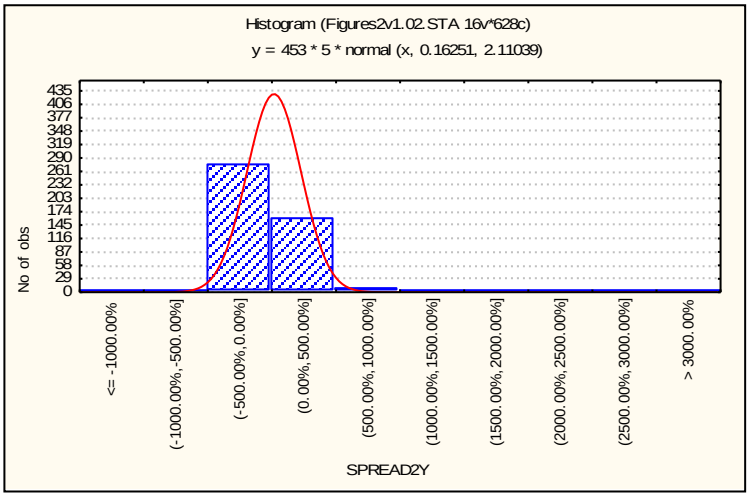


Figure B8: Histogram of (ROIC-k) Data for Three-Year Average

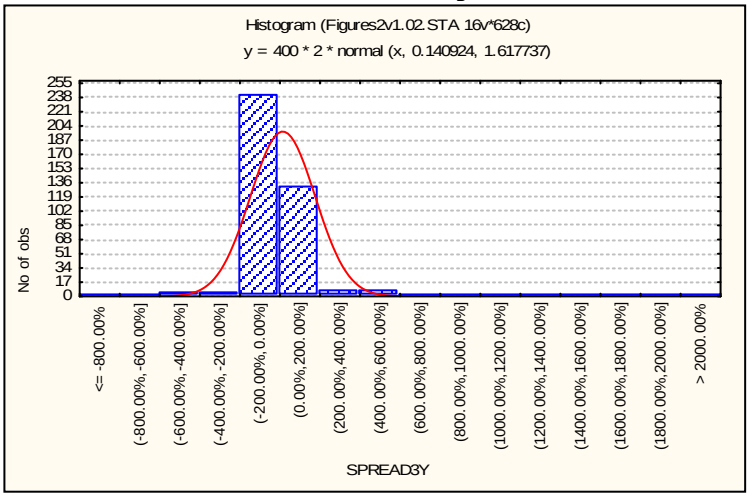


Figure B9: Histogram of (ROIC-k) Data for Four-Year Average

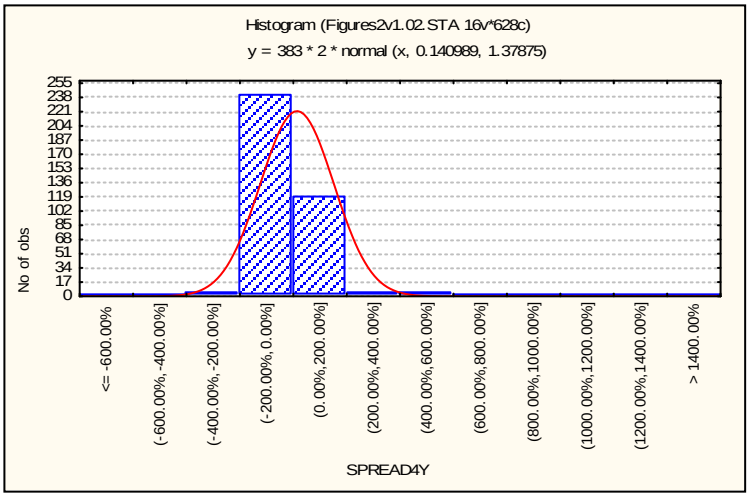


Figure B10: Histogram of (ROIC-k) Data for Five-Year Average

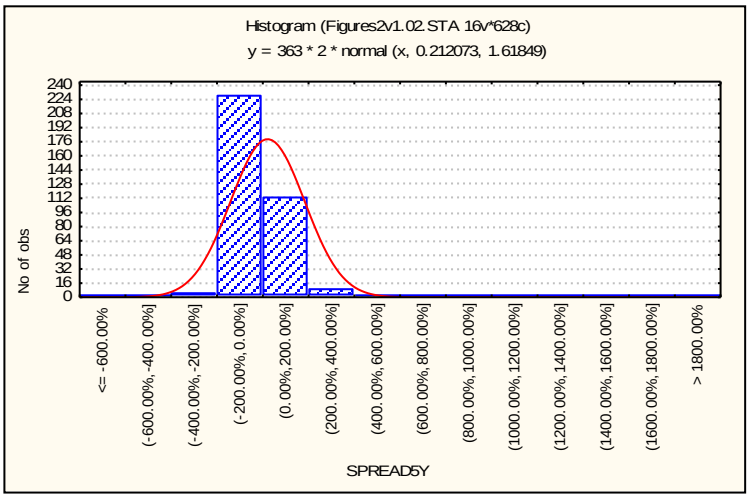


Figure B11: Histogram of P-E Ratio Data for One-Year Average

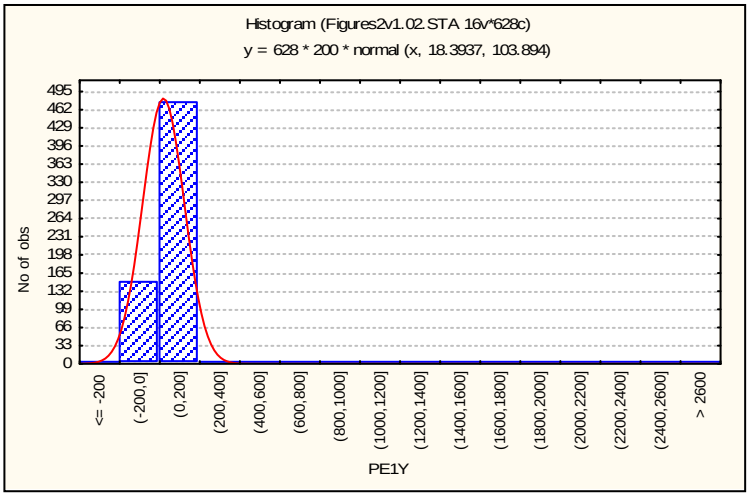


Figure B12: Histogram of P-E Ratio Data for Two-Year Average

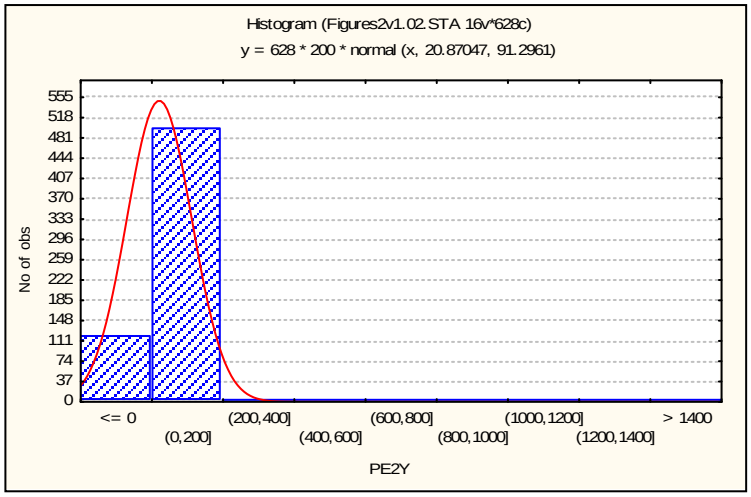


Figure B13: Histogram of P-E Ratio Data for Three-Year Average

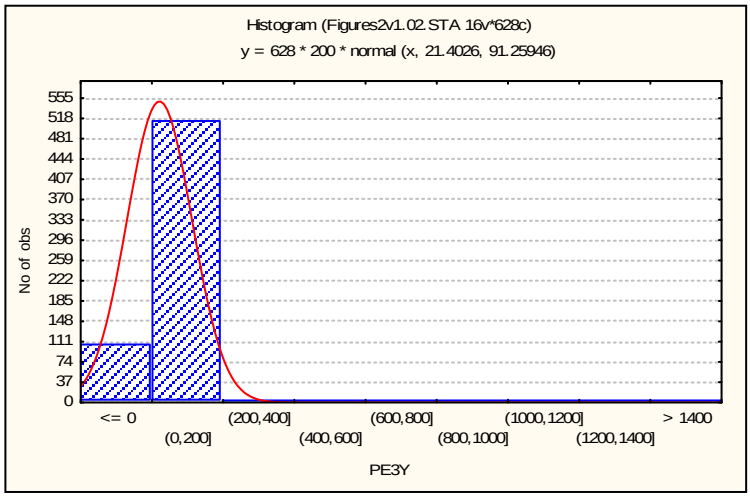


Figure B14: Histogram of P-E Ratio Data for Four-Year Average

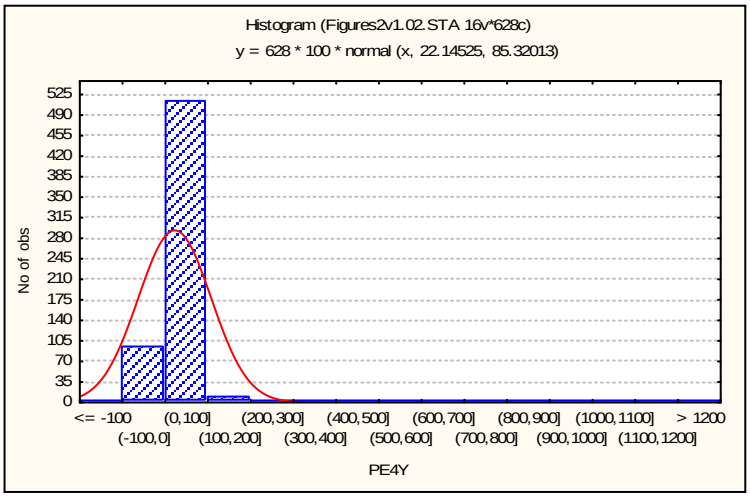
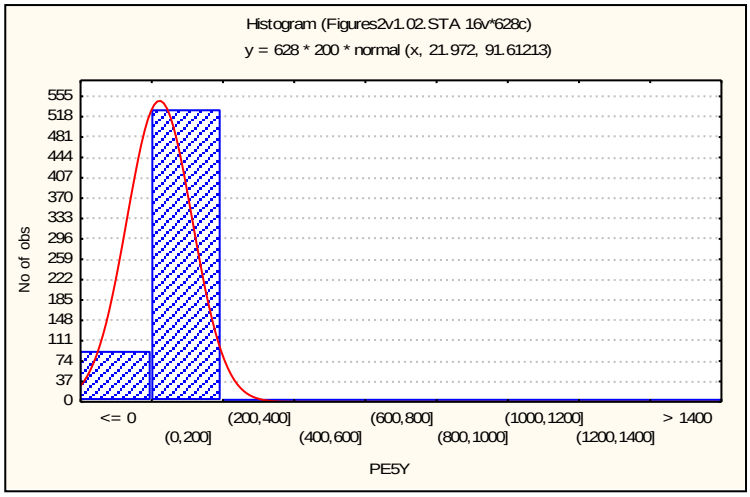


Figure B15: Histogram of P-E Ratio Data for Five-Year Average



APPENDIX B – III

DESCRIPTIVE STATISTICS REPORT

Summary Section of PE5Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	24.20755	107.3453	4.280138	0	1428.145	1428.145

Counts Section of PE5Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	540	15226.55	7605051	7236453

Skewness and Kurtosis Section of PE5Y

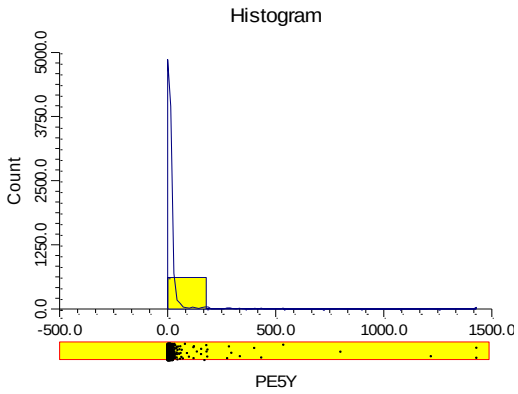
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	10.38537	123.7294	10.41021	121.7042	4.434372	2.824675

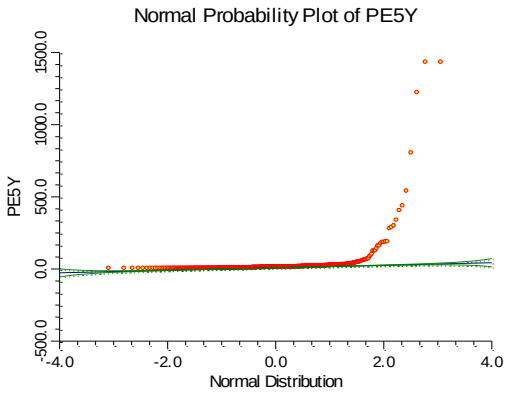
Std Error	1.694972	44.45726		0.3665892	

Normality Test Section of PE5Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	197.0217		1.007191	1.013482	Reject Normality
Kolmogorov-Smirnov	0.4092011		0.033	0.036	Reject Normality
D'Agostino Skewness	27.7183	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	16.8915	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1053.6256	0.000000	4.605	5.991	Reject Normality

Plots Section of PE5Y


Histogram
Count
5000.0
3750.0
2500.0
1250.0
0.0
-500.0
0.0
500.0
1000.0
1500.0
PE5Y


Normal Probability Plot of PE5Y
PE5Y
1500.0
1000.0
500.0
0.0
-500.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of PE4Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	23.87173	95.618	3.812539	0	1108.097	1108.097

Counts Section of PE4Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	534	15015.32	6100121	5741680

Skewness and Kurtosis Section of PE4Y

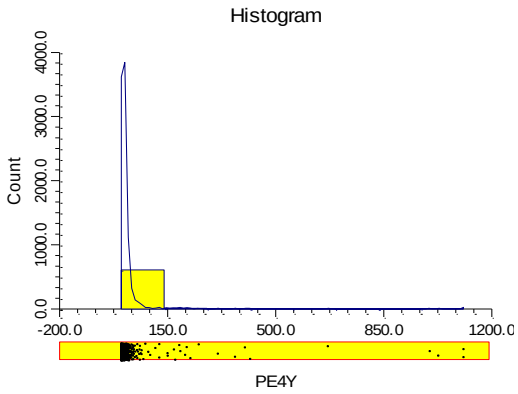
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion

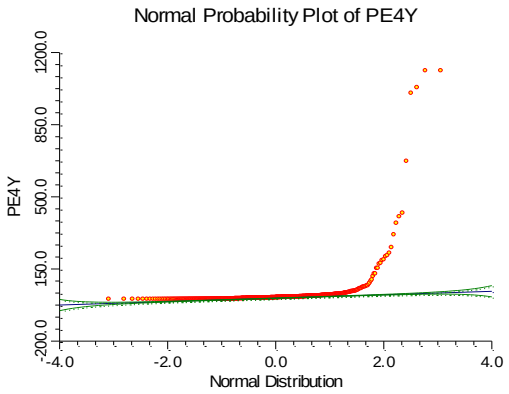
Value	9.084533	93.98261	9.106263	91.71961	4.005491	2.751097
Std Error	1.34232	30.28397			0.272211	

