

ΠΑΡΑΡΤΗΜΑΤΑ

Παράρτημα Α: Δεδομένα που χρησιμοποιήθηκαν στην Οικονομετρική Ανάλυση (ΕΕ)

Παράρτημα Β: Αποτελέσματα οικονομετρικής ανάλυσης του Υποδείματός μας (SPSS)

- Αποτελέσματα οικονομετρικής ανάλυσης του Υποδείματός μας (Ελλάδας, Ομάδες χωρών Α και Β)

Παράρτημα Β.1: Επεξεργασία στοιχείων με SPSS για την Ελλάδα

Παράρτημα Β.2: Επεξεργασία στοιχείων με SPSS για την Ομάδα χωρών Α (Ελλάδα, Ιταλία, Πορτογαλία, Ισπανία)

Παράρτημα Β.3: Επεξεργασία στοιχείων με SPSS για την Ομάδα χωρών Β (Γερμανία, Ολλανδία, Φιλανδία)

Για να αντιμετωπιστεί η έλλειψη τιμών που παρουσιάστηκε για κάποιες χώρες, στις μεταβλητές που επιλέχθηκαν για την οικονομετρική ανάλυση του υποδείματος οι τιμές αυτές έχουν αντικατασταθεί με το μέσο όρο της μεταβλητής της περιόδου που έχει επιλεγεί και μελετάτε. Ειδικότερα προκειμένου να μην υπάρχουν κενά στοιχεία μεταξύ των μεταβλητών, πχ έτη που λείπουν, αντικαθιστούμε κάθε ελλειμματική τιμή με τον μέσο όρο των 2 προηγούμενων και 2 επόμενων στοιχείων της (θεωρούμε, ως ερευνητές, ότι αυτή είναι η πλέον πρόσφορη και αντικειμενική διαδικασία). Για τον λόγο αυτό οι μεταβλητές παρουσιάζονται με την επισήμανση SMEAN. Στον παρακάτω πίνακα αναφέρονται οι μεταβλητές, οι χώρες και έτη όπου παρουσιάστηκε η έλλειψη τιμών και εφαρμόστηκαν τα παραπάνω.

Αναφορά στην έλλειψη δεικτών

Όνομασία Μεταβλητών	Επεξήγηση για τις ελλείψεις τιμών δεδομένων
Πραγματικό εγχώριο προϊόντων κατά κεφαλήν – ΑΕΠ σε ευρώ (GDP)	Βρέθηκαν όλες οι τιμές για όλες τις εξεταζόμενες χώρες
Αριθμός από πατέντες που αντιστοιχεί σε 1 εκτ εργαζόμενους (PATENTS)	Λείπουν οι τιμές για το έτος 2013 για όλες τις χώρες (Ελλάδα, Ιταλία, Ισπανία, Πορτογαλία, Φιλανδία, Γερμανία, Ολλανδία.
Τον αριθμό των επιστημόνων που ασχολούνται για την έρευνα και την τεχνολογία (HUMAN-HRST)	Λείπουν οι τιμές για το έτος 1995 για τη Ολλανδία και για τα έτη 1995,1996 για τη Φιλανδία.
Ποσό σε ευρώ που δαπανείται για έρευνα και τεχνολογία ανά κάτοικο (GERD-R&D)	Λείπουν οι τιμές για το έτος 2013 για όλες τις χώρες και για την Ελλάδα επιπλέον οι τιμές για τα έτη 1996,1998,2000,2002,2008,2009,2010
Ποσοστό της χώρας στο σύνολο των παγκόσμιων εξαγωγών (EXPORT)	Βρέθηκαν όλες οι τιμές για όλες τις εξεταζόμενες χώρες
Διεθνής επενδυτική θέση της χώρας σε ευρώ (INVEST)	Λείπουν οι τιμές για την Ελλάδα για τα έτη 1995,1996,1997, για την Ιταλία για τα έτη 1995, 1996 και για τη Πορτογαλία για το έτος 1995.

Πηγή: Ίδια Επεξεργασία

A. Δεδομένα που χρησιμοποιήθηκαν στην Οικονομική Ανάλυση (ΕΕ)

A) GDP per capita - annual Data [nama_aux_gph]

Last update 08.09.14
Extracted on 29.12.14
Source of data Eurostat

INDIC_NA **Real Gross Domestic Product per capita**
UNIT Euro per inhabitant

A Group Χωρών	1995	1996	1998	1999	2000	2001	2002	2003	2004	2005
Greece	12.600	12.800	13.500	13.900	14.500	15.100	15.500	16.400	17.100	17.400
Italy	21.900	22.100	22.900	23.200	24.000	24.500	24.500	24.300	24.500	24.500
Spain	16.100	16.400	17.700	18.500	19.200	19.700	20.000	20.200	20.600	21.000
Portugal	12.000	12.400	13.500	14.000	14.500	14.700	14.700	14.400	14.600	14.600

A Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	18.300	18.900	18.800	18.200	17.400	16.200	15.100	12.353
Italy	24.900	25.100	24.700	23.200	23.500	23.500	22.800	22.400
Spain	21.500	21.800	21.700	20.700	20.600	20.600	20.200	20.100
Portugal	14.800	15.100	15.100	14.600	14.900	14.700	14.300	14.300

B Group Χωρών	1995	1996	1998	1999	2000	2001	2002	2003	2004	2005
Finland	21.400	22.100	24.500	25.400	26.700	27.300	27.700	28.200	29.300	30.000
Germany (until 1990 former territory of the FRG)	24.100	24.200	25.100	25.500	26.300	26.600	26.600	26.500	26.800	27.000
Netherlands	25.500	26.300	28.100	29.300	30.200	30.500	30.400	30.300	30.900	31.500

B Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Finland	31.200	32.700	32.700	29.700	30.600	31.300	30.900	30.300
Germany (until 1990 former territory of the FRG)	28.000	29.000	29.300	27.900	29.100	30.000	30.200	30.200
Netherlands	32.500	33.700	34.200	32.700	33.100	33.200	32.700	32.300

**B) Patent applications to the EPO by priority year at the national level
[pat_ep_ntot]**

11.11.1
Last update 4
29.12.1
Extracted on 4
Source of data Eurostat

UNIT Per million labour force

A Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	6,63	8,64	11,82	13,26	11,29	12,24	15,47	16,24	17,74	13,55	22,99
Italy	109,42	126,88	137,85	144,46	160,07	170,41	168,22	177	182,27	188,17	200,73
Spain	24,39	27,03	35,75	37,57	43,11	45,6	48,56	49,78	49,18	59,95	65,08
Portugal	2,83	3,76	4,27	5,24	7,2	7,99	7,93	7,45	12,13	10,61	21,98

A Group Χωρών	1995	2006	2007	2008	2009	2010	2011	2012
Greece		21,5	21,11	18,65	18,7	13,01	10,56	7,91
Italy		204,92	198,31	187,87	175,43	177,55	170,6	161,15
Spain		62,28	62,36	62,43	66,05	64,34	65,77	67,27
Portugal		18,9	21,7	20,04	16,3	16,6	15,12	13,45

B Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Finland	286,06	343,04	410,54	468,87	558,76	553,16	540,36	494,48	497,8	539,26	509,12
Germany (until 1990 former territory of the FRG)	333,72	398,03	446,64	497,29	528,43	557,55	552,29	549,77	557,1	576,19	585,35
Netherlands	238,16	282,56	311,38	330,05	370,69	427,6	473,48	421,57	412,74	429,08	408,69

B Group Χωρών	1995	2006	2007	2008	2009	2010	2011	2012
Finland		508,11	470,27	463,86	488,01	512,3	524,02	541,36
Germany (until 1990 former territory of the FRG)		580,86	583,08	551,35	557	554,68	538,48	534,63
Netherlands		430,99	378,33	386,01	379,92	343,51	331,88	307,58

Γ) HRST by sub-groups, sex and age
[hrst_st_ncat]

Last update 05.09.14
Extracted on 29.12.14
Source of data Eurostat

UNIT Thousand
CATEGORY Persons with tertiary education (ISCED) and/or employed in science and technology
From 15 to 74
AGE years
SEX Total

A Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	1.028	1.089	1.103	1.217	1.213	1.230	1.259	1.325	1.396	1.548	1.563
Italy	5.674	5.902	6.062	6.007	6.373	6.853	7.201	7.449	7.653	8.173	8.440
Spain	4.704	5.258	5.577	5.860	6.224	6.671	7.037	7.400	7.652	8.130	8.931
Portugal	969	960	947	817	849	873	903	929	972	1.148	1.179

A Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	1.654	1.701	1.752	1.760	1.826	1.917	1.962	2.042
Italy	9.088	9.492	9.574	9.374	9.317	9.502	9.738	9.837
Spain	9.483	9.715	10.066	10.035	10.052	10.534	10.681	10.685
Portugal	1.226	1.239	1.302	1.329	1.378	1.568	1.653	1.717

B Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	1.028	1.089	1.103	1.217 7	1.213	1.230	1.259	1.325	1.396	1.548	1.563
Finland	:	:	955	1.17 4	1.263	1.310	1.331	1.260	1.260	1.303	1.337
Germany (until 1990 former territory of the FRG)	16.37 7	16.71 0	17.19 3	:	17.46 7	17.81 4	17.99 3	17.91 6	18.42 3	18.69 1	19.439
Netherlan ds	:	3.22 7	3.43 4	3.41 9	3.53 1	3.68 9	3.73 4	3.84 8	4.09 3	4.26 7	4.293

B Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	1.654	1.701	1.752	1.760	1.826	1.917	1.962	2.042
Finland	1.367	1.410	1.442	1.465	1.464	1.528	1.575	1.593

Germany (until 1990 former territory of the FRG)	19.397	19.882	20.399	20.603	20.806	20.780	21.678	22.036
Netherlands	4.228	4.442	4.559	4.613	4.699	4.687	4.788	4.801

Δ) Total intramural R&D expenditure (GERD) by sectors of performance [rd_e_gerdtot]

Last update 20.02.14

Extracted on 20.03.14

Source of data Eurostat

SECTPERF All sectors
UNIT Euro per inhabitant

A Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	41,2	:	50,5	:	73,2	:	77,9	:	88,8	92,5	104,1
Italy	147,5	172	190,4	200,3	202,5	218,9	238,3	256,2	257,7	263,5	266,8
Spain	92,1	101,1	102,5	118,4	125,5	142,8	153,8	175,3	196,4	210,3	235,5
Portugal	47	52,9	57,7	68,2	80	90,4	100,5	99	97,6	106	114,4

A Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	109,9	120,1	:	:	:	125,1	120,3	
Italy	286,5	308,3	318,6	319,9	325,2	326,8	326,1	
Spain	268,5	297,9	321,9	315,4	313,8	303,9	286	
Portugal	151	187,3	245	261,7	260	246,5	234,2	

B Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Finland	443,8	499,2	572,2	647,7	751,8	855,2	891,5	929,8	961,3	1.006,5	1.045,3
Germany (until 1990 former territory of the FRG)	518	515,4	520,3	540,4	587,4	616,1	632,2	647,3	660,8	666	675,6
Netherlands	408,9	421,7	435,9	435,7	485,1	510	541,4	543,1	565	582,4	599,3

B Group Χωρών	1995	2006	2007	2008	2009	2010	2011	2012	2013
Finland		1.096,2	1.183	1.296,3	1.274,1	1.302,7	1.332,7	1.264,9	
Germany (until 1990 former territory of the FRG)		713	746,9	809,2	817,2	855,1	923,5	951	
Netherlands		622,9	632,2	640,2	631,3	657,1	728,9	772,6	

E) Export market shares [bop_q_exmash]

Last update 18.7.2014
 Extracted on 30.12.2014
 Source of data Eurostat

UNIT Percentage of world total
 POST Current account, Goods and services
 STK_FLOW Credit
 PARTNER All countries of the world

A Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	0,24502	0,22865	0,23961	0,26077	0,35526	0,37567	0,39452	0,37130	0,39389	0,43203	0,39943
Italy	4,60453	4,69136	4,36828	4,52882	4,16681	3,77589	3,96865	3,89722	3,95766	3,85541	3,57756
Spain	2,11619	2,21077	2,18255	2,35038	2,33666	2,13933	2,27071	2,33285	2,48634	2,39431	2,25685
Portugal	0,51362	0,48133	0,45677	0,49957	0,48713	0,43381	0,45016	0,46322	0,48656	0,46873	0,41794

A Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	0,37555	0,38545	0,39812	0,37196	0,31955	0,30371	0,28178	0,28934
Italy	3,47125	3,53084	3,31433	3,15983	2,88976	2,81525	2,68759	2,72442
Spain	2,19810	2,25739	2,14781	2,22326	2,02098	2,00955	1,91457	1,99567
Portugal	0,42596	0,43796	0,42170	0,42506	0,38564	0,38697	0,36700	0,39109

B Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Finland	0,75793	0,71819	0,69123	0,73241	0,68520	0,68003	0,68290	0,68724	0,68553	0,67199
Germany (until 1990 former territory of the FRG)	9,49064	9,06183	8,53775	9,09983	8,79910	7,98338	8,57840	8,89342	9,31935	9,30652
Netherlands	3,85017	3,66006	3,46166	3,61148	3,51821	3,25988	3,36505	3,32899	3,52849	3,43551

B Group Χωρών	2005	2006	2007	2008	2009	2010	2011	2012	2013
Finland	0,63836	0,63495	0,65192	0,64719	0,57218	0,51108	0,48366	0,45438	0,45371
Germany (until 1990 former territory of the FRG)	8,88696	8,88532	9,07428	8,82435	8,90170	8,40894	8,33167	7,90538	8,01443
Netherlands	3,31541	3,21552	3,23745	3,19599	3,22055	3,03289	2,93637	2,84191	2,90068

Z) International investment position - annual data
[bop_ext_intpos]

Last update 21.10.14

Extracted on 30.12.14
Source of data Eurostat

CURRENCY Million euro (from 1.1.1999)/Million ECU (up to 31.12.1998)

PARTNER All countries of the world

FINPOS Net position
International investment position:

FIN_TYP Total

A Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Greece	:	:	:	-29.850	-41.124	-54.639	-68.061	-82.864	101.557	124.122	149.187
Italy	:	:	-50.284	-98.913	-56.558	-85.881	-72.857	161.468	183.141	240.006	261.139
Spain	-99.035	113.312	129.714	171.200	186.192	201.544	242.518	303.071	354.254	436.424	505.493
Portugal	:	-8.901	-16.576	-24.758	-37.367	-52.477	-63.852	-76.794	-82.527	-95.684	103.160

A Group Χωρών	2006	2007	2008	2009	2010	2011	2012	2013
Greece	-178.163	-214.468	-179.182	-207.156	-218.632	-176.112	-210.853	-220.092
Italy	-350.259	-394.874	-401.631	-403.263	-386.354	-371.123	-443.133	-459.526
Spain	-648.218	-822.823	-863.066	-982.156	-931.473	-956.057	-954.503	-1.004.464
Portugal	-126.813	-148.833	-165.398	-185.969	-185.221	-179.406	-191.716	-196.643

B Group Χωρών	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Finland	-39.054	41.288	44.320	85.945	214.567	195.385	114.480	-52.843	-38.489	-15.225
Germany (until 1990 former territory of the FRG)	102.405	80.118	78.658	7.414	90.262	66.963	183.355	108.384	141.890	234.376
Netherlands	38.406	21.333	13.804	15.865	-31.720	-63.681	-60.048	112.982	-8.160	18.196

B Group Χωρών	2005	2006	2007	2008	2009	2010	2011	2012	2013
Finland	-24.076	-22.877	-50.188	-4.982	11.590	38.238	37.137	35.374	30.616
Germany (until 1990 former territory of the FRG)	467.936	646.726	643.522	631.136	806.301	883.578	879.059	1.107.211	1.325.376
Netherlands	-13.459	17.393	-34.552	24.811	95.544	143.502	203.988	274.404	278.919

B. Αποτελέσματα οικονομετρικής ανάλυσης του Υποδείγματός μας (Ελλάδα και Ομάδες χωρών A (Ελλάδα, Ιταλία, Ισπανία, Πορτογαλία) και B (Γερμανία, Ολλανδία, Φιλανδία))

B.1-Επεξεργασία στοιχείων με SPSS για την Ελλάδα

GET

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Descriptives

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	Cases Used	All non-missing data are used.
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[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SMEAN(GDP)	18	12600	18900	15827,78	2108,751
SMEAN(PATENT)	18	6,63	22,85	15,6647	4,41186

SMEAN(HUMAN)	18	1028	1962	1474,61	303,673
SMEAN(GERD)	18	41,2	125,1	91,236	21,7095
SMEAN(EXPORT)	18	,22865	,43203	,3407822	,06454398
SMEAN(INVEST)	18	-218632	-29850	-135731,33	61706,636
Valid N (listwise)	18				

REGRESSION

/MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
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 /NOORIGIN
 /DEPENDENT GDP_1
 /METHOD=ENTER PATENT_1.

Regression

Notes

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Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(PATENT)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,882 ^a	,778	,764	1024,138

a. Predictors: (Constant), SMEAN(PATENT)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58814369,409	1	58814369,409	56,075	,000 ^a
	Residual	16781741,702	16	1048858,856		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(PATENT)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9223,613	914,370		10,087	,000
	SMEAN(PATENT)	421,595	56,301	,882	7,488	,000

a. Dependent Variable: SMEAN(GDP)

```

REGRESSION
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/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER HUMAN_1.
    
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Regression

Notes

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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 /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER HUMAN_1.
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,012
	Memory Required	2800 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(HUMAN)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,773 ^a	,597	,572	1380,075

a. Predictors: (Constant), SMEAN(HUMAN)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45122381,265	1	45122381,265	23,691	,000 ^a
	Residual	30473729,846	16	1904608,115		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7916,569	1657,591		4,776	,000
	SMEAN(HUMAN)	5,365	1,102	,773	4,867	,000

a. Dependent Variable: SMEAN(GDP)

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER GERD_1.
    
```

Regression

Notes

Output Created		20-Σεπ-2015 13:16:59
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	18
	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 /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER GERD_1.
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,234
	Memory Required	2800 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(GERD)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,591 ^a	,349	,308	1753,863

a. Predictors: (Constant), SMEAN(GERD)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26379537,087	1	26379537,087	8,576	,010 ^a
	Residual	49216574,024	16	3076035,876		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(GERD)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10592,652	1834,852		5,773	,000
	SMEAN(GERD)	57,380	19,594	,591	2,928	,010

a. Dependent Variable: SMEAN(GDP)

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER EXPORT_1.
    
