

# Syllabus

## Boston Economics Class Series

January 31 – April 19, 2009

*This class series is intended to quickly educate a new cadre of intellectual leaders in the principles of the emerging science of physical economics as established by Lyndon H. LaRouche. This cadre of leaders will be needed to both participate in the daily organizing and education of the American population today, in the short term, as we work to educate a newly inaugurated Presidency to understand the policies necessary to save the United States from the nightmare of an ongoing economic breakdown, and, in the long term, to oversee the implementation of these policies of development and nation-building over the next fifty years.*

*The classes presented over the first seven weeks will be vectored toward providing the participants with the tools and concepts necessary to begin to participate in a number of economic research projects, selected during Week Seven, on the economic history of the United States, with several great projects approached as case studies, seen through the lens of LaRouche's science of physical economy. (A preliminary such case study was conducted and published by members of the LaRouche Youth Movement in 2003, on Franklin Roosevelt's Rural Electrification Administration.)*

*Each class will be audio recorded and a summary of the discussion will be written up and posted on the [www.wlym.com/~boston](http://www.wlym.com/~boston) website the following day, so, even if you miss one class along the way, the material will be provided.*

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### Twelve Week Course

**Week One -- Intro: The Mind 1/31/09**

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“The Greatest Financial Collapse in History” – LaRouche as a forecaster

Recent events have created the opportunity to overthrow long-standing popular opinions concerning economics, popular opinions which have now been proven false, and replace those opinions with the understanding of actual scientific principles, the foundation of a new science of economics. The sort of revolution we are out to create in the realm of economic science is absolutely equivalent with what J. Kepler accomplished in his [New Astronomy](#) – take astronomy, or now economics, out of the department of geometrical or statistical modeling, and into the

department of the physical sciences.

Topics include: LaRouche's nine forecasts; Triple Curve; human vs. animal population growth; geometrical incommensurability; concept of the transcendental; *δυναμις*

Suggested reading:

[LaRouche's answer concerning Triple Curve forecast](#), 1/22/09 Washington webcast, [www.LaRouchePAC.com](http://www.LaRouchePAC.com)

Hoefle, John, "Lesson of 2008: If You Want to Survive..." [EIR, Vol. 36, No. 1](#), January 9, 2009

Dante Alighieri, [De Monarchia](#), Ch. 3

Plato, [Epinomis Dialogue](#)

Pedagogical boxes, "[The Principle of 'Power'](#)", LaRouche, [http://larouchepub.com/eiw/public/2005/2005\\_50-52/2005-51/pdf/04\\_49\\_dialog\\_lh1.pdf](http://larouchepub.com/eiw/public/2005/2005_50-52/2005-51/pdf/04_49_dialog_lh1.pdf)

Assignment: LaRouche, Lyndon H., [In Defense of Common Sense](#), Ch. 1-4

## **Week Two -- Economics of the Noosphere 2/7/09**

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What are the principles behind the physical forces which determine the human population curve? We will revisit Dante's treatment of the principle which sets human beings apart from animals by examining human society in its totality, and see that this is the same approach which Vladimir Vernadsky employs in his discovery of the Noosphere. How does LaRouche quantitatively measure the effect of man's creative activity in developing the planet? How does this serve to help us overthrow the fraudulent assumption that monetary profit invariably equals positive economic value?

Topics include: Vernadsky's Noosphere; dynamic systems; potential relative population density; infrastructure

Suggested Reading:

V. I. Vernadsky, [Scientific Thought and Scientific Work as a Geological Force in the Biosphere](#), Ch. 1

LaRouche, Lyndon H., "Vernadsky and Dirichlet's Principle" [http://www.larouchepub.com/lar/2005/3222vernad\\_dirichlet.html](http://www.larouchepub.com/lar/2005/3222vernad_dirichlet.html)

LaRouche, Lyndon H., "What is an Economic 'System'? Dynamics and Economy", [http://larouchepub.com/lar/2006/3334dynamics\\_n\\_econ.html](http://larouchepub.com/lar/2006/3334dynamics_n_econ.html)

