

Regression

Notes

Output Created		25-MAY-2013 09:48:58
Comments		
Input	Data	E:\10052012.sav
	Active Dataset	DataSet1
	Filter	<none>
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	N of Rows in Working Data File	51
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION
		/DESCRIPTIVES MEAN STDDEV
		CORR SIG N
		/MISSING LISTWISE
		/STATISTICS COEFF OUTS R
		ANOVA COLLIN TOL CHANGE ZPP
		/CRITERIA=PIN(.05) POUT(.10)
		/NOORIGIN
		/DEPENDENT PBV
		/METHOD=ENTER r DPR SIZE
	INST	
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	/RESIDUALS DURBIN	
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	NORMPROB(ZRESID)	
	/CASEWISE PLOT(ZRESID)	
	OUTLIERS(3).	
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	Memory Required	2308 bytes
	Additional Memory Required for Residual Plots	888 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
PBV	3.408139	5.4471991	51
r	.284339	.5985260	51
DPR	.212753	.3637838	51
SIZE	14.314322	1.4461597	51
INST	.699412	.2089903	51

Correlations

		PBV	r	DPR	SIZE	INST
Pearson Correlation	PBV	1.000	.081	.331	.032	.243
	r	.081	1.000	-.117	-.144	-.049
	DPR	.331	-.117	1.000	.228	.243
	SIZE	.032	-.144	.228	1.000	-.381
	INST	.243	-.049	.243	-.381	1.000
Sig. (1-tailed)	PBV	.	.287	.009	.412	.043
	r	.287	.	.206	.157	.365
	DPR	.009	.206	.	.054	.043
	SIZE	.412	.157	.054	.	.003
	INST	.043	.365	.043	.003	.
N	PBV	51	51	51	51	51
	r	51	51	51	51	51
	DPR	51	51	51	51	51
	SIZE	51	51	51	51	51
	INST	51	51	51	51	51

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	INST, r, DPR, SIZE ^b	.	Enter

a. Dependent Variable: PBV

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.395 ^a	.156	.083	5.2166296	.156	2.129

Model Summary^b

Model	Change Statistics			Durbin-Watson
	df1	df2	Sig. F Change	
1	4 ^a	46	.092	1.829

a. Predictors: (Constant), INST, r, DPR, SIZE

b. Dependent Variable: PBV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	231.791	4	57.948	2.129	.092 ^b
	Residual	1251.808	46	27.213		
	Total	1483.599	50			

a. Dependent Variable: PBV

b. Predictors: (Constant), INST, r, DPR, SIZE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.097	10.132		-.503	.617
	r	1.214	1.255	.133	.967	.339
	DPR	4.225	2.241	.282	1.885	.066
	SIZE	.245	.597	.065	.411	.683
	INST	5.358	4.119	.206	1.301	.200

Coefficients^a

Model	Correlations			Collinearity Statistics	
	Zero-order	Partial	Part	Tolerance	VIF
(Constant)					
1 r	.081	.141	.131	.964	1.037
DPR	.331	.268	.255	.819	1.222
SIZE	.032	.060	.056	.729	1.371
INST	.243	.188	.176	.734	1.362

a. Dependent Variable: PBV

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	r	DPR	SIZE
1	1	3.502	1.000	.00	.02	.02	.00
	2	.878	1.998	.00	.61	.22	.00
	3	.554	2.515	.00	.35	.62	.00
	4	.063	7.435	.01	.00	.02	.03
	5	.003	34.080	.99	.03	.13	.97

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions	
		INST	
1	1		.00
	2		.00
	3		.01
	4		.62
	5		.37

a. Dependent Variable: PBV

Casewise Diagnostics^a

Case Number	Std. Residual	PBV	Predicted Value	Residual
8	5.371	35.4500	7.430273	28.0197271

