

Lecture Notes for Introduction to Austrian School of Economics. ①

Overview

Unlike most economic thought, the Austrian School specifically does not aggregate economic behavior and create a division between micro- and macro-economics.

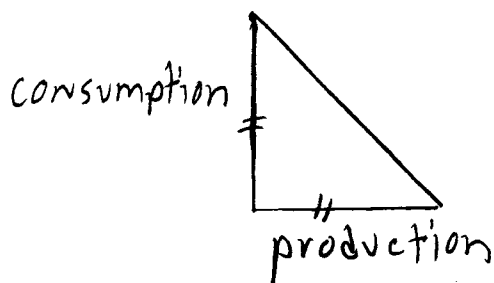
All economic behavior is based on individual economic calculation at a given place and time. Each individual in society is an "entrepreneur" who chooses best how to use his or her resources, including his or her time, to make decisions which are in their subjective value to be in their best interests or in the best interest of those they care about. People act upon limited and local information and attempt to "discover" ways they can improve themselves (and those they care about) through a process of trial-and-error which improves over time as they learn more about themselves and the society in which they live.

Entrepreneurship means exchanging things of value freely in the market place. It is only by adding value or producing or creating things that other people want to buy or exchange for that you create value for society.

A person has the decision to consume their resources now or to consume them later. People who wish to consume now have what is known as a high "time-preference", those that wish to consume later have a lower time-preference. Each person's time-preference is subjective and dependent upon the given time and place of economic calculation.

Historical Examples

When human society first formed we were hunter-gatherer tribes, we consumed all that we produced and we lived day-to-day. This concept can be viewed heuristically in what is known in Austrian School capital theory as the "Hayekian Triangles" based on the work of Nobel Laureate Friedrich Hayek (1931) and built upon by Roger Garrison (2001).



This Hayekian Triangle shows that society has a very high time-preference. Society consumes immediately (day-to-day) everything that it "produces".

There is very little economic calculation taking place because no-one is saving for the future.

As society developed into primitive agriculture and animal husbandry specialization of labor began to occur and different people began to do different things based on what they saw they could best add value to society based on their own subjective interests and time-preferences. Some people made primitive farming tools, some people raised animals, some people planted and harvested crops, others stored and distributed the agriculture produce.

Society developed from one without capital investment into one with differing investments depending on how far removed from actual consumption these investments took in time. The longer the "pay-back" for a person's investment, the lower was that person's "time-preference". They could wait longer for remuneration by expecting a higher profit for waiting.

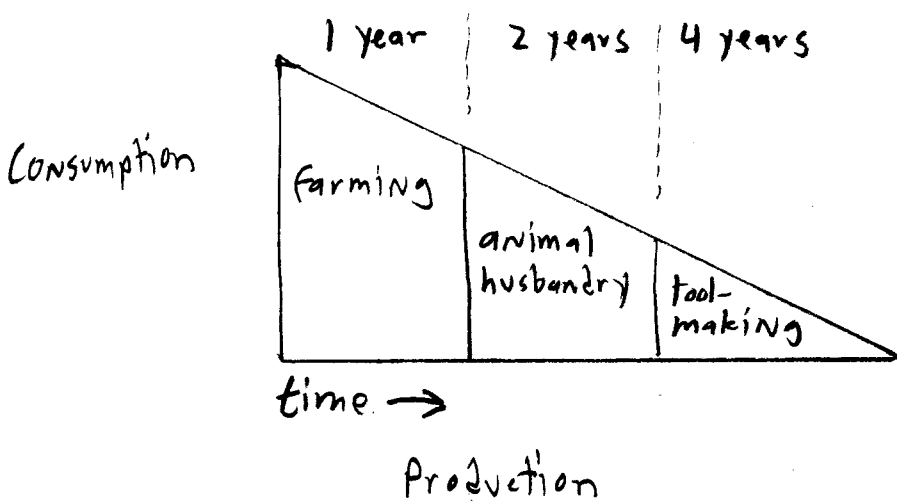
Lecture Notes for Introduction to Austrian School of Economics

Historical examples (cont.)

The development of varying time-preference based investments in the means of production depended on the expected cooperation of society with each other. Someone taking months if not years to fashion iron-based farming tools had to know that eventually they would get paid enough grain or rice to compensate for their time and effort put towards making the tools. The same thing for someone that was raising farm animals. They had to have the trust in their fellow man and trading partner that they would get paid in order to compensate for the effort.