LaRouche, Lyndon H., "The Philosophy of Victory; Can We Change the

Universe?", The Economics of the Noosphere, EIR, 2001

LaRouche, Lyndon H., So You Wish To Learn Economics?, Ch. 2, "Potential Relative Population Density"

LaRouche, Lyndon H., "The Project Before Us", [www.LaRouchePAC.com](http://www.LaRouchePAC.com)

### **Week Three -- Power and Anti-Entropy 2/14/09**

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So how does one go about measuring potential relative population density? We begin by examining Man's ability to act in the universe. How does one measure the potential to accomplish work? This will be a topic that will come up repeatedly throughout the series and will be developed upon. Class will involve some hands-on work!

Topics include: Leibniz's Specimen Dynamicum; sources of power; early machinery; energy-flux density

Suggested Readings:

LaRouche So You Wish To Learn All About Economics?, Ch. 1, "Leibniz's Approach to Economic Science"

Leibniz "Discourse on Metaphysics"

Leibniz "Specimen Dynamicum"

Leibniz "Preliminary Specimen"

### **Week Four -- The American System of Economics 2/21/09**

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By 1876, we, in the United States had transformed ourselves into the world's leading agro-industrial power, only one hundred years after declaring the end of our status as merely being the raw-material providers for the British Empire, thirteen undeveloped economies huddled on the coast of North America. We were now a continental nation, united by Lincoln's Transcontinental Railroad. The world asked then, and we will ask now, what system of political economy made it possible for this young nation to surpass, by far, the economic power and position of the formidable and ubiquitous British Empire in less than one short century, in only four generations?

Suggested Reading:

Michael Kirsch, "Hamilton Counsels Congress: Rediscover Your Powers"

<http://www.larouchepub.com/lym/2007/3406hamilton.html>

Hamilton, Alexander, "On the Subject of Manufactures"

Leibniz, G.W., "Society and Economy", Political Economy of the American

Revolution, p. 224

Carey, Matthew, (nom de plume "Publicola") Thirteen Essays on Manufacturing

List, Friedrich, Outlines of the American System of Political Economy, Letters 1-4

## **Week Five -- Credit System vs. Monetary System**      2/28/09

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Still believe in money? So do most so-called economists. However, this present crisis will only continue to crush the populations of all nations until the fundamental change from the present monetary system to a credit system has been implemented. The Credit System as first implemented under the genius of the United States' first Treasury Secretary Alexander Hamilton, introduced a revolutionary concept of the time in an economic system. Rather than being confined to the limitations imposed by group of financiers willing to finance a government's outlays, Hamilton unfolded the implications of the General Welfare Clause as a basis for the power of Congress to *generate* credit. It was to these powers elaborated by Hamilton, which Roosevelt looked to in order to revive a suffering nation. As WWII was coming to a close, Roosevelt sought not only to strengthen these principles in the United States, but extend the benefits of these principles out into the developing world in the form of his Bretton Woods System, as opposed to the British sabotage attempted by J. M. Keynes.

### Suggested Reading:

Hamilton, Alexander, "On Public Credit" Political Economy of the American Revolution p. 344

Hamilton, Alexander, "On National Banking" Political Economy of the American Revolution p. 355

Franklin, Benjamin, "A Modest Inquiry into the Nature and Necessity of Paper Currency" *op. cit.* P.E.A.R., p. 247

Carey, Henry C., The Credit System

Carey, Henry C., "Money", The Civil War & the American System, pp. 95-121

LaRouche, Lyndon H., "The Truth Of Bretton Woods Lies in Physical Science", <http://www.larouchepac.com/node/12036/pdf>

LaRouche, Lyndon H., "Deficits as Capital Gains: How to Capitalize a Recovery", [http://larouchepub.com/eiw/public/2006/2006\\_1-9/2006-4/pdf/04-40\\_60\\_4\\_feat.pdf](http://larouchepub.com/eiw/public/2006/2006_1-9/2006-4/pdf/04-40_60_4_feat.pdf)

LaRouche, Lyndon H., "The Lost Art of the Capital Budget", [http://larouchepub.com/lar/2007/3402art\\_capital\\_bdgt.html](http://larouchepub.com/lar/2007/3402art_capital_bdgt.html)

## **Week Six -- Introducing a New Principle: Meet Heat-Powered Machinery 3/7/09**

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How does the introduction of a new principle of action propagate itself through economic space? What is the effect of a new principle on the productive powers of labor? What types of changes in capital intensity will be undergone? What about productivity? How does the landscape of economic value transform? We will attempt to answer some of these questions by examining the introduction of heat-powered machinery into the economy.

