

same subject-matter, in comparing the work of the ancient Egyptians and their immediate successors, the Classical Greeks of Plato's Academy through Eratosthenes and his contemporary Archimedes, the emergence of science, and its correlation with increase of humanity's potential relative population-density, form a discernable, and fascinating pattern, leading into the Nineteenth Century further development and application of Lazare Carnot's machine-tool principle.

Summarily, the result is this. When we think that we have resolved an ontological paradox, by discovery of some new physical principle, we are obliged, in the closing words of Riemann's habilitation dissertation, to depart the domain of mathematics as such, for "the domain of another science, the domain of physics," experimental physics. For two reasons, we are obliged to construct something in the nature of a special experimental apparatus. We have two objectives. Our most general objective, is to demonstrate that the new principle we have discovered, is actually indispensable to account for some measurable, undeniable effect, an effect demonstrated to be as pervasive as the discovery implicitly requires. Our associated objective, is to measure the change in characteristic of action in the newly defined physical domain, as compared to the characteristic of action in the previously defined domain.

In general, progress respecting scientific principle, results in what is demonstrably a potentially increased power over nature, per capita. The object is, both to realize that potential in social practice, and also to accelerate the rate of realized scientific progress to such a degree that a certain, general physical-economic constraint is satisfied. The constraint is, that the ratio of physical-economic "free energy" to "energy of the system," for the society as a whole, must be positive and tend to increase, despite the fact that to achieve this progress, the relative physical-economic "energy of the system" must be increased, both per capita and per square kilometer of the planet's surface-area. In other words, the rate of realized scientific progress must be accelerated to the degree that this constraint is satisfied.

This requirement places the emphasis upon the subjective consideration: the relevant development and activity of the cognitive processes of the individual mind. The development of that potential is accomplished by a certain policy of educational practice. The principle of such education and related cultural nurture, is that each young person must relive the cognitive act of original discovery of the most essential, validated physical principles and Classical-artistic conceptions of all humanity to date. The individual so educated, simultaneously embodies that accumulated wealth of history, and, by this means, has trained and honed the cognitive powers to a very high level of potency.

Thus, the association of the educational institutions with fundamental progress in science and Classical art-forms, is the natural center of activity of a well organized culture. If we couple fundamental scientific progress (e.g., discovery of principle and experimental validation of those discoveries)

with such forms of educational activity, we have thus mobilized the younger generations to assimilate and to drive forward the process of scientific, technological, and artistic progress at the relatively highest rates.

The machine-tool-design principle occupies a crucial position in the processes of self-development of such a society. That is, the refined form of apparatus developed for proof-of-principle experiments, is a model for the application of the proven principle in the forms of new designs of products, and improved designs of productive processes.

The point is illustrated by the role of military and aerospace "crash programs," as drivers of economic progress of economies as entreties. We should be startled by the fact, that the production of products which appears to be economic waste (as military expenditures are), can nonetheless increase the wealth and productivity of that society; and this is a paradox well worth examining. Distinguish the benefits of not losing a war, from economic benefits otherwise. How can the production of economic waste increase the wealth of an economy as a whole? The effective product, in such cases, is not the objects produced, but the proliferation of more advanced technologies into those regions of production whose output is economically useful.

For example, the ideal technology driver is a "crash" space program. How does wealth sent out into nearby space, as to the Moon or Mars, benefit us on Earth? The wealth obtained lies not in the objects sent into space, but in the high rate of advancement in technology, supplied, as a by-product of space programs, to the civilian sector of the economy. The

Russian press features the LaRouche alternative

The Moscow weekly *Ekonomicheskaya Gazeta* reported LaRouche's forecast of a March financial crisis, and his discussion of the need for a New Bretton Woods, in two articles in March.

First, on March 11, under the headline "Will It Crash at the End of March?" the journal excerpts from LaRouche's March 4 radio interview with "EIR Talks," in which he points to the "very interesting situation" around the April meeting of 22 countries to discuss the world financial crisis, under circumstances where "the countries of Southeast and East Asia are now in the process of disintegrating." "Real earthquakes" are likely by the end of March, LaRouche said.

Ekonomicheskaya Gazeta, identifying LaRouche as "an opponent of G. Soros," quotes him on the importance of the U.S.-China relationship for organizing the forces to avert "a new Dark Age," and on the coming implosion of

practical problem is to ensure that that connection functions, that the civilian sector is delivered and utilizes such technological progress at the relatively highest rates.

