

MAKING MACROECONOMICS EASY TO UNDERSTAND, AS A TRUE SCIENCE,

by David Harold Chester

How many different KINDS of financial (business) transactions occur within society? Actually, only a limited number of them are possible. Consider the averages of the various kinds of activities (no matter who performs them), and idealize these to fall into those commonly shared and expressed in general terms of various transactions. Here, these activities pass between a pair of agents—each with individual properties. To cover the whole national social system, only 19 kinds of exchanges are needed of the goods, services, access rights, taxes, valuable legal documents for savings, investment, etc., versus the opposing flows of money. These flows need to pass between only six different representative agents.

I prepared the analysis that led to this initially-unexpected result in my working paper [“Einstein’s Criterion Applied to Logical Macroeconomics Modeling”](#). In this model, these double flows of money versus goods, etc., are shown to pass between the role-playing agents. If one tries to eliminate all unnecessary complications but retains the more basic activities, then these particular quantities and flows provide a concise result--presentable in a comprehensive and seamless manner, suitable for analysis of the whole system.

Past representation of our sociological system by this type of an interpretation model has neither been derived nor presented before. Other partial versions have been modeled (using 4 agents, by Professor Hudson), but they are inexact due to their being over-simplified. Alternatively, in the case of econometrics, the models are far too complicated and impossible for students to follow. Either over-simplification or over-complexity are why non-scientific confusion was created by past economists and explains their failure to obtain a good understanding of how the whole system works.

The model described in this paper is unique, being the first to include, with some additional aspects, all 3 factors of production, in Adam Smith's “Wealth of Nations” book of 1776. These factors are Land, Labor and Capital, with their returns of Ground-Rent, Wages and Interest/Dividends. All of them are included in the model, as a diagram in [“A Mechanical Model for Teaching Macroeconomics”](#)). With this model in its different forms, the aspects of the Big Picture of our society’s system can be identified and defined. By analysis, how our system works can then be properly seen, calculated and illustrated.

This analysis was devised by Nobel Laureate W. Leontief, when he invented the important "Input-Output" matrix methodology (that he originally applied to the production sector). This short-hand method of modeling the whole sociological system replaces the block-and-flow diagram, enabling one to better appreciate what is going-on there. It is the topology of the matrix which actually provides the key to this. The logic and math are not hard and is suitable for high-school students, who have been shown the basic properties of square matrices.

With this technique it is comparatively easy to introduce a change to a preset sociological system that is theoretically in equilibrium (even though we know that this ideal is never actually attained--it being a convenient way to begin the study). This change creates an imbalance and we need to regain equilibrium again. Sudden changes or policy decisions may be simulated and the effects of them determined, which will point the way to what policy is best. In ["Consequential Macroeconomics—Rationalizing About How Our Social System Works"](#), three changes associated with taxation are investigated in hand-worked numerical examples.

Developments of these ideas about making our subject more truly scientific (thereby avoiding the past pseudo-science being taught at universities), can be found in ["Consequential Macroeconomics—Rationalizing About How Our Social System Works"](#).