

Year	GDP	GV
1984	95.25	2507.5
1985	88.57	4021.9
1986	78.75	3288.5
1987	80.36	1998
1988	116	1381.4
1989	114.46	2302.3
1990	101.17	2444.1
1991	81.65	2719.1
1992	64.17	2492.1
1993	63.5	2161
1994	70.97	2744
1995	65.18	2868.5
1996	86.82	1220.6
1997	90.92	2868.5
1998	96.69	1755
1999	103.32	2270
2000	113.54	3522
2001	114.67	3902
2002	150.67	5178
2003	156.65	7362
2004	167.67	11039
2005	178.01	13847
2006	189.05	18253
2007	212.22	20971.2
2008	224.55	25985.6
2009	266.03	24941.1
2010	288.14	28324
2011	299.45	31888
2012	289.37	32819.6
2013	281.19	36178.5

Dependent Variable: GDP  
 Method: Least Squares  
 Date: 08/28/15 Time: 09:07  
 Sample(adjusted): 1985 2013  
 Included observations: 29 after adjusting endpoints  
 Convergence achieved after 4 iterations

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.2956	1.067483	3458996.	3692421.	C
0.4566	-0.755775	144.2514	-109.0215	G
0.0000	5.811774	0.145006	0.842744	AR(1)
1884616.	Mean dependent var		0.650626	R-squared
2666940.	S.D. dependent var		0.623751	Adjusted R-squared
31.55096	Akaike info criterion		1635879.	S.E. of regression
31.69240	Schwarz criterion		6.96E+13	Sum squared resid
24.20937	F-statistic		-454.4889	Log likelihood
0.000001	Prob(F-statistic)		1.757087	Durbin-Watson stat
.84				Inverted AR Roots

-3.7343 1% Critical Value\* -3.593396 ADF Test Statistic  
 -2.9907 5% Critical Value  
 -2.6348 10% Critical Value

\*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(GDP,2)  
 Method: Least Squares  
 Date: 08/24/15 Time: 16:17  
 Sample(adjusted): 1987 2010  
 Included observations: 24 after adjusting endpoints

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0017	-3.593396	0.302765	-1.087955	D(GDP(-1))
0.5904	0.546673	0.217606	0.118959	D(GDP(-1),2)
0.9778	0.028170	396193.0	11160.83	C
862.8250	Mean dependent var		0.493364	R-squared
2605000.	S.D. dependent var		0.445113	Adjusted R-squared
31.91124	Akaike info criterion		1940485.	S.E. of regression
32.05850	Schwarz criterion		7.91E+13	Sum squared resid
10.22493	F-statistic		-379.9349	Log likelihood
0.000793	Prob(F-statistic)		2.020528	Durbin-Watson stat

-3.7497	1% Critical Value*	-4.685097	ADF Test Statistic
-2.9969	5% Critical Value		
-2.6381	10% Critical Value		

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\*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(G,3)

Method: Least Squares

Date: 08/24/15 Time: 16:15

Sample(adjusted): 1988 2010

Included observations: 23 after adjusting endpoints

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Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0001	-4.685097	0.428959	-2.009715	D(G(-1),2)
0.6376	0.478388	0.267480	0.127959	D(G(-1),3)
0.5108	0.669529	314.7536	210.7366	C

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216.7174	Mean dependent var	0.859422	R-squared
3809.034	S.D. dependent var	0.845364	Adjusted R-squared
17.58256	Akaike info criterion	1497.856	S.E. of regression
17.73067	Schwarz criterion	44871445	Sum squared resid
61.13482	F-statistic	-199.1995	Log likelihood
0.000000	Prob(F-statistic)	2.042353	Durbin-Watson stat

Date: 08/25/15 Time: 20:01  
 Sample: 1984 2013  
 Included observations: 28

Test assumption:  
 Linear deterministic trend in the data

Series: GDP G  
 Lags interval: 1 to 1

Hypothesized No. of CE(s)	1 Percent Critical Value	5 Percent Critical Value	Likelihood Ratio	Eigenvalue
None **	20.04	15.41	32.28488	0.677215
At most 1	6.65	3.76	0.623388	0.022018

\*(\*\*) denotes rejection of the hypothesis at 5%(1%) significance level  
 L.R. test indicates 1 cointegrating equation(s) at 5% significance level

Unnormalized Cointegrating Coefficients:

