1 Introduction

An Economist is a person who doesn’t let facts get in the way of a good idea.

A quote given by British Economist Chang Ha-Joon in a C-Span Book TV talk.
2 Historical Characters and Topics

Political Economy

Economics used to be called Political Economy, which was certainly apt, since Economics is certainly political.

Historical characters and topics in this drama:

John Stuart Mill

Adam Smith

Thomas Malthus "Population growth shall always keep the majority of mankind in poverty."

David Ricardo

Karl Marx Das Kapital, The Communist Manifesto

Democratic Socialism: The Fabian Society

Sidney and Beatrice Webb

Jeremy Benthum Utilitarianism.

George Bernard Shaw

John Maynard Keynes

The Labor Movement

The European Guilds

Eugene Debs

Samuel Gompers
Norman Thomas

John Maynard Keynes

Paul Samuelson His PhD thesis was a foundation for the attempt to make Economics mathematical and rational. Founding book:

Milton Friedman, Free Enterprize and the Chicago School

Frederick Hyack Austrian free enterprize economist, ”The Road to Serfdom”, was at the University of Chicago.

John Kenneth Galbraith Agricultural economist originally, great supporter of Keynesian ideas.

The British Labor Party A workers party in opposition to the British Conservative party

The First Labor Prime Minister, Ramsey McDonald

The "Aristocratic Embrace."

AFL (The American Federation of Labor)

The AFL unions are in general craft unions, which have some historical connection with the medieval European guilds.

CIO (The Congress of Industrial Organizations)

Industrial Unions not connected to a particular craft.

Factory and Industrial Workers: the coal miners, John L Lewis

Walter Ruther and the UAW (United Auto Workers)
3 The "Laws" of Economics

The Law of Supply and Demand

Supply and demand of course does influence price, the black bananas do decrease in price at the city market. But the law as presented in an elementary Economics course it rather vague and undefined mathematically. For this argument to be convincing, the demand and supply curves must have some real theoretical or empirical existence.

However, this law is usually proved by an economics professor grasping the chalk and swinging his cold dead hand against the black board, making two curves representing respectively demand and supply, which always seem to be monotonic functions that have convenient slopes, and thus intersect at a single convenient point, giving the actual price of the good independent of the behavior of the shop keeper and the customer, and of the fact that there is seldom if ever, a single universal equilibrium price of any item (The vertical axis is price, the horizontal is output. The demand curve slopes downward, the supply curve upward). This also tends to prove that advertising has no effect at all on sales, if we assume that demand depends on real human rational need. Sorry Madison Avenue!

The whole argument is rather circular, and thus calling it a law is a bit much. And so if a price increases, one says that the demand has increased (demand curve shifts to the right), or the supply decreases (demand curve shifts left).

Demand and supply curves seem to be somewhat fictional, perhaps like what is called in modern literature "Magical Realism." Their shapes seems to be made up as needed. The movement of these curves over time, as presented, is apparently always translational and parallel. These curves seem to have no mathematical definition or theoretical basis, since none is ever given to my knowledge, and so they seem rather vague.

The Law of "Supply and Demand" is usually qualitatively true, which is just common sense, but it is presented as a mathematical law, as a law of nature applied to well defined curves. So if a gallon of gasoline were raised to a price of 20 dollars a gallon, we could compute the future low consumption of gasoline, and perhaps as some claim, cure global warming. Of course this would have very bad consequences for people with low incomes. The economist has a very hard job of finding laws of human behavior, because once a "law" has been popularized, humans are motivated to take advantage
of the so called law and change their behavior, for personal gain, or for fun.

I suppose some kind of demand and supply curves are cooked up for computer simulation of the economy.

It seems to me to make sense out of the "Law of Supply and Demand" one must give a rigorous definition of all terms. Then create a computer simulation model of the whole thing. In this way everything is well defined. Such a model may match reality or not, but at least one can start talking about the law in a reasonable matter.

**Say’s Law**

In summary: Overproduction is impossible. Apparently this law of classical economics had some influence on the formulation of the "Supply Side Economics." This law recalls the classical work of Malthus, and on the surface seems just as ridiculous.

**Gresham’s Law**

Bad money drives out good money. This relates to money in the form of metal coins.