```

Regression

Notes

Output Created		20-Σεπ-2015 13:17:18
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
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		<pre> REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER EXPORT_1. </pre>
Resources	Processor Time	00 00:00:00,031
	Elapsed Time	00 00:00:00,550
	Memory Required	2800 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(EXPORT)	.	Enter

- a. All requested variables entered.
 b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,726 ^a	,527	,497	1495,352

- a. Predictors: (Constant), SMEAN(EXPORT)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39818862,149	1	39818862,149	17,807	,001 ^a
	Residual	35777248,962	16	2236078,060		
	Total	75596111,111	17			

- a. Predictors: (Constant), SMEAN(EXPORT)
 b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7747,224	1947,041		3,979	,001
	SMEAN(EXPORT)	23711,783	5619,055	,726	4,220	,001

- a. Dependent Variable: SMEAN(GDP)

```
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER INVEST_1.
```

Regression

Notes

Output Created	20-Σεπ-2015 13:17:32	
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
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	<pre>REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER INVEST_1.</pre>	
Resources	Processor Time	00 00:00:00,000
	Elapsed Time	00 00:00:00,163
	Memory Required	2800 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,599 ^a	,359	,319	1739,848

a. Predictors: (Constant), SMEAN(INVEST)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27162995,105	1	27162995,105	8,973	,009 ^a
	Residual	48433116,006	16	3027069,750		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(INVEST)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13047,344	1014,741		12,858	,000
	SMEAN(INVEST)	-,020	,007	-,599	-2,996	,009

a. Dependent Variable: SMEAN(GDP)

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT GDP_1

/METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1.

Regression

Notes

Output Created		20-Σεπ-2015 13:17:53
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
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		<pre> REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1. </pre>
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,017
	Memory Required	5008 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST), SMEAN(EXPORT), SMEAN(GERD), SMEAN(PATENT), SMEAN(HUMAN)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,973 ^a	,946	,924	581,309

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(EXPORT), SMEAN(GERD), SMEAN(PATENT), SMEAN(HUMAN)

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	71541066,887	5	14308213,377	42,342	,000 ^a
	Residual	4055044,224	12	337920,352		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(EXPORT), SMEAN(GERD), SMEAN(PATENT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5238,880	970,940		5,396	,000
	SMEAN(PATENT)	159,942	60,173	,335	2,658	,021
	SMEAN(HUMAN)	,663	1,170	,096	,567	,581
	SMEAN(GERD)	-2,195	11,447	-,023	-,192	,851
	SMEAN(EXPORT)	16189,671	3303,967	,496	4,900	,000
	SMEAN(INVEST)	-,013	,004	-,386	-3,083	,009

a. Dependent Variable: SMEAN(GDP)

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1
/RESIDUALS DURBIN.
    
```

Regression

Notes

Output Created	20-Σεπ-2015 13:19:00	
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
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	<pre> REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1 /RESIDUALS DURBIN. </pre>	
Resources	Processor Time	00 00:00:00,032
	Elapsed Time	00 00:00:00,030
	Memory Required	5040 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet2] C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav

Descriptive Statistics

	Mean	Std. Deviation	N
SMEAN(GDP)	15827,78	2108,751	18
SMEAN(PATENT)	15,6647	4,41186	18
SMEAN(HUMAN)	1474,61	303,673	18
SMEAN(GERD)	91,236	21,7095	18
SMEAN(EXPORT)	,3407822	,06454398	18
SMEAN(INVEST)	-135731,33	61706,636	18

Correlations

		SMEAN(GDP)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
Pearson Correlation	SMEAN(GDP)	1,000	,882	,773	,591	,726	-,599
	SMEAN(PATENT)	,882	1,000	,710	,657	,629	-,474
	SMEAN(HUMAN)	,773	,710	1,000	,763	,339	-,750
	SMEAN(GERD)	,591	,657	,763	1,000	,323	-,416
	SMEAN(EXPORT)	,726	,629	,339	,323	1,000	,014
	SMEAN(INVEST)	-,599	-,474	-,750	-,416	,014	1,000
Sig. (1-tailed)	SMEAN(GDP)	.	,000	,000	,005	,000	,004
	SMEAN(PATENT)	,000	.	,000	,002	,003	,024
	SMEAN(HUMAN)	,000	,000	.	,000	,085	,000
	SMEAN(GERD)	,005	,002	,000	.	,095	,043
	SMEAN(EXPORT)	,000	,003	,085	,095	.	,478
	SMEAN(INVEST)	,004	,024	,000	,043	,478	.
N	SMEAN(GDP)	18	18	18	18	18	18
	SMEAN(PATENT)	18	18	18	18	18	18
	SMEAN(HUMAN)	18	18	18	18	18	18
	SMEAN(GERD)	18	18	18	18	18	18
	SMEAN(EXPORT)	18	18	18	18	18	18
	SMEAN(INVEST)	18	18	18	18	18	18

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST), SMEAN(EXPORT) , SMEAN(GERD), SMEAN(PATENT) , SMEAN(HUMAN)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,973 ^a	,946	,924	581,309	1,728

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(EXPORT), SMEAN(GERD), SMEAN(PATENT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71541066,887	5	14308213,377	42,342	,000 ^a
	Residual	4055044,224	12	337920,352		
	Total	75596111,111	17			

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(EXPORT), SMEAN(GERD), SMEAN(PATENT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Correlations		
	B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial
	1 (Constant)	5238,880	970,940				5,396	,000	3123,383	7354,377
SMEAN(PATENT)	159,942	60,173	,335	2,658	,021	28,836	291,047	,882	,609	,178
SMEAN(HUMAN)	,663	1,170	,096	,567	,581	-1,885	3,212	,773	,162	,038
SMEAN(GERD)	-2,195	11,447	-,023	-,192	,851	-27,136	22,747	,591	-,055	-,013
SMEAN(EXPORT)	16189,671	3303,967	,496	4,900	,000	8990,946	23388,397	,726	,817	,328
SMEAN(INVEST)	-,013	,004	-,386	-3,083	,009	-,022	-,004	-,599	-,665	-,206

a. Dependent Variable: SMEAN(GDP)

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	12581,82	18563,72	15827,78	2051,414	18
Residual	-1033,199	918,178	,000	488,397	18
Std. Predicted Value	-1,582	1,334	,000	1,000	18
Std. Residual	-1,777	1,579	,000	,840	18

a. Dependent Variable: SMEAN(GDP)

B.2 Επεξεργασία στοιχείων με SPSS για την Ομάδα χωρών Α (Ελλάδα, Ιταλία, Πορτογαλία, Ισπανία)

```
GET
  FILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
GET
  FILE='C:\Users\Toshiba\Desktop\Official for send 2\ITALY.sav'.
DATASET NAME DataSet2 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
DATASET CLOSE DataSet2.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
GET
  FILE='C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav'.
DATASET NAME DataSet3 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
DATASET ACTIVATE DataSet1.
DATASET CLOSE DataSet3.
GET
  FILE='C:\Users\Toshiba\Desktop\Official for send 2\ITALY.sav'.
DATASET NAME DataSet4 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
GET
  FILE='C:\Users\Toshiba\Desktop\Official for send 2\GREECE.sav'.
DATASET NAME DataSet5 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
DATASET CLOSE DataSet5.
DATASET CLOSE DataSet4.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH
COUNTRIES).sav'
/COMPRESSED.
RMV /GDP_1=SMEAN(GDP) /PATENT_1=SMEAN(PATENT) /HUMAN_1=SMEAN(HUMAN)
/GERD_1=SMEAN(GERD) /EXPORT_1=SMEAN(EXPORT) /INVEST_1=SMEAN(INVEST).
```

Replace Missing Values

Notes

Output Created		20-Σεπ-2015 18:08:58
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	75
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		RMV /GDP_1=SMEAN(GDP) /PATENT_1=SMEAN(PATENT) /HUMAN_1=SMEAN(HUMAN) /GERD_1=SMEAN(GERD) /EXPORT_1=SMEAN(EXPORT) /INVEST_1=SMEAN(INVEST).
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,014
Time Series Settings (TSET)	Treatment of User-Missing Values	User-defined missing values are treated as missing.