	G	GDP
	1.94E-05	7.06E-08
	-1.35E-05	7.15E-08

Normalized Cointegrating Coefficients: 1 Cointegrating Equation(s)

	C	G	GDP
	-4546476.	274.5905 (61.2567)	1.000000
		-668.6156	Log likelihood

Dependent Variable: GDP  
 Method: Least Squares  
 Date: 08/24/15 Time: 23:32  
 Sample: 1984 2010  
 Included observations: 27

	Prob.	t-Statistic	Std. Error	Coefficient	Variable
	0.0900	1.763795	670098.5	1181916.	C
	0.0716	1.881205	59.73930	112.3819	G
2024229.		Mean dependent var		0.124004	R-squared
2714073.		S.D. dependent var		0.088964	Adjusted R-squared
32.44381		Akaike info criterion		2590534.	S.E. of regression
32.53980		Schwarz criterion		1.68E+14	Sum squared resid
3.538933		F-statistic		-435.9915	Log likelihood
0.071640		Prob(F-statistic)		0.518477	Durbin-Watson stat

Dependent Variable: D(GDP)  
 Method: Least Squares  
 Date: 08/27/15 Time: 21:55  
 Sample(adjusted): 1986 2013  
 Included observations: 28 after adjusting endpoints

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.9774	0.028564	7.45E-11	2.13E-12	C
0.0000	2.25E+16	4.44E-17	1.000000	D(GDP-3)
0.3800	-0.893717	3.63E-14	-3.25E-14	D(G,2)
-44.80393	Mean dependent var		1.000000	R-squared
1724435.	S.D. dependent var		1.000000	Adjusted R-squared
-40.37143	Akaike info criterion		3.94E-10	S.E. of regression
-40.22870	Schwarz criterion		3.88E-18	Sum squared resid
2.59E+32	F-statistic		568.2001	Log likelihood
0.000000	Prob(F-statistic)		1.723787	Durbin-Watson stat

Dependent Variable: LOG(G)  
 Method: Least Squares  
 Date: 08/27/15 Time: 22:30  
 Sample: 1984 2013  
 Included observations: 30

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	1.75E+14	1.15E-14	2.000000	C
0.0000	6.39E+14	1.56E-15	1.000000	LOG(G)-2
0.0152	-2.593644	4.91E-16	-1.27E-15	LOG(GDP)-3
8.615243	Mean dependent var		1.000000	R-squared
1.101639	S.D. dependent var		1.000000	Adjusted R-squared
2.32E-27	Sum squared resid		9.28E-15	S.E. of regression
0.105579	Durbin-Watson stat		2.04E+29	F-statistic
			0.000000	Prob(F-statistic)

Dependent Variable: LOG(GDP)  
 Method: Least Squares  
 Date: 08/28/15 Time: 00:00  
 Sample: 1984 2013  
 Included observations: 30

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	1.32E+09	1.03E-08	13.61416	C
0.0000	5.098982	7.59E-10	3.87E-09	LOG(GDP-3)
0.0000	-1.30E+09	8.42E-11	-0.109560	LOG(G)
0.0000	1.32E+09	7.59E-10	1.000000	E-1
11.67027	Mean dependent var		1.000000	R-squared
3.511317	S.D. dependent var		1.000000	Adjusted R-squared
-48.41667	Akaike info criterion		6.97E-12	S.E. of regression
-48.22985	Schwarz criterion		1.26E-21	Sum squared resid
2.45E+24	F-statistic		730.2501	Log likelihood
0.000000	Prob(F-statistic)		0.587370	Durbin-Watson stat

Dependent Variable: LOG(G)  
 Method: Least Squares  
 Date: 08/28/15 Time: 09:36  
 Sample: 1984 2013  
 Included observations: 30

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.2723	1.121568	0.245099	0.274895	C
0.0000	499.6756	0.001996	0.997429	LOG(G-2)
0.2786	-1.106592	0.017988	-0.019906	LOG(GDP-3)
0.2789	1.105923	0.017999	0.019906	E-1
8.615243	Mean dependent var		1.000000	R-squared
1.101639	S.D. dependent var		1.000000	Adjusted R-squared
-14.44942	Akaike info criterion		0.000166	S.E. of regression
-14.26260	Schwarz criterion		7.14E-07	Sum squared resid
4.27E+08	F-statistic		220.7413	Log likelihood
0.000000	Prob(F-statistic)		1.683937	Durbin-Watson stat