

Australia's fiscal surplus: child of a credit and real estate boom: Supplemental file

Eduardo Garzón Espinosa (Universidad Autónoma de Madrid, Spain); Bibiana Medialdea García (Universidad Complutense de Madrid, Spain); Esteban Cruz Hidalgo (Universidad de Extremadura, Cáceres, Spain) and Carlos Sánchez Mato (Universidad Complutense de Madrid, Spain)

Augmented Dickey-Fuller unit root test

Null Hypothesis: SALDO has a unit root
Exogenous: None
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.051789	0.0394
Test critical values:		
1% level	-2.600471	
5% level	-1.945823	
10% level	-1.613589	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(SALDO)
Method: Least Squares
Sample (adjusted): 1992Q3 2008Q4
Included observations: 66 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SALDO(-1)	-0.138508	0.067506	-2.051789	0.0443
D(SALDO(-1))	-0.327026	0.117537	-2.782332	0.0071
R-squared	0.197213	Mean dependent var		0.023911
Adjusted R-squared	0.184669	S.D. dependent var		1.606067
S.E. of regression	1.450208	Akaike info criterion		3.611126
Sum squared resid	134.5987	Schwarz criterion		3.677479
Log likelihood	-117.1672	Hannan-Quinn criter.		3.637345
Durbin-Watson stat	1.990234			

Null Hypothesis: D(DEUDA) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.686091	0.0000
Test critical values:		
1% level	-3.533204	
5% level	-2.906210	
10% level	-2.590628	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DEUDA,2)
Method: Least Squares
Sample (adjusted): 1992Q3 2008Q4
Included observations: 66 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DEUDA(-1))	-0.670579	0.117933	-5.686091	0.0000
C	0.712735	0.217070	3.283434	0.0017
R-squared	0.335628	Mean dependent var		0.001515
Adjusted R-squared	0.325248	S.D. dependent var		1.754598
S.E. of regression	1.441285	Akaike info criterion		3.598781
Sum squared resid	132.9473	Schwarz criterion		3.665134
Log likelihood	-116.7598	Hannan-Quinn criter.		3.625000
F-statistic	32.33164	Durbin-Watson stat		2.239038
Prob(F-statistic)	0.000000			

Johansen cointegration test

Sample (adjusted): 1994Q2 2008Q4
Included observations: 59 after adjustments
Trend assumption: No deterministic trend (restricted constant)
Series: SALDO DDEUDA
Lags interval (in first differences): 1 to 1, 7 to 7

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.349966	30.74083	20.26184	0.0013
At most 1	0.086343	5.327717	9.164546	0.2494

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.349966	25.41312	15.89210	0.0012
At most 1	0.086343	5.327717	9.164546	0.2494

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

SALDO	DDEUDA	C
0.465382	-1.220420	1.682283
0.431691	0.172780	-0.328261

Unrestricted Adjustment Coefficients (alpha):

D(SALDO)	D(DDEUDA)
-0.394156	-0.350281
0.718501	-0.203357

1 Cointegrating Equation(s): Log likelihood -192.8744

Normalized cointegrating coefficients (standard error in parentheses)

SALDO	DDEUDA	C
1.000000	-2.622405	3.614845
	(0.38560)	(0.63825)

Adjustment coefficients (standard error in parentheses)

D(SALDO)	-0.183433
	(0.08281)
D(DDEUDA)	0.334377
	(0.07594)