a. Dependent Variable: PBV

Residuals Statistics^a

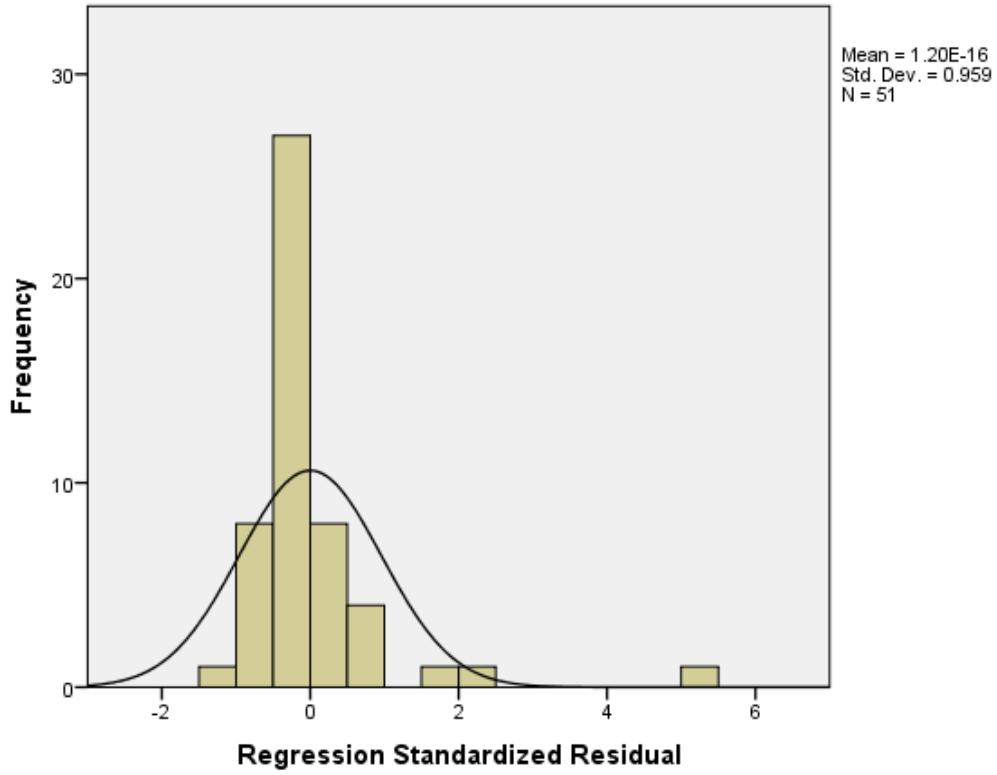
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.544051	9.438891	3.408139	2.1530936	51
Std. Predicted Value	-1.330	2.801	.000	1.000	51
Standard Error of Predicted Value	.881	3.217	1.541	.548	51
Adjusted Predicted Value	.177354	10.451473	3.438951	2.3395123	51
Residual	-6.8340659	28.0197277	.0000000	5.0036153	51
Std. Residual	-1.310	5.371	.000	.959	51
Stud. Residual	-1.484	5.717	-.003	1.020	51
Deleted Residual	-8.7693729	31.7444611	-.0308115	5.6704611	51
Stud. Deleted Residual	-1.504	10.510	.095	1.612	51
Mahal. Distance	.446	18.029	3.922	3.915	51
Cook's Distance	.000	.869	.028	.122	51
Centered Leverage Value	.009	.361	.078	.078	51

