

WORKSHOP

For this workshop, use the same dataset (**lata.asc**) and programs (based on **lata1.tsp**) that you did for this morning's time-series workshop.

So you should be in the **wed** subdirectory.

1. Habit, monitoring costs, and other factors prevent consumers from reacting instantly and exactly to changing prices and incomes. So we expect lagged values of price and income to explain current consumption. Begin your investigation of distributed lags in log price and log income by estimating regressions with long, unconstrained distributed lags. Using t-statistics, try to identify where the distributed lag coefficients become negligible. Compare short-run (one period) and long-run price and income elasticities.
2. Many parameters make precise estimation difficult. Given your choice of a length for the distributed lag, try the polynomial distributed lag specification to reduce the number of parameters. Compare the unrestricted and restricted distributed lag estimates.
3. Inducing lags in the dependent variable is also appropriate in modeling habitual behavior and decisions made under uncertainty. You may also observe that the Durbin-Watson test for autocorrelation indicates the presence of autocorrelation in the residuals. So include a lag in the dependent variable as an explanatory variable to your regression model. What happens to your Durbin-Watson test? How are the parameters in the rest of your model affected? What about their interpretation?
4. Try correcting for AR(1) disturbances as well, if the test statistics suggest that this is appropriate.