VECM estimation results

Vector Error Correction Estimates

Sample (adjusted): 1994Q2 2008Q4

Included observations: 59 after adjustments

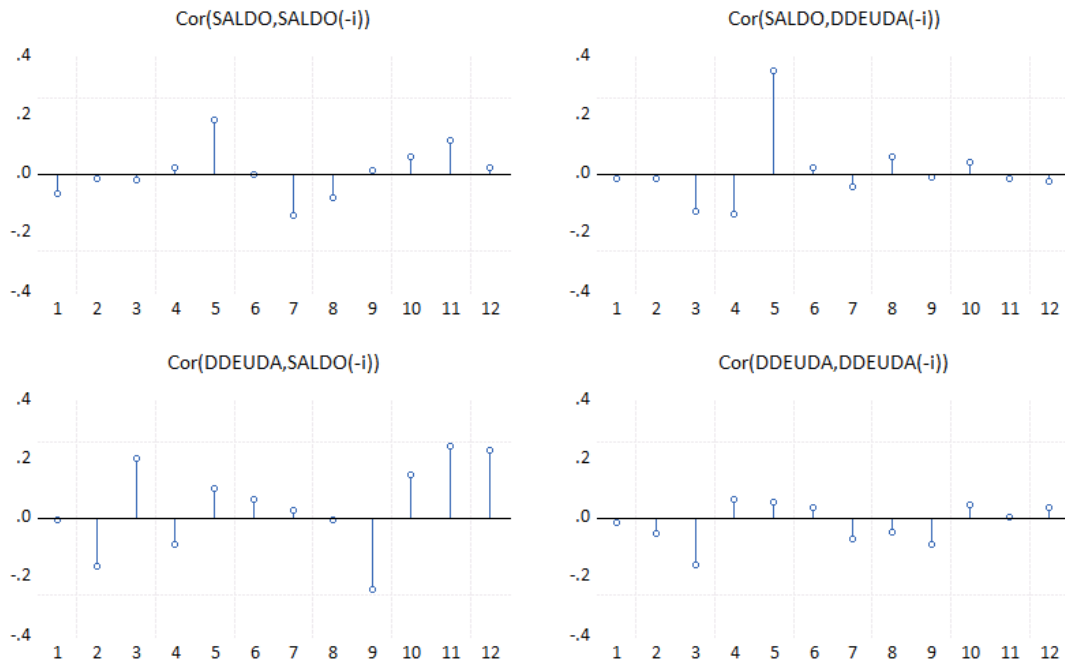
Standard errors in () & t-statistics in []

Cointegrating Eq:	CointEq1	
SALDO(-1)	1.000000	
DDEUDA(-1)	-2.622405 (0.38560) [-6.80081]	
C	3.614845 (0.63825) [5.66365]	
Error Correction:	D(SALDO)	D(DDEUDA)
CointEq1	-0.183433 (0.08281) [-2.21522]	0.334377 (0.07594) [4.40322]
D(SALDO(-1))	-0.300927 (0.11808) [-2.54849]	-0.164588 (0.10829) [-1.51989]
D(SALDO(-7))	-0.341042 (0.11247) [-3.03220]	-0.040588 (0.10315) [-0.39350]
D(DDEUDA(-1))	-0.143772 (0.15289) [-0.94035]	-0.118504 (0.14021) [-0.84517]
D(DDEUDA(-7))	-0.036662 (0.10030) [-0.36552]	-0.085335 (0.09198) [-0.92772]
R-squared	0.362130	0.518298
Adj. R-squared	0.314880	0.482617
Sum sq. resids	100.8667	84.83206
S.E. equation	1.366712	1.253381
F-statistic	7.664178	14.52565
Log likelihood	-99.53712	-94.42989
Akaike AIC	3.543631	3.370505
Schwarz SC	3.719694	3.546567
Mean dependent	0.022114	0.013559
S.D. dependent	1.651177	1.742517

Determinant resid covariance (dof adj.)	2.827709
Determinant resid covariance	2.368745
Log likelihood	-192.8744
Akaike information criterion	6.978792
Schwarz criterion	7.436555
Number of coefficients	13

Residuals correlograms

Autocorrelations with Approximate 2 Std.Err. Bounds



Residual Correlation LM Test

VEC Residual Serial Correlation LM Tests

Sample: 1992Q1 2008Q4

Included observations: 59

Null hypothesis
: No serial correlation
at lag h

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	1.781203	4	0.7759	0.444812	(4, 102.0)	0.7759
2	2.316977	4	0.6777	0.580121	(4, 102.0)	0.6777
3	5.869613	4	0.2091	1.495360	(4, 102.0)	0.2091
4	2.831893	4	0.5863	0.710827	(4, 102.0)	0.5864
5	10.16722	4	0.0377	2.645552	(4, 102.0)	0.0377
6	0.391394	4	0.9832	0.097083	(4, 102.0)	0.9832
7	4.294253	4	0.3676	1.085614	(4, 102.0)	0.3677

Null hypothesis
: No serial correlation
at lags 1 to
h

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	1.781203	4	0.7759	0.444812	(4, 102.0)	0.7759
2	4.497845	8	0.8096	0.557860	(8, 98.0)	0.8098
3	11.97499	12	0.4477	1.007203	(12, 94.0)	0.4488
4	14.45924	16	0.5645	0.904205	(16, 90.0)	0.5667
5	25.61374	20	0.1790	1.330698	(20, 86.0)	0.1825
6	27.75713	24	0.2704	1.188271	(24, 82.0)	0.2773
7	29.29688	28	0.3976	1.058034	(28, 78.0)	0.4090

*Edgeworth expansion corrected likelihood ratio statistic.