a. Dependent Variable: PBV

Charts

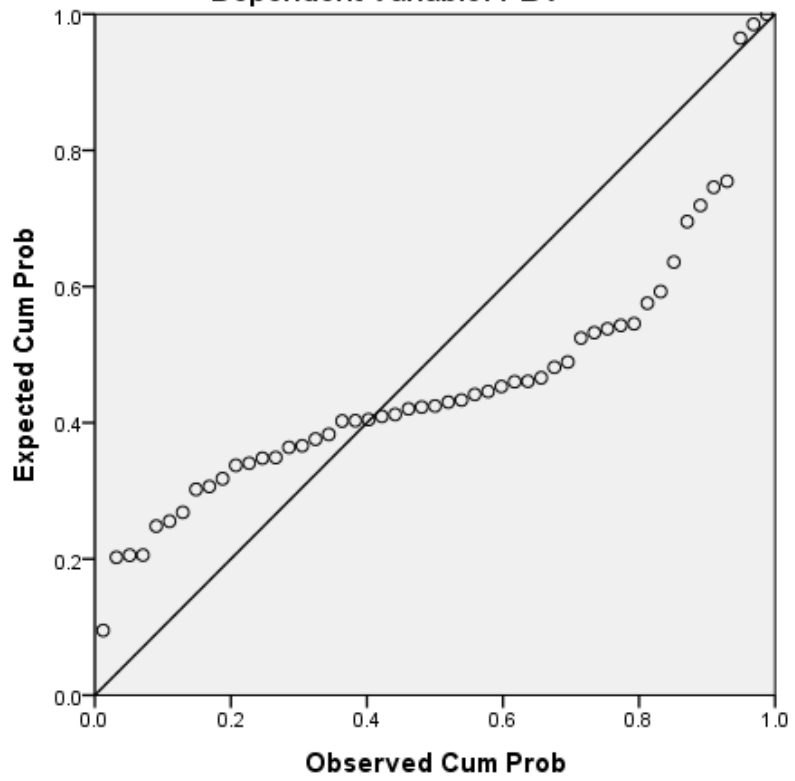
Histogram

Dependent Variable: PBV



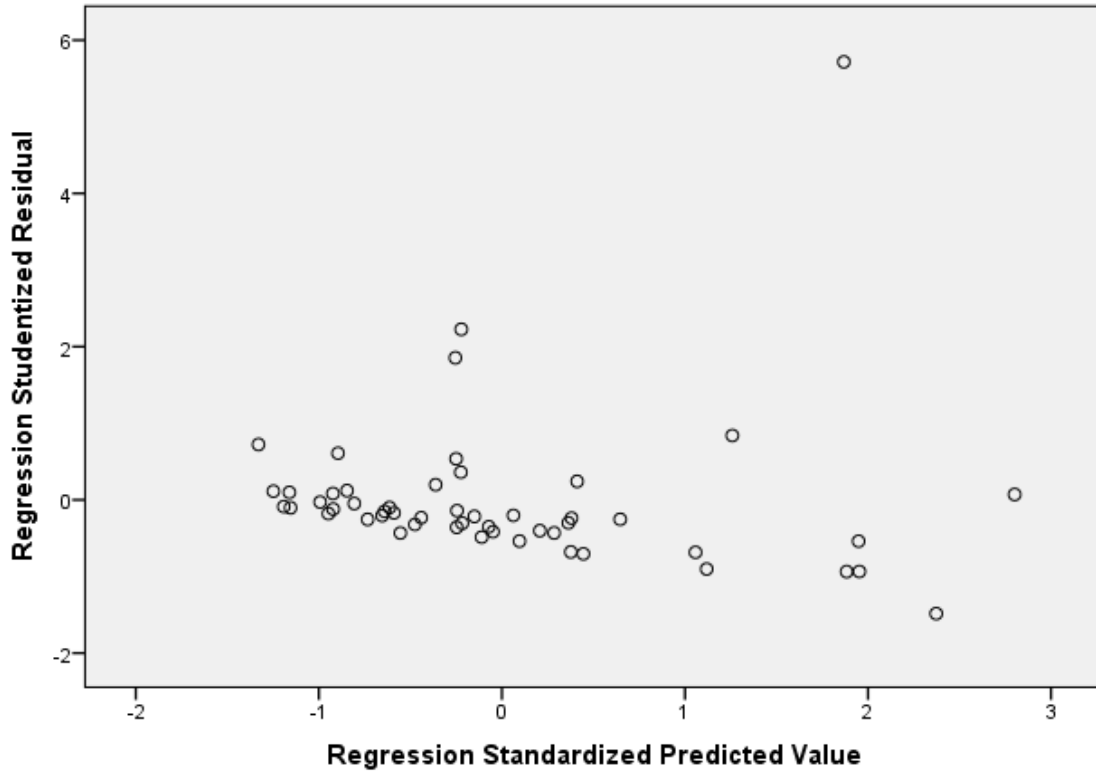
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PBV



Scatterplot

Dependent Variable: PBV



Regression

Notes

Output Created		25-MAY-2013 09:49:58
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Missing Value Handling	N of Rows in Working Data	50
	File	
	Definition of Missing	User-defined missing values are treated as missing.
Syntax	Cases Used	Statistics are based on cases with no missing values for any variable used.
		REGRESSION
		/DESCRIPTIVES MEAN STDDEV
		CORR SIG N
		/MISSING LISTWISE
		/STATISTICS COEFF OUTS R
		ANOVA COLLIN TOL CHANGE ZPP
		/CRITERIA=PIN(.05) POUT(.10)
		/NOORIGIN
		/DEPENDENT PBV
Resources		/METHOD=ENTER r DPR SIZE
		INST
		/SCATTERPLOT=(*SRESID
		,*ZPRED)
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	HISTOGRAM(ZRESID)	
	NORMPROB(ZRESID)	
	/CASEWISE PLOT(ZRESID)	
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	Additional Memory Required for Residual Plots	888 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
PBV	2.767302	2.9842595	50
r	.283970	.6045967	50
DPR	.197208	.3499486	50
SIZE	14.314608	1.4608405	50
INST	.696726	.2102211	50

