

On the Subject of Tariffs and Trade

by Lyndon H. LaRouche, Jr.

January 12, 2004

During 1959-60, I began warning, as an economist, that if the policies associated with Arthur Burns were continued deep into the 1960s, we must expect a series of crises in the existing monetary system during the second half of that decade. I warned, that if those policies were continued, despite the warning-shots of these monetary crises, there would be a general collapse of the existing Bretton Woods system. President John F. Kennedy threatened to correct those erroneous policies; the 1962 missile crisis, his assassination, and the official Indo-China war which his assassination made possible, ensured that the economic trends against which I had warned in (admittedly) reports of limited circulation, would continue. Whether my voice were much heard or not at that time, the decision was made, in effect, and the consequences which I had foreseen followed.

These warnings had been made initially within limited circles, but came increasingly to public attention during the 1966-67 interval, especially in the aftermath of the successive shocks of the Autumn 1967 crisis of British Sterling and the ensuing, January-March 1968 crisis of the U.S. dollar.

The general collapse of the Bretton Woods system, against which I had warned, occurred between the August 15-16, 1971 collapse of the system by the hand of President Richard Nixon, and that 1972 Azores monetary conference which set the presently doomed floating-exchange-rate monetary system into operation. The 1971 crack, which virtually all other economists and textbooks said was impossible under the reign of existing "built-in stabilizers," defined me as a political form of intellectual force with which the establishment had to reckon. They "reckoned" that they should be rid of me as quickly as possible, before the effects of my earned credibility would bring me into a position of greater political influence than they considered tolerable.

At that time, I warned that if we failed to learn the lesson of this 1966-1972



Fundamental to LaRouche's shift in economic policy is some \$6 trillion in credits generated for modern economic infrastructure. The "world land-bridge" transport corridors including new high-speed and maglev rail lines, shown above, show the overall mission in which American infrastructure investment will take place. Such a shift requires a monetary reorganization to get rid of the speculative global casino floating-exchange-rate system. LaRouche would restore the best features of the fixed-exchange-rate system inaugurated by Roosevelt at the Bretton Woods, New Hampshire conference of 1944.

experience, the world would be lurching in the direction of new threats of fascist insurgency, like the fascist insurgencies of 1922-1945.

Now, we are in the grip of the terminal phase of a general collapse of the existing world monetary-financial system. As I warned, we are also gripped by the threat of a general fascist insurgency, as merely typified by the impact of U.S. Vice-President Cheney's revival of a strategic doctrine of "preventive nuclear warfare," and a Nazi-like replacement of the traditional military forces and doctrine of modern civilization, by a military doctrine echoing the Roman imperial legions and the Nazi intent to establish a world-reigning international Waffen-SS.

The process which has brought us to this point, since the onset of the official U.S. war in Indo-China, has had the character of a long-wave cultural-paradigm shift, a cultural change which erupted as the mid-1960s "rock-drug-sex counterculture" and the related phenomena of the 68ers and so-called "post-industrial" faddisms. Since 1971-72, there has been a systemic uprooting and destruction of the institutions upon which both U.S. recovery from the Coolidge-Hoover depression and Europe's recovery from the ruin of World War II, had depended.

During this period, from 1971 to the present, I have

warned of the need to resist this cultural-paradigm shift.

Those warnings have been accompanied by long-range economic forecasts which have always proved accurate estimates of the nature and timing of new critical developments in the economic-monetary system. Those warnings, repeatedly vindicated, were shrugged off. Now, the accumulated effects of that against which I had warned, have doomed the present world monetary-financial system.

This means, that either my warnings are accepted in relevant ways now, or our civilization generally is faced with the likely prospect of a relatively immediate plunge into what will emerge as a generalized, planetary new dark age.

Therefore, the subject of this report, is certain urgently needed, radically new policies, respecting the regulation of tariffs and trade. These will be a crucial part of the changes, in our nation's thinking and practice, which must be made soon, if there is to be any realistic hope of a durable reversal of the presently inevitable, and early bankruptcy of the U.S. economy. This collapse, unless reversed by an early turn to the philosophy of practice of President Franklin Roosevelt in comparable circumstances, would mean a collapse of the present world monetary-financial/economic system into a relatively much deeper trough than during 1928-1933.

