

Okun_Class_ARDL_table

See SAS program Okun_Class.sas for code that generates the below results:

Model	(p,q)	SBC	AIC	AR Terms
1	(__,__)	-26.906	-32.014	AR1
2	(1,__)	-27.204	-32.312	0
3	(2,__)	-24.097	-31.759	0
4	(__,0)	-23.518	-28.626	AR1
5	(__,1)	-36.529	-44.191	AR1
6	(__,2)	-57.922	-70.691	AR1
7	(1,0)	-59.121	-69.336	AR3
8	(2,0)	-54.418	-64.634	0
9	(1,1)	-61.0449	-71.260	0
10	(2,1)	-56.716	-69.485	0
11	(1,2)	-56.549	-69.318	0
12	(2,2)	-52.168	-67.492	0

__ = There are no terms of the AR or DL part of the ARDL model

Goodness-of-Fit Measures produced by SAS:

AIC = $N \cdot \ln(SSE/N) + 2K$, SBC = $N \cdot \ln(SSE/N) + K \cdot \ln(N)$ where SSE = sum of squared errors of the model, K = the number of parameters in the model including the intercept, and N = the number of observations used to estimate the parameters of the model. Note that the SAS's AIC and SBC measures are equal to N times the same measures defined on page 238 in the Hill et al textbook. Of course, this scaling by N does not change the order with which the above models are ranked.

Also, it should be noted that the above table has been generated by forcing the above models to use the same number of observations. This is because the above goodness-of-fit criterion have N as one of the arguments and to assure a fair comparison between models we need N to be the same for all models being compared. In the Okun data set that means **we need to drop the first 3 observations** before proceeding to run the model comparisons. The number 3 comes up because we have a maximum of 2 lags in our models and, at the same time, one differencing of the unemployment data. This means that without data restriction, models like ARDL((2,__)) that have two lags in them only use observations 4 through N while models with one lag use observations 3 through N and models with no lags use observations 2 through N.