Correlations

		PBV	r	DPR	SIZE	INST
Pearson Correlation	PBV	1.000	.142	.145	.061	.307
	r	.142	1.000	-.124	-.144	-.050
	DPR	.145	-.124	1.000	.240	.227
	SIZE	.061	-.144	.240	1.000	-.382
	INST	.307	-.050	.227	-.382	1.000
Sig. (1-tailed)	PBV	.	.162	.157	.336	.015
	r	.162	.	.195	.159	.365
	DPR	.157	.195	.	.047	.057
	SIZE	.336	.159	.047	.	.003
N	INST	.015	.365	.057	.003	.
	PBV	50	50	50	50	50
	r	50	50	50	50	50
	DPR	50	50	50	50	50
	SIZE	50	50	50	50	50
	INST	50	50	50	50	50

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	INST, r, DPR, SIZE ^b	.	Enter

a. Dependent Variable: PBV

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.412 ^a	.170	.096	2.8375935	.170	2.299

Model Summary^b

Model	Change Statistics			Durbin-Watson
	df1	df2	Sig. F Change	
1	4 ^a	45	.073	1.600

a. Predictors: (Constant), INST, r, DPR, SIZE

b. Dependent Variable: PBV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	74.047	4	18.512	2.299	.073 ^b
	Residual	362.337	45	8.052		
	Total	436.384	49			

a. Dependent Variable: PBV

b. Predictors: (Constant), INST, r, DPR, SIZE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8.528	5.521		-1.545	.129
	r	.984	.683	.199	1.440	.157
	DPR	.180	1.278	.021	.141	.889
	SIZE	.488	.326	.239	1.499	.141
	INST	5.724	2.241	.403	2.554	.014

Coefficients^a

Model	Correlations			Collinearity Statistics	
	Zero-order	Partial	Part	Tolerance	VIF
(Constant)					
1 r	.142	.210	.196	.963	1.038
DPR	.145	.021	.019	.821	1.218
SIZE	.061	.218	.204	.726	1.378
INST	.307	.356	.347	.740	1.350

a. Dependent Variable: PBV

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	r	DPR	SIZE
1	1	3.480	1.000	.00	.02	.02	.00
	2	.891	1.976	.00	.58	.24	.00
	3	.561	2.490	.00	.37	.60	.00
	4	.065	7.327	.01	.00	.01	.03
	5	.003	33.705	.99	.03	.13	.97

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions	
		INST	
1	1		.00
	2		.00
	3		.01
	4		.62
	5		.37

a. Dependent Variable: PBV

Casewise Diagnostics^a

Case Number	Std. Residual	PBV	Predicted Value	Residual
24	3.193	12.2900	3.230130	9.0598699
41	3.867	14.2600	3.287380	10.9726203

