

ملحق رقم (5) نتائج التقدير للنموذج القياسي

Dependent Variable: LOG(QW)				
Method: Least Squares				
Date: 09/19/11 Time: 08:44				
Sample: 1970 2010				
Included observations: 41				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.511994	0.094559	47.71608	0.0000
CW	5.89E-07	9.11E-08	6.466931	0.0000
EW	0.001897	0.000159	11.96621	0.0000
R-squared	0.832024	Mean dependent var		5.687043
Adjusted R-squared	0.823183	S.D. dependent var		0.556559
S.E. of regression	0.234031	Akaike info criterion		0.003627
Sum squared resid	2.081275	Schwarz criterion		0.129010
Log likelihood	2.925648	F-statistic		94.11139
Durbin-Watson stat	1.993520	Prob(F-statistic)		0.000000

ملحق رقم (6) اختبار مشكلة اختلاف التباين للنموذج المصحح

White Heteroskedasticity Test:

F-statistic	1.642939	Probability	0.184754
Obs*R-squared	6.329124	Probability	0.175880

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 09/19/11 Time: 08:47

Sample: 1970 2010

Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.059777	0.059736	1.000675	0.3237
CW	-6.08E-08	1.50E-07	-0.406874	0.6865
CW^2	7.68E-14	1.58E-13	0.484721	0.6308
EW	-0.000154	0.000216	-0.712709	0.4806
EW^2	2.16E-07	1.77E-07	1.221880	0.2297
R-squared	0.154369	Mean dependent var		0.050763
Adjusted R-squared	0.060410	S.D. dependent var		0.073612
S.E. of regression	0.071354	Akaike info criterion		-2.328473
Sum squared resid	0.183291	Schwarz criterion		-2.119501
Log likelihood	52.73369	F-statistic		1.642939
Durbin-Watson stat	2.457848	Prob(F-statistic)		0.184754

ملحق رقم (4) اختبار التكامل المشترك

Date: 09/21/11 Time: 01:49

Sample: 1970 2010

Included observations: 39

Test

assumption:

Quadratic

deterministic

trend in the

data

Series: CW EW QW

Lags interval: 1 to 1

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.481064	35.73217	34.55	40.49	None *
0.179827	10.14912	18.17	23.46	At most 1
0.060111	2.417745	3.74	6.40	At most 2

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

ملحق رقم (8) بيانات النموذج المقترح

Obs	CW	EW	QW
1970	1847.300	303.0000	162.0000
1971	1876.100	303.0000	125.0000
1972	1972.600	259.0000	152.0000
1973	2105.800	444.0000	235.0000
1974	2850.900	618.0000	269.0000
1975	2745.100	719.0000	263.0000
1976	3558.900	657.0000	289.0000
1977	3862.300	611.0000	312.0000
1978	3921.100	593.0000	165.0000
1979	4761.400	459.0000	230.0000
1980	5198.000	452.0000	218.0000
1981	5287.000	343.0000	142.0000
1982	5840.400	234.0000	176.0000
1983	5919.000	348.0000	157.0000
1984	6137.000	122.0000	79.00000
1985	6547.000	373.0000	199.0000
1986	6721.600	294.0000	157.0000
1987	6820.000	356.0000	181.0000
1988	6983.000	408.0000	247.0000
1989	7043.000	639.0000	409.0000
1990	71875.00	1150.000	686.0000
1991	7234.700	917.0000	838.0000
1992	7265.000	807.0000	453.0000
1993	19974.00	891.0000	475.0000
1994	103857.0	710.0000	448.0000
1995	102968.0	743.0000	527.0000
1996	295436.0	809.0000	642.0000
1997	584027.0	646.0000	585.0000
1998	379015.0	405.0000	172.0000
1999	685394.0	242.0000	213.0000
2000	758872.0	320.0000	332.0000
2001	807823.0	277.0000	247.0000
2002	835023.0	320.0000	332.0000
2003	1020346.	432.0000	397.0000
2004	849096.0	407.0000	364.0000
2005	902096.0	433.0000	416.0000
2006	912984.0	655.0000	680.0000
2007	1063535.	993.0000	641.0000
2008	974225.0	564.0000	403.0000
2009	959914.0	690.0000	543.0000
2010	976802.0	598.0000	433.0000

ملحق رقم (9) البيانات المصحح

obs	LOG(QW)	CW	EW
1970	5.087596	1847.300	303.0000
1971	4.828314	1876.100	303.0000
1972	5.023881	1972.600	259.0000
1973	5.459586	2105.800	444.0000
1974	5.594711	2850.900	618.0000
1975	5.572154	2745.100	719.0000
1976	5.666427	3558.900	657.0000
1977	5.743003	3862.300	611.0000
1978	5.105945	3921.100	593.0000
1979	5.438079	4761.400	459.0000
1980	5.384495	5198.000	452.0000
1981	4.955827	5287.000	343.0000
1982	5.170484	5840.400	234.0000
1983	5.056246	5919.000	348.0000
1984	4.369448	6137.000	122.0000
1985	5.293305	6547.000	373.0000
1986	5.056246	6721.600	294.0000
1987	5.198497	6820.000	356.0000
1988	5.509388	6983.000	408.0000
1989	6.013715	7043.000	639.0000
1990	6.530878	71875.00	1150.000
1991	6.731018	7234.700	917.0000
1992	6.115892	7265.000	807.0000
1993	6.163315	19974.00	891.0000
1994	6.104793	103857.0	710.0000
1995	6.267201	102968.0	743.0000
1996	6.464588	295436.0	809.0000
1997	6.371612	584027.0	646.0000
1998	5.147494	379015.0	405.0000
1999	5.361292	685394.0	242.0000
2000	5.805135	758872.0	320.0000
2001	5.509388	807823.0	277.0000
2002	5.805135	835023.0	320.0000
2003	5.983936	1020346.	432.0000
2004	5.897154	849096.0	407.0000
2005	6.030685	902096.0	433.0000
2006	6.522093	912984.0	655.0000
2007	6.463029	1063535.	993.0000
2008	5.998937	974225.0	564.0000
2009	6.297109	959914.0	690.0000
2010	6.070738	976802.0	598.0000