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav

Result Variables

	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
			1	GDP_1		
2	PATENT_1	4	1	75	75	SMEAN(PATE NT)
3	HUMAN_1	0	1	75	75	SMEAN(HUM AN)
4	GERD_1	10	1	75	75	SMEAN(GERD)
5	EXPORT_1	0	1	75	75	SMEAN(EXPO RT)
6	INVEST_1	6	1	75	75	SMEAN(INVES T)

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1
/RESIDUALS DURBIN.

```

Regression

Notes

Output Created		20-Σεπ-2015 18:10:29
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	75
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		<pre> REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1 /RESIDUALS DURBIN. </pre>
Resources	Processor Time	00 00:00:00,031
	Elapsed Time	00 00:00:00,070
	Memory Required	5040 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav

Descriptive Statistics

	Mean	Std. Deviation	N
SMEAN(GDP)	18405,56	3882,389	75
SMEAN(PATENT)	62,7832	64,20635	75
SMEAN(HUMAN)	4732,07	3628,134	75
SMEAN(GERD)	182,917	84,6460	75
SMEAN(EXPORT)	1,6848537	1,42680548	75
SMEAN(INVEST)	-265275,25	250799,062	75

Correlations

		SMEAN(GDP)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
Pearson Correlation	SMEAN(GDP)	1,000	,897	,695	,686	,840	-,186
	SMEAN(PATENT)	,897	1,000	,642	,661	,835	-,120
	SMEAN(HUMAN)	,695	,642	1,000	,586	,787	-,724
	SMEAN(GERD)	,686	,661	,586	1,000	,475	-,397
	SMEAN(EXPORT)	,840	,835	,787	,475	1,000	-,252
	SMEAN(INVEST)	-,186	-,120	-,724	-,397	-,252	1,000
Sig. (1-tailed)	SMEAN(GDP)	.	,000	,000	,000	,000	,055
	SMEAN(PATENT)	,000	.	,000	,000	,000	,153
	SMEAN(HUMAN)	,000	,000	.	,000	,000	,000
	SMEAN(GERD)	,000	,000	,000	.	,000	,000
	SMEAN(EXPORT)	,000	,000	,000	,000	.	,015
	SMEAN(INVEST)	,055	,153	,000	,000	,015	.
N	SMEAN(GDP)	75	75	75	75	75	75
	SMEAN(PATENT)	75	75	75	75	75	75
	SMEAN(HUMAN)	75	75	75	75	75	75
	SMEAN(GERD)	75	75	75	75	75	75
	SMEAN(EXPORT)	75	75	75	75	75	75
	SMEAN(INVEST)	75	75	75	75	75	75

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST), SMEAN(PATENT) , SMEAN(GERD), SMEAN(EXPORT) , SMEAN(HUMAN)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.930 ^a	.864	.855	1480,462	.471

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,642E8	5	1,928E8	87,981	.000 ^a
	Residual	1,512E8	69	2191767,368		
	Total	1,115E9	74			

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
1	1	5,009	1,000	,00	,00	,00	,00	,00	,00
	2	,512	3,128	,01	,06	,00	,00	,02	,08
	3	,315	3,985	,21	,00	,01	,03	,01	,05
	4	,112	6,701	,20	,14	,01	,19	,14	,02
	5	,034	12,102	,45	,78	,06	,70	,11	,24
	6	,018	16,548	,12	,02	,92	,07	,73	,62

a. Dependent Variable: SMEAN(GDP)

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13535,41	25130,16	18405,56	3609,608	75
Residual	-3080,753	3714,980	,000	1429,572	75
Std. Predicted Value	-1,349	1,863	,000	1,000	75
Std. Residual	-2,081	2,509	,000	,966	75

a. Dependent Variable: SMEAN(GDP)

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1
/PARTIALPLOT ALL
/RESIDUALS DURBIN HISTOGRAM(ZRESID).
    
```

Regression

Notes

Output Created		20-Σεπ-2015 18:12:21
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	75
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		<pre> REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1 /PARTIALPLOT ALL /RESIDUALS DURBIN HISTOGRAM(ZRESID). </pre>
Resources	Processor Time	00 00:00:06,235
	Elapsed Time	00 00:00:07,091
	Memory Required	5040 bytes
	Additional Memory Required for Residual Plots	1336 bytes

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 1 (SOUTH COUNTRIES).sav

Descriptive Statistics

	Mean	Std. Deviation	N
SMEAN(GDP)	18405,56	3882,389	75
SMEAN(PATENT)	62,7832	64,20635	75
SMEAN(HUMAN)	4732,07	3628,134	75
SMEAN(GERD)	182,917	84,6460	75
SMEAN(EXPORT)	1,6848537	1,42680548	75
SMEAN(INVEST)	-265275,25	250799,062	75

Correlations

		SMEAN(GDP)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
Pearson Correlation	SMEAN(GDP)	1,000	,897	,695	,686	,840	-,186
	SMEAN(PATENT)	,897	1,000	,642	,661	,835	-,120
	SMEAN(HUMAN)	,695	,642	1,000	,586	,787	-,724
	SMEAN(GERD)	,686	,661	,586	1,000	,475	-,397
	SMEAN(EXPORT)	,840	,835	,787	,475	1,000	-,252
	SMEAN(INVEST)	-,186	-,120	-,724	-,397	-,252	1,000
Sig. (1-tailed)	SMEAN(GDP)		,000	,000	,000	,000	,055
	SMEAN(PATENT)	,000		,000	,000	,000	,153
	SMEAN(HUMAN)	,000	,000		,000	,000	,000
	SMEAN(GERD)	,000	,000	,000		,000	,000
	SMEAN(EXPORT)	,000	,000	,000	,000		,015
	SMEAN(INVEST)	,055	,153	,000	,000	,015	
N	SMEAN(GDP)	75	75	75	75	75	75
	SMEAN(PATENT)	75	75	75	75	75	75
	SMEAN(HUMAN)	75	75	75	75	75	75
	SMEAN(GERD)	75	75	75	75	75	75
	SMEAN(EXPORT)	75	75	75	75	75	75
	SMEAN(INVEST)	75	75	75	75	75	75

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST), SMEAN(PATENT) , SMEAN(GERD), SMEAN(EXPORT) , SMEAN(HUMAN)	.	Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,930 ^a	,864	,855	1480,462	,471

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,642E8	5	1,928E8	87,981	,000 ^a
	Residual	1,512E8	69	2191767,368		
	Total	1,115E9	74			

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Zero-order	Partial	Partial	Tolerance	VIF
	1 (Constant)	13297,897	470,344				28,273	,000		
SMEAN(PATENT)	23,619	6,501	,391	3,633	,001	,897	,401	,161	,170	5,882
SMEAN(HUMAN)	,262	,167	,245	1,564	,122	,695	,185	,069	,080	12,452
SMEAN(GERD)	11,087	3,222	,242	3,441	,001	,686	,383	,153	,398	2,512
SMEAN(EXPORT)	696,533	342,708	,256	2,032	,046	,840	,238	,090	,124	8,073
SMEAN(INVEST)	,003	,002	,199	1,951	,055	-,186	,229	,086	,190	5,273

a. Dependent Variable: SMEAN(GDP)

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
1	1	5,009	1,000	,00	,00	,00	,00	,00	,00
	2	,512	3,128	,01	,06	,00	,00	,02	,08
	3	,315	3,985	,21	,00	,01	,03	,01	,05
	4	,112	6,701	,20	,14	,01	,19	,14	,02
	5	,034	12,102	,45	,78	,06	,70	,11	,24
	6	,018	16,548	,12	,02	,92	,07	,73	,62

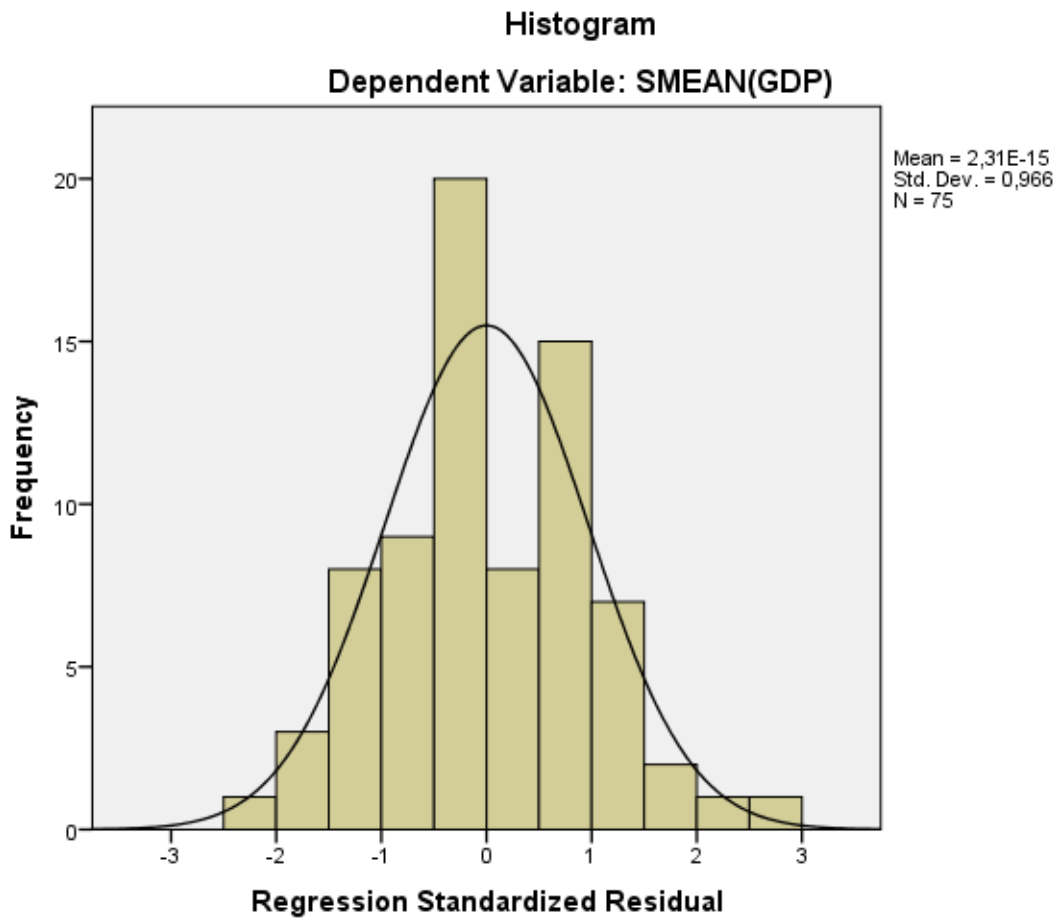
a. Dependent Variable: SMEAN(GDP)