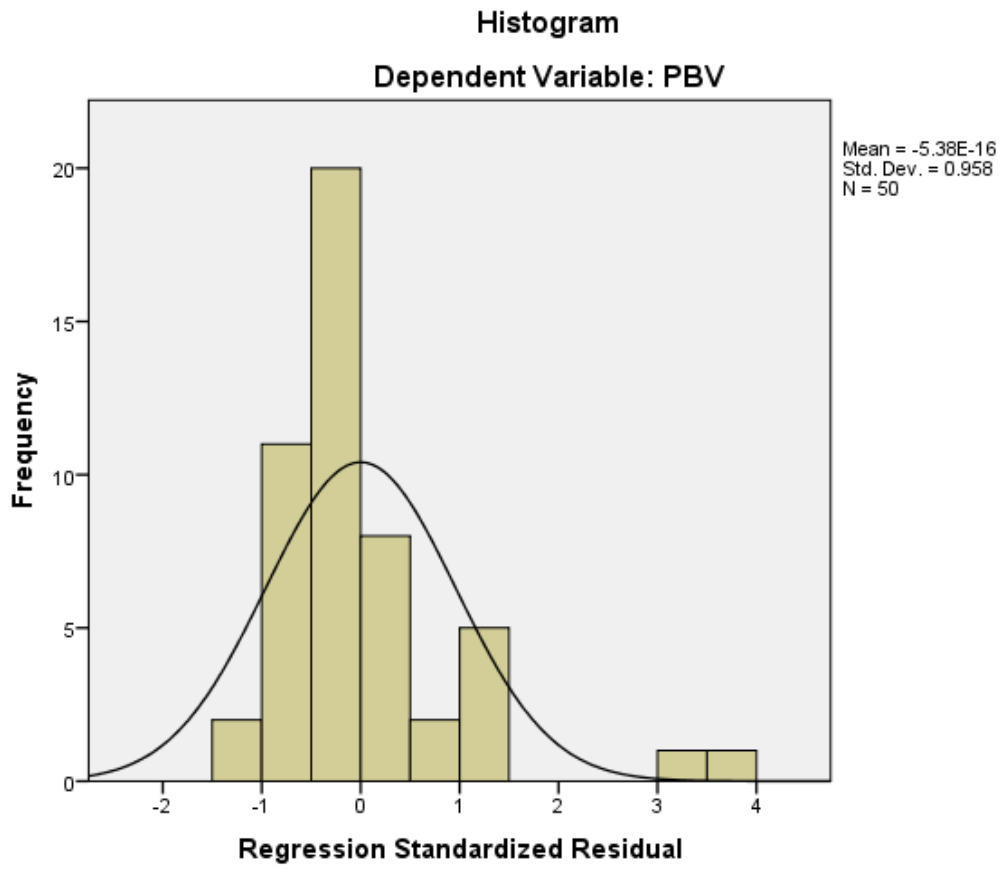
a. Dependent Variable: PBV

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.669469	5.727182	2.767302	1.2292962	50
Std. Predicted Value	-1.707	2.408	.000	1.000	50
Standard Error of Predicted Value	.480	1.751	.843	.311	50
Adjusted Predicted Value	.611983	6.305829	2.730009	1.2371689	50
Residual	-3.9668460	10.9726200	.0000000	2.7193080	50
Std. Residual	-1.398	3.867	.000	.958	50
Stud. Residual	-1.534	3.964	.006	1.012	50
Deleted Residual	-4.7786293	11.5319538	.0372927	3.0562463	50
Stud. Deleted Residual	-1.559	4.859	.035	1.119	50
Mahal. Distance	.420	17.679	3.920	4.034	50
Cook's Distance	.000	.430	.027	.071	50
Centered Leverage Value	.009	.361	.080	.082	50