In sum, there is no “long wave” effect, in the sense that Kondratieff argues. Sometimes, external considerations may cause us to think we see such a “long wave,” more or less as some people used to think they saw the face of a man in the Moon. In other words, there is no necessary phase of decline to follow an ascending phase. There is no principle in physical economy which requires society to experience either business cycles or long waves in technology. The actual cause of the business cycle, or apparent long-wave phenomenon, lies outside the n-fold sub-manifold, in dysfunctions located within the m-fold sub-manifold. Under proper policies of education and realization of discoveries, the rate of output per capita may be always upward; any failure to perform so, is a matter entirely located in pathologies of the social and political systems.

A wise ruler sent for a great philosopher, to discover how the terrible condition of his economy might be remedied. The philosopher informed the ruler: “The first step is, that your government must retire, and be replaced by a more suitable one.” The wise ruler asked the philosopher, how they might collaborate to find and install that more suitable government.

The business cycle

The reason for business cycles ought to be so obvious, that anyone with a slight good knowledge of history could

correctly identify the problem immediately. The difficulty is, that it is risky to speak loudly of the obvious causes of a family’s hunger, as the relevant armed bandits are devouring the household’s food in the kitchen.

The distinctive political significance of Christianity, is that Christ and his Apostles, for the first time, identified all men and women as made in the image of the Creator, and that with no allowance for racial or other ethnic discrimination. Nonetheless, it was not until the late Fifteenth Century that there was established, in Europe, the first nation-state premised upon that principle of equality. Prior to that time, through all known history, the world was dominated by empires of one sort or another. Through the existence of European feudalism, approximately ninety-five percent of the human population existed as virtual human cattle, at the pleasure of a relatively small ruling oligarchy and its attached bands of lackeys. Under these regimes, the oligarchy chose as elected or hereditary ruler, a personality with the authorities of an emperor, from whose capricious will law flowed, tempered only by a cautious regard for the accepted customs of the subject varieties of human cattle.

This ugly condition of Mediterranean society was dominated, from the time of ancient Akkadia, by two principal types of oligarchies: a landed aristocracy, and a financier oligarchy. These oligarchies, acting largely through permanent bureaucracies, exerted virtually absolute power over the masses of people whose existence was essentially that of human cattle.

With the emergence of the original pilot-model of modern

the derivatives bubble.

The subsequent issue, that of March 18, carries excerpts from LaRouche’s article, “Russian Science: A Strategic Assessment,” which first appeared in *EIR* of Aug. 8, 1997. The translated sections deal with the measurement of physical economy’s “market baskets,” “crash program” principle of science as the driver of an economy, the importance of advanced aerospace programs for economic reconstruction today, and the great benefits for Russia’s science-intensive industry, of producing for Eurasian development.

A polemical introduction is provided by Prof. Taras Muranivsky, under the headline, “Alternative to Monetarism.” It begins:

“The words of Premier Viktor Chernomyrdin about the Russian government’s adherence to monetarism, broadcast to the entire world on Central Television, are still fresh in our memory. In his report to the Feb. 26 government session, he declared that the government, despite criticism, is following monetarism, but just not doing so very well, ‘That means,’ the premier stressed, ‘that we will see our “just monetarist cause” through to the end.’ ”

Muranivsky points out that the latest accomplishment

of Russian monetarism, is the legalization of prostitution in Saratov Province, as a source of “national income.”

“Among the Western critics of this flawed ideology, which parasitizes on the body of the economy, the role and influence of the well-known American economist, politician, and thinker, Lyndon LaRouche, should be specially noted. . . . LaRouche’s scientific works, including those translated into Russian, provide a ‘ray of light,’ cutting through the murky stream of foreign publications and videos, flooding the Russian information market.”

Muranivsky attacks current economics textbooks in Russian as one long apology for greed, as “theoretical justification” for the principle that “the market has no conscience.” LaRouche, by contrast, insists that economics is man’s relationship to nature, to the universe. “It is mankind’s ability to survive. It is life expectancy, the cultural conditions for life, it is science, Classical art, a high level of intellectual culture.” He urges that “LaRouche’s works will be of interest and use, to people from various schools and tendencies, who are interested in restoring the Russian economy, which has been destroyed by the implemented ‘reforms.’ ”