ملحق رقم (7) اختبار مشكلة الارتباط الخطي المتعدد

	CW	EW
CW	1.000000	0.020251
EW	0.020251	1.000000

الفصل الاول

الاطار المنهجي للبحث

والدراسات السابقة

الفصل الثانى

التعريف بدوال الانتاج

نموذج الانحدار

الفصل الثالث

انتاج القمح فى السودان

تمهيد

مناطق زراعة القمح فى السودان

الفصل الرابع

توصيف النموذج

فحص سكون السلسلة

تقدير وتقييم النموذج

الفصل الخامس

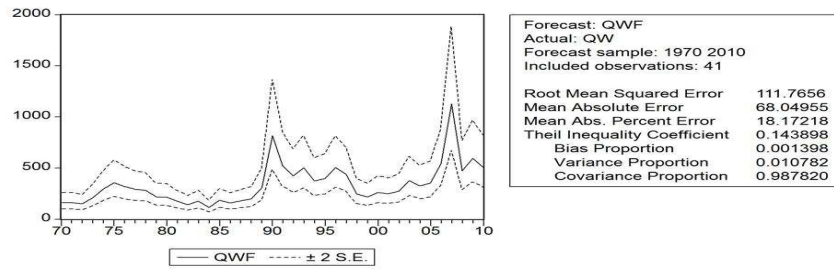
مناقشة الفرضيات

النتائج

التوصيات

الملاحق

ملحق رقم (10) مقدرة النموذج على التنبؤ



ملحق رقم (2) اختبار جزر الوحدة لمتغير التكاليف

ADF Test Statistic	-4.471778	1% Critical Value*	-3.6117
		5% Critical Value	-2.9399
		10% Critical Value	-2.6080

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(CW,2)

Method: Least Squares

Date: 11/14/11 Time: 00:27

Sample(adjusted): 1973 2010

Included observations: 38 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CW(-1))	-1.222996	0.273492	-4.471778	0.0001
D(CW(-1),2)	-0.071549	0.168644	-0.424262	0.6740
C	31248.48	16825.30	1.857231	0.0717
R-squared	0.660740	Mean dependent var	441.8816	
Adjusted R-squared	0.641354	S.D. dependent var	157738.2	
S.E. of regression	94464.75	Akaike info criterion	25.82550	
Sum squared resid	3.12E+11	Schwarz criterion	25.95478	
Log likelihood	-487.6845	F-statistic	34.08291	
Durbin-Watson stat	2.040977	Prob(F-statistic)	0.000000	

ملحق رقم (3) اختبار جزر الوحدة لمتغير المساحات المزروعة

ADF Test Statistic	-4.495958	1% Critical Value*
		5% Critical Value
		10% Critical Value

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(EW,2)

Method: Least Squares

Date: 11/14/11 Time: 00:29

Sample(adjusted): 1973 2010

Included observations: 38 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EW(-1))	-1.134767	0.252397	-4.495958	0.0001
D(EW(-1),2)	0.018862	0.170344	0.110729	0.9125
C	10.23100	29.82423	0.343043	0.7336
R-squared	0.555566	Mean dependent var		
Adjusted R-squared	0.530169	S.D. dependent var		
S.E. of regression	183.3559	Akaike info criterion		
Sum squared resid	1176679.	Schwarz criterion		
Log likelihood	-250.3914	F-statistic		
Durbin-Watson stat	1.950510	Prob(F-statistic)		

ملحق رقم (1) اختبار جزر الوحدة للمتغير التابع (الانتاج)

ADF Test Statistic	-5.747601	1% Critical Value*	-3.6117
		5% Critical Value	-2.9399
		10% Critical Value	-2.6080

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(QW,2)

Method: Least Squares

Date: 11/14/11 Time: 00:31

Sample(adjusted): 1973 2010

Included observations: 38 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(QW(-1))	-1.360773	0.236755	-5.747601	0.0000
D(QW(-1),2)	0.291035	0.165169	1.762043	0.0868
C	10.00763	22.49628	0.444857	0.6592
R-squared	0.563276	Mean dependent var	-3.605263	
Adjusted R-squared	0.538320	S.D. dependent var	203.1910	
S.E. of regression	138.0622	Akaike info criterion	12.76894	
Sum squared resid	667141.0	Schwarz criterion	12.89823	
Log likelihood	-239.6099	F-statistic	22.57107	
Durbin-Watson stat	1.942952	Prob(F-statistic)	0.000001	