Residuals Statistics^a

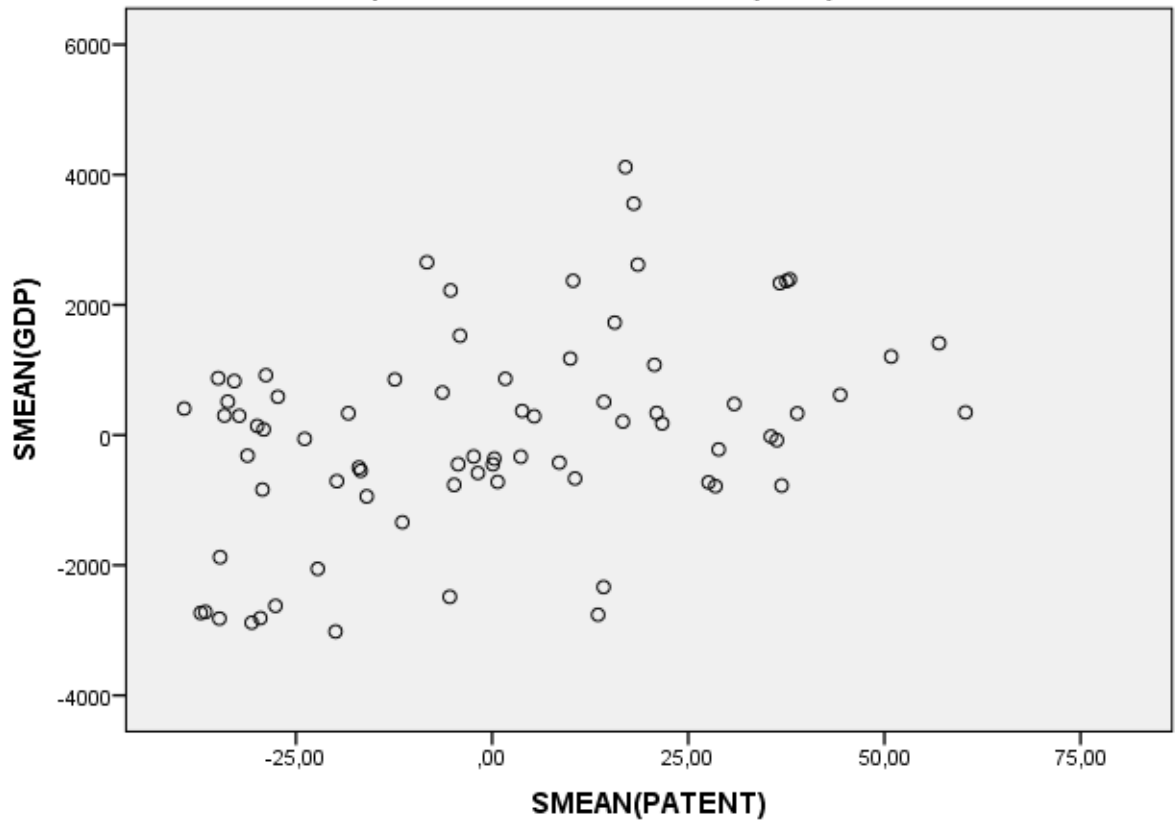
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13535,41	25130,16	18405,56	3609,608	75
Residual	-3080,753	3714,980	,000	1429,572	75
Std. Predicted Value	-1,349	1,863	,000	1,000	75
Std. Residual	-2,081	2,509	,000	,966	75

a. Dependent Variable: SMEAN(GDP)

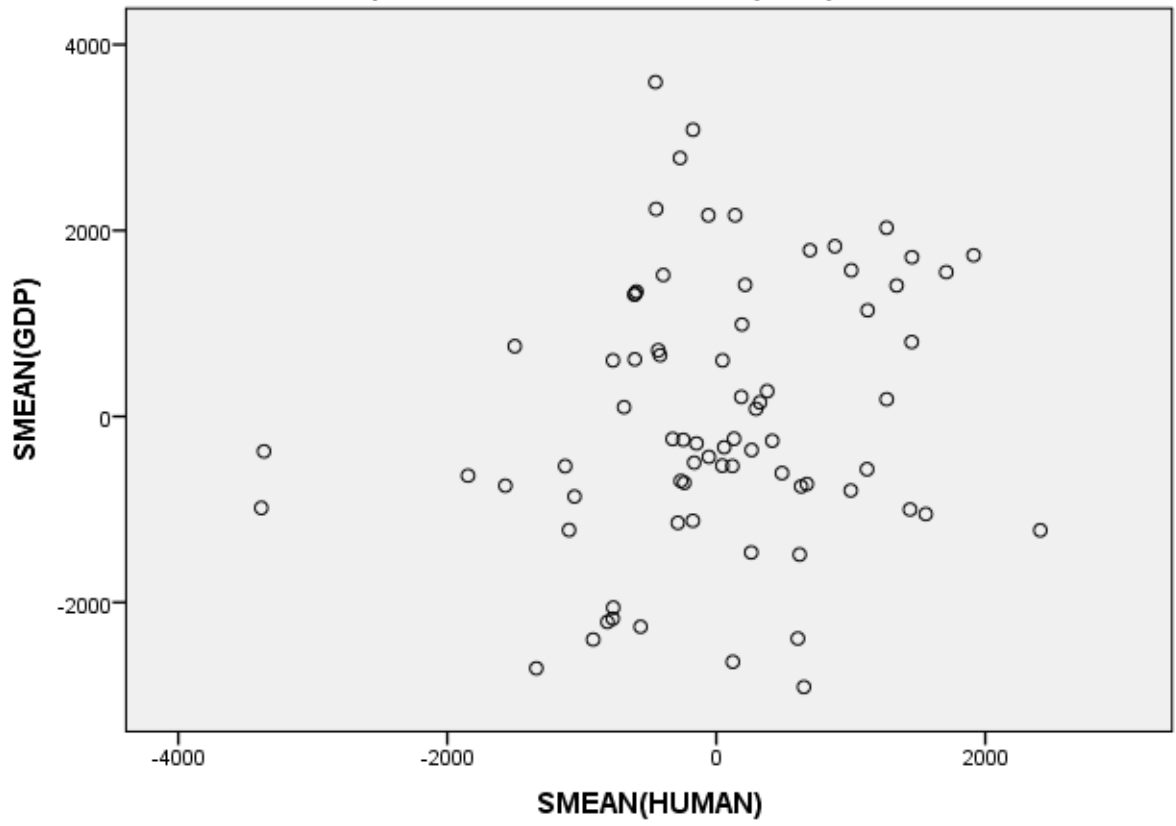
Charts



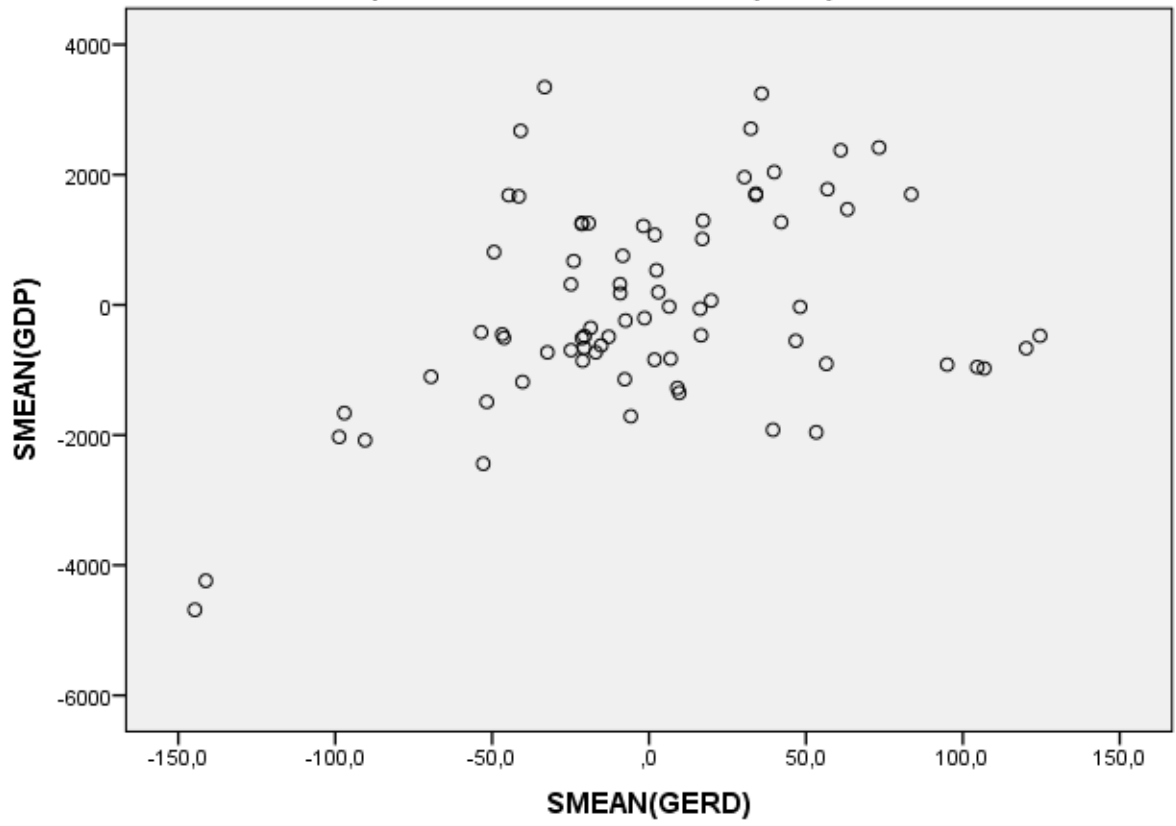
Partial Regression Plot
Dependent Variable: SMEAN(GDP)