Normality Test Section of PE4Y

	Test	Prob	10% Critical		5% Critical	Decision
Test Name	**Value**	**Level**	**Value**	**Value**	**(5%)**	
Martinez-Iglewicz	151.464		1.007191	1.013482	Reject Normality	
Kolmogorov-Smirnov	0.3998364		0.033	0.036	Reject Normality	
D'Agostino Skewness	26.5706	0.000000	1.645	1.960	Reject Normality	
D'Agostino Kurtosis	16.4182	0.000000	1.645	1.960	Reject Normality	
D'Agostino Omnibus	975.5518	0.000000	4.605	5.991	Reject Normality	

Plots Section of PE4Y


Histogram
Count
4000.0
3000.0
2000.0
1000.0
0.0
-200.0
150.0
500.0
850.0
1200.0
PE4Y


Normal Probability Plot of PE4Y
PE4Y
1200.0
850.0
500.0
150.0
-200.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of PE3Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	23.54439	105.832	4.2198	0	1368.59	1368.59

Counts Section of PE3Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	525	14809.42	7382544	7033866

Skewness and Kurtosis Section of PE3Y

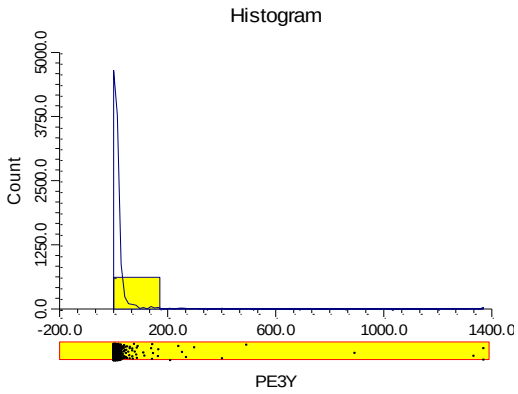
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	10.74522	128.7743	10.77093	126.7894	4.495001	2.892104

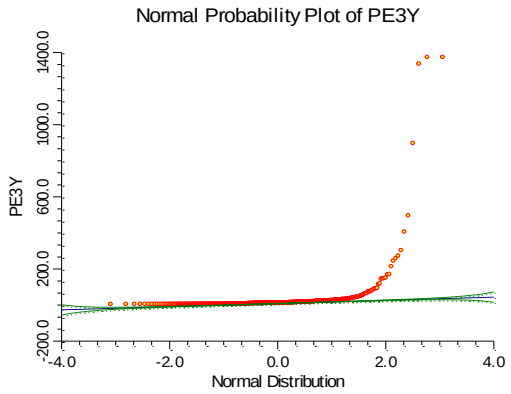
Std Error	1.932261	50.14969	0.3519025

Normality Test Section of PE3Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	173.3335		1.007191	1.013482	Reject Normality
Kolmogorov-Smirnov	0.4103844		0.033	0.036	Reject Normality
D'Agostino Skewness	28.0106	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	16.9566	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1072.1172	0.000000	4.605	5.991	Reject Normality

Plots Section of PE3Y


Histogram
Count
5000.0
3750.0
2500.0
1250.0
0.0
-200.0
200.0
600.0
1000.0
1400.0
PE3Y


Normal Probability Plot of PE3Y
PE3Y
1400.0
1000.0
600.0
200.0
-200.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of PE2Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	22.96369	105.2506	4.196616	0	1337.5	1337.5

Counts Section of PE2Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	506	14444.16	7288478	6956787

Skewness and Kurtosis Section of PE2Y

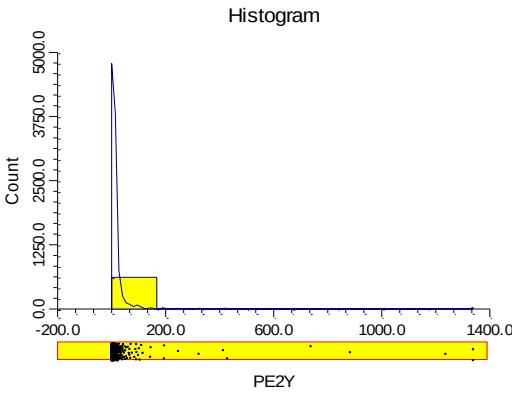
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	10.25124	116.9487	10.27577	114.8693	4.583349	3.043519

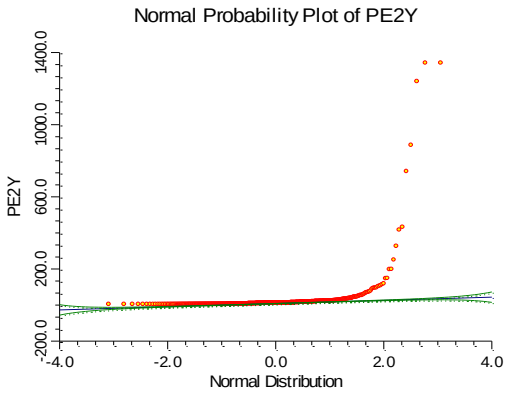
Std Error	1.790757	43.36422			0.3172279

Normality Test Section of PE2Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	192.7134		1.007191	1.013482	Reject Normality
Kolmogorov-Smirnov	0.4120542		0.033	0.036	Reject Normality
D'Agostino Skewness	27.6067	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	16.7982	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1044.3121	0.000000	4.605	5.991	Reject Normality

Plots Section of PE2Y


Histogram
Count
5000.0
3750.0
2500.0
1250.0
0.0
-200.0
200.0
600.0
1000.0
1400.0
PE2Y


Normal Probability Plot of PE2Y
PE2Y
1400.0
1000.0
600.0
200.0
-200.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of PE1Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	22.21977	141.3671	5.636675	0	2425	2425

Counts Section of PE1Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	479	13976.24	1.286091E+07	1.255036E+07

Skewness and Kurtosis Section of PE1Y

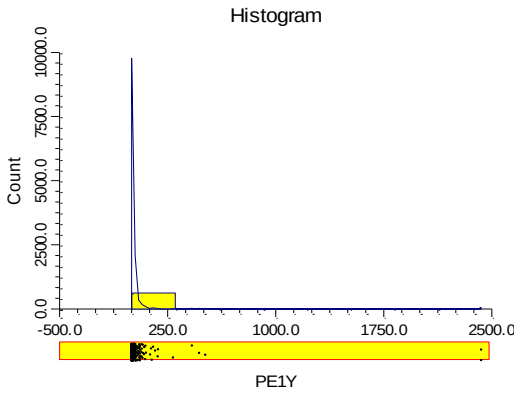
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	15.82062	266.7224	15.85846	265.8405	6.362219	3.021193

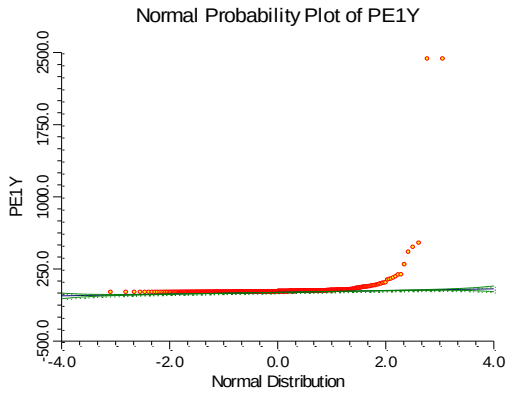
Std Error	4.518175	161.6172	0.6352032

Normality Test Section of PE1Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	337.8315		1.007191	1.013482	Reject Normality
Kolmogorov-Smirnov	0.4359625		0.033	0.036	Reject Normality
D'Agostino Skewness	31.3335	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	17.9967	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1305.6691	0.000000	4.605	5.991	Reject Normality

Plots Section of PE1Y


Histogram
Count
10000.0
7500.0
5000.0
2500.0
0.0
-500.0
250.0
1000.0
1750.0
2500.0
PE1Y


Normal Probability Plot of PE1Y
PE1 Y
2500.0
1750.0
1000.0
250.0
-500.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SPREAD5Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
364	0.2591627	1.849176	9.692317E-02	-3.991511	17.35286	21.34437

Counts Section of SPREAD5Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	364	269	363	94.33523	1265.71	1241.261

Skewness and Kurtosis Section of SPREAD5Y

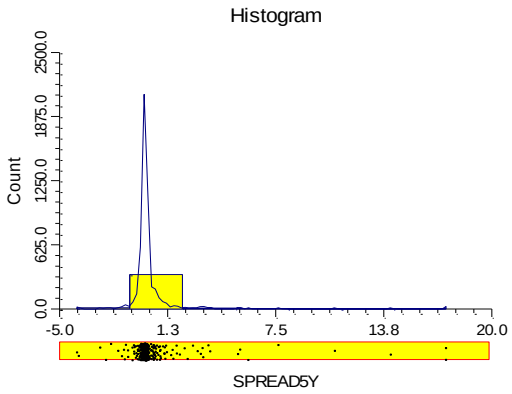
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	6.424906	53.83839	6.451523	51.56035	7.135194	-11.43435

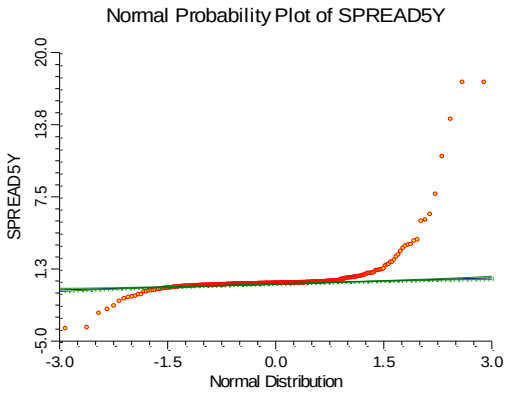
Std Error	0.782218	15.21672		1.595512	

Normality Test Section of SPREAD5Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	76.35076		1.014687	1.024678	Reject Normality
Kolmogorov-Smirnov	0.3311605		0.043	0.047	Reject Normality
D'Agostino Skewness	18.2472	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	12.0936	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	479.2127	0.000000	4.605	5.991	Reject Normality

Plots Section of SPREAD5Y


Histogram
Count
2500.0
1875.0
1250.0
625.0
0.0
-5.0
1.3
7.5
13.8
20.0
SPREAD5Y


Normal Probability Plot of SPREAD5Y
SPREAD5Y
20.0
13.8
7.5
1.3
-5.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SPREAD4Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
384	0.1761947	1.54011	7.859339E-02	-4.958055	13.66001	18.61807

Counts Section of SPREAD4Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	384	249	383	67.65876	920.3733	908.4521

Skewness and Kurtosis Section of SPREAD4Y

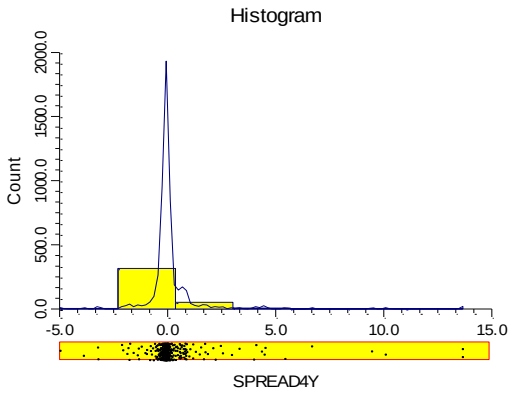
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	5.156641	41.37241	5.176885	38.89257	8.740953	-9.099483

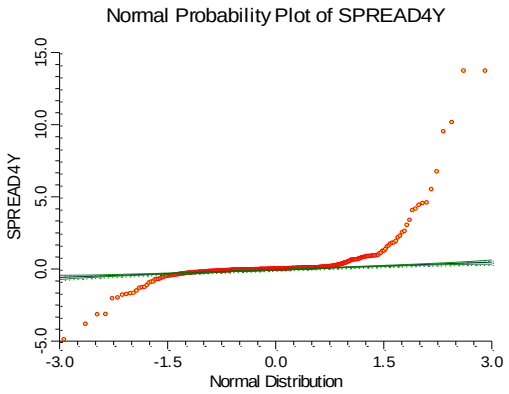
Std Error	0.633016	9.227049		2.866024	

Normality Test Section of SPREAD4Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	48.15528		1.013818	1.023377	Reject Normality
Kolmogorov-Smirnov	0.3053803		0.042	0.045	Reject Normality
D'Agostino Skewness	17.2154	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	11.8674	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	437.2054	0.000000	4.605	5.991	Reject Normality

Plots Section of SPREAD4Y


Histogram
Count
2000.0
1500.0
1000.0
500.0
0.0
-5.0
0.0
5.0
10.0
15.0
SPREAD4Y


Normal Probability Plot of SPREAD4Y
SPREAD4Y
15.0
10.0
5.0
0.0
-5.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SPREAD3Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
401	0.1859875	1.850636	9.241632E-02	-6.475981	18.21141	24.68739

Counts Section of SPREAD3Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	401	232	400	74.581	1383.812	1369.941

Skewness and Kurtosis Section of SPREAD3Y

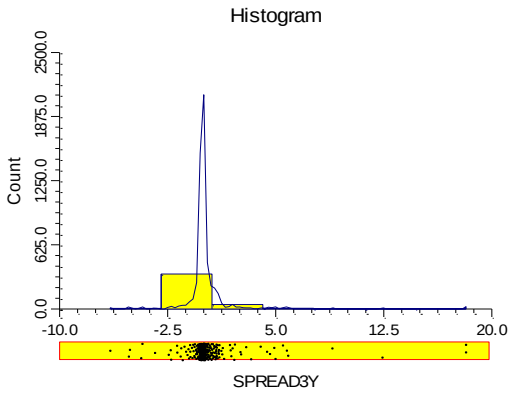
Parameter	Skewness	Kurtosis	Coefficient Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	5.663454	53.23269	5.684741	50.87981	9.95032	-10.28458

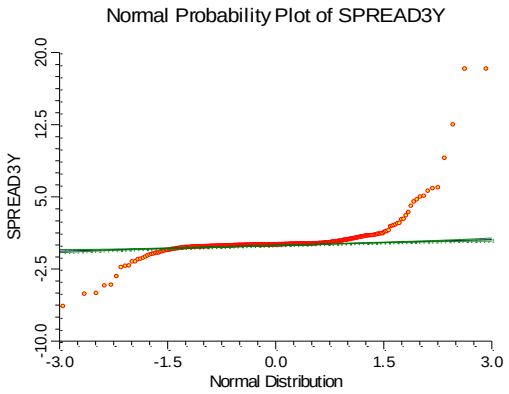
Std Error	0.7860959	11.92253		3.703029	

Normality Test Section of SPREAD3Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	54.48479		1.013138	1.022361	Reject Normality
Kolmogorov-Smirnov	0.2961343		0.041	0.045	Reject Normality
D'Agostino Skewness	18.2135	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	12.5702	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	489.7412	0.000000	4.605	5.991	Reject Normality