Topics: heat-powered machinery; productivity; capital-intensity; thermodynamics; steam technologies.

Suggested Reading:

Carnot, Sadi "Reflections on the Motive Power of Heat"

Valenti, Phil. "Leibniz, Papin, and the Steam Engine", [http://www.21stcenturysciencetech.com/Articles%202008/papin\\_steam\\_engine.pdf](http://www.21stcenturysciencetech.com/Articles%202008/papin_steam_engine.pdf)

LaRouche, Lyndon H., "Science: The Power to Prosper", [http://larouchepub.com/lar/2005/3217science\\_prosper.html](http://larouchepub.com/lar/2005/3217science_prosper.html)

## **Week Seven -- The "Potential Field" of Basic Economic Infrastructure 3/14/09**

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In the previous mercantile system, control of infrastructure was looked upon as a means of controlling commerce. However, infrastructure under the American System took on an entirely new role in an economy. In this class we will examine the questions: What is infrastructure? How does infrastructure effect the productivity of a society? Under the American System, what role does government play in conceptualizing, constructing, and maintaining infrastructure in a nation? What about internationally?

Topics: basic economic infrastructure; economic potential; capital budgeting

Suggested Reading:

LaRouche, Lyndon H., "Travel Among Cities",

[http://larouchepub.com/eiw/public/2006/2006\\_1-9/2006-4/pdf/04-40\\_604\\_feat.pdf](http://larouchepub.com/eiw/public/2006/2006_1-9/2006-4/pdf/04-40_604_feat.pdf)

LaRouche, Lyndon H., "What is Infrastructure?",

<http://larouchepub.com/lar/2005/3214infrastructure.html>

LaRouche, Lyndon H., "Powers Are Always Universal: Cauchy's Infamous Fraud", [http://larouchepub.com/lar/2005/3213cauchy\\_fraud.html](http://larouchepub.com/lar/2005/3213cauchy_fraud.html)

LaRouche, Lyndon H., [So You Wish To Learn All About Economics?](#), Chp. 9,  
"Basic Economic Infrastructure"

*[Submit proposals for independent research projects.]*

## **Week Eight -- Case Study: Roosevelt's Economic Shock Wave 3/21/09**

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Equipped with the insights gained during the foregoing weeks, review the previously published case study by the LaRouche Youth Movement on the subject of FDR's Rural Electrification Administration. Use this as a model for our forthcoming case studies to be researched and published on other great projects from the economic history of the United States. This should also lay the groundwork for beginning to think in terms of gaining the capability to forecast the dynamic effects of future great projects, like continental networks of mag-lev rail, a nuclear renaissance, Mars colonization, and more!

Suggested Reading:

Shields, Sky. "Franklin Roosevelt's Economic Shock Front" <http://www.21stcenturysciencetech.com/Articles%202005/Riemann.pdf>

Los Angeles LYM, Panel on Shockwaves:

Part 1: <http://wlym.com/video/20050221-shockwaves-1.mkv>

Part 2: <http://wlym.com/video/20050221-shockwaves-2.mkv>

Part 3: <http://wlym.com/video/20050221-shockwaves-3.mkv>

## **Week Nine -- 3/28/09**

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Independent Research Week

## **Week Ten -- Case Study: Prometheus' Spark 4/4/09**

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Benjamin Franklin "stole the scepter from the tyrants and the fire from the gods" earning him the name, the "American Prometheus". The possibility of Roosevelt's Rural Electrification project would never have existed without the discoveries of Benjamin Franklin. The case is likewise with many of the other technological transformations which the United States underwent during our economic history. One of these crucial technological transformations came with the advent of the electric motor, the use of which in factories to power the machines, which previously depended on belt-driven power, created a dramatic increase in productivity and output, for some reasons which

one wouldn't initially expect! We will engage in an presentation of this investigation as another case study, applying the concepts discussed in previous classes to construct a thorough physical economic analysis of the dynamic effects of this technological transformation.