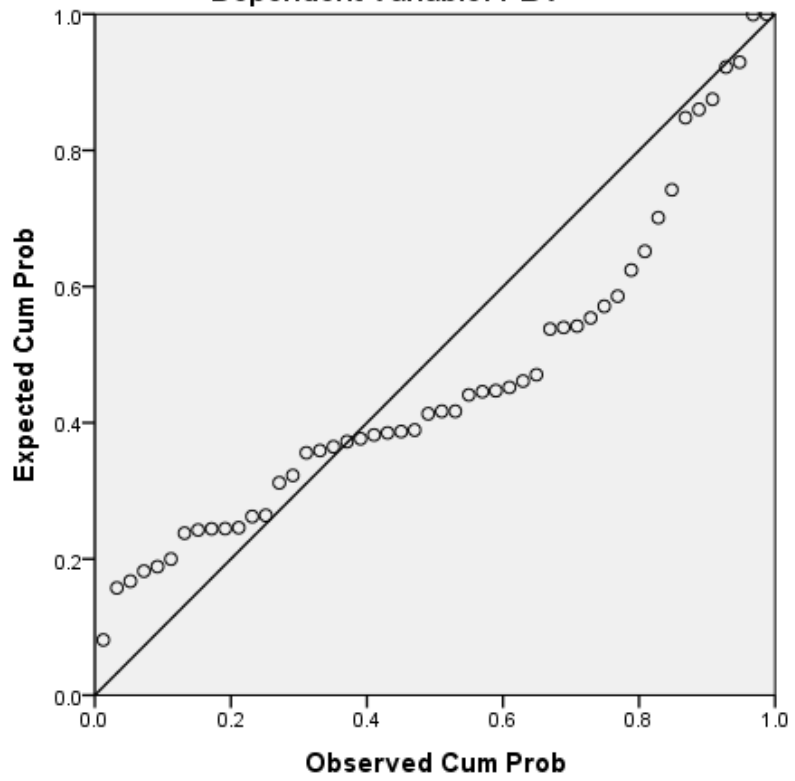
a. Dependent Variable: PBV

Charts



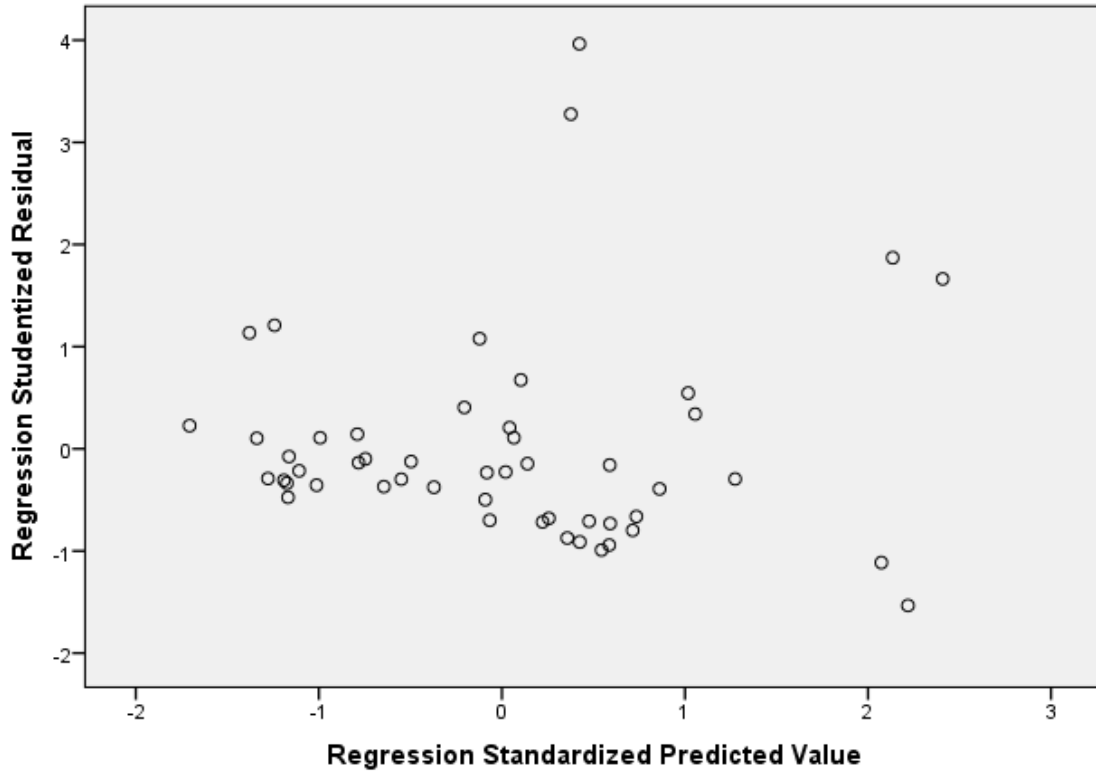
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PBV



Scatterplot

Dependent Variable: PBV



Regression

Notes

Output Created		25-MAY-2013 09:51:55
Comments		
Input	Data	E:\10052012.sav
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	Split File	<none>
	N of Rows in Working Data	48
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION
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		CORR SIG N
		/MISSING LISTWISE
		/STATISTICS COEFF OUTS R
		ANOVA COLLIN TOL CHANGE ZPP
		/CRITERIA=PIN(.05) POUT(.10)
		/NOORIGIN
		/DEPENDENT PBV
		/METHOD=ENTER r DPR SIZE
		INST
		/SCATTERPLOT=(*SRESID
		,*ZPRED)
		/RESIDUALS DURBIN
		HISTOGRAM(ZRESID)
	NORMPROB(ZRESID)	
	/CASEWISE PLOT(ZRESID)	
	OUTLIERS(3).	
	Processor Time	00:00:02,68
	Elapsed Time	00:00:02,68
Resources	Memory Required	2308 bytes
	Additional Memory Required	888 bytes
	for Residual Plots	