This type of trust and mutual cooperation is what is known as economic development. Institutions and trust are built around mutual cooperation and mutual trade in society.

This next stage of development, primitive agriculture and animal husbandry, can be viewed in the Hayekian Triangles.



We see that "stages of production" (Bohm-Bawerk 1888) begin to occur. It takes longer for tool-making to pay back its investment than does animal husbandry (say 4 years versus 2 years), so the tool-maker has a lower-time-preference.

Farming returns its investment every year (unless there is a crop failure), so therefore the farmer has a higher time-preference than does the tool-maker or the person raising animals.

Historical examples (cont.)

We can see from the primitive stages of production several important aspects of economics. It takes the tool-maker in our example four years to make a tool, versus the two years that it takes to raise an animal. Therefore the tool-maker is taking on more risk. There is risk that his or her tool won't work, or that the person they contracted to sell the tool to won't be able to pay or that the animal raiser who is to pay the farmer for his animal feed may have a problem (say an animal disease) in paying the farmer who is to pay the tool-maker, etc.

All economic relations in a society are connected and causal to each other. Each person along the chain of production - from the higher stages, in this case tool-making, to the lower stages, agricultural produce which is directly consumable - depends on the ability to contract and to know that that contract is socially enforceable. It is this inter-linking of contracts, and contract pricing, which allows the economic calculation to take place and which allows the building-up of long-term investment and more efficient means of production in a society.

As a society is able to freely contract and price-in longer term risk, and higher profits based on this entrepreneurial risk, the more developed this society becomes. Higher standards of living are afforded by more elongated capital structures - by more long-term investment and more divisions of labor throughout the production chain. As society develops, its time-preferences become longer because people are willing to take on longer pay-back periods to their capital, labor and time and risk-taking.

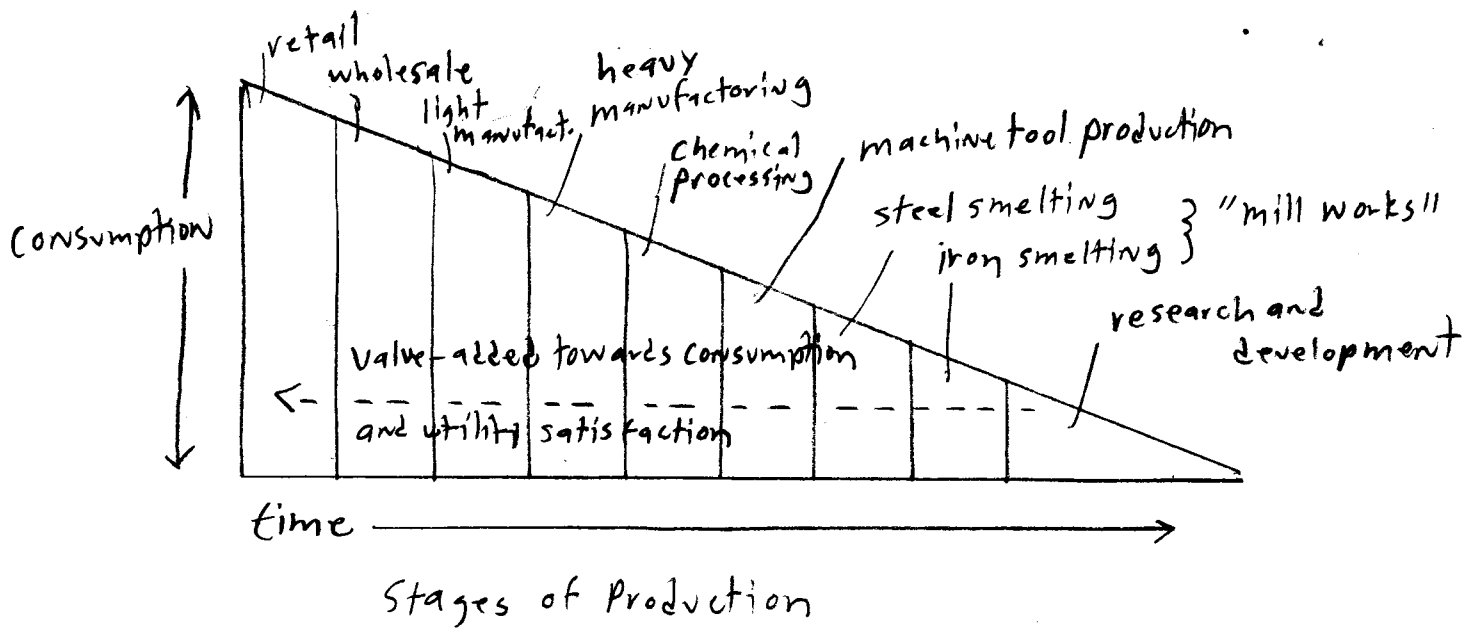
Historical examples (cont.).