Despite the repeatedly fraudulent figures crafted by

Chairmen Paul Volcker's and Alan Greenspan's Federal Reserve System, there is no possibility of recovery from the presently onrushing general depression, unless we, throughout the course of the coming four years, stimulate national economic growth with a relatively vast shift of national policy, away from financial-market speculation, back to new medium- to long-term capital investment in employment for production of basic economic infrastructure, and other useful physical goods. This recovery program must include investment in basic economic infrastructure, in the order of no less than \$6 trillions of today's valuations for the years immediately ahead. This newly created Federal long-term credit, must be used both to raise the level and quality of employment of the labor-force.

In this way, by these measures, we shall raise the level of real income of the nation and states above the level of break-even, and create an even vaster amount of new long-term capital investment in both new economic infrastructure and new technologies.

However, under the presently disastrous world financial situation, even that kind of recovery effort would fail, unless the world's presently bankrupt, floating-exchange-rate monetary-financial system, were replaced by a return to that model of the fixed-exchange-rate system which was launched at the original, war-time Bretton Woods conference. This new, Bretton-Woods form of fixed-exchange-rate system, must include a long-term commitment to continuation of such policies, over a span of two coming generations, under basic long-term-credit terms of between 1 and 2% simple-interest rates.

Most crucial of all the changes needed, if the U.S. economy is to survive the presently onrushing catastrophe, is a deep-going, sweeping change in the way of thinking, away from the trends of the recent forty years, back to that world-outlook expressed by President Franklin Roosevelt, upon which the U.S. recovery had depended for recovery from the effects of the Coolidge and Hoover administrations' follies. Our survival as a nation will now depend upon the willingness of the majority of our people, and our institutions of government, to reverse the trend into the predominant, so-called "post-industrial" ideologies of the "Baby Boomer" and "Generation X" generations of the U.S.A., Canada, and western Europe today. We must turn away from those foolish ideologies which have brought us to ruin today, and turn back to what had been the traditional, successful policies of the Roosevelt-led recovery from the last great, world-wide depression.

This investment by initiative of governments, which I have continued to propose, must be typified, largely, in such categories of U.S. investment in basic economic infrastructure as a.) generation and distribution of power; b.) large-scale water management, and related "environmental" programs; c.) mass transport, chiefly rail, maglev, and new air-ground transport systems; d.) health-care facilities and related systems; e.) educational systems installations; f.) a space-

oriented science-driver program; and g.) reformed modes of urban infrastructure. Like the TVA project under President Franklin Roosevelt, these investments will be associated with investment cycles of initial financial maturities of from a quarter to half a century.

These categories of long-term investment in basic economic infrastructure, will be used as the principal new stimulant for expansion and technological upgrading of expanded employment within private entrepreneurship.

The question implicitly posed is, therefore: what might be the foreseeable likelihood, that the new issues of financial capital investment might be diverted largely into wasteful financial speculation, diverted into waste like that we have seen under the Presidents we have enjoyed during the preceding three-and-a-half decades? We must not send new capital down the same economic toilet-bowl into which vast amounts of previously invested financial capital has been dumped by our economy under those misguided administrations.

Therefore, we must pose the following question bearing on needed changes in policies respecting tariffs and trade.

On what premises might we honestly assure both government and private investors, that the financing of economic recovery during the relatively short-term, will not be diverted from the purpose stipulated above, into a long-term, bottomless rabbit-hole of "free trade," like that into which we have been sent, by the policy-making of government and others, during the recent four decades: four decades of shift of U.S. national policy, away from having been the world's greatest producer nation, into becoming today's intrinsically bankrupt, parasitical nation of "bread and circuses" life-style pursuits?¹

For discussion of that subject, we must situate the arguments within the context of implementation of the "New Bretton Woods" system of fixed exchange-rates, a system which must supersede the world's presently, hopelessly bankrupt, floating-exchange-rate, monetary-financial system. Our subject here is, therefore, as I shall explain, the, unfortunately little understood, crucial roles of medium- to long-term sets of relatively fixed standards of tariffs and trade agreements within the process of a general recovery of the U.S.A.'s—and the world's—present economy.

To situate that discussion itself, I shall take into account the following general problem of mental life, which is preva-

1. Secretary of Defense Robert Strange McNamara's Indo-China war was an expression of the utopian military-economic doctrine first launched, as the war-time strategic bombing of mass civilian targets, under Prime Minister Winston Churchill, and as a firestorming of Tokyo and nuclear bombing of such targets by President Harry S. Truman. This utopian doctrine was revived, by McNamara and others, in the aftermath of anti-utopian President Dwight Eisenhower's completion of his two terms in office. The assassination of President John F. Kennedy, enabled McNamara and others to reverse Kennedy's policy for withdrawing from Indo-China. That revived, mid-1960s war policy was the context in which the utopian economic policies leading into 1971-72 were set into motion during the closing weeks of 1964.

lent among both leading figures and ordinary citizens, in our nation and elsewhere, today. I launch that discussion with the following general observation, to which I shall return, to examine in some much needed depth, at a later point in this present report.