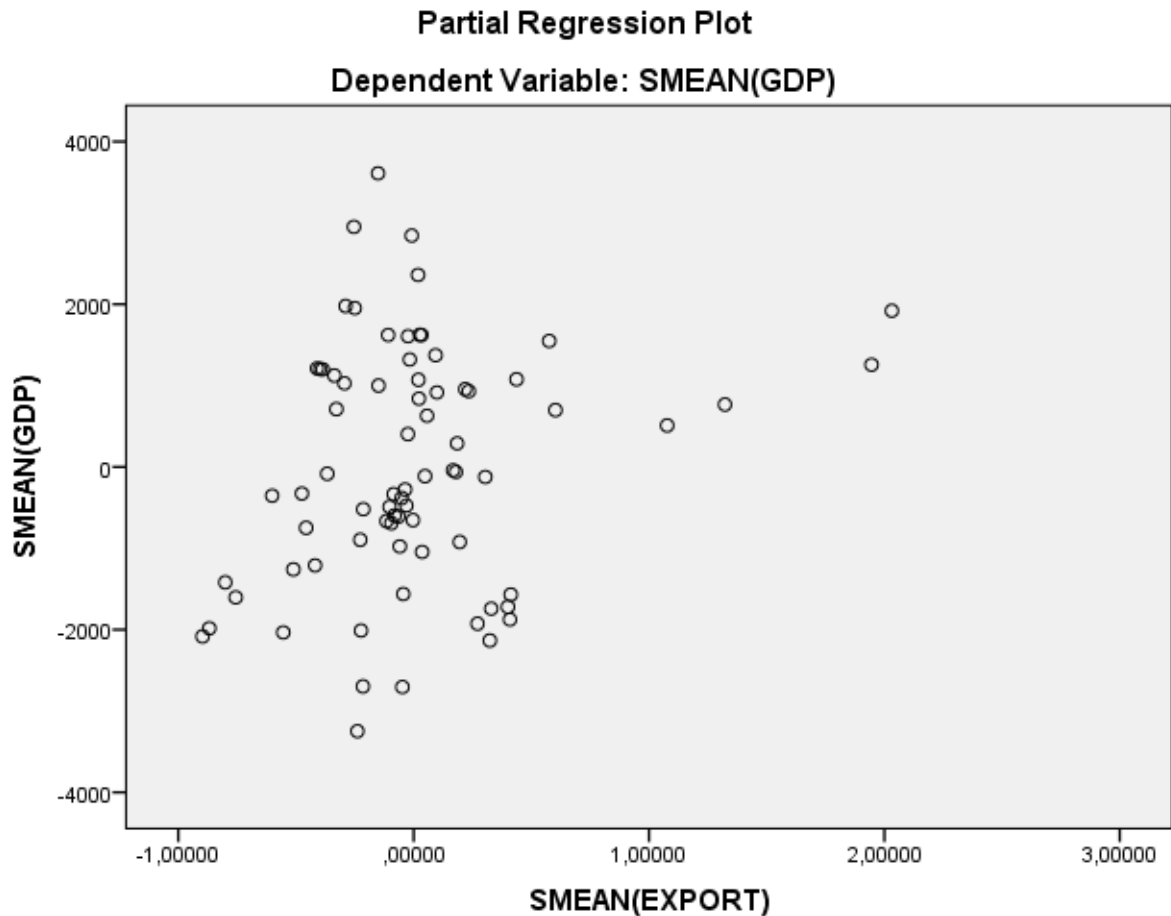


Partial Regression Plot
Dependent Variable: SMEAN(GDP)



Partial Regression Plot
Dependent Variable: SMEAN(GDP)





B.3 Επεξεργασία στοιχείων με SPSS για την Ομάδα χωρών Β (Γερμανία, Ολλανδία, Φιλανδία)

GET

FILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

/COMPRESSED.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

/COMPRESSED.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

/COMPRESSED.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

/COMPRESSED.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

/COMPRESSED.

SAVE OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav'

```

/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH
COUNTRIES).sav'
/COMPRESSED.
SAVE  OUTFILE='C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH
COUNTRIES).sav'
/COMPRESSED.
RMV  /GDP_1=SMEAN(GDP) /PATENT_1=SMEAN(PATENT) /HUMAN_1=SMEAN(HUMAN)
/GERD_1=SMEAN(GERD) /EXPORT_1=SMEAN(EXPORT) /INVEST_1=SMEAN(INVEST).

```

Replace Missing Values

Notes

Output Created		20-Σεπ-2015 18:37:05
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	57
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		RMV /GDP_1=SMEAN(GDP) /PATENT_1=SMEAN(PATENT) /HUMAN_1=SMEAN(HUMAN) /GERD_1=SMEAN(GERD) /EXPORT_1=SMEAN(EXPORT) /INVEST_1=SMEAN(INVEST).
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,014
Time Series Settings (TSET)	Treatment of User-Missing Values	User-defined missing values are treated as missing.

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav

Result Variables

	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
			1	GDP_1		
2	PATENT_1	3	1	57	57	SMEAN(PATENT)
3	HUMAN_1	4	1	57	57	SMEAN(HUMAN)
4	GERD_1	3	1	57	57	SMEAN(GERD)
5	EXPORT_1	0	1	57	57	SMEAN(EXPORT)
6	INVEST_1	0	1	57	57	SMEAN(INVEST)

DESCRIPTIVES VARIABLES=GDP_1 PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created		20-Σεπ-2015 18:37:56
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	57
	File	
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=GDP_1 PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00 00:00:00,016
	Elapsed Time	00 00:00:00,011