As societies develop through today what is known as capitalism, they become increasingly complex and inter-dependent. It is virtually impossible for one individual to know the complex and multi-dimensional inter-relationships of the chains-of-productions, causal relationships and entrepreneurial decision-making and contracting which occurs in modern societies.

Carl Menger in his 1871 "Principles of Economics" described the individual economic calculations each person (each economic actor, or entrepreneur) in society makes, as "imputation". We all know subjectively what brings us economic value, utility, and we base our decisions on satisfying these utility needs. We need to make our economic decisions depending on where we are in life and what we need to satisfy our life aspirations, through mutual cooperation with those around us.

The market provides us price signals, prices which adjust up and down the causal chain depending on the utility satisfying economic calculations of others. If these prices are not allowed to adjust then our economic calculations become skewed and do not match what is needed to meet each individual's time-preference. Capital investment is made in stages of production and for goods and services which society does not value because economic calculation and valuation becomes distorted. This concept is best captured in Hayek's "The Use of Knowledge in Society" (1945). It is price-adjustment based on individual time-and-place which organizes an otherwise very complex society. When these price signals fail, so can societal organization, leading to crisis. When prices adjust to meet societal needs crisis does not occur.

Modern Capitalism

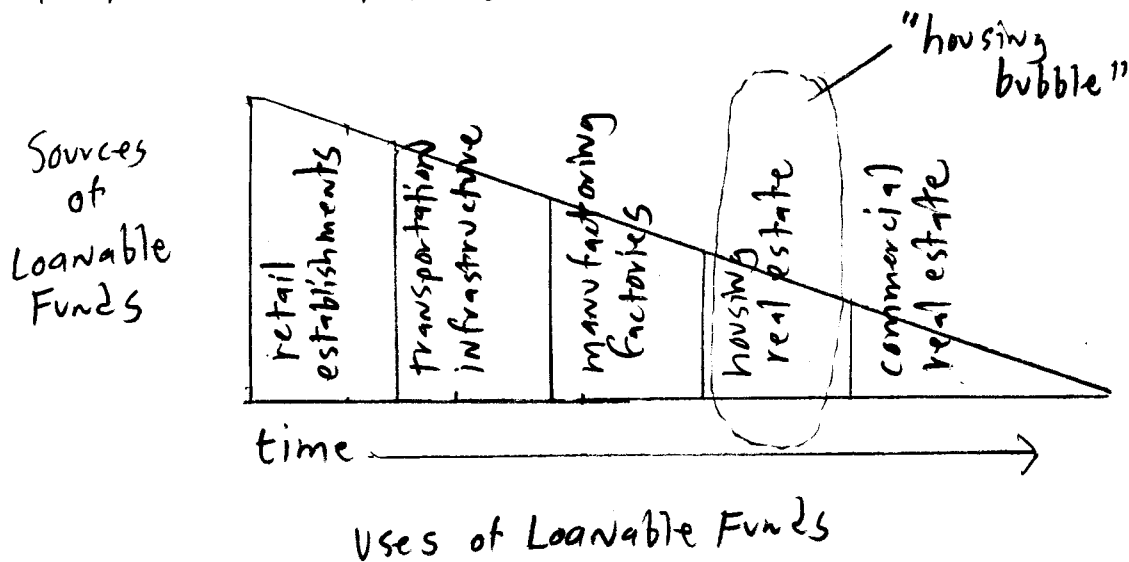


In modern industrial capitalism in a global economic system there are hundreds of millions of firms and entrepreneurs investing hundreds of billions of dollars and hiring billions of workers. Each of these investment, trade and hiring decisions require economic calculation. The importance of economic calculation and imputation is magnified because of the complexity and inter-relatedness of the world economy. Each stage of production is dependent upon the previous stage of production and if there are price rigidities in any part of the economy the allocation of the world's scarce economic resources will not be at the optimal level. Global economic growth in the 20th century was 1,000% compared to 300% in the 19th century (DeLong 2004) due to the growth of the market to include the ex-USSR and India and China in addition to the relatively free-market "West" in the later part of the 20th century.