**Lowering Taxes Increases Government Revenue: The Laffer Curve**

This law was proved by Laffer drawing a 180 degree semicircle in the positive x-y plane from the origin. to a point on the positive y-axis, with tax rate on the vertical axis, and government revenue on the horizontal.

Of course, the upper point of the arc on the y-axis need not be at the 100 per cent point, so that the logic proves that lowering taxes always increases revenue, and thus proves that the libertarians are right that all taxes should be abolished in order to have a most perfect world.

**4 The History of Mathematical Economics**

A good survey of this history is the Wikipedia article on the subject.
5 Mathematical Economics

Many economists have argued that economics has become too mathematical and not always applicable to real human behavior; because behavior is not always rational as is assumed by many mathematical models.

However, much of Mathematical Economics is beautiful in itself, which is true of most mathematics, independent of its practicality.

6 The Tools of Social Science: Theoretical Speculation, Data Collection, Graphs, Mathematical Statistics, and Regression

*Any Scientific Subject with the word science in its title, is not one.*

*Anonymous Wit*

Examples of subjects with ”Science” in the title:

Political Science

Computer Science

Cognitive Science

Social Science

Management Science

7 Exogenous, Endogenous, and Instrumental Variables

**Definition:** A variable is *exogenous* to a model if it is not determined by other parameters and variables in the model, but is set externally and any changes to it come from external forces. Contrast *endogenous.*
8 VAR, Vector AutoRegression

Vector autoregression (VAR) is an econometric model used to capture the linear interdependencies among multiple time series. See the Wikipedia article "Vector AutoRegression."

9 ARIMA, Autoregressive Integrated Moving Average

From the Wikipedia article on autoregressive integrated moving average:
"In statistics and econometrics, and in particular in time series analysis, an autoregressive integrated moving average (ARIMA) model is a generalization of an autoregressive moving average (ARMA) model. These models are fitted to time series data either to better understand the data or to predict future points in the series (forecasting). They are applied in some cases where data show evidence of non-stationarity, where an initial differencing step (corresponding to the "integrated" part of the model) can be applied to remove the non-stationarity.

The model is generally referred to as an ARIMA(p,d,q) model where parameters p, d, and q are non-negative integers that refer to the order of the autoregressive, integrated, and moving average parts of the model respectively. ARIMA models form an important part of the Box-Jenkins approach to time-series modelling.

When two out of the three terms are zeros, it is usual to drop "AR", "I" or "MA" from the acronym describing the model. For example, ARIMA(0,1,0) is I(1), and ARIMA(0,0,1) is MA(1)."

10 Bibliography


[11] Wald, Abraham (1947). **Sequential Analysis**, New York: John Wiley and Sons. Milton Friedman claims to have generated Wald’s interest in the Sequential Analysis problem. Robert Wald of General Relativity fame is the son of Abraham Wald. Abraham Wald and his wife died in a tragic plane crash in India. This book sounds very familiar to me, which suggests that I have read and owned the book, although I have not been able to find it.


[13] Klein Naomi, **The Shock Doctrine**, 2007, Metropolitan Books a trademark of Henry Holt and Company, (This is a strong criticism of Friedman’s
economics, philosophy, and rationalistic conservative politics).

[14] Pearl, Judea (2000). **Causality: Models, Reasoning, and Inference.** New York: Cambridge University Press. ISBN 052189560X. (also the father of Daniel Pearl, the American journalist famously kidnapped and murdered in the Middle East)


[17] Wikipedia, **Analysis of Variance, (ANOVA).**

[18] Wikipedia **Vector AutoRegression, (VAR).**


Study Notes on Economics | Subject-Matter of Economics: Economics is too much interesting and it affects almost everything we do, not merely at work or in the shops but in the home as well. It influences the future we leave for our children the extent to which we care for the disadvantage, and resources we have for enjoying ourselves. ADVERTISEMENTS: These issues are discussed everyday everywhere. Micro-economics studies economic behaviour at the individual unit. These may be individual consumers, producers, buyers, or sellers. Alternatively, macroeconomics, which we detail later, focuses on the top level of an economy, or the big picture. This was our article on Economics Class 12 Notes. Read more Economics 2018 â€“ Paper Analysis and Review (economics class 12). Shock your Mom with more marks than she expected. Get access to 300,000+ questions curated by Indiaâ€™s best academic experts.