

Econometrics Softwares

EIEWS:

EIEWS is a well-rounded econometrics package, developed by Quantitative Micro Software, that provides state of the art time-series modeling techniques and a variety of single and simultaneous equation regression models including limited dependent variable models and a number of other new estimators. A student version of Eviews is available at an affordable price. All the data sets in the book are available in the Eviews format. If you have the CD that came with the book, unzip the file eviews.zip using WinZip or PKUnzip to get all the data files in the form DATA-X.Y.WK1. You should then move them to the appropriate directory for loading with Eviews. If you don't have the CD, you can download eviews.zip from the internet.

SHAZAM:

SHAZAM is an internationally popular program, authored by David Bates, Diana Whistler, Kenneth White, and Donna Wong of the University of British Columbia, Vancouver, Canada. It contains the techniques for estimating most econometric models. The program is available on a CD that contains the data sets and commands for a number of econometrics texts including this one. From the link Ramu4, you can obtain sample documentation, data, and run SHAZAM programs remotely. The link Ramu5 has additional data included in the fifth edition.

LIMDEP:

The PC program is now a true Windows application and takes advantage of the advanced technology of the Windows 95, 98 or NT graphical user interface and operating system. It also offers dozens of new models and features for command entry, file handling and output.

LIMDEP has long been a leader in the field of econometric analysis. Recognized for years as the standard for the estimation of limited and qualitative dependent variable models, LIMDEP 7.0 is unsurpassed in the breadth and variety of its estimation models. No other program offers a wider range of regression, panel data, survival, frontier, discrete and count data, and single and multiple equation linear and nonlinear models - over 100 fully automated estimation models.

With NLOGIT, LIMDEP is the only integrated econometrics package to include a program for FIML estimation of nested logit and discrete choice models, as an optional feature. Major enhancements to NLOGIT 2.0 include random parameters logit and alternatives to the multinomial logit model, such as multinomial probit, heteroscedastic extreme value, random parameters logit and covariance heterogeneity. New models and features are continuously added, enhancing the power of LIMDEP's analysis tools and keeping LIMDEP a true state-of-the-art program. No wonder LIMDEP is now used for teaching and research at thousands of sites in universities, government and private research institutions in the U.S. and

throughout the world

GAUSS:

The **GAUSS Mathematical and Statistical System** is a fast matrix programming language widely used by scientists, engineers, statisticians, biometricians, econometricians, and financial analysts.

Designed for computationally intensive tasks, the **GAUSS** system is ideally suited for the researcher who does not have the time required to develop programs in C or FORTRAN but finds that most statistical or mathematical "packages" are not flexible or powerful enough to perform complicated analysis or to work on large problems. **GAUSS** runs on many different platforms.

The new **GAUSS 4.0** for Windows has a more powerful editor with syntax highlighting, support for structures in the language, an improved matrix editor, float-over watch in the debugger, and new tools for file browsing and library management. Please contact Aptech for upgrade pricing.

As a complete programming language, the **GAUSS** system is both flexible and powerful. Immediately available to the **GAUSS** user is a wide variety of statistical, mathematical and matrix handling routines.

GAUSS can be used in either interactively for short one-off commands or by creating large programs consisting of several files and libraries of functions, or anything in between.

GAUSS has over 400 functions built in, including LINPACK, EISPACK and BLAS routines. In addition you can add your own functions to this library.

Powerful data handling capabilities including a data loop allow transformations in a data set by directly using variable names in expressions. This greatly simplifies data transformations and makes for shorter more readable programs.

GAUSS supports complex numbers. You don't have to keep track of the real and imaginary parts of a matrix. Complex numbers are handled automatically, greatly simplifying program development.

The **GAUSS** system includes complete high resolution 2D and 3D Publication Quality Graphics. You can create XY plots, polar plots, bar charts, histograms, surface plots, XYZ plots; polar, log and box graphs. Graphs can be placed in individual overlapping or tiled windows on a single page. There is hard copy support for most printers and plotters including PostScript™.

S- PLUS?FOR WINDOWS

S-PLUS is the premier solution for exploratory data analysis and statistical modeling. With over 4,200 data analysis functions, including the most comprehensive set of robust and modern methods available anywhere, S-PLUS allows you to perform more insightful analyses, create revealing graphics and make more informed business decisions.

With point-and-click ease, you can import your data, select your statistical functions and display your results. Powerful techniques are at your fingertips. When your analysis requires a new method or approach, you can modify existing methods or develop new ones with the award-winning S programming

language. With S-PLUS Professional, it is easy to examine and visually explore data, run functions one step at a time, and visually compare models for fit.

S-PLUS 6 Presentation: Learn about the newest capabilities of S-PLUS 6 for Windows.

"We selected S-PLUS software after an extensive review of competitive products because it was the best decision support tool available. S-PLUS provided us with a powerful data analysis tool for sophisticated and precise analysis of manufacturing data to reduce our production risks, improve chip yields and enhance profitability."

RATS Version 5.0

The release of Version 5 marks the most significant upgrade to the program in eight years! Below, we briefly list some of the highlights of this new release. For more details, please see the September 2000 edition of the RATSletter. You can order new copies of Version 5 or updates from earlier versions via the web using our On-line Order Form See Placing an Order for information on order by phone, fax, or e-mail. For general information on RATS, including copies of order forms in Adobe PDF format, see our RATS Information page, and please feel free to contact Estima if you have any questions.

New Instructions: RATS Version 5 offers five new instructions:

CVMODEL estimates structural VAR's, ECT adds error correction effects to a VAR, DLM works with state space models, employing Kalman filtering and smoothing., PFORM creates panel series from other sources, PREGRESS performs fixed and random effects estimation., DENSITY computes empirical density functions.