Plots Section of SPREAD3Y


Histogram
Count
2500.0
1875.0
1250.0
625.0
0.0
-10.0
-2.5
5.0
12.5
20.0
SPREAD3Y


Normal Probability Plot of SPREAD3Y
SPREAD3Y
20.0
12.5
5.0
-2.5
-10.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SPREAD2Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
454	0.2222268	2.462293	0.1155612	-8.594473	27.27372	35.86819

Counts Section of SPREAD2Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	454	179	453	100.891	2768.909	2746.489

Skewness and Kurtosis Section of SPREAD2Y

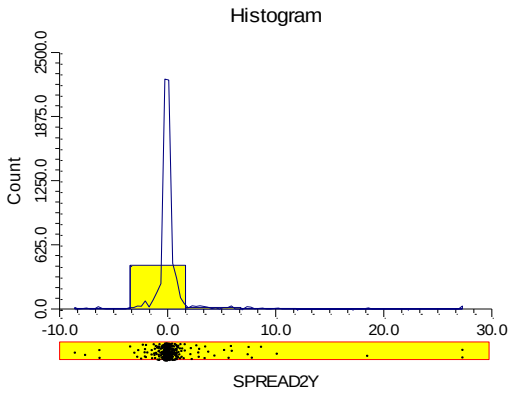
Parameter	Skewness	Kurtosis	Coefficient Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	7.002446	73.65517	7.02568	71.45285	11.08009	-11.24965

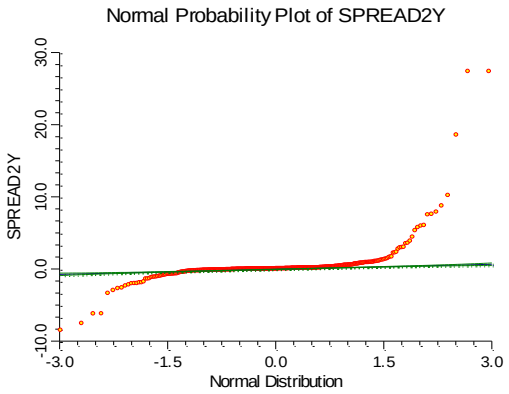
Std Error	0.8438892	18.72469		4.13271	

Normality Test Section of SPREAD2Y

	Test	**Prob**	**10% Critical**		**5% Critical**	**Decision**
Test Name	**Value**	**Level**	**Value**	**Value**	**(5%)**	
Martinez-Iglewicz	75.08421		1.011305	1.01962	Reject Normality	
Kolmogorov-Smirnov	0.3200363		0.039	0.042	Reject Normality	
D'Agostino Skewness	20.8588	0.000000	1.645	1.960	Reject Normality	
D'Agostino Kurtosis	13.8405	0.000000	1.645	1.960	Reject Normality	
D'Agostino Omnibus	626.6503	0.000000	4.605	5.991	Reject Normality	

Plots Section of SPREAD2Y


Histogram
Count
2500.0
1875.0
1250.0
625.0
0.0
-10.0
0.0
10.0
20.0
30.0
SPREAD2Y


Normal Probability Plot of SPREAD2Y
SPREAD2Y
30.0
20.0
10.0
0.0
-10.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SPREAD1Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
544	3.270881E-02	3.45749	0.1482387	-40.08252	27.19883	67.28135	

Counts Section of SPREAD1Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	544	89	543	17.79359	6491.732	6491.15

Skewness and Kurtosis Section of SPREAD1Y

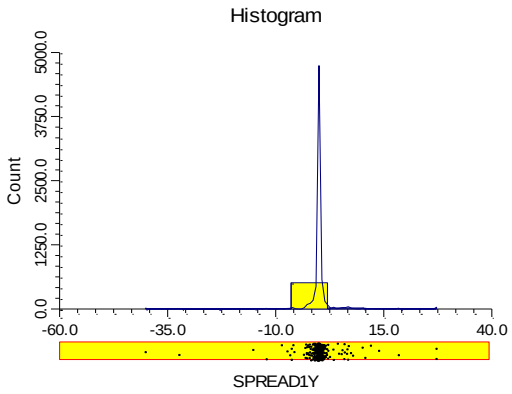
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	-2.221804	65.5752	-2.227952	63.16528	105.7052	-18.94856

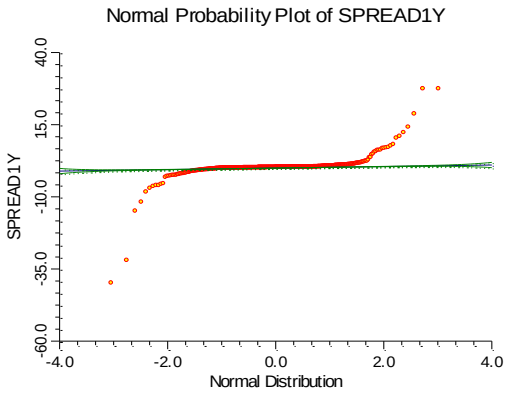
Std Error	2.842741	16.01716	483.9741

Normality Test Section of SPREAD1Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	113.6468		1.008907	1.016041	Reject Normality
Kolmogorov-Smirnov	0.316919		0.036	0.039	Reject Normality
D'Agostino Skewness	-13.7275	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	14.7472	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	405.9241	0.000000	4.605	5.991	Reject Normality

Plots Section of SPREAD1Y


Histogram
Count
5000.0
3750.0
2500.0
1250.0
0.0
-60.0
-35.0
-10.0
15.0
40.0
SPREAD1Y


Normal Probability Plot of SPREAD1Y
SPREAD1Y
40.0
15.0
-10.0
-35.0
-60.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SALESG5Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
629	0.1559847	0.8465716	3.375502E-02		-0.2598916	13.79647	14.05636

Counts Section of SALESG5Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	262	98.11436	465.3816	450.0772

Skewness and Kurtosis Section of SALESG5Y

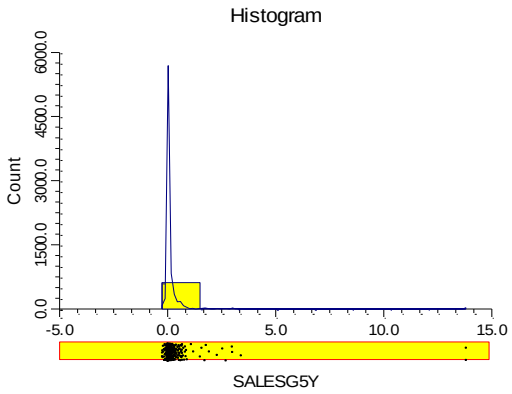
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	13.69915	216.1134	13.73192	214.8268	5.427274	0

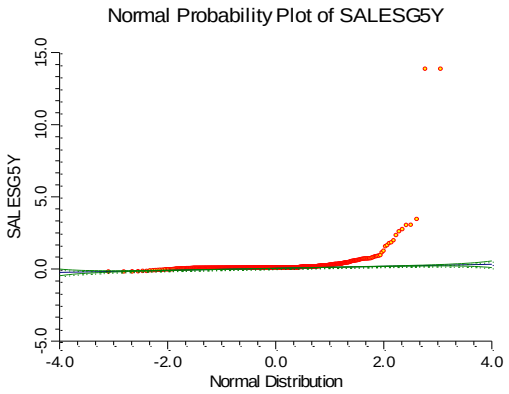
Std Error	2.790646	103.9666		0.6454692	

Normality Test Section of SALESG5Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	0		1.007191	1.013482	Accept Normality
Kolmogorov-Smirnov	0.366838		0.033	0.036	Reject Normality
D'Agostino Skewness	30.0962	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	17.7224	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1219.8642	0.000000	4.605	5.991	Reject Normality

Plots Section of SALESG5Y


Histogram
Count
6000.0
4500.0
3000.0
1500.0
0.0
-5.0
0.0
5.0
10.0
15.0
SALESG5Y


Normal Probability Plot of SALESG5Y
SALESG5Y
15.0
10.0
5.0
0.0
-5.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SALESG4Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	0.1158514	0.4085095	1.628834E-02	-0.3803527	3.911438	4.29179

Counts Section of SALESG4Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	260	72.87052	113.2428	104.8007

Skewness and Kurtosis Section of SALESG4Y

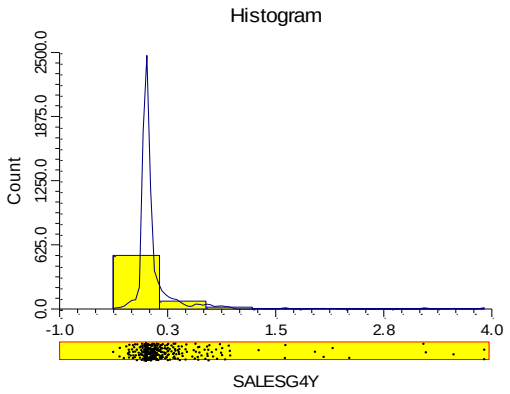
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	6.049776	47.39444	6.064247	44.75896	3.526151	0

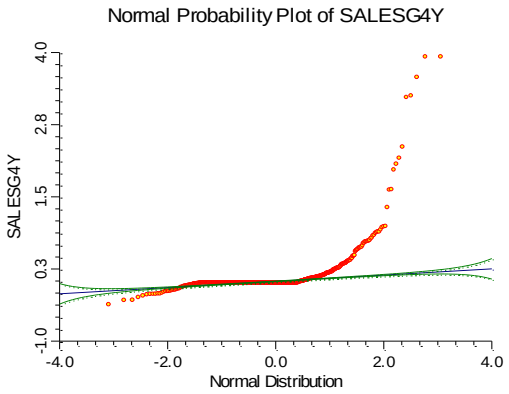
Std Error	0.5306786	9.270844	0.2309012

Normality Test Section of SALESG4Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	0		1.007191	1.013482	Accept Normality
Kolmogorov-Smirnov	0.307417		0.033	0.036	Reject Normality
D'Agostino Skewness	23.0935	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	15.0140	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	758.7297	0.000000	4.605	5.991	Reject Normality

Plots Section of SALESG4Y


Histogram
Count
2500.0
1875.0
1250.0
625.0
0.0
-1.0
0.3
1.5
2.8
4.0
SALESG4Y


Normal Probability Plot of SALESG4Y
SALESG4Y
4.0
2.8
1.5
0.3
-1.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SALESG3Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	0.1055182	0.4051897	1.615597E-02	-0.6430562	4.555294	5.19835

Counts Section of SALESG3Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	260	66.37092	110.1076	103.1042

Skewness and Kurtosis Section of SALESG3Y

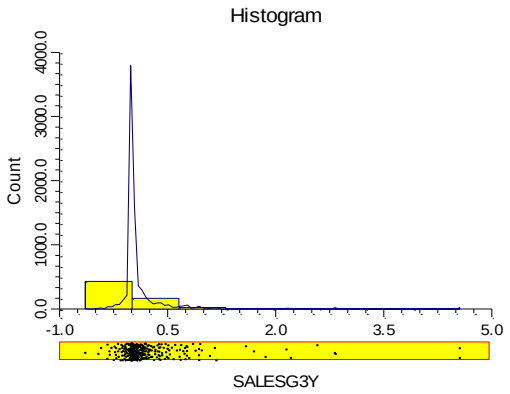
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	6.516386	59.12286	6.531973	56.58116	3.84	0

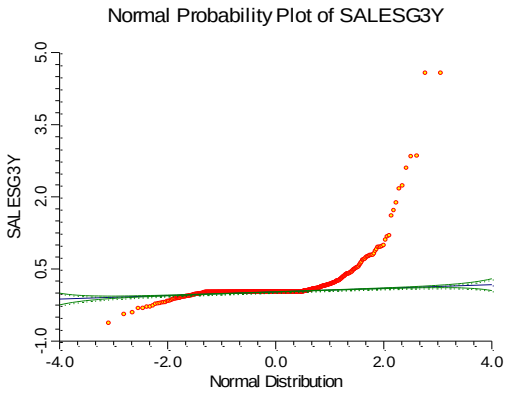
Std Error	0.7035672	12.31667	0.3156405

Normality Test Section of SALESG3Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	0		1.007191	1.013482	Accept Normality
Kolmogorov-Smirnov	0.3130773		0.033	0.036	Reject Normality
D'Agostino Skewness	23.7275	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	15.5068	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	803.4538	0.000000	4.605	5.991	Reject Normality

Plots Section of SALESG3Y


Histogram
Count
4000.0
3000.0
2000.0
1000.0
0.0
-1.0
0.5
2.0
3.5
5.0
SALESG3Y


Normal Probability Plot of SALESG3Y
SALESG3Y
5.0
3.5
2.0
0.5
-1.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SALESG2Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	9.401064E-02	0.5332088	2.126043E-02	-0.7206885	6.772491	7.49318

Counts Section of SALESG2Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	256	59.13269	184.1068	178.5477

Skewness and Kurtosis Section of SALESG2Y

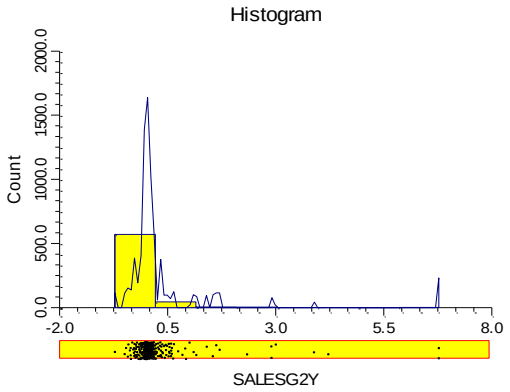
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion

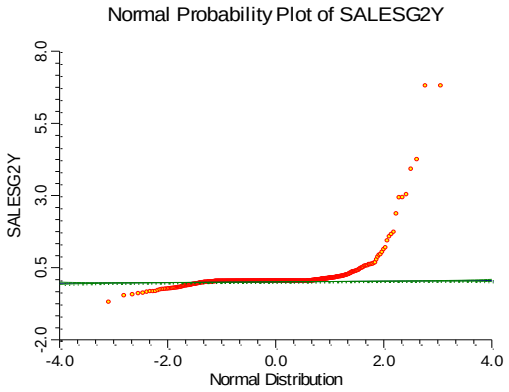
Value	8.591249	93.15868	8.611798	90.88908	5.671793	0
Std Error	1.060484	24.84578			0.5751809	

Normality Test Section of SALESG2Y

	Test	**Prob**	**10% Critical**		**5% Critical**	**Decision**
Test Name	**Value**	**Level**	**Value**	**Value**	**(5%)**	
Martinez-Iglewicz	0		1.007191	1.013482	Accept Normality	
Kolmogorov-Smirnov	0.3420748		0.033	0.036	Reject Normality	
D'Agostino Skewness	26.0921	0.000000	1.645	1.960	Reject Normality	
D'Agostino Kurtosis	16.4023	0.000000	1.645	1.960	Reject Normality	
D'Agostino Omnibus	949.8329	0.000000	4.605	5.991	Reject Normality	

Plots Section of SALESG2Y


Histogram
Count
2000.0
1500.0
1000.0
500.0
0.0
-2.0
0.5
3.0
5.5
8.0
SALESG2Y


Normal Probability Plot of SALESG2Y
SALESG2Y
8.0
5.5
3.0
0.5
-2.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of SALESG1Y

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
629	1.900461E-02	0.1795064	7.157388E-03		-0.7624814	2.49484
	3.257321					