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SMEAN(GDP)	57	21400	34200	28922,22	2933,956
SMEAN(PATENT)	57	238,16	585,35	460,2970	91,32948
SMEAN(HUMAN)	57	955	22036	8320,62	7657,014
SMEAN(GERD)	57	408,9	1332,7	740,061	247,0314
SMEAN(EXPORT)	57	,45371	9,49064	4,2326246	3,42174454
SMEAN(INVEST)	57	-214567	1325376	148837,53	324682,136
Valid N (listwise)	57				

```
REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT GDP_1
/METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1
/PARTIALPLOT ALL
/RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```


Regression

Notes

Output Created		20-Σεπ-2015 18:38:43
Comments		
Input	Data	C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	57
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		<pre> REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT GDP_1 /METHOD=ENTER PATENT_1 HUMAN_1 GERD_1 EXPORT_1 INVEST_1 /PARTIALPLOT ALL /RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID). </pre>
Resources	Processor Time	00 00:00:07,485
	Elapsed Time	00 00:00:08,550
	Memory Required	5040 bytes
	Additional Memory Required for Residual Plots	1664 bytes

[DataSet1] C:\Users\Toshiba\Desktop\Official for send 2\GROUP 2 (NORTH COUNTRIES).sav

Descriptive Statistics

	Mean	Std. Deviation	N
SMEAN(GDP)	28922,22	2933,956	57
SMEAN(PATENT)	460,2970	91,32948	57
SMEAN(HUMAN)	8320,62	7657,014	57
SMEAN(GERD)	740,061	247,0314	57
SMEAN(EXPORT)	4,2326246	3,42174454	57
SMEAN(INVEST)	148837,53	324682,136	57

Correlations

		SMEAN(GDP)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
Pearson Correlation	SMEAN(GDP)	1,000	,028	-,350	,398	-,227	-,093
	SMEAN(PATENT)	,028	1,000	,222	,507	,257	-,004
	SMEAN(HUMAN)	-,350	,222	1,000	-,299	,929	,756
	SMEAN(GERD)	,398	,507	-,299	1,000	-,383	-,081
	SMEAN(EXPORT)	-,227	,257	,929	-,383	1,000	,614
	SMEAN(INVEST)	-,093	-,004	,756	-,081	,614	1,000
Sig. (1-tailed)	SMEAN(GDP)		,417	,004	,001	,045	,246
	SMEAN(PATENT)	,417		,048	,000	,027	,489
	SMEAN(HUMAN)	,004	,048		,012	,000	,000
	SMEAN(GERD)	,001	,000	,012		,002	,274
	SMEAN(EXPORT)	,045	,027	,000	,002		,000
	SMEAN(INVEST)	,246	,489	,000	,274	,000	
N	SMEAN(GDP)	57	57	57	57	57	57
	SMEAN(PATENT)	57	57	57	57	57	57
	SMEAN(HUMAN)	57	57	57	57	57	57
	SMEAN(GERD)	57	57	57	57	57	57
	SMEAN(EXPORT)	57	57	57	57	57	57
	SMEAN(INVEST)	57	57	57	57	57	57

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)		Enter

a. All requested variables entered.

b. Dependent Variable: SMEAN(GDP)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.700 ^a	.491	.441	2194,375	.736

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,365E8	5	47294782,136	9,822	.000 ^a
