Developments In Business Simulation & Experiential Exercises, Volume 17, 1990

THE MONEY GAME; A DYNAMIC SIMULATION INCLUDING RANDOM SHOCKS FOR MONEY AND BANKING COURSES

Richard M. Alston, Weber State College
Wan Fu Chi, Weber State College

ABSTRACT

The Money Game is a set of interactive graphics tutorials and simulation software for individual student use in money and banking courses. Its unique approach to dynamic market simulation, including random shocks, is based on a step-by-step learning process.

INTRODUCTION

Most money and banking courses use money market and macroeconomic models to place monetary policy in its real world context. Pedagogically sound computer aided instruction can make these model come alive.

THE MONEY GAME

The Money Game is an extensive set of interactive software tutorials and simulation games designed for individualized student use. It consists of three jam-packed 360K disks for use on IBM (or compatible PCs. The programs are distributed free by Scott, Pores man and Co. to adopters of Frederic Mishkin's <u>Economics of Money, Banking. and Financial Markets</u>,

Using The *Money Game,* a student works through five pre-simulation modules applied to the bond market, the money market, the foreign funds market, the federal reserve system, and macroeconomic equilibrium.

Disk One consists of descriptive tutorials, interactive questions and explanations, and problem solving exercises on the following topics: discounting and present value calculations, mathematics of simple and fixed payment loans, coupon and discount bonds, rate of return, and capital gains. The student is provided a tool kit for financial calculations (similar to an HP12C).

Disk Two introduces the student to the dynamic gaming elements of *The Money Game,* but does it sequentially so that every element of the model that the students will ultimately work with becomes totally familiar to them. Disk Two contains interactive tutorial and gaming modules on bond markets, money markets, and foreign exchange markets and four pre-simulation games *for* individual student use. Each of the modules leading up to, for example, *the* money *supply game,* is designed to Leach the student the nature of the model, its structure, the nature of its coefficients and parameters, and what happens when, ceteris paribus, one of them changes. (Other pre-simulation games include *the bond market game, the liquidity preference* game, *the money supply game,* and the *foreign exchange game.)* Thus, the student is introduced to the static analysis necessary to understand the sectorial model(s) prior to using the final simulation model in *The Money Game.*

Disk Three takes everything in the previous models and puts it together in a dynamic simulation of the macro-economy. *The*

Money Game interactive simulation integrates the course objectives in a real world setting with unforeseen random shocks to the system.

STRUCTURE OF THE MONEY GAME SIMULATION

The logical structure of the final complete simulation in *The Money Game* is shown below.
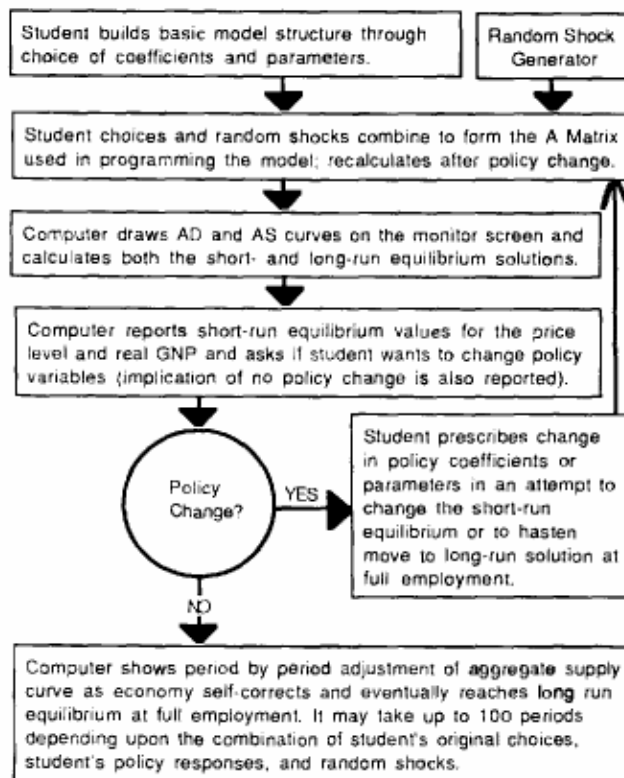
CONCLUSION

In *The Money Game* students are first given the opportunity to learn the principles required to effectively use the computer simulation. By using a step-by-step building block approach through the early interactive gaming models, the student using *The Money Game* is well prepared for putting that knowledge to work in formulating appropriate monetary and fiscal policy to correct short-run inflationary and deflationary gaps in the simulated economy. Only after mastering the basic principles of the course are they faced with non-stochastic, random shocks to the system that require quick assessment and adjustment to new information. The instant feedback and ability to try again until they get it right makes the pedagogical approach one that students voluntarily choose to use over and over again.