New Functions: We've added more than fifty new functions, including new probability and distribution functions, matrix concatenation/extraction functions, tools for creating series on the fly, and more.

Non-Linear Estimation: Improvements include: the ability to use arrays as non-linear parameters. a new PARMSET variable type that makes it easy to combine several sets of non-linear parameters, allowing models to be created in pieces and combined only when estimated. the ability to impose equality and inequality constraints. a new "genetic" estimation method which allows a much broader search of the parameter space. the ability to define vectors of formulas, including the option of creating them inside a loop.

Vector Autoregressions and Systems of Equations: In addition to the new CVMODEL and ECT instructions, several "convenience" features have been added. For example, it is now much easier to save VAR residuals, forecasts, and impulses responses, using the new "RESULTS" option. Also, the SYSTEM instruction now includes a MODEL option that allows you to define a VAR as a model, which makes setting up instructions like IMPULSE and FORECAST much easier.

Probability and Random Numbers: New functions have been added for computing probability distributions and their inverses, as well as factorials and binomial coefficients. Additional documentation covers techniques like Gibbs sampling and approximate randomization in detail.

Revised Documentation: The RATS documentation has been reformatted into two standard 7"x9" books, and will be included in electronic form (Adobe PDF files) with each copy of RATS. The manual features more examples, more technical details, and offers expanded/new coverage of many topics, including Structural (identified, Bernanke-Sims) VAR's, Blanchard-Quah decomposition, ARCH and GARCH models, hazard models, state-space models, simulations and bootstrapping, and non-linear estimation.

TSP

TSP™ is a complete language for the estimation and simulation of econometric models. It is a world-wide standard for econometric estimation, with over 2000 installations. What follows is a general overview; detailed lists of features and commands can be found elsewhere. TSP stands for "Time Series Processor", although it is also commonly used with cross section and panel data. TSP happens to be a common acronym with alternative definitions.

FEATURES: Easy-to-use free format command and data input All the standard econometric estimation methods, such as OLS, instrumental variables, LIML, nonlinear systems, generalized methods of moments, FIML, maximum likelihood for qualitative dependent variable models, ARIMA, Kalman filter, ARCH, and other time series techniques. Extensive diagnostics and testing facilities. Flexible data transformation with many built-in functions and matrix algebra. Offers a choice between interactive use or full programming language for econometric methods development.

COMMON APPLICATIONS: Applied econometrics, Macroeconomic research and forecasting, Sales forecasting, Financial analysis, Cost analysis and forecasting, Monte Carlo simulation, Estimation and simulation of economic models, Although TSP was originally and continues to be developed primarily by economists, there is nothing in its design limiting it to economic times series. Any data consisting of repeated observations of the same variable for different units may be analyzed with TSP.

GRETTL:

The GRETTL program (Gnu Regression, Econometrics, and Time-series Library) is included in the CD accompanying the book. It is the successor to ESLWIN which was distributed with the previous edition of this book. The program is also available in other platforms such as Unix and Linux. GRETTL is built around a freely shared library that may be accessed using a command-line interface program (GRETTLCLI) or a graphical user interface (GRETTL). If you have the CD, simply run the self-extracting executable program setup.exe. If you don't have the CD, download [gretl_install.exe](#) and run it. You will be prompted for a location to install the package (the default is c:\userdata\gretl, but you can change it to suit your situation). The complete manual is also available on the CD as the PDF file [manual.pdf](#). It is readable by [Adobe Acrobat Reader](#), which is available free. If you plan to use GRETTL, be sure to save the file to your hard drive, print out the complete manual, and keep it handy. Since the GRETTL program is updated often, it is wise to check periodically for updates. You could get on the GRETTL [mailing list](#) and

be notified of changes. To reproduce all the examples in the book, there are 73 command files labeled "scripts" (denoted by the label PSX-Y.INP, where X is the chapter number) that can be readily run from GRETLCLI and GRETL.

PCGIVE:

PcGive is a statistical package, written by Jurge Doornik and David Hendry of Nuffield College, University of Oxford, U.K, that is particularly well suited for time-series modeling involving the general to specific model building approach described in Chapter 6. Download the data sets and command files to reproduce the examples in this book using PcGive. For details about free as well as professional versions of PcGive visit its Web site.

B34S:

The B34S Data Analysis System is a full featured econometrics package developed by Houston H.Stokes at the University of Illinois, Chicago, with the help of others. The program is documented in *Specifying and Diagnostically Testing Econometric Models*, ed. 2, Quorum 1997, by Houston H. Stokes. Professor Stokes has implemented all the data sets in the present book in a file that can be read by his econometrics program B34S. There is a free student version of B34S that can be downloaded from the web. B34S is documented in his book (see his web page). On the B34S page there are quick start help documents. There is an executable file that will install the program and our dataset ram.mac on your machine. Once B34S is up, under FILE, select "run Macro". Then Select c:\b34slm\ram.mac and you will have a menu of the data set.

Other Econometrics Programs:

There are numerous regression packages not directly linked to this book for which the data files set up in ASCII (that is, text) format would be appropriate. If you plan to use the book's data sets with one of these other programs, and have the CD that came with the book, unzip the file ascii.zip using WinZip or PKUnzip to get all the data files that contain just the numerical values of the data as the ASCII text file DATAX-Y, without a suffix. There is a corresponding header file DATAX-Y.HDR that contains the variable names, data sources, and units of measurement (also described in Appendix D). Move these files to the appropriate directory for loading with your regression program. If you don't have the CD, you can download ascii.zip from the internet and then unzip it.