In such a geographically-dispersed and decentralized world economy the importance of the self-organizing price mechanism should not be minimized.

An Austrian School Explanation for the Financial Crisis

We can use Austrian School capital theory to give an explanation for the current financial crisis which was based on an over-investment in the housing market in the United States.



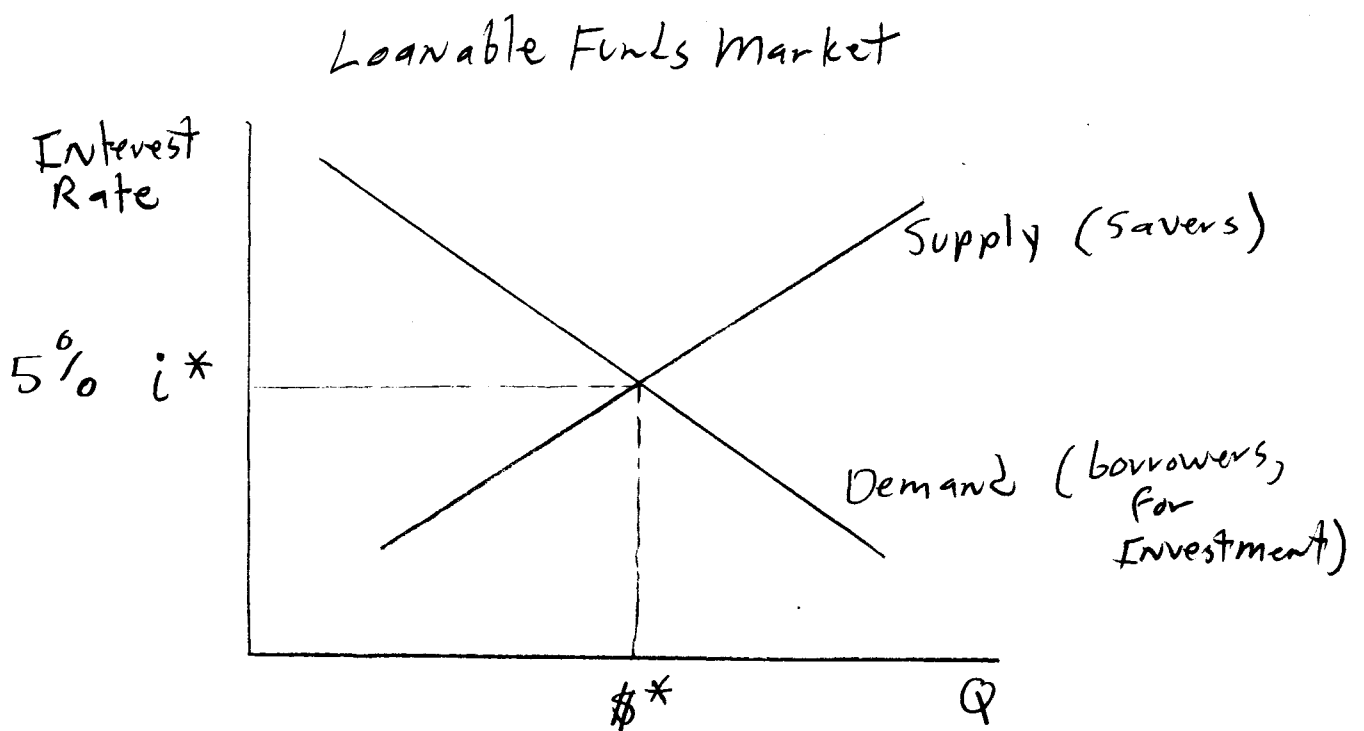
If we divide our capital structures into the sources and uses of loanable funds available for real estate investment, we can isolate the "housing" stage of production. Because housing was heavily subsidized by tax and regulatory policy (mortgage interest-rate tax write-offs, Ginnie Mae and Freddie Mac guarantees of mortgage-backed securities) the price signals were maladjusted to the entrepreneurial actors in the real estate industry. Housing prices (the cost of housing finance) seemed cheaper than it really should have been according to society's time-preferences for housing, so the too-low price signal created an over-investment in housing (a "bubble") relative to the other stages of real estate capital structure. When the Federal Reserve Bank increased interest rates in 2006 this sent a price signal raising the price of housing "popping" the bubble. Because the over-investment in housing was not able to correct itself through liquidation of the mortgage-backed securities due to the bailouts of the banks holding these securities, price adjustment has not taken place causing crisis.