Counts Section of SALESG1Y

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	629	4	76	11.9539	20.46294	20.23576

Skewness and Kurtosis Section of SALESG1Y

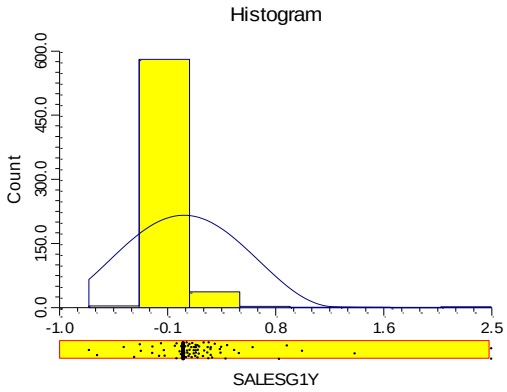
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion

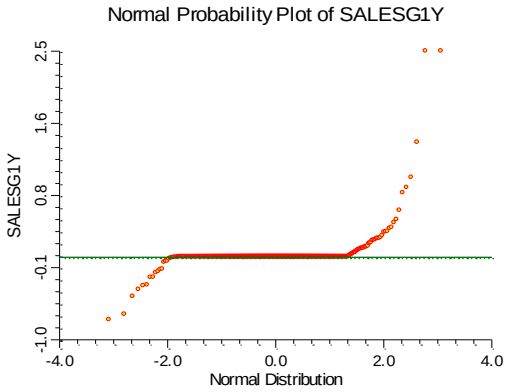
Value	9.387501	124.77	9.409956	122.7531	9.445414	0
Std Error	1.197227	36.67044			2.11099	

Normality Test Section of SALESG1Y

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	0		1.007191	1.013482	Accept Normality
Kolmogorov-Smirnov	0.4563073		0.033	0.036	Reject Normality
D'Agostino Skewness	26.8518	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	16.9052	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1006.8063	0.000000	4.605	5.991	Reject Normality

Plots Section of SALESG1Y


Histogram
Count
600.0
450.0
300.0
150.0
0.0
-1.0
-0.1
0.8
1.6
2.5
SALESG1Y


Normal Probability Plot of SALESG1Y
SALESG1Y
2.5
1.6
0.8
-0.1
-1.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWT10

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
313	0.2768752	0.5882941	3.325235E-02	-0.306	6.16	6.466

Counts Section of %SGRWT10

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	313	320	255	86.66193	131.9746	107.9801

Skewness and Kurtosis Section of %SGRWT10

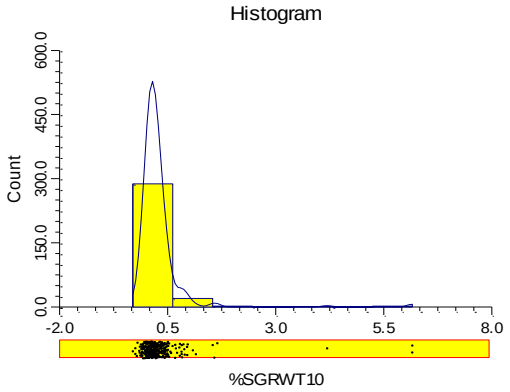
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	7.492702	70.94966	7.528831	69.06715	2.124763	1.294714

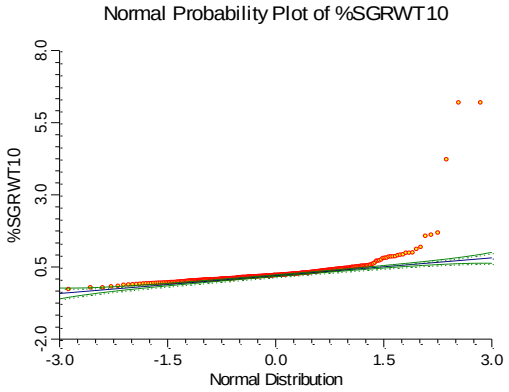
Std Error	1.033024	25.02573		0.2964479	

Normality Test Section of %SGRWT10

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	8.139538		1.01733	1.028638	Reject Normality
Kolmogorov-Smirnov	0.247601		0.046	0.05	Reject Normality
D'Agostino Skewness	17.9764	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	11.8071	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	462.5581	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWT10


Histogram
Count
600.0
450.0
300.0
150.0
0.0
-2.0
0.5
3.0
5.5
8.0
%SGRWT10


Normal Probability Plot of %SGRWT10
%SGRWT10
8.0
5.5
3.0
0.5
-2.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWTH5

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
371	0.1067248	0.4898154	2.542995E-02		-0.757	4.608	5.365

Counts Section of %SGRWTH5

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	371	262	296	39.59489	92.99583	88.77007

Skewness and Kurtosis Section of %SGRWTH5

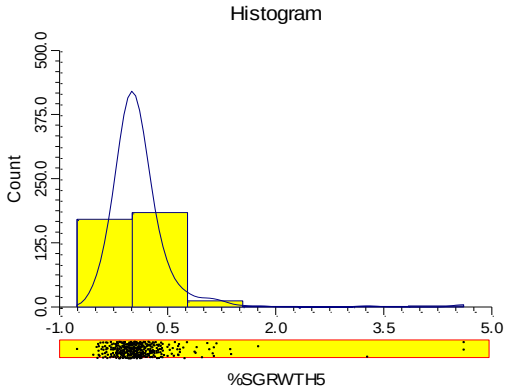
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	5.245265	44.55512	5.266582	42.13699	4.58952	7.682911

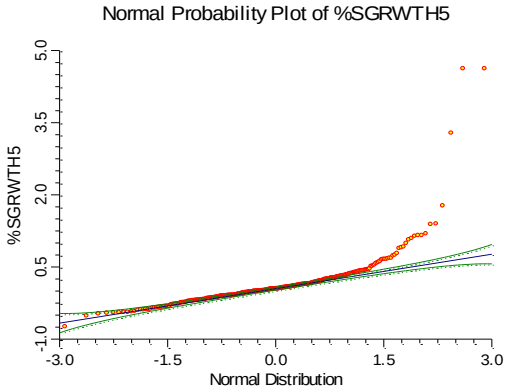
Std Error	0.5262579	7.573513	0.6678072

Normality Test Section of %SGRWTH5

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	3.621264		1.014374	1.024209	Reject Normality
Kolmogorov-Smirnov	0.1773053		0.043	0.046	Reject Normality
D'Agostino Skewness	17.0555	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	11.8416	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	431.1129	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWTH5


Histogram
Count
500.0
375.0
250.0
125.0
0.0
-1.0
0.5
2.0
3.5
5.0
%SGRWTH5


Normal Probability Plot of %SGRWTH5
%SGRWTH5
5.0
3.5
2.0
0.5
-1.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWTH4

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
400	6.928566E-02	0.5774447	2.887223E-02	-0.774	5.780265	6.554265	

Counts Section of %SGRWTH4

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	400	233	329	27.71427	134.9637	133.0435

Skewness and Kurtosis Section of %SGRWTH4

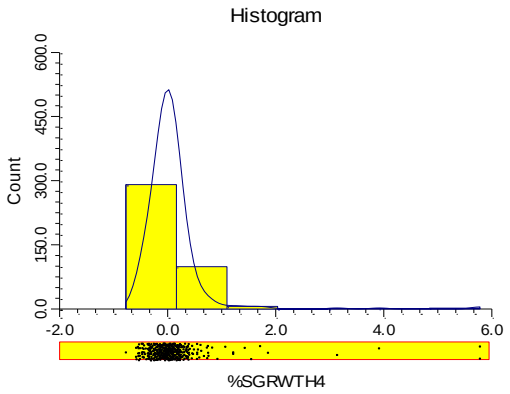
Parameter	Skewness	Kurtosis	Coefficient Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	6.175239	55.84841	6.198507	53.53017	8.334259	542.0013

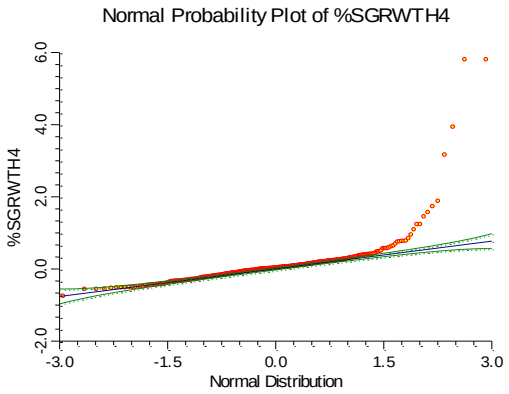
Std Error	0.5834139	12.29119	2.342381

Normality Test Section of %SGRWTH4

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	4.603185		1.013177	1.022418	Reject Normality
Kolmogorov-Smirnov	0.2150612		0.041	0.045	Reject Normality
D'Agostino Skewness	18.7898	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	12.6442	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	512.9350	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWTH4


Histogram
Count
600.0
450.0
300.0
150.0
0.0
-2.0
0.0
2.0
4.0
6.0
%SGRWTH4


Normal Probability Plot of %SGRWTH4
%SGRWTH4
6.0
4.0
2.0
0.0
-2.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWTH3

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
455	3.879622E-02		0.6891937	0.0323099	-0.742	7.82628	8.56828

Counts Section of %SGRWTH3

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	455	178	388	17.65228	216.3294	215.6446

Skewness and Kurtosis Section of %SGRWTH3

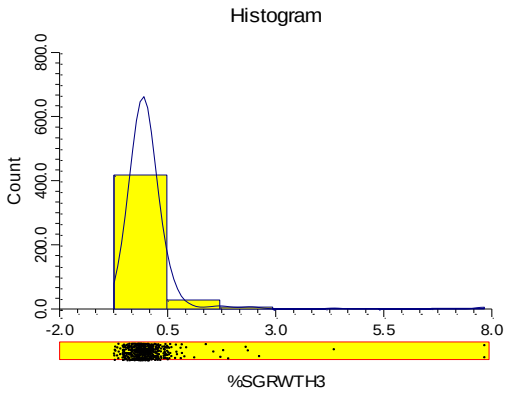
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	7.29377	76.79785	7.317917	74.62859	17.76446	-6.54635

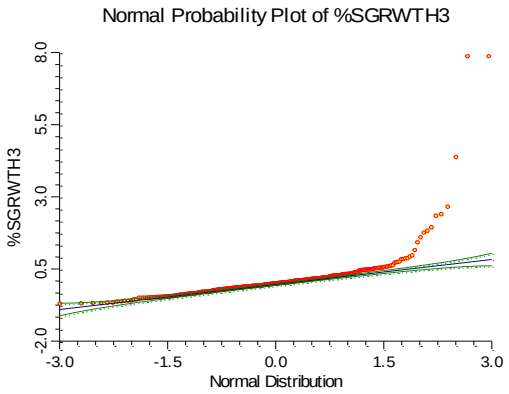
Std Error	0.6526616	17.1113	11.9067

Normality Test Section of %SGRWTH3

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	4.995907		1.011274	1.019573	Reject Normality
Kolmogorov-Smirnov	0.2166194		0.039	0.042	Reject Normality
D'Agostino Skewness	21.1800	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	13.9247	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	642.4900	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWTH3


Histogram
Count
800.0
600.0
400.0
200.0
0.0
-2.0
0.5
3.0
5.5
8.0
%SGRWTH3


Normal Probability Plot of %SGRWTH3
%SGRWTH3
8.0
5.5
3.0
0.5
-2.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWTH2

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
545	5.118306E-02	0.9366637	4.012227E-02	-0.987	12.231	13.218	

Counts Section of %SGRWTH2

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	545	88	455	27.89477	478.7001	477.2724

Skewness and Kurtosis Section of %SGRWTH2

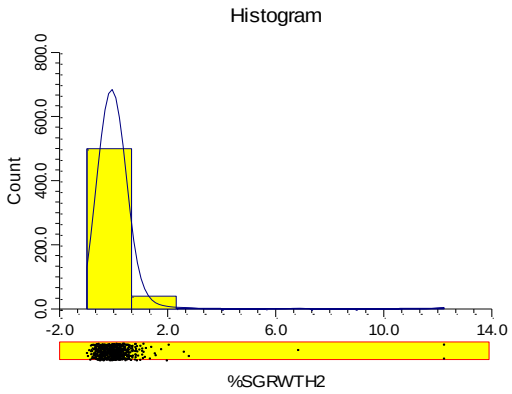
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	8.911071	110.842	8.935683	108.8491	18.30027	-21.44576

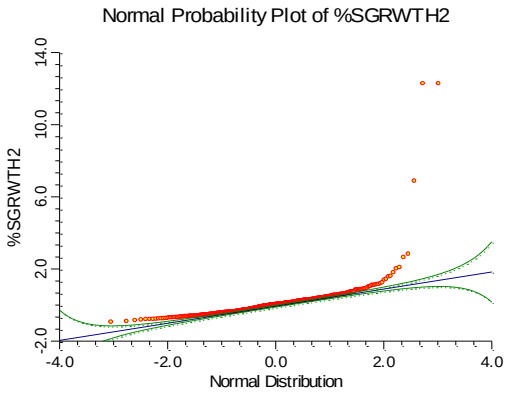
Std Error	0.7481747	29.8187	11.05324

Normality Test Section of %SGRWTH2

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	4.240922		1.008884	1.016006	Reject Normality
Kolmogorov-Smirnov	0.1929418		0.036	0.039	Reject Normality
D'Agostino Skewness	24.6657	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	15.6835	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	854.3704	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWTH2


Histogram
Count
800.0
600.0
400.0
200.0
0.0
-2.0
2.0
6.0
10.0
14.0
%SGRWTH2


Normal Probability Plot of %SGRWTH2
%SGRWTH2
14.0
10.0
6.0
2.0
-2.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

Descriptive Statistics Report

Summary Section of %SGRWTH1

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range	
620	-0.1676489		0.9296761	3.733669E-02	-0.998	13.667	14.665

Counts Section of %SGRWTH1

Rows	Sum of Frequencies	Missing Values	Distinct Values	Total Sum	Adjusted Sum Squares	Sum Squares
633	620	13	444	-103.9423	552.426	535.0002

Skewness and Kurtosis Section of %SGRWTH1

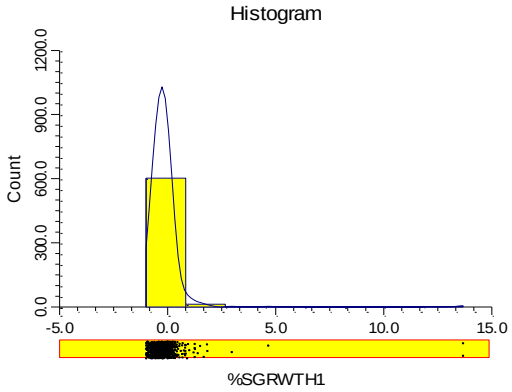
Parameter	Skewness	Kurtosis	Fisher's g1	Coefficient Fisher's g2	Coefficient of Variation	of Dispersion
Value	11.01035	160.3252	11.03708	158.6111	-5.545374	-1.544248