Descriptive Statistics

	Mean	Std. Deviation	N
PBV	2.329481	2.0855102	48
r	.294590	.6149605	48
DPR	.205425	.3548962	48
SIZE	14.311050	1.4914900	48
INST	.691369	.2129336	48

Correlations

		PBV	r	DPR	SIZE	INST
Pearson Correlation	PBV	1.000	.300	.338	.077	.317
	r	.300	1.000	-.136	-.143	-.039
	DPR	.338	-.136	1.000	.243	.245
	SIZE	.077	-.143	.243	1.000	-.387
	INST	.317	-.039	.245	-.387	1.000
Sig. (1-tailed)	PBV	.	.019	.009	.302	.014
	r	.019	.	.178	.165	.395
	DPR	.009	.178	.	.048	.047
	SIZE	.302	.165	.048	.	.003
	INST	.014	.395	.047	.003	.
N	PBV	48	48	48	48	48
	r	48	48	48	48	48
	DPR	48	48	48	48	48
	SIZE	48	48	48	48	48
	INST	48	48	48	48	48

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	INST, r, DPR, SIZE ^b	.	Enter

a. Dependent Variable: PBV

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.570 ^a	.325	.262	1.7912721	.325	5.177

Model Summary^b

Model	Change Statistics			Durbin-Watson
	df1	df2	Sig. F Change	
1	4 ^a	43	.002	1.925

a. Predictors: (Constant), INST, r, DPR, SIZE

b. Dependent Variable: PBV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.447	4	16.612	5.177	.002 ^b
	Residual	137.972	43	3.209		
	Total	204.420	47			

a. Dependent Variable: PBV

b. Predictors: (Constant), INST, r, DPR, SIZE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.798	3.514		-1.365	.179
	r	1.280	.433	.378	2.959	.005
	DPR	1.492	.822	.254	1.815	.077
	SIZE	.285	.207	.204	1.378	.175
	INST	3.413	1.442	.348	2.368	.022

Coefficients^a

Model	Correlations			Collinearity Statistics		
	Zero-order	Partial	Part	Tolerance	VIF	
(Constant)						
1	r	.300	.411	.371	.964	1.038
	DPR	.338	.267	.227	.802	1.247
	SIZE	.077	.206	.173	.716	1.397
	INST	.317	.340	.297	.725	1.380

a. Dependent Variable: PBV

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	r	DPR	SIZE
	1	3.496	1.000	.00	.02	.02	.00
	2	.891	1.981	.00	.58	.23	.00
1	3	.542	2.539	.00	.38	.60	.00
	4	.067	7.212	.01	.00	.02	.03
	5	.003	33.374	.99	.02	.14	.97

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions
		INST
	1	.00
	2	.00
1	3	.01
	4	.61
	5	.38