Lecture Notes for Introduction to Austrian School of Economics

(8)

Austrian School capital theory and the "Natural rate" of interest

The price of money (loanable funds) used for investment is the interest rate. The interest rate is what matches the time-preferences of borrowers with the time-preferences of lenders (savers). This can be seen in the market-determined Supply and Demand for loanable funds.



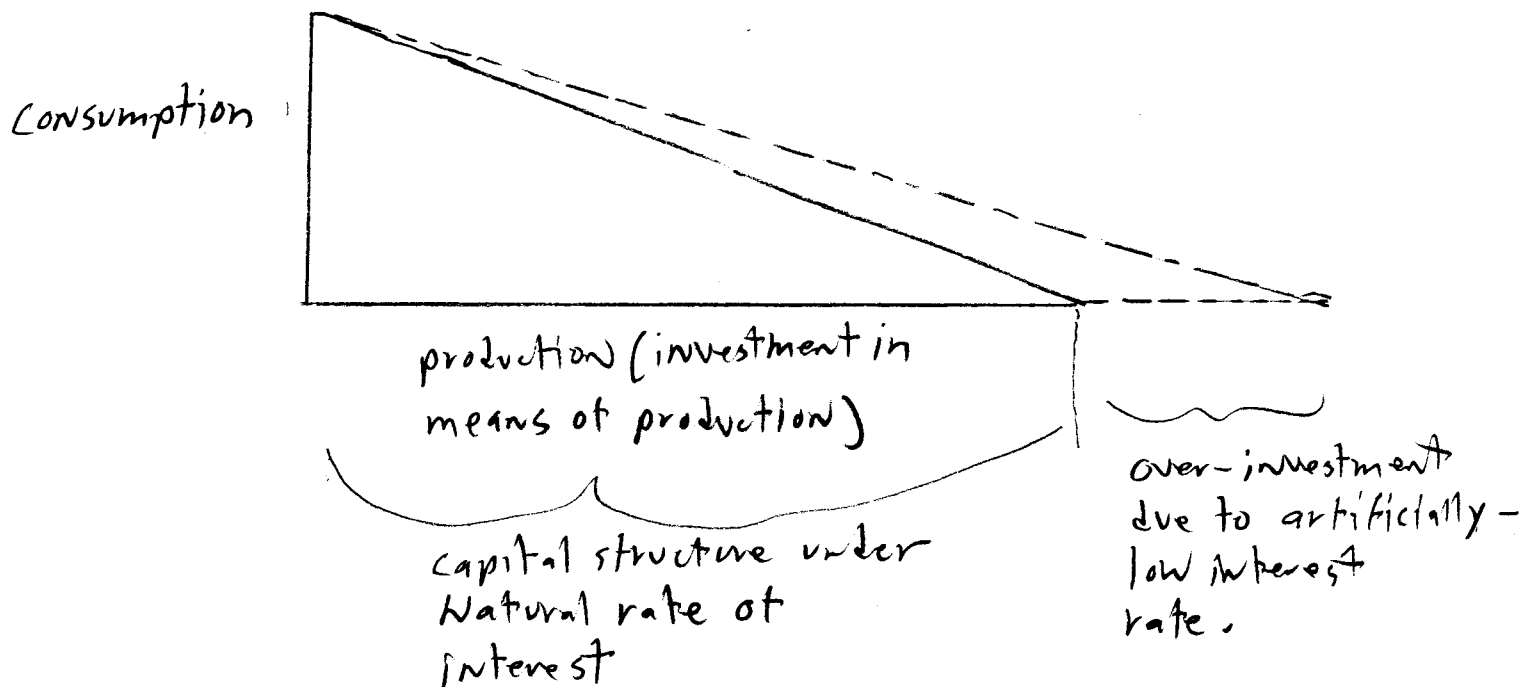
Let's use for our example that if the interest rate is allowed to be set in the market, the matching of savers and borrowers would create a "natural rate" of interest of 5% and there would be \$100 billion available for investment in any given year.

Lecture Notes for Introduction to Austrian School of Economics

(9)

"Natural Rate" of interest (cont.)

Now let's assume that instead of the price signal for the price of loanable funds matching the time-preferences of savers and borrowers as set by the market, e.g., at a "natural rate", the rate is manipulated by a central monetary authority or central bank. If the central bank sets an interest rate price of loanable funds that is too low, and makes funds available to the banks to cover the shortage so that a lower rate would not prevent savers from saving instead of consuming, then investors have a price signal that will encourage them to invest in longer term investments than they would under a natural rate. Time preferences have been artificially decreased and the capital structure has been artificially elongated.