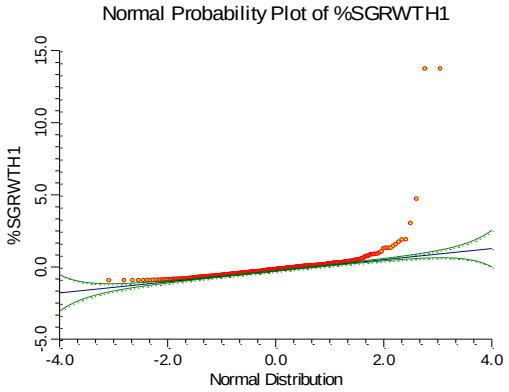
Std Error	1.114742	53.51111	2.554255

Normality Test Section of %SGRWTH1

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Martinez-Iglewicz	5.496864		1.007354	1.013725	Reject Normality
Kolmogorov-Smirnov	0.2270212		0.034	0.036	Reject Normality
D'Agostino Skewness	28.0266	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	17.1872	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	1080.8895	0.000000	4.605	5.991	Reject Normality

Plots Section of %SGRWTH1


Histogram
Count
1200.0
900.0
600.0
300.0
0.0
-5.0
0.0
5.0
10.0
15.0
%SGRWTH1


Normal Probability Plot of %SGRWTH1
%SGRWTH1
15.0
10.0
5.0
0.0
-5.0
-4.0
-2.0
0.0
2.0
4.0
Normal Distribution

APPENDIX B – IV

Multiple Regression Report

Page	1
Filter	PE5Y<=20
Dependent	PE5Y

Correlation Matrix Section

	SPREAD5Y	%SGRWTH5	PE5Y
SPREAD5Y	1.000000	-0.056324	0.076634
%SGRWTH5	-0.056324	1.000000	0.109706
PE5Y	0.076634	0.109706	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	8.642436	0.3288433	26.2813	0.000000	Reject	
Ho	1.000000					
SPREAD5Y	0.2709888	0.2133782	1.2700	0.205371	Accept	
Ho	0.244073					
%SGRWTH5	1.40814	0.8052966	1.7486	0.081695	Accept	
Ho	0.413562					
R-Squared	0.018915					

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	
Intercept	8.642436		0.3288433	7.997915	9.286958	0.0000
SPREAD5Y	0.2709888		0.2133782	-0.1472248	0.6892024	0.0831
%SGRWTH5	1.40814		0.8052966	-0.1702121	2.986493	0.1144
T-Critical	1.959964					

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	18000.78	18000.78			
Model	2	106.6459	53.32297	2.2172	0.111237	0.243580
Error	230	5531.444	24.04976			
Total(Adjusted)	232		5638.09	24.30211		

Root Mean Square Error		4.904055	R-Squared	0.0189
Mean of Dependent	8.789573	Adj R-Squared	0.0104	
Coefficient of Variation		0.5579402	Press Value	5981.531
Sum |Press Residuals|		943.6436	Press R-Squared	-0.0609

Multiple Regression Report

Page 2
Filter PE5Y<=20
Dependent PE5Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	0.6032	0.546353	Accepted
Kurtosis	-2.3807	0.017278	Rejected
Omnibus	6.0318	0.049003	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.250463	9	0.190494	17	0.088711
2	0.214779	10	0.198383	18	0.107328
3	0.226988	11	0.218726	19	0.083392
4	0.237082	12	0.240799	20	0.156788
5	0.194706	13	0.201950	21	0.201283
6	0.106945	14	0.169226	22	0.133670
7	0.175363	15	0.152591	23	0.091044
8	0.158554	16	0.102572	24	0.106496

Above serial correlations significant if their absolute values are greater than 0.131024
Durbin-Watson Value 0.7411

Multicollinearity Section

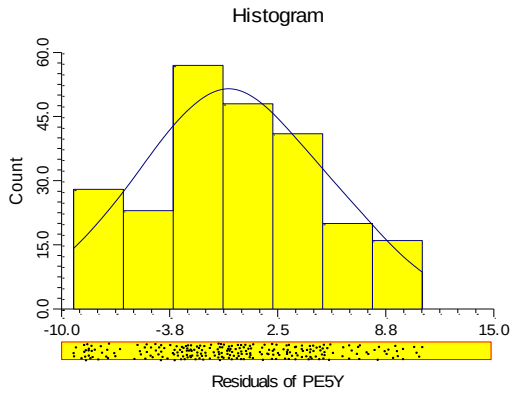
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD5Y	1.003182	0.003172	0.996828	1.893169E-03	
%SGRWTH5	1.003182	0.003172	0.996828	2.696504E-02	

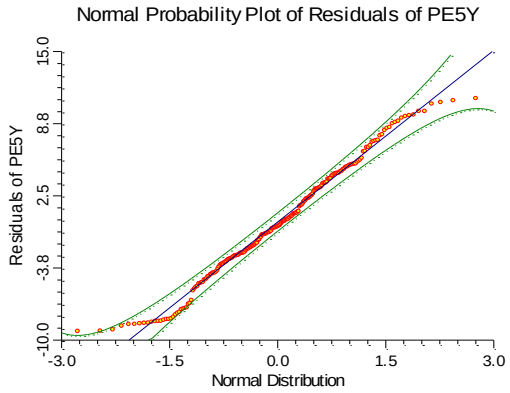
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.056324	52.82	52.82	1.00
2	0.943676	47.18	100.00	1.12

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





MULTIPLE REGRESSION REPORT

Page 1
Filter PE5Y<>20,50
Dependent PE5Y

Correlation Matrix Section

	SPREAD5Y	%SGRWTH5	PE5Y
SPREAD5Y	1.000000	0.258871	0.237152
%SGRWTH5	0.258871	1.000000	0.363521
PE5Y	0.237152	0.363521	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)

Intercept	22.60383	8.137665	2.7777	0.005826	Reject
Ho	0.790647				
SPREAD5Y	11.31146	4.090077	2.7656	0.006040	Reject
Ho	0.787162				
%SGRWTH5	93.9454	16.08325	5.8412	0.000000	Reject
Ho	0.999944				
R-Squared	0.154080				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	Standardized Coefficient
Intercept	22.60383	8.137665	6.654306	38.55336	0.0000
SPREAD5Y	11.31146	4.090077	3.295052	19.32786	0.1533
%SGRWTH5	93.9454	16.08325	62.42279	125.468	0.3238
T-Critical	1.959964				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	395566.9	395566.9			
Model	2	1003138	501569.1	26.8663	0.000000	0.997805
Error	295	5507377	18669.07			
Total(Adjusted)		297	6510516	21920.93		

Root Mean Square Error		136.6348	R-Squared	0.1541	
Mean of Dependent	36.43358	Adj R-Squared	0.1483		
Coefficient of Variation		3.750244	Press Value	7022951	
Sum |Press Residuals|		14800.51	Press R-Squared		-0.0787

Multiple Regression Report

Page 2
Filter PE5Y<>20,50
Dependent PE5Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	17.3528	0.000000	Rejected
Kurtosis	11.5442	0.000000	Rejected
Omnibus	434.3864	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.040718	9	0.019150	17	0.029097
2	0.081350	10	0.020783	18	0.010332
3	0.006532	11	0.009493	19	0.031017
4	0.028978	12	0.010515	20	-0.005046
5	-0.001425	13	0.005949	21	0.117424
6	0.037344	14	-0.009311	22	0.008448
7	0.008835	15	0.019461	23	0.003828
8	0.003071	16	0.064267	24	0.055791

Above serial correlations significant if their absolute values are greater than 0.115857
Durbin-Watson Value 1.6424

Multicollinearity Section

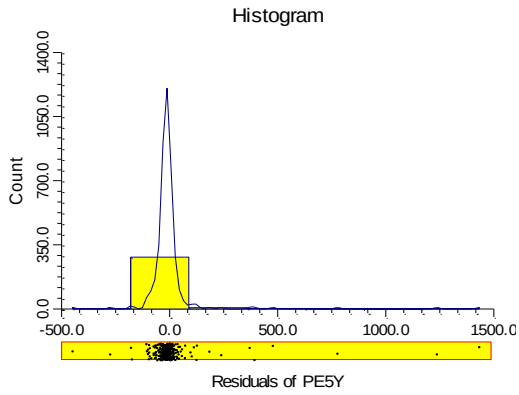
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD5Y	1.071828	0.067014	0.932986	8.960666E-04	
%SGRWTH5	1.071828	0.067014	0.932986	1.385559E-02	

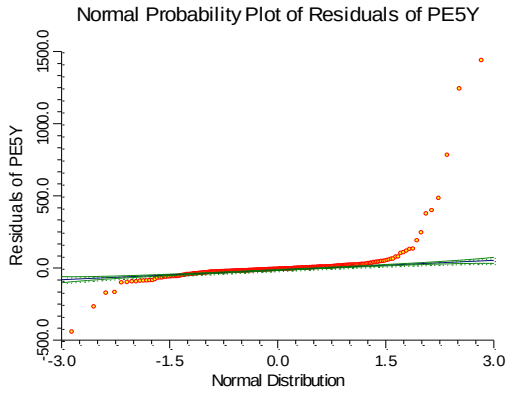
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.258871	62.94	62.94	1.00
2	0.741129	37.06	100.00	1.70

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page 1
Filter PE5Y>=50
Dependent PE5Y

Correlation Matrix Section

	SPREAD5Y	%SGRWTH5	PE5Y
SPREAD5Y	1.000000	0.690333	0.478765
%SGRWTH5	0.690333	1.000000	0.486280
PE5Y	0.478765	0.486280	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	290.448	94.70223	3.0670	0.006642	Reject	
Ho	0.826377					
SPREAD5Y	30.93201	31.38024	0.9857	0.337338	Accept	
Ho	0.154323					
%SGRWTH5	107.5825	100.2405	1.0732	0.297340	Accept	

Ho	0.174230
R-Squared	0.275573

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	
Intercept	290.448		94.70223	91.48595	489.41	0.0000
SPREAD5Y	30.93201		31.38024	-34.99543	96.85944	0.2733
%SGRWTH5	107.5825		100.2405	-103.0149	318.18	0.2976
T-Critical	2.100922					

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	2762767	2762767			
Model	2	1125704	562851.9	3.4236	0.054948	0.311909
Error	18	2959255	164403.1			
Total(Adjusted)	20		4084959	204248		

Root Mean Square Error		405.4665	R-Squared	0.2756	
Mean of Dependent	362.7124	Adj R-Squared	0.1951		
Coefficient of Variation		1.117873	Press Value	5962810	
Sum |Press Residuals|		7597.227	Press R-Squared		-0.4597

Multiple Regression Report

Page 2
Filter PE5Y>=50
Dependent PE5Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	3.8109	0.000138	Rejected
Kurtosis	2.9036	0.003689	Rejected
Omnibus	22.9539	0.000010	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.105106	9	0.391001	17	0.072561
2	0.130223	10	0.004528	18	-0.059977
3	-0.123472	11	-0.045786	19	-0.062454
4	-0.290328	12	0.057996	20	-0.092032
5	-0.250275	13	-0.115377	21	-0.025837
6	-0.260333	14	-0.038864	22	-0.056617
7	-0.016380	15	0.014850	23	-0.003589
8	0.020893	16	-0.044071	24	0.067062

Above serial correlations significant if their absolute values are greater than 0.436436
Durbin-Watson Value 1.7452

Multicollinearity Section

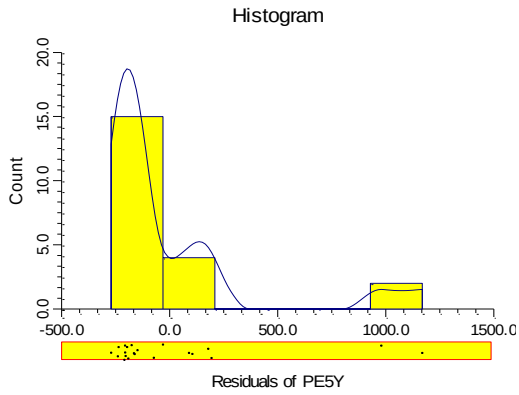
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD5Y	1.910435	0.476559	0.523441	5.989665E-03	
%SGRWTH5	1.910435	0.476559	0.523441	6.111902E-02	

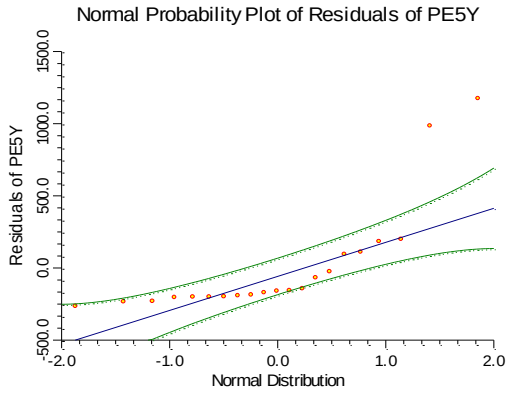
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.690333	84.52	84.52	1.00
2	0.309667	15.48	100.00	5.46

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE4Y<=20
Dependent	PE4Y

Correlation Matrix Section

	SPREAD4Y	%SGRWTH4	PE4Y
SPREAD4Y	1.000000	-0.028186	0.051016
%SGRWTH4	-0.028186	1.000000	0.102959
PE4Y	0.051016	0.102959	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	8.254712	0.3121334	26.4461	0.000000	Reject	
Ho	1.000000					
SPREAD4Y	0.1820354	0.2107339	0.8638	0.388507	Accept	

Ho	0.138189				
%SGRWTH4	1.098894	0.657025	1.6725	0.095656	Accept
Ho	0.384606				
R-Squared	0.013510				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	
	Standardized Coefficient				
Intercept	8.254712	0.3121334	7.642942	8.866482	0.0000
SPREAD4Y	0.1820354	0.2107339	-0.2309954	0.5950662	0.0540
%SGRWTH4	1.098894	0.657025	-0.1888518	2.386639	0.1045
T-Critical	1.959964				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	17698.6	17698.6			
Model	2	85.19863	42.59932	1.7324	0.178947	0.198216
Error	253	6221.137	24.58947			
Total(Adjusted)	255	6306.335	24.73073			

Root Mean Square Error		4.958777	R-Squared	0.0135	
Mean of Dependent	8.314755	Adj R-Squared	0.0057		
Coefficient of Variation		0.5963829	Press Value	6676.977	
Sum |Press Residuals|		1052.714	Press R-Squared		-0.0588

Multiple Regression Report

Page 2
Filter PE4Y<=20
Dependent PE4Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	1.3346	0.182008	Accepted
Kurtosis	-2.6821	0.007317	Rejected
Omnibus	8.9746	0.011251	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.271636	9	0.200023	17	0.129519
2	0.197985	10	0.283585	18	0.123657
3	0.237037	11	0.243517	19	0.156847
4	0.217858	12	0.176065	20	0.172053
5	0.253085	13	0.166371	21	0.170486
6	0.189389	14	0.161877	22	0.203918
7	0.230663	15	0.231029	23	0.130142
8	0.180667	16	0.143708	24	0.140111

Above serial correlations significant if their absolute values are greater than 0.125000
Durbin-Watson Value 0.7441

Multicollinearity Section

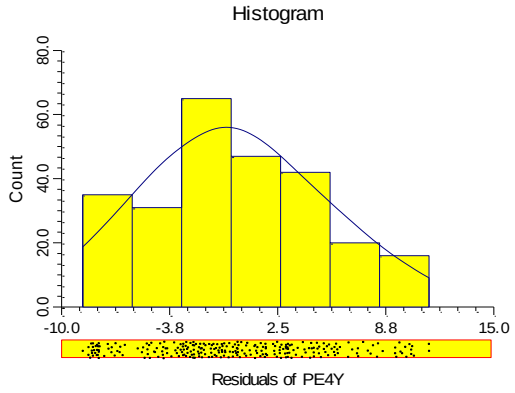
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD4Y	1.000795	0.000794	0.999206	1.806007E-03	
%SGRWTH4	1.000795	0.000794	0.999206	1.755556E-02	

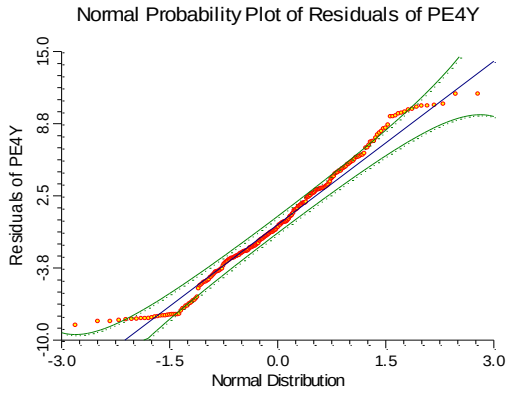
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.028186	51.41	51.41	1.00
2	0.971814	48.59	100.00	1.06

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE4Y<>20,50
Dependent	PE4Y

Correlation Matrix Section

	SPREAD4Y	%SGRWTH4	PE4Y
SPREAD4Y	1.000000	0.228188	0.185281
%SGRWTH4	0.228188	1.000000	0.403787
PE4Y	0.185281	0.403787	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	26.34504	6.302444	4.1801	0.000038	Reject	
Ho	0.986368					
SPREAD4Y	7.441448	3.937911	1.8897	0.059694	Accept	
Ho	0.469814					
%SGRWTH4	80.27278	10.94462	7.3345	0.000000	Reject	
Ho	1.000000					
R-Squared	0.172196					

Regression Coefficient Section

Independent Variable	Regression Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.