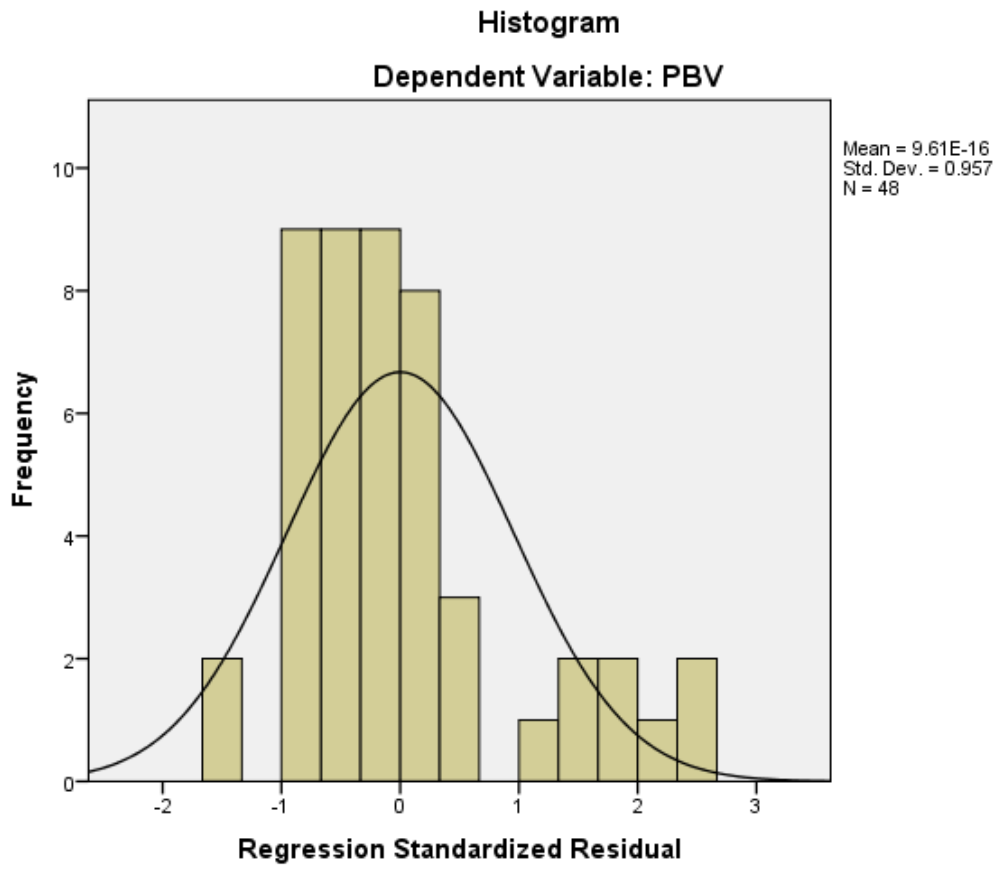
a. Dependent Variable: PBV

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.608587	5.300073	2.329481	1.1890224	48
Std. Predicted Value	-1.447	2.498	.000	1.000	48
Standard Error of Predicted Value	.315	1.105	.544	.197	48
Adjusted Predicted Value	.493359	5.478939	2.292553	1.1896372	48
Residual	-2.8443663	4.4780455	.0000000	1.7133531	48
Std. Residual	-1.588	2.500	.000	.957	48
Stud. Residual	-1.835	3.028	.009	1.061	48
Deleted Residual	-3.7968392	6.8935437	.0369283	2.1333036	48
Stud. Deleted Residual	-1.889	3.374	.028	1.114	48
Mahal. Distance	.475	16.921	3.917	3.923	48
Cook's Distance	.000	1.128	.057	.186	48
Centered Leverage Value	.010	.360	.083	.083	48

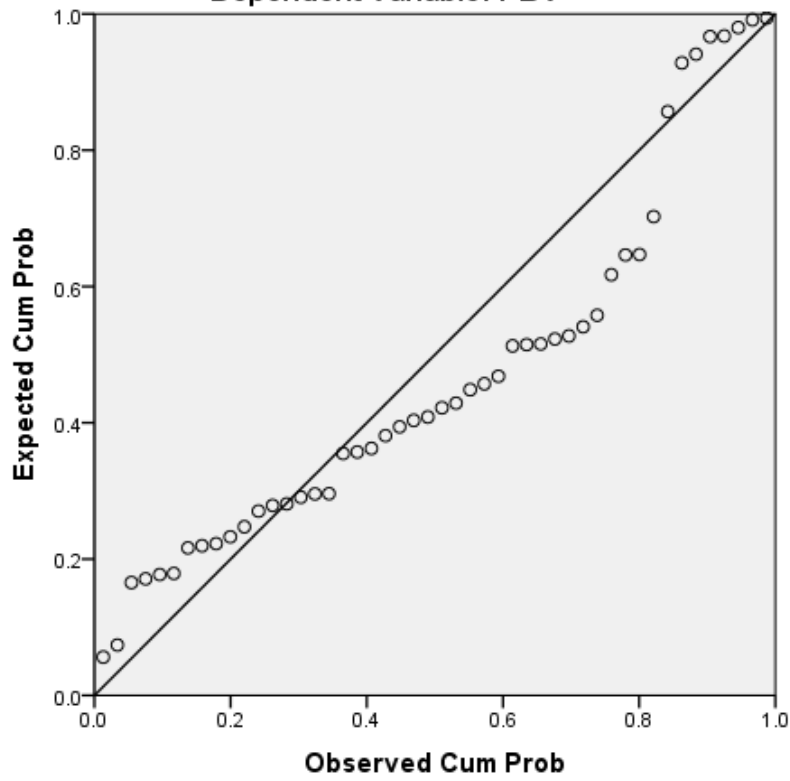
a. Dependent Variable: PBV

Charts



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PBV



Scatterplot

Dependent Variable: PBV