"Natural Rate" of interest (cont.)

The artificially-low interest rate encourages investment in stages of production which would not occur under a market-determined natural rate of interest, economic calculation has been distorted because the price signal has been distorted. Entrepreneurs (people) build things, or start to build things, and hire people away from other, earlier, stages of production due to these new, lower, price signals (a lower rate of interest means a lower investment hurdle and therefore longer-term, more risky projects seem now feasible under a central bank-manipulated lower interest rate).

However, when the artificially-low interest rate is discovered by market actors, inflation fears start to set-in so the central bank is forced to raise the interest rate to prevent inflation. At this point those investments made under the artificially-low interest rates are no longer feasible so the entrepreneurs (all economic actors in society) abandon the higher stage of production over-investment projects previously started under the previous artificially-low price signals. Because it is not possible to instantaneously give-up one investment project for another this causes unemployment and wastes resources in half-finished projects.

The end result of centrally-planned monetary policy is needless unemployment and capital tied-up in unfeasible projects which could otherwise better be applied elsewhere. Bailouts just exacerbate the problem because oftentimes only bankruptcy can free-up the resources and allow renewed entrepreneurial discovery.

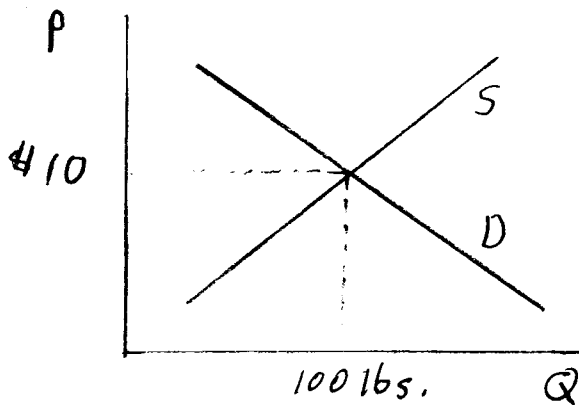
Lecture Notes for Introduction to Austrian School of Economics

(11)

A note on Supply and Demand

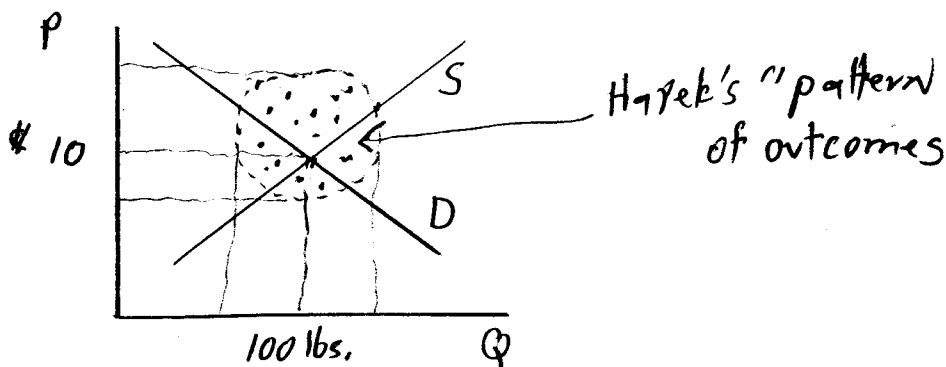
In the neo-classical, or mainstream, economic models it is assumed that "one price" clears the markets and creates an equilibrium where price adjusts to meet Supply and Demand.

Market for a pound of coffee



This can be juxtaposed with the Austrian notion that because of imperfect information and local and decentralized behavior, there is not "one price" which clears the market, but rather Hayek's idea that there is a "pattern of outcomes", the market tends towards equilibrium but is in constant flux due to entrepreneurial discovery, therefore, a "one price" equilibrium does not exist.

Market for a pound of coffee



Lecture Notes for Introduction to Austrian
School of Economics

12

References

- 1) Eugen Böhm-Bawerk (1888), Pure Theory of Capital
- 2) Brad DeLong (2004), "Cornucopia: The Pace of Economic Growth in the 20th Century", available www.nber.org
- 3) F.A. Hayek (1931), Prices and Production
- 4) " (1945), "The Use of Knowledge in Society"
- 5) Roger Garrison (2001), Time and Money: the Macroeconomics of Capital Structure
- 6) Carl Menger (1871), Principles of Economics