	Residual	2,456E8	51	4815282,797		
	Total	4,821E8	56			

a. Predictors: (Constant), SMEAN(INVEST), SMEAN(PATENT), SMEAN(GERD), SMEAN(EXPORT), SMEAN(HUMAN)

b. Dependent Variable: SMEAN(GDP)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Partial	Tolerance	VIF
1	(Constant)	27247,052	1527,669		17,836	,000					
	SMEAN(PATENT)	-8,079	5,243	-,251	-1,541	,130	,028	-,211	-,154	,375	2,666
	SMEAN(HUMAN)	-,708	,135	-1,848	-5,250	,000	-,350	-,592	-,525	,081	12,398
	SMEAN(GERD)	7,014	2,015	,591	3,482	,001	,398	,438	,348	,347	2,881
	SMEAN(EXPORT)	1308,347	269,970	1,526	4,846	,000	-,227	,562	,484	,101	9,924
	SMEAN(INVEST)	,004	,002	,413	2,208	,032	-,093	,295	,221	,285	3,505

a. Dependent Variable: SMEAN(GDP)

Coefficient Correlations^a

Model			SMEAN(INVEST)	SMEAN(PATENT)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(HUMAN)
1	Correlations	SMEAN(INVEST)	1,000	,468	-,435	,111	-,605
		SMEAN(PATENT)	,468	1,000	-,757	-,326	-,129
		SMEAN(GERD)	-,435	-,757	1,000	,392	,071
		SMEAN(EXPORT)	,111	-,326	,392	1,000	-,785
		SMEAN(HUMAN)	-,605	-,129	,071	-,785	1,000
1	Covariances	SMEAN(INVEST)	2,859E-6	,004	-,001	,051	,000
		SMEAN(PATENT)	,004	27,485	-8,000	-461,571	-,091
		SMEAN(GERD)	-,001	-8,000	4,059	213,192	,019
		SMEAN(EXPORT)	,051	-461,571	213,192	72883,801	-28,595
		SMEAN(HUMAN)	,000	-,091	,019	-28,595	,018

a. Dependent Variable: SMEAN(GDP)

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	SMEAN(PATENT)	SMEAN(HUMAN)	SMEAN(GERD)	SMEAN(EXPORT)	SMEAN(INVEST)
1	1	4,679	1,000	,00	,00	,00	,00	,00	,00
	2	,991	2,173	,00	,00	,00	,01	,00	,11
	3	,265	4,200	,00	,00	,02	,02	,05	,36
	4	,034	11,721	,60	,00	,10	,32	,00	,12
	5	,021	15,106	,10	,00	,87	,02	,80	,19
	6	,010	21,872	,29	,99	,01	,63	,15	,21

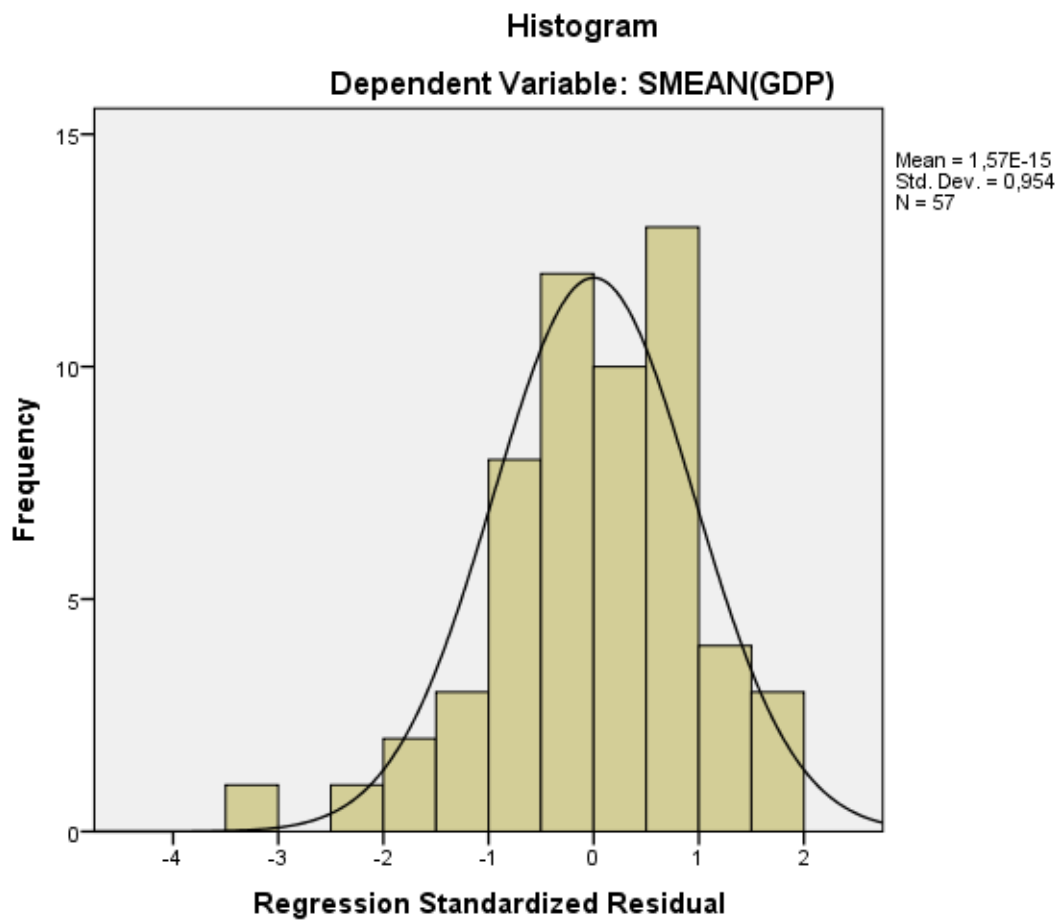
a. Dependent Variable: SMEAN(GDP)

Residuals Statistics^a

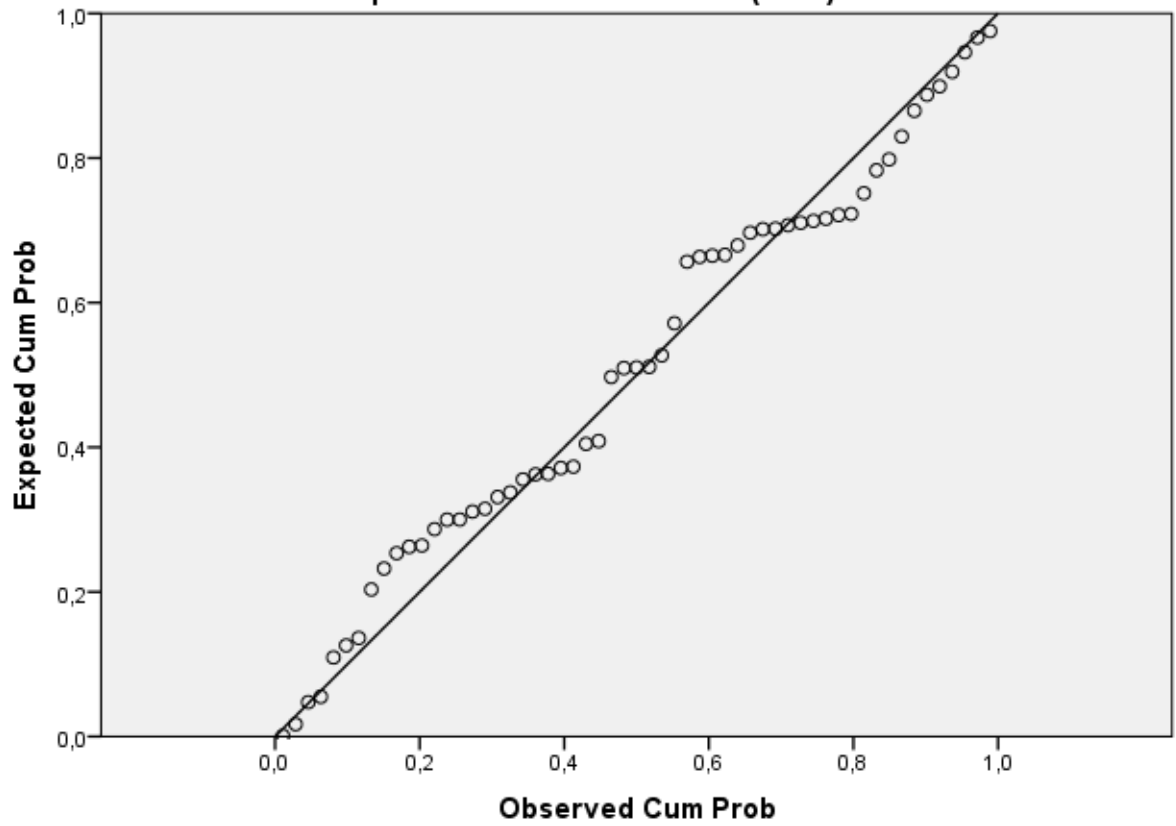
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	22872,13	33141,01	28922,22	2054,933	57
Residual	-6841,009	4326,749	,000	2094,122	57
Std. Predicted Value	-2,944	2,053	,000	1,000	57
Std. Residual	-3,118	1,972	,000	,954	57

a. Dependent Variable: SMEAN(GDP)

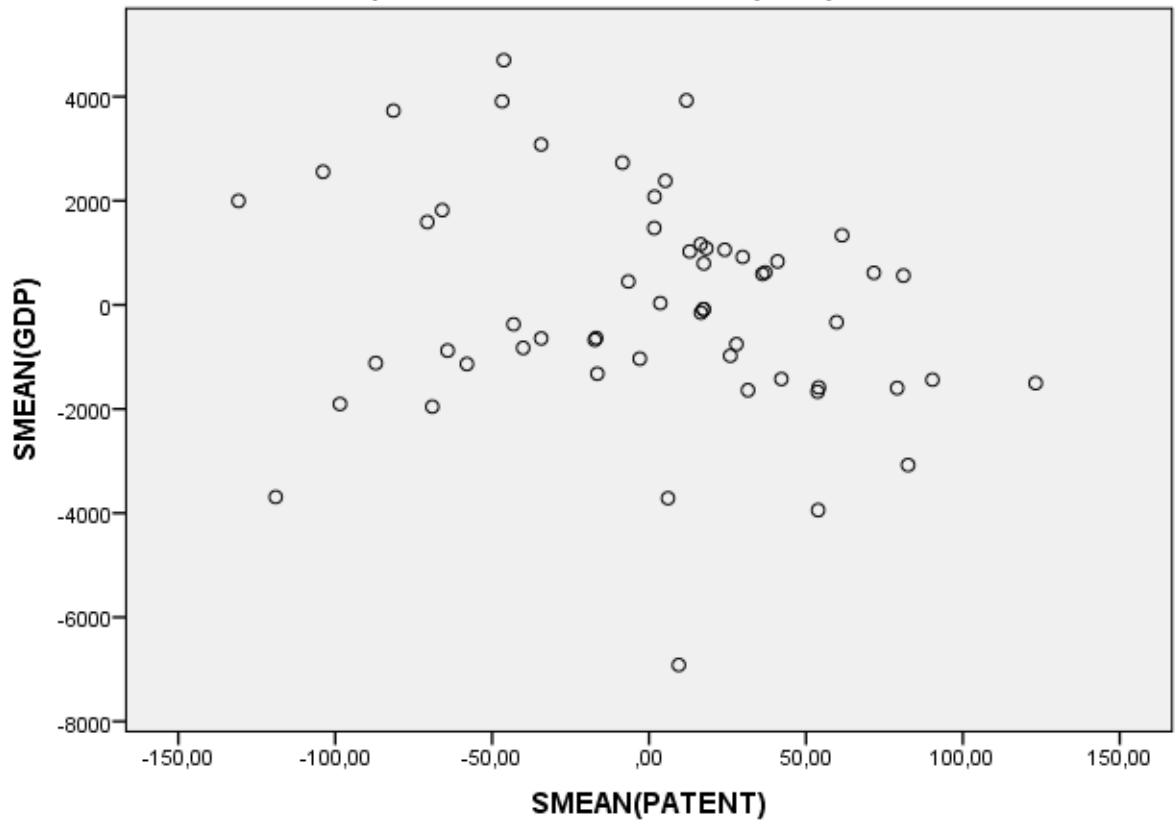
Charts



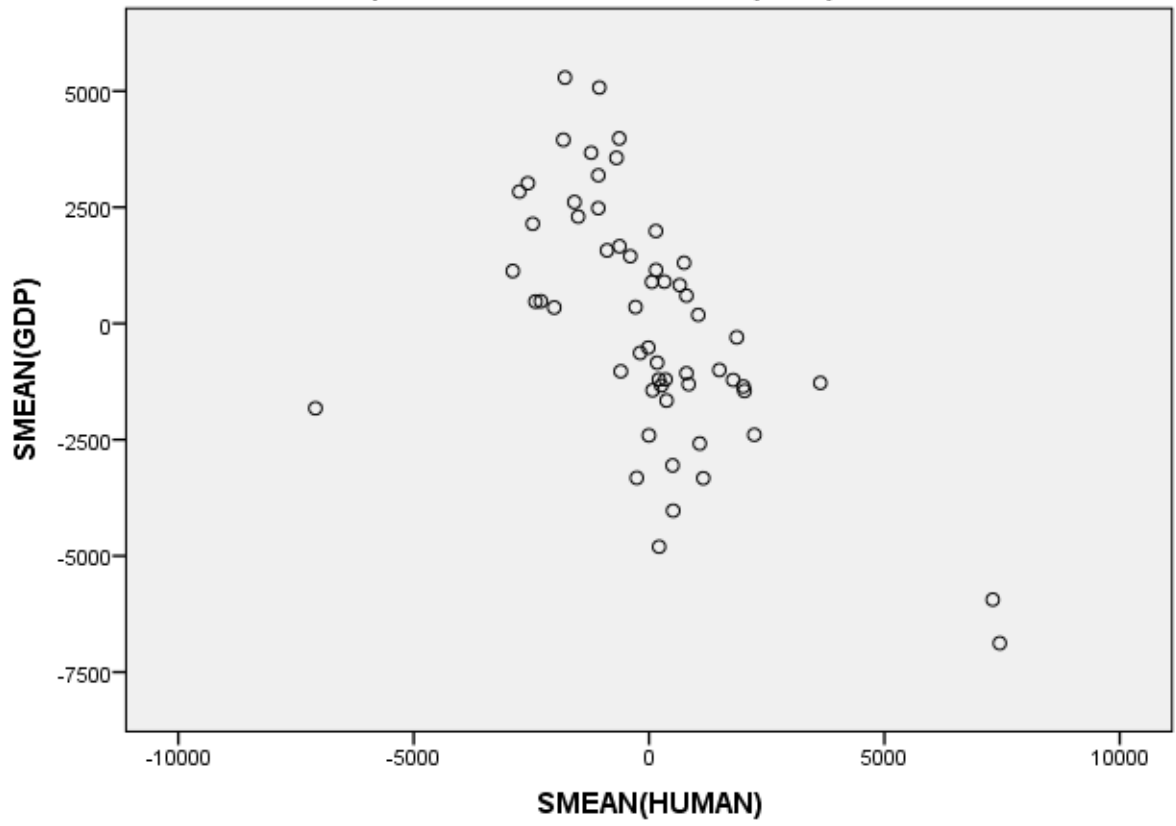
Normal P-P Plot of Regression Standardized Residual
Dependent Variable: SMEAN(GDP)



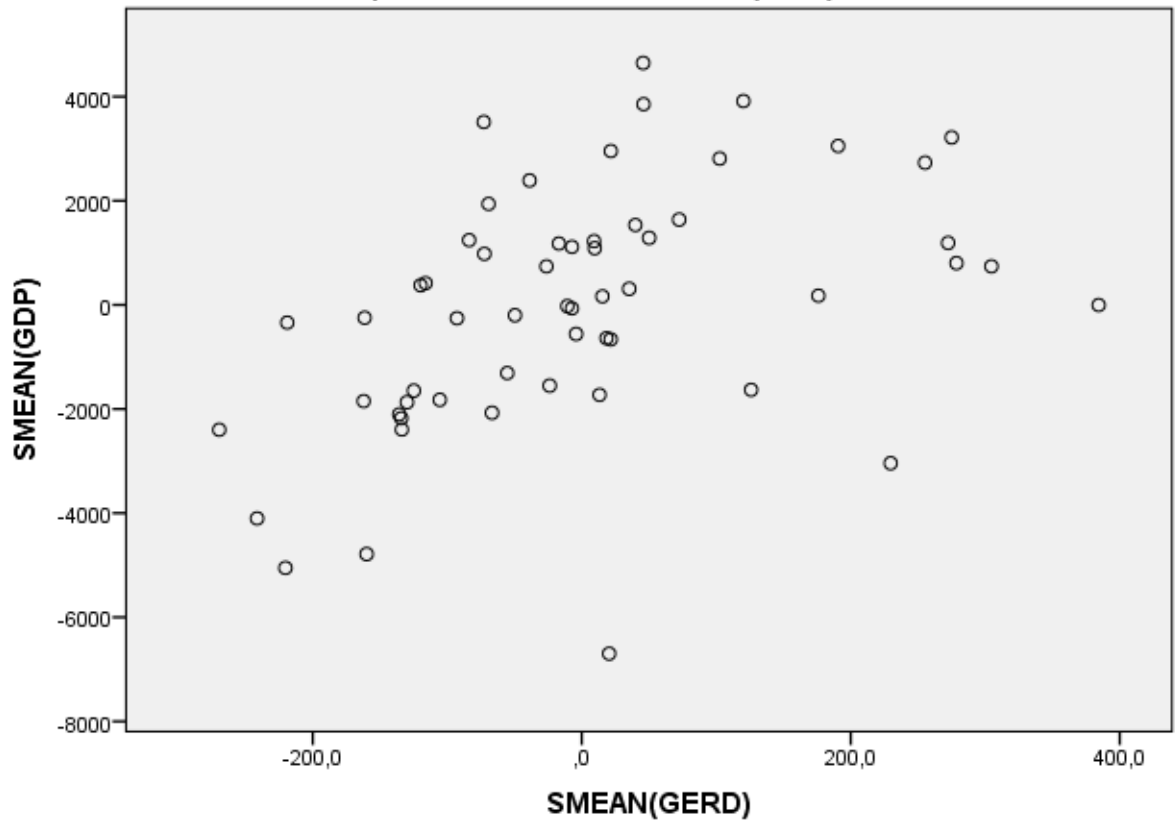
Partial Regression Plot
Dependent Variable: SMEAN(GDP)



Partial Regression Plot
Dependent Variable: SMEAN(GDP)



Partial Regression Plot
Dependent Variable: SMEAN(GDP)



Partial Regression Plot
Dependent Variable: SMEAN(GDP)

