Background code, output for "A Parsimonious error correction model of Kansas Economic Activity," Econbrowser, written 6/3/2015

http://econbrowser.com/archives/2015/06/a-parsimonious-error-correction-model-of-kansas-economic-activity

All manipulations and commands executed in EViews 8.0

Cointegration, 1979-2010:

Date: 06/03/15 Time: 10:59
Sample (adjusted): 1979M05 2010M12
Included observations: 380 after adjustments
Trend assumption: No deterministic trend (restricted constant)
Series: LOG(COINKS_APR15) LOG(COINUS_APR15)
Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.044959	21.45990	20.26184	0.0341
At most 1	0.010418	3.979670	9.164546	0.4152

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 *	0.044959	17.48023	15.89210	0.0280
At most 1	0.010418	3.979670	9.164546	0.4152

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):

LOG(COINKS_APR15)	LOG(COINUS_APR15)	C
1.831675	-3.635617	10.09904
-29.10044	27.93264	5.512746

Unrestricted Adjustment Coefficients (alpha):

D(LOG(COINKS_APR15))	-0.000188	0.000151
D(LOG(COINUS_APR15))	2.64E-05	1.09E-05

1 Cointegrating Equation(s):	Log likelihood	4665.984

Normalized cointegrating coefficients (standard error in parentheses)

LOG(COINKS_APR15)	LOG(COINUS_APR15)	C
1.000000	-1.984859	5.513556
	(0.60125)	(2.87467)

Adjustment coefficients (standard error in parentheses)

D(LOG(COINKS_APR15))	-0.000345
	(0.00016)
D(LOG(COINUS_APR15))	4.83E-05
	(1.5E-05)

Cointegration, 1979-2015:

Date: 06/03/15   Time: 11:09
Sample (adjusted): 1979M05 2015M04
Included observations: 432 after adjustments
Trend assumption: No deterministic trend (restricted constant)
Series: LOG(COINKS_APR15) LOG(COINUS_APR15)
Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.042848	21.64204	20.26184	0.0321
At most 1	0.006284	2.723310	9.164546	0.6336

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 *	0.042848	18.91873	15.89210	0.0162
At most 1	0.006284	2.723310	9.164546	0.6336

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):

LOG(COINKS_APR15)	LOG(COINUS_APR15)	C
-5.763358	4.251292	8.815048
-25.35199	23.02003	10.55460

Unrestricted Adjustment Coefficients (alpha):

D(LOG(COINKS_APR15))	-0.000141	0.000123
D(LOG(COINUS_APR15))	2.74E-05	7.04E-06

1 Cointegrating Equation(s):	Log likelihood	5323.648

Normalized cointegrating coefficients (standard error in parentheses)

LOG(COINKS_APR15)	LOG(COINUS_APR15)	C
1.000000	-0.737641	-1.529499
	(0.16727)	(0.80195)

Adjustment coefficients (standard error in parentheses)

D(LOG(COINKS_APR15))	0.000814
	(0.00047)
D(LOG(COINUS_APR15))	-0.000158
	(4.4E-05)

Error correction model, 1979-2010:

Estimation Command:
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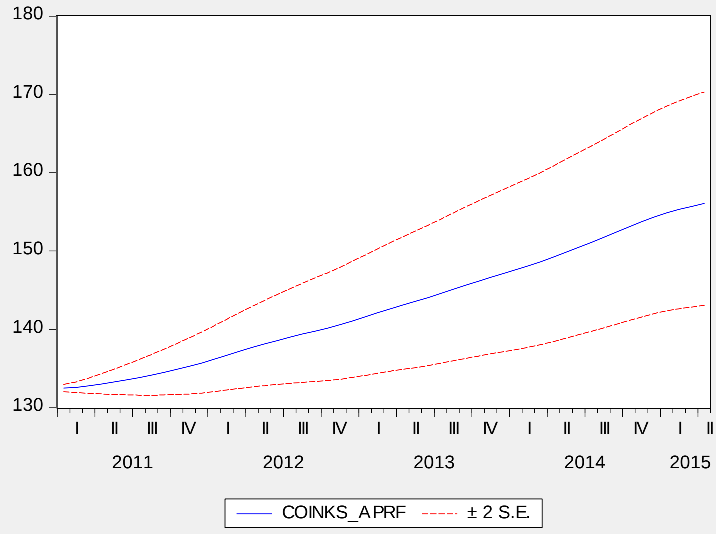
LS(COV=HAC) D(LOG(COINKS_APR15)) C LOG(COINKS_APR15(-1)) LOG(COINUS_APR15(-1)) D(LOG(COINKS_APR15(-1))) D(LOG(COINUS_APR15(-1))) D(LOG(COINKS_APR15(-2))) D(LOG(COINUS_APR15(-2))) D(LOG(COINKS_APR15(-3))) D(LOG(COINUS_APR15(-3)))

Dependent Variable: D(LOG(COINKS_APR15))
Method: Least Squares
Date: 06/03/15   Time: 10:40
Sample (adjusted): 1979M05 2010M12
Included observations: 380 after adjustments
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 6.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001068	0.002441	-0.437515	0.6620
LOG(COINKS_APR15(-1))	-0.004736	0.002740	-1.728243	0.0848
LOG(COINUS_APR15(-1))	0.004899	0.002795	1.752942	0.0804
D(LOG(COINKS_APR15(-1)))	0.044829	0.055043	0.814431	0.4159
D(LOG(COINUS_APR15(-1)))	1.542014	0.660884	2.333261	0.0202
D(LOG(COINKS_APR15(-2)))	0.478005	0.041814	11.43164	0.0000
D(LOG(COINUS_APR15(-2)))	0.121056	1.191594	0.101591	0.9191
D(LOG(COINKS_APR15(-3)))	0.191725	0.051045	3.755970	0.0002
D(LOG(COINUS_APR15(-3)))	-1.291033	0.587984	-2.195695	0.0287

R-squared	0.747879	Mean dependent var	0.001322
Adjusted R-squared	0.742442	S.D. dependent var	0.003404
S.E. of regression	0.001728	Akaike info criterion	-9.860601
Sum squared resid	0.001107	Schwarz criterion	-9.767281
Log likelihood	1882.514	Hannan-Quinn criter.	-9.823571
F-statistic	137.5642	Durbin-Watson stat	1.926831
Prob(F-statistic)	0.000000	Wald F-statistic	104.3548
Prob(Wald F-statistic)	0.000000		



Forecast: COINKS_APRF
Actual: COINKS_APR15
Forecast sample: 2011M01 2015M04
Included observations: 52

Root Mean Squared Error	5.171415
Mean Absolute Error	3.967117
Mean Abs. Percent Error	2.789970
Theil Inequality Coefficient	0.018318
Bias Proportion	0.561029
Variance Proportion	0.427693
Covariance Proportion	0.011278