Topics Include: Electricity; Electric Motor: Belts vs Wires; potential (electric and economic);

Suggested Reading:

Franklin, Benjamin. Electricity Experiments.

Aeschylus, Prometheus Bound

LaRouche, Lyndon H., "On The Subject of Tariffs and Trade",

[http://www.larouchepub.com/lar/2004/3106tariffs\\_trade.html](http://www.larouchepub.com/lar/2004/3106tariffs_trade.html)

LaRouche, Lyndon H., "Animations and Economics"

[http://www.larouchepub.com/lar/2004/3144\\_animation\\_and\\_eco.html](http://www.larouchepub.com/lar/2004/3144_animation_and_eco.html)

LaRouche, Lyndon H., "Economy and Creativity",

[http://www.larouchepub.com/lar/2008/3541economy\\_creativity.html](http://www.larouchepub.com/lar/2008/3541economy_creativity.html)

LaRouche, Lyndon H., "On Academician Lvov's Warning; What is 'Primitive Accumulation'?", Section 2, [http://www.larouchepub.com/lar/2001/2831\\_lvov.html](http://www.larouchepub.com/lar/2001/2831_lvov.html)

## **Week Eleven -- A New Classical Humanist Renaissance 4/11/09**

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*"Every new-born human mind is endowed from birth with a potential expressed as a quality of creativity not existing in any lower form of life. No matter how bestialized a population may become, the potential lurks on, like a leopard disposed to pounce, when a certain kind of prompting occurs. The quality of creativity, until it were virtually crushed out of existence by bestialization, is a more or less resonant quality within a population, varying in degree and choices of thresholds for its eruption, according to culture and to the development of the individual within that culture. Thus, according to a certain kind of principle of resonance, it is awakened despite any want of such intention a moment before. It comes awake as a sleeping man does when alarmed to wakefulness; it recognizes the object which has disturbed its slumbers, and acts more or less accordingly."*

- L. H. LaRouche, 12/7/08

Still missing from our picture of the interacting principles of physical economics, is an explicit statement of the critical aspect of culture. As we face the looming threat of a plunge into a global dark age which will be brought on if the present financial/economic crisis is not met with policies crafted upon the principles we have heretofore studied and discussed, we must remember mankind's miraculous rebirth during the great 15th Century Renaissance. It is this historical moment which we observe in the graph of human population when this curve takes its first dramatically sharp turn towards the positive. What power created this increase? Is any science of

economics complete without the discovery of that principle? When mankind is faced with such frightening prospects if we do not solve our great crisis, we ask ourselves, how may we invoke this "Renaissance Principle" today?

## **Week Twelve -- Creativity and the Immortality of the Soul 4/17-4/19/09**

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What is the nature of the Soul such that Man is capable of "communicating and receiving profound and impassioned conceptions respecting man and nature" across generations? This weekend we will embark upon a living experience of this most crucial element of human economy.

MORE DETAILS TO BE ANNOUNCED

Suggested Reading:

Shelley, Percy B. "A Defence of Poetry"

Kepler, Johannes. "Harmony of the World", Book IV, Chp 1-4

Schiff, Andras, Lectures: Beethoven Sonatas, Guardian Unlimited

<http://music.guardian.co.uk/classical/page/0,,1943867,00.html>

Shields, Sky. "A Report from the Basement Team: Human Creative Reason as a Fundamental Principle in Physics"

[http://larouchepub.com/lym/2008/3541reason\\_principle\\_physics.html](http://larouchepub.com/lym/2008/3541reason_principle_physics.html)

LYM "Basement" Website, [www.wlym.com](http://www.wlym.com)