	Coefficient				
Intercept	26.34504	6.302444	13.99248	38.69761	0.0000
SPREAD4Y	7.441448	3.937911	-0.2767152	15.15961	0.0983
%SGRWTH4	80.27278	10.94462	58.82172	101.7238	0.3814
T-Critical	1.959964				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	354756.5	354756.5			
Model	2	852358.8	426179.4	33.5945	0.000000	0.999722
Error	323	4097578	12686			
Total(Adjusted)	325	4949937	15230.57			

Root Mean Square Error	112.6321	R-Squared	0.1722
Mean of Dependent 32.98803	Adj R-Squared	0.1671	
Coefficient of Variation	3.414334	Press Value	5090322
Sum |Press Residuals|	14189.81	Press R-Squared	-0.0284

Multiple Regression Report

Page 2
Filter PE4Y<>20,50
Dependent PE4Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	17.2922	0.000000	Rejected
Kurtosis	11.6969	0.000000	Rejected
Omnibus	435.8368	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.073449	9	0.020569	17	0.019940
2	0.103233	10	0.011326	18	0.013457
3	0.009278	11	0.010149	19	0.021535
4	0.044206	12	0.022080	20	0.014565
5	0.006436	13	0.002475	21	0.055409
6	0.040050	14	-0.016989	22	0.122491
7	0.013377	15	0.027383	23	0.009341
8	0.030464	16	0.062999	24	0.032170

Above serial correlations significant if their absolute values are greater than 0.110770
Durbin-Watson Value 1.6234

Multicollinearity Section

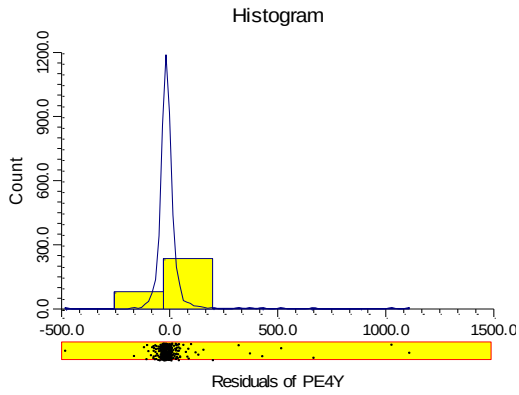
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD4Y	1.054930	0.052070	0.947930	1.222382E-03	
%SGRWTH4	1.054930	0.052070	0.947930	9.442276E-03	

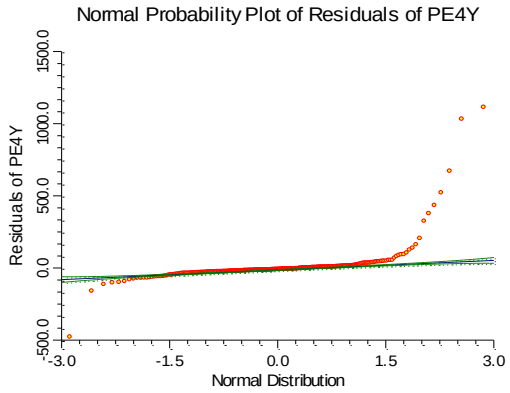
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.228188	61.41	61.41	1.00
2	0.771812	38.59	100.00	1.59

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





MULTIPLE REGRESSION REPORT

Page 1
Filter PE4Y>=50
Dependent PE4Y

Correlation Matrix Section

	SPREAD4Y	%SGRWTH4	PE4Y
SPREAD4Y	1.000000	0.672006	0.371387
%SGRWTH4	0.672006	1.000000	0.547247
PE4Y	0.371387	0.547247	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)

Intercept	243.6579	67.97354	3.5846	0.001746	Reject
Ho	0.927364				
SPREAD4Y	0.7506953	27.94065	0.0269	0.978819	Accept
Ho	0.050075				
%SGRWTH4	134.7864	61.24242	2.2009	0.039070	Reject
Ho	0.555570				
R-Squared	0.299503				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	Standardized Coefficient
Intercept	243.6579	67.97354	102.2992	385.0166	0.0000
SPREAD4Y	0.7506953	27.94065	-57.35506	58.85645	0.0066
%SGRWTH4	134.7864	61.24242	7.425838	262.147	0.5428
T-Critical	2.079614				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	2266515	2266515			
Model	2	891989.4	445994.7	4.4894	0.023810	0.405378
Error	21	2086238	99344.66			
Total(Adjusted)		23	2978227	129488.1		

Root Mean Square Error		315.1899	R-Squared	0.2995	
Mean of Dependent	307.3079	Adj R-Squared	0.2328		
Coefficient of Variation		1.025649	Press Value	2899143	
Sum |Press Residuals|		6098.107	Press R-Squared		
	0.0266				

Multiple Regression Report

Page 2
Filter PE4Y>=50
Dependent PE4Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	3.7544	0.000174	Rejected
Kurtosis	2.8208	0.004790	Rejected
Omnibus	22.0525	0.000016	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.020705	9	-0.064947	17	0.017097
2	0.263289	10	0.161275	18	-0.006038
3	-0.207602	11	-0.081250	19	0.067625
4	-0.171279	12	-0.036870	20	-0.041134
5	-0.124052	13	-0.150605	21	-0.030017
6	-0.041883	14	-0.151860	22	-0.057907
7	-0.089798	15	-0.102666	23	-0.081817
8	0.289223	16	-0.048801	24	-0.022059

Above serial correlations significant if their absolute values are greater than 0.408248
Durbin-Watson Value 1.7648

Multicollinearity Section

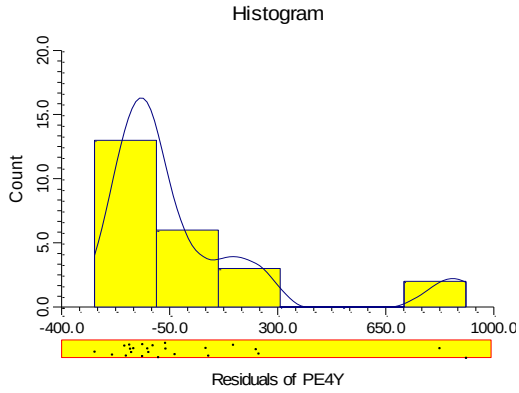
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD4Y	1.823459	0.451592	0.548408	7.858296E-03	
%SGRWTH4	1.823459	0.451592	0.548408	3.775375E-02	

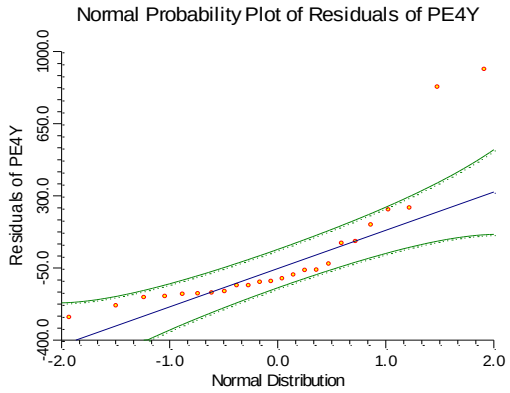
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.672006	83.60	83.60	1.00
2	0.327994	16.40	100.00	5.10

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE3Y<=20
Dependent	PE3Y

Correlation Matrix Section

	SPREAD3Y	%SGRWTH3	PE3Y
SPREAD3Y	1.000000	-0.018174	0.116274
%SGRWTH3	-0.018174	1.000000	0.014233
PE3Y	0.116274	0.014233	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	7.798346	0.309691	25.1811	0.000000	Reject	
Ho	1.000000					

SPREAD3Y	0.3538263	0.1776471	1.9917	0.047344	Reject
Ho	0.510064				
%SGRWTH3	0.1462495	0.5234682	0.2794	0.780149	Accept
Ho	0.058929				
R-Squared	0.013787				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	Standardized Coefficient
Intercept	7.798346	0.309691	7.191363	8.405329	0.0000
SPREAD3Y	0.3538263	0.1776471	5.644515E-03		0.7020081
	0.1166				
%SGRWTH3	0.1462495	0.5234682	-0.8797293	1.172228	0.0164
T-Critical	1.959964				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	17917.16	17917.16			
Model	2	111.6712	55.83562	2.0131	0.135451	
	0.224807					
Error	288	7988.05	27.73628			
Total(Adjusted)		290	8099.721	27.93007		

Root Mean Square Error		5.266525	R-Squared	0.0138	
Mean of Dependent	7.846719	Adj R-Squared	0.0069		
Coefficient of Variation		0.6711754	Press Value	8152.167	
Sum |Press Residuals|		1264.068	Press R-Squared		-
0.0065					

Multiple Regression Report

Page 2
Filter PE3Y<=20
Dependent PE3Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	2.7780	0.005469	Rejected
Kurtosis	-3.5021	0.000462	Rejected
Omnibus	19.9820	0.000046	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.315707	9	0.239302	17	0.211357
2	0.297913	10	0.237299	18	0.241286
3	0.311396	11	0.267334	19	0.236018
4	0.256587	12	0.218425	20	0.268930
5	0.335761	13	0.232103	21	0.268148
6	0.276124	14	0.213112	22	0.241443
7	0.312919	15	0.261466	23	0.306026
8	0.285965	16	0.234302	24	0.197355

Above serial correlations significant if their absolute values are greater than 0.117242
Durbin-Watson Value 0.6740

Multicollinearity Section

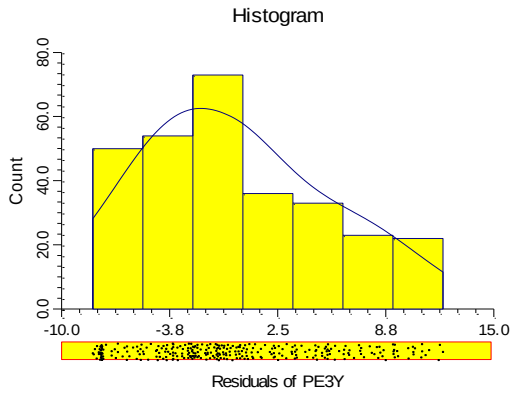
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD3Y	1.000330	0.000330	0.999670	1.137805E-03	
%SGRWTH3	1.000330	0.000330	0.999670	9.879441E-03	

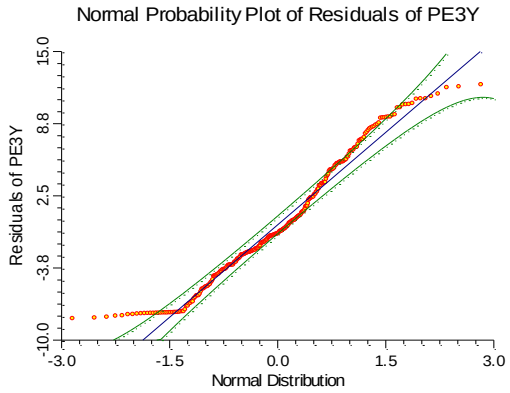
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.018174	50.91	50.91	1.00
2	0.981826	49.09	100.00	1.04

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE3Y<>20,50
Dependent	PE3Y

Correlation Matrix Section

	SPREAD3Y	%SGRWTH3	PE3Y
SPREAD3Y	1.000000	0.275955	0.257014
%SGRWTH3	0.275955	1.000000	0.304237
PE3Y	0.257014	0.304237	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	24.37173	6.283266	3.8788	0.000125	Reject	
Ho	0.971835					

SPREAD3Y	12.4542	3.414958	3.6470	0.000305	Reject
Ho	0.953250				
%SGRWTH3	45.29785	9.213015	4.9167	0.000001	Reject
Ho	0.998378				
R-Squared	0.124978				

Regression Coefficient Section

Independent Variable	**Regression Coefficient**	**Standardized Coefficient**	**Standard Error**	**Lower 95% C.L.**	**Upper 95% C.L.**	
Intercept	24.37173		6.283266	12.05676	36.68671	0.0000
SPREAD3Y	12.4542		3.414958	5.76101	19.1474	0.1873
%SGRWTH3	45.29785		9.213015	27.24067	63.35502	0.2525
T-Critical	1.959964					

Analysis of Variance Section

Source	**DF**	**Sum of Squares**	**Mean Square**	**F-Ratio**	**Prob Level**	**Power (5%)**
Intercept	1	300476.3	300476.3			
Model	2	725001.7	362500.8	25.6377	0.000000	0.996889
Error	359	5076025	14139.34			
Total(Adjusted)	361		5801027	16069.33		

Root Mean Square Error		118.909	R-Squared	0.1250	
Mean of Dependent	28.8105	Adj R-Squared	0.1201		
Coefficient of Variation		4.127279	Press Value	6808244	
Sum |Press Residuals|		14195.98	Press R-Squared		-0.1736

Multiple Regression Report

Page 2
Filter PE3Y<>20,50
Dependent PE3Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	20.4331	0.000000	Rejected
Kurtosis	13.0314	0.000000	Rejected
Omnibus	587.3281	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.008188	9	0.019211	17	0.027091
2	0.103000	10	-0.001706	18	0.030411
3	0.009000	11	0.006968	19	0.008468
4	0.046084	12	0.019448	20	0.014431
5	0.012289	13	-0.004731	21	-0.029633
6	0.036438	14	0.034455	22	0.030904
7	0.021710	15	0.032793	23	0.005496
8	0.056376	16	0.015216	24	0.031408

