The Islamic University of Gaza
Faculty of Commerce
Economics Department
Date: Tuesday, 25/12/2012

Final Project
Econometrics & Quantitative Analysis
Instructor: Dr. Samir Safi

Due Date: Saturday, Dec. 29, 2012

Let's assume that you've been hired by the President to solve the savings and loan crisis. As a first step, you decide to build a model of how the industry worked before the crisis got started in the early 1980s.
is total deposits in passbook accounts (savings accounts) in Savings and Loan Associations (S & Ls) in the U.S.
The data are quarterly for the 1970s, so there are 40 observations. For each quarter, the dependent variable, QDPASS, measures the quarterly (hence Q) aggregate current (nominal) dollars on deposits (D) in passbook (PASS) accounts in S & Ls in the U.S. The variables available for your model are:
The Dependent variable: $QDPASS_t$ = the aggregate stock of deposits held in passbook accounts in S & Ls in the U.S. in quarter t (millions of nominal dollars)
The Independent variables:

- $QYDUS_t$ = U.S. disposable income in quarter t (millions of nominal dollars)
- $QYPERM_t$ = U.S. "permanent" income in quarter t (millions of nominal dollars) (This variable was formed by taking a four-quarter declining weighted moving average of disposable income in previous quarters.)
- $QRDPASS_t$ = the average rate of return (in percentage points) on passbook accounts in S & Ls in quarter t.

QRDPASS was 5 percent until the fourth quarter of 1973, when it changed to 5.25 percent, where it remained until the third quarter of 1979 when it rose to 5.50 percent

- $QRTB3Y_t$ = the interest rate on three-month Treasury bills in quarter t
- $SPREAD_t = QRDPASS_t - QRTB3Y_t$
- $MMCDUM_t$ = a dummy variable equal to zero before the third-quarter 1978 legalization of money market certificates and equal to one thereafter
- $EXPINF_t$ = the expected percentage rate of inflation in quarter t (equal to the previous quarter's inflation rate)
- $BRANCH_t$ = the number of S & L branches operating in the U.S. in quarter t

Answer each of the following questions for the above regression run.

1. Hypothesize expected signs for the coefficients of all these variables in an equation for passbook deposits.
2. Examine each variable carefully.
3. Examine the Overall fit of the final model
4. Evaluate your result with respect to its economic meaning
5. Are there any evidence of heteroskedasticity, autocorrelation, and multicollinearity? Explain your finding in details .
6. If yes, show how can these problems be corrected?

Advice:

- Choose carefully the best set of explanatory variables. Assume every model should have QYDUS and either the two interest rate variables or the SPREAD variable. Don't simply include all the variables, intending to drop the insignificant ones. Instead, think through the problem carefully and find the best possible equation you can.
- Take the time to answer all the questions. Rushing through this project will lessen its effectiveness.