Above serial correlations significant if their absolute values are greater than 0.105118
Durbin-Watson Value 1.6989

Multicollinearity Section

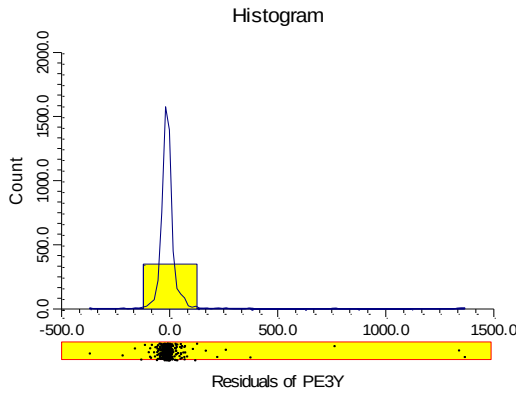
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD3Y	1.082428	0.076151	0.923849	8.247864E-04	
%SGRWTH3	1.082428	0.076151	0.923849	6.003081E-03	

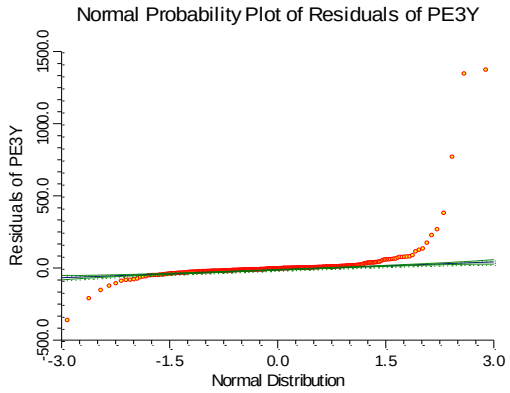
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.275955	63.80	63.80	1.00
2	0.724045	36.20	100.00	1.76

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page 1
Filter PE3Y>=50
Dependent PE3Y

Correlation Matrix Section

	SPREAD3Y	%SGRWTH3	PE3Y
SPREAD3Y	1.000000	0.849187	0.483028
%SGRWTH3	0.849187	1.000000	0.386966
PE3Y	0.483028	0.386966	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	252.0144	84.0618	2.9980	0.006854	Reject	
Ho	0.815544					
SPREAD3Y	59.61551	38.9057	1.5323	0.140374	Accept	
Ho	0.309749					
%SGRWTH3	-20.35957	88.38325	-0.2304	0.820045	Accept	
Ho	0.055564					
R-Squared	0.235248					

Regression Coefficient Section

Independent Variable	Regression Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.

	Coefficient				
Intercept	252.0144	84.0618	77.19834	426.8305	0.0000
SPREAD3Y	59.61551	38.9057	-21.29333	140.5244	0.5537
%SGRWTH3	-20.35957	88.38325	-204.1626	163.4435	-0.0832
T-Critical	2.079614				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	1950237	1950237			
Model	2	961389.6	480694.8	3.2299	0.059836	0.302486
Error	21	3125314	148824.5			
Total(Adjusted)		23	4086704	177682.8		

Root Mean Square Error		385.7778	R-Squared	0.2352	
Mean of Dependent	285.0612	Adj R-Squared	0.1624		
Coefficient of Variation		1.353316	Press Value	1.228632E+07	
Sum |Press Residuals|		8494.72	Press R-Squared		-2.0064

Multiple Regression Report

Page 2
Filter PE3Y>=50
Dependent PE3Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	4.2870	0.000018	Rejected
Kurtosis	3.3730	0.000744	Rejected
Omnibus	29.7553	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	-0.216113	9	-0.106255	17	-0.077681
2	0.072565	10	-0.072971	18	0.018650
3	-0.159452	11	-0.077924	19	-0.024952
4	-0.062054	12	0.036162	20	-0.060441
5	-0.158961	13	-0.042440	21	0.064837
6	0.466709	14	-0.055925	22	0.016437
7	-0.122669	15	-0.040293	23	0.047737
8	-0.005648	16	0.028734	24	0.009008

Above serial correlations significant if their absolute values are greater than 0.408248
Durbin-Watson Value 2.4615

Multicollinearity Section

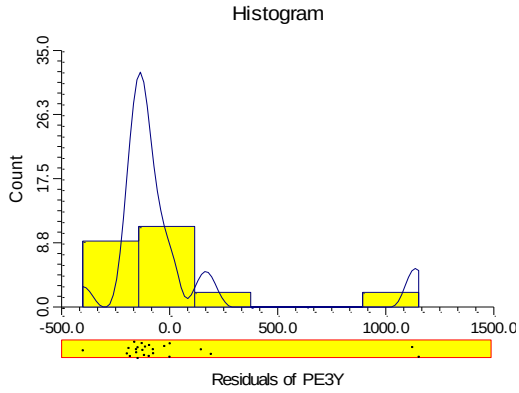
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD3Y	3.585746	0.721118	0.278882	1.017073E-02	
%SGRWTH3	3.585746	0.721118	0.278882	5.248867E-02	

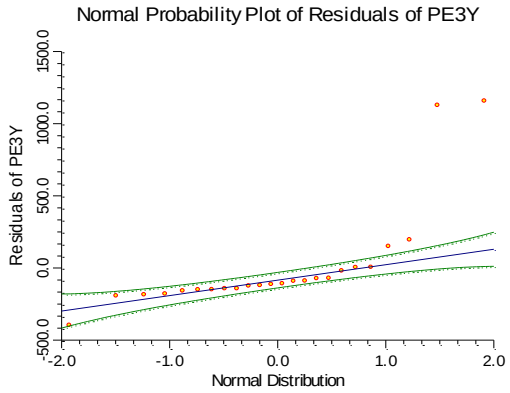
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.849187	92.46	92.46	1.00
2	0.150813	7.54	100.00	12.26

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE2Y<=20
Dependent	PE2Y

Correlation Matrix Section

	SPREAD2Y	%SGRWTH2	PE2Y
SPREAD2Y	1.000000	-0.045282	0.047820
%SGRWTH2	-0.045282	1.000000	0.014690
PE2Y	0.047820	0.014690	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	7.35467	0.2853621	25.7731	0.000000	Reject	
Ho	1.000000					

SPREAD2Y	0.1231858	0.1303757	0.9449	0.345338	Accept
Ho	0.156307				
%SGRWTH2	0.1213442	0.3694264	0.3285	0.742741	Accept
Ho	0.062385				
R-Squared	0.002571				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	
Intercept	7.35467		0.2853621	6.79537	7.913969	0.0000
SPREAD2Y	0.1231858		0.1303757	-0.1323459	0.3787175	0.0486
%SGRWTH2	0.1213442		0.3694264	-0.6027182	0.8454066	0.0169
T-Critical	1.959964					

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	20740.81	20740.81			
Model	2	29.96402	14.98201	0.4873	0.614690	0.088210
Error	378	11622.44	30.7472			
Total(Adjusted)	380		11652.41	30.66422		

Root Mean Square Error		5.545016	R-Squared	0.0026	
Mean of Dependent	7.3782	Adj R-Squared	0.0000		
Coefficient of Variation		0.7515404	Press Value	12042.02	
Sum |Press Residuals|		1748.936	Press R-Squared		-0.0334

Multiple Regression Report

Page 2
Time/Date 13:45:56 05-30-2001
Filter PE2Y<=20
Dependent PE2Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	3.8722	0.000108	Rejected
Kurtosis	-3.7934	0.000149	Rejected
Omnibus	29.3835	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.518740	9	0.461209	17	0.478130
2	0.507593	10	0.464567	18	0.452291
3	0.493534	11	0.436043	19	0.426801
4	0.496836	12	0.435602	20	0.420426
5	0.506233	13	0.443191	21	0.409689
6	0.447804	14	0.413367	22	0.435731
7	0.482942	15	0.509202	23	0.432655
8	0.472712	16	0.469219	24	0.444693

Above serial correlations significant if their absolute values are greater than 0.102463
Durbin-Watson Value 0.4877

Multicollinearity Section

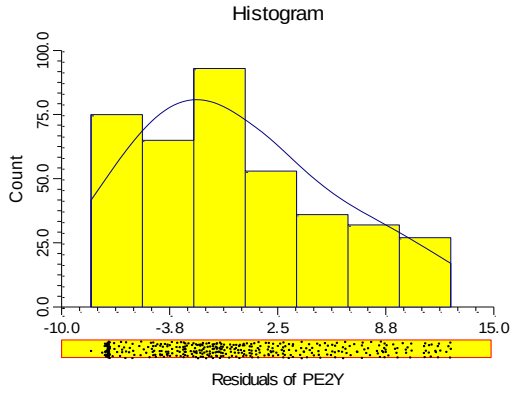
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD2Y	1.002055	0.002050	0.997950	5.528251E-04	
%SGRWTH2	1.002055	0.002050	0.997950	4.438643E-03	

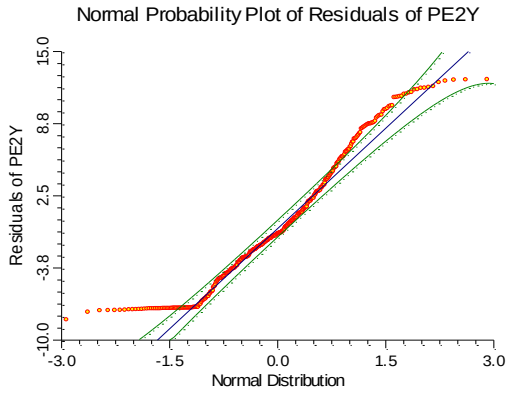
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.045282	52.26	52.26	1.00
2	0.954718	47.74	100.00	1.09

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE2Y<>20,50
Dependent	PE2Y

Correlation Matrix Section

	SPREAD2Y	%SGRWTH2	PE2Y
SPREAD2Y	1.000000	0.288404	0.280230
%SGRWTH2	0.288404	1.000000	0.345721
PE2Y	0.280230	0.345721	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	19.75774	4.717249	4.1884	0.000034	Reject	
Ho	0.986766					
SPREAD2Y	8.510695	1.978159	4.3023	0.000021	Reject	

Ho	0.990175				
%SGRWTH2	32.35965	5.125622	6.3133	0.000000	Reject
Ho	0.999993				
R-Squared	0.155068				

Regression Coefficient Section

Independent Variable	**Regression Coefficient**	**Standardized Coefficient**	**Standard Error**	**Lower 95% C.L.**	**Upper 95% C.L.**	
Intercept	19.75774		4.717249	10.5121	29.00338	0.0000
SPREAD2Y	8.510695		1.978159	4.633574	12.38782	0.1969
%SGRWTH2	32.35965		5.125622	22.31362	42.40569	0.2889
T-Critical	1.959964					

Analysis of Variance Section

Source	**DF**	**Sum of Squares**	**Mean Square**	**F-Ratio**	**Prob Level**	**Power (5%)**
Intercept	1	267878.4	267878.4			
Model	2	785635	392817.5	40.3759	0.000000	0.999969
Error	440	4280759	9728.998			
Total(Adjusted)	442		5066394	11462.43		

Root Mean Square Error	98.63568	R-Squared	0.1551
Mean of Dependent	24.59048	Adj R-Squared	0.1512
Coefficient of Variation	4.011133	Press Value	6083125
Sum |Press Residuals|	15390.24	Press R-Squared	-0.2007

Multiple Regression Report

Page 2
Filter PE2Y<>20,50
Dependent PE2Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	21.5165	0.000000	Rejected
Kurtosis	13.9335	0.000000	Rejected
Omnibus	657.1020	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.085344	9	0.060662	17	0.022668
2	0.137663	10	0.021400	18	0.045359
3	0.230225	11	0.030443	19	0.022051
4	0.084041	12	0.023726	20	0.027539
5	0.029485	13	0.020851	21	0.025627
6	0.046428	14	0.021181	22	0.036437
7	0.028713	15	0.039437	23	0.027646
8	0.064270	16	0.037970	24	0.041399

Above serial correlations significant if their absolute values are greater than 0.095023
Durbin-Watson Value 1.5284

Multicollinearity Section

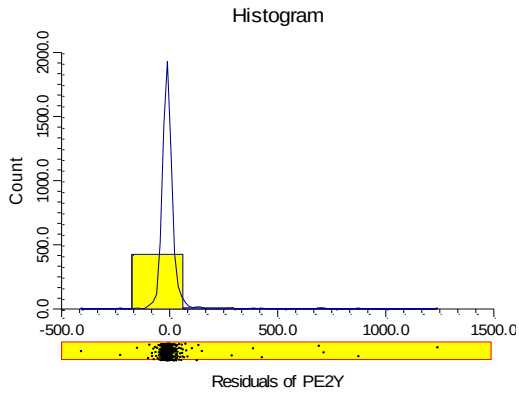
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD2Y	1.090723	0.083177	0.916823	4.022115E-04	
%SGRWTH2	1.090723	0.083177	0.916823	2.700381E-03	

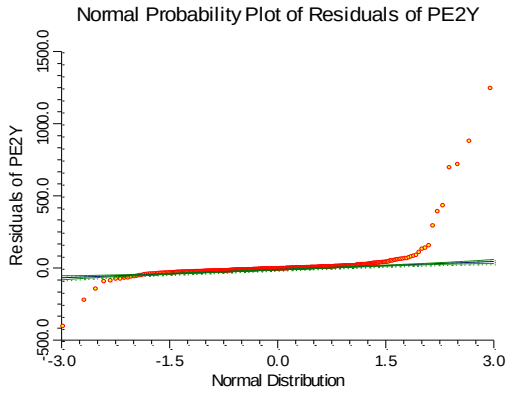
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.288404	64.42	64.42	1.00
2	0.711596	35.58	100.00	1.81

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE2Y>=50
Dependent	PE2Y

Correlation Matrix Section

	SPREAD2Y	%SGRWTH2	PE2Y
SPREAD2Y	1.000000	0.945525	0.515600
%SGRWTH2	0.945525	1.000000	0.543749
PE2Y	0.515600	0.543749	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	237.4094	70.07288	3.3880	0.002775	Reject	
Ho	0.897876					

SPREAD2Y	0.8995305	36.44852	0.0247	0.980544	Accept
Ho	0.050064				
%SGRWTH2	79.49066	84.27258	0.9433	0.356276	Accept
Ho	0.146841				
R-Squared	0.295684				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standardized Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	
Intercept	237.4094		70.07288	91.68491	383.134	0.0000
SPREAD2Y	0.8995305		36.44852	-74.89931	76.69837	0.0139
%SGRWTH2	79.49066		84.27258	-95.76378	254.7451	0.5306
T-Critical	2.079614					

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	2023629	2023629			
Model	2	958916.9	479458.5	4.4081	0.025209	0.398890
Error	21	2284131	108768.1			
Total(Adjusted)		23	3243048	141002.1		

Root Mean Square Error	329.8001	R-Squared	0.2957
Mean of Dependent 290.3754	Adj R-Squared	0.2286	
Coefficient of Variation	1.135772	Press Value	2.157831E+07
Sum |Press Residuals|	10417.69	Press R-Squared	-5.6537

Multiple Regression Report

Page 2
Filter PE2Y>=50
Dependent PE2Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	3.6758	0.000237	Rejected
Kurtosis	2.7273	0.006385	Rejected
Omnibus	20.9495	0.000028	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.100017	9	-0.122682	17	-0.156018
2	-0.064108	10	-0.026146	18	-0.020791
3	-0.193043	11	0.014763	19	-0.123222
4	0.175188	12	-0.068739	20	-0.029354
5	0.320496	13	-0.107340	21	-0.111203
6	0.059429	14	-0.115172	22	-0.022421
7	-0.023547	15	-0.097997	23	0.031185
8	-0.142333	16	-0.029727	24	0.101201

Above serial correlations significant if their absolute values are greater than 0.408248
Durbin-Watson Value 1.7242

Multicollinearity Section

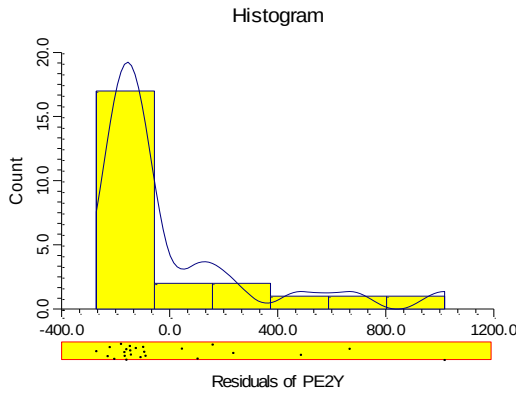
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD2Y	9.435468	0.894017	0.105983	0.012214	
%SGRWTH2	9.435468	0.894017	0.105983	6.529366E-02	

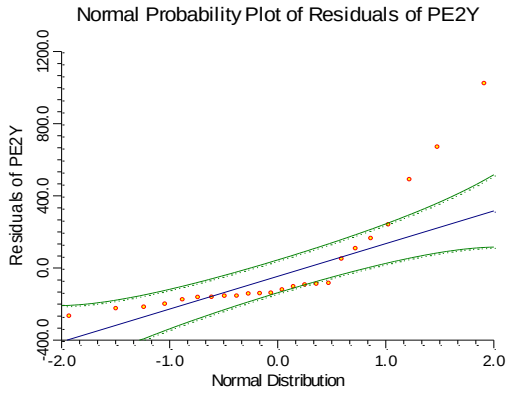
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.945525	97.28	97.28	1.00
2	0.054475	2.72	100.00	35.71

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE1Y<=20
Dependent	PE1Y

Correlation Matrix Section

	SPREAD1Y	%SGRWTH1	PE1Y
SPREAD1Y	1.000000	-0.019495	-0.012838
%SGRWTH1	-0.019495	1.000000	-0.072265
PE1Y	-0.012838	-0.072265	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	6.576987	0.2597508	25.3204	0.000000	Reject	
Ho	1.000000					

SPREAD1Y	-2.323944E-02	7.567152E-02	-0.3071	0.758898	
%SGRWTH1	-0.5108687	0.3268094	-1.5632	0.118690	Accept
Ho	0.344789				
R-Squared	0.005425				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Standardized Coefficient	Lower 95% C.L.	Upper 95% C.L.	
Intercept	6.576987	0.2597508		6.067885	7.086089	0.0000
SPREAD1Y	-2.323944E-02	7.567152E-02	-0.1715529	0.125074	-0.0143	
%SGRWTH1	-0.5108687	0.3268094		-1.151403	0.1296661	-0.0725
T-Critical	1.959964					

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	20713.63	20713.63			
Model	2	74.64546	37.32273	1.2601	0.284605	0.155449
Error	462	13684.18	29.61943			
Total(Adjusted)	464	13758.82	29.65264			

Root Mean Square Error		5.442374	R-Squared	0.0054	
Mean of Dependent	6.674237	Adj R-Squared	0.0011		
Coefficient of Variation		0.8154302	Press Value	13961.28	
Sum |Press Residuals|		2068.438	Press R-Squared		-0.0147

Multiple Regression Report

Page 2
Filter PE1Y<=20
Dependent PE1Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	4.3489	0.000014	Rejected
Kurtosis	-3.2254	0.001258	Rejected
Omnibus	29.3159	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.841081	9	0.772546	17	0.721764
2	0.828503	10	0.775205	18	0.717376
3	0.830408	11	0.771612	19	0.711358
4	0.814383	12	0.776352	20	0.711542
5	0.819857	13	0.749788	21	0.701294
6	0.790868	14	0.740800	22	0.697406
7	0.787215	15	0.756588	23	0.683359
8	0.778323	16	0.747079	24	0.700661

Above serial correlations significant if their absolute values are greater than 0.092748
Durbin-Watson Value 0.0114

Multicollinearity Section

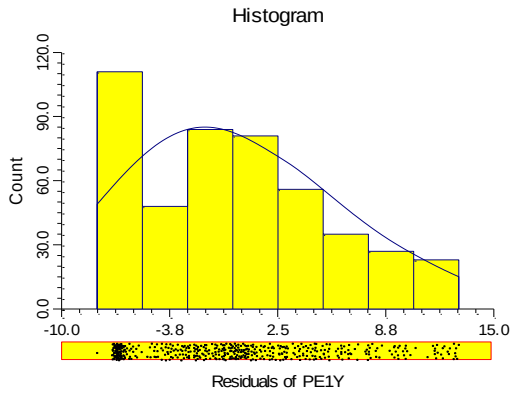
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD1Y	1.000380	0.000380	0.999620	1.933251E-04	
%SGRWTH1	1.000380	0.000380	0.999620	3.60589E-03	

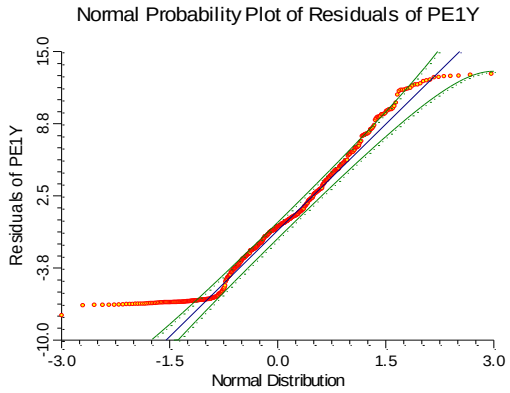
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.019495	50.97	50.97	1.00
2	0.980505	49.03	100.00	1.04

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE1Y<>20,50
Dependent	PE1Y

Correlation Matrix Section

	SPREAD1Y	%SGRWTH1	PE1Y
SPREAD1Y	1.000000	0.191942	0.227224
%SGRWTH1	0.191942	1.000000	0.418637
PE1Y	0.227224	0.418637	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	33.9063	5.920525	5.7269	0.000000	Reject	
Ho	0.999917					

SPREAD1Y	6.694368	1.722697	3.8860	0.000115	Reject
Ho	0.972949				
%SGRWTH1	61.11044	6.1587	9.9226	0.000000	Reject
Ho	1.000000				
R-Squared	0.197653				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	Standardized Coefficient
Intercept	33.9063	5.920525	22.30228	45.51031	0.0000
SPREAD1Y	6.694368	1.722697	3.317944	10.07079	0.1525
%SGRWTH1	61.11044	6.1587	49.03961	73.18127	0.3894
T-Critical	1.959964				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	329128.1	329128.1			
Model	2	2472716	1236358	66.6357	0.000000	1.000000
Error	541	1.00377E+07	18553.98			
Total(Adjusted)	543	1.251042E+07	23039.45			

Root Mean Square Error	136.213	R-Squared	0.1977
Mean of Dependent	24.59705	Adj R-Squared	0.1947
Coefficient of Variation	5.537778	Press Value	1.533828E+07
Sum |Press Residuals|	23280.82	Press R-Squared	-0.2260

Multiple Regression Report

Page 2
Filter PE1Y<>20,50
Dependent PE1Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	26.8311	0.000000	Rejected
Kurtosis	16.5311	0.000000	Rejected
Omnibus	993.1874	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.524461	9	0.082514	17	0.045512
2	0.248883	10	0.074799	18	0.035389
3	0.212916	11	0.075903	19	0.026806
4	0.184382	12	0.074767	20	0.020093
5	0.132181	13	0.059809	21	0.023263
6	0.104641	14	0.050620	22	0.026320
7	0.092321	15	0.055479	23	0.042453
8	0.082728	16	0.052364	24	0.041251

Above serial correlations significant if their absolute values are greater than 0.085749
Durbin-Watson Value 0.7628

Multicollinearity Section

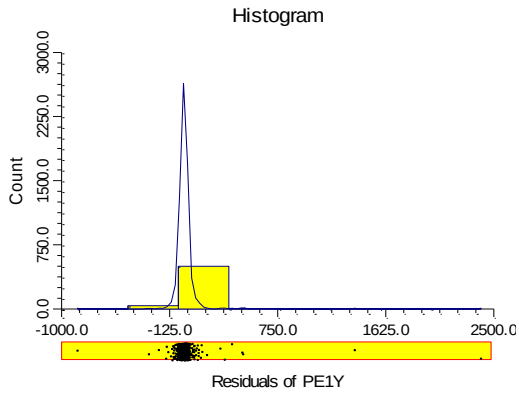
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD1Y	1.038251	0.036842	0.963158	1.599487E-04	
%SGRWTH1	1.038251	0.036842	0.963158	2.044282E-03	

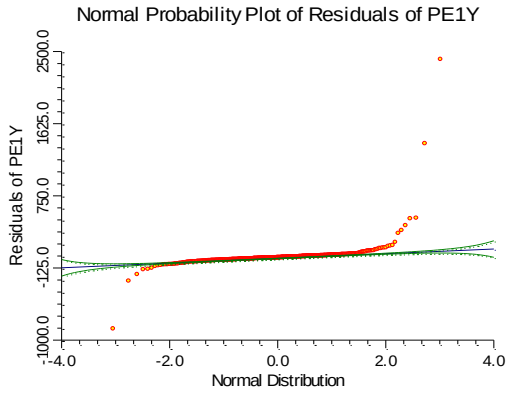
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.191942	59.60	59.60	1.00
2	0.808058	40.40	100.00	1.48

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section





Multiple Regression Report

Page	1
Filter	PE1Y>=50
Dependent	PE1Y

Correlation Matrix Section

	SPREAD1Y	%SGRWTH1	PE1Y
SPREAD1Y	1.000000	0.946350	0.645196
%SGRWTH1	0.946350	1.000000	0.681730
PE1Y	0.645196	0.681730	1.000000

Regression Equation Section

Independent Variable	Regression Coefficient	Standard Error	T-Value (Ho: B=0)	Prob Level	Decision (5%)	Power (5%)
Intercept	246.0944	78.89819	3.1191	0.004076	Reject	
Ho	0.854146					

SPREAD1Y	0.0440793	47.93295	0.0009	0.999273	Accept
Ho	0.050000				
%SGRWTH1	157.6832	97.2945	1.6207	0.115911	Accept
Ho	0.347420				
R-Squared	0.464756				

Regression Coefficient Section

Independent Variable	Regression Coefficient	Standard Error	Lower 95% C.L.	Upper 95% C.L.	Standardized Coefficient
Intercept	246.0944	78.89819	84.72947	407.4593	0.0000
SPREAD1Y	0.0440793	47.93295	-97.98981	98.07796	0.0004
%SGRWTH1	157.6832	97.2945	-41.30636	356.6729	0.6814
T-Critical	2.045230				

Analysis of Variance Section

Source	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (5%)
Intercept	1	2502145	2502145			
Model	2	4769543	2384772	12.5905	0.000116	0.863355
Error	29	5492919	189411			
Total(Adjusted)	31		1.026246E+07	331047.2		

Root Mean Square Error	435.2137	R-Squared	0.4648
Mean of Dependent	279.6284	Adj R-Squared	0.4278
Coefficient of Variation	1.556401	Press Value	7362100
Sum |Press Residuals|	7855.116	Press R-Squared	0.2826

Multiple Regression Report

Page 2
Filter PE1Y>=50
Dependent PE1Y

Normality Tests Section

Assumption	Value	Probability	Decision(5%)
Skewness	6.3097	0.000000	Rejected
Kurtosis	5.2535	0.000000	Rejected
Omnibus	67.4110	0.000000	Rejected

Serial-Correlation Section

Lag	Correlation	Lag	Correlation	Lag	Correlation
1	0.197879	9	0.018520	17	-0.053637
2	0.183782	10	-0.015456	18	-0.100939
3	0.115368	11	-0.013130	19	-0.081730
4	0.120121	12	-0.007482	20	-0.115555
5	0.044392	13	-0.041036	21	-0.001030
6	-0.000661	14	-0.026495	22	-0.008013
7	-0.004369	15	-0.048390	23	-0.029225
8	-0.012135	16	-0.052405	24	-0.085882

Above serial correlations significant if their absolute values are greater than 0.353553
Durbin-Watson Value 1.5860

Multicollinearity Section

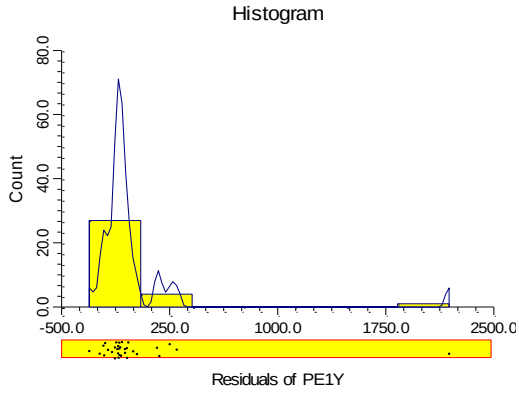
Independent Variable	Variance Inflation	R-Squared Vs Other X's		Diagonal of Tolerance	X'X Inverse
SPREAD1Y	9.576587	0.895579	0.104421	1.213006E-02	
%SGRWTH1	9.576587	0.895579	0.104421	4.997714E-02	

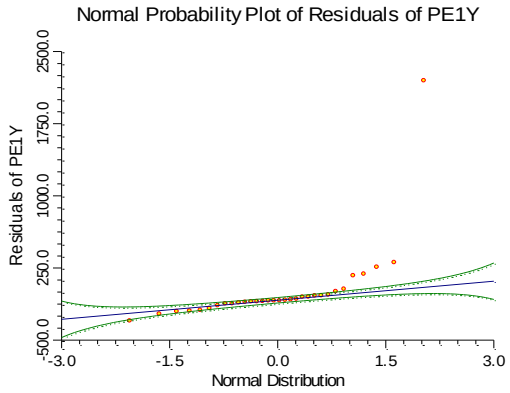
Eigenvalues of Centered Correlations

No.	Eigenvalue	Incremental Percent	Cumulative Percent	Condition Number
1	1.946350	97.32	97.32	1.00
2	0.053650	2.68	100.00	36.28

All Condition Numbers less than 100. Multicollinearity is NOT a problem.

Plots Section


Histogram
Count
80.0
60.0
40.0
20.0
0.0
-500.0
250.0
1000.0
1750.0
2500.0
Residuals of PE1Y


Normal Probability Plot of Residuals of PE1Y
Residuals of PE1Y
2500.0
1750.0
1000.0
250.0
-500.0
-3.0
-1.5
0.0
1.5
3.0
Normal Distribution