The Root of the Problem

The important remedies for this crisis, include a return to U.S. principles of tariffs and trade policies which were the prevalent doctrines of our republic's founders, policies which stood us in good stead when we returned to them repeatedly, as under President Franklin Roosevelt. Today, those policies, which are among the essential elements of any workable economic recovery from the presently onrushing collapse, are rather fiercely resisted. Were that resistance to prevail, our republic might not survive the coming several years of crisis in a recognizable form. This resistance, is as grave a threat to our republic's continued existence, as any other. Therefore, the roots of that resistance must be identified, if the republic is to be saved from the dangers menacing it today.

The leading political problem, which most leading political figures of our republic are most reluctant to address, is the popularity of axiomatic-like notions such as "free trade." Although, as the ruinous effects of NAFTA show, "free trade" is a principal cause of the ruin of our economy today, it is an issue which few political figures have the courage to address in an efficient way. "Free trade" has become deeply embedded in the most popular of the relevant academic and kindred sophistries of our time. Policy-shapers therefore prefer to seek remedies which do not offend that disease of contemporary sophistry, lest they go against the current majority of popular opinion.

Thus, as long as citizens demand simple, populist slogans as the basis for choices of policies, our republic were doomed. Unless the majority of our people can be taught to abandon that sophistry which is the popular opinion in favor of continuing "free trade" and related policies, this republic would not now long survive. Therefore all simplistic arguments bearing on policies of tariffs and trade, pro and con, must be tossed aside. Sophistry must be replaced by reason, however unpopular reason might appear to be these days.

In respect to my own personal role in these matters, the warnings and policies I have presented during nearly a half century have been affirmed by history to date. During more than three of those decades, since 1971-72, my arguments have been circulated widely, among leading national and international circles. Over the latter period, it must be said that my views have been proven correct, and those who opposed them wrong. When people in high positions refuse to learn proven relevant lessons of this importance, the ideology responsible for their stubbornness must be examined with the intent to uproot those sophistical opinions which have prevented those now richly validated remedies for our present crisis which have been postponed for so long.

Also, considering my position as, with Senator John Kerry, among the most likely surviving of the present candidates for the 2004 Democratic Presidential nomination, I have a corresponding, special form and degree of responsibility for publishing an account of the scientific and related premises of my policy-shaping. Whether all citizens fully understand the principles of my exemplary accomplishments in the field of economics, they have a right to have access to a careful account of the principles I employ in addressing the crucial policy-issues confronting our republic during the coming four to eight years. I take that responsibility into account here, accordingly.

We must therefore address the underpinnings of the issue of policies respecting tariffs and trade regulations. We must expose, and uproot the popularized sophistries which have sent our republic down so deep, for so many decades. We must poke into the minds of those who have adopted the relevant sophistries, as I act to educate what must become the leading policy-shapers associated with the next President of the U.S.A.

With rare, and precious exceptions, today's now-dominant generation of university-qualified economists and general public, alike, are pathetically ignorant of even the most elementary of the long-term physical principles of successful political economy. Under the present circumstances, of onrushing general collapse of the present, floating-exchange-rate, world monetary-financial system, that prevalent ignorance among even professionals, now represents a severe threat, a source of mortal danger to the continued existence of our own republic.

To quote from my recent remarks to a Mainz-Laubenheim (Germany) youth conference: in the matter of economics, today's typical U.S. citizen, whether of high or low academic ranking, is like one of a swarm of captive fish in a goldfish bowl, a bowl which, itself, is being carried, presently, toward the financial-cultural toilet where the contents of the fishbowl might be dumped.

The bowl which imprisons those captives so, is a delusion concerning the nature of both economy in general, and money in particular. That citizen is a victim of belief in a set of axiomatic-like assumptions which are false to reality, such as the dogma known as "free trade," a dogma in which he believes more or less devoutly. His beliefs are bounded by a set of such axiomatic, or axiom-like assumptions, which prompt him, or her, to deny any actuality which exists outside the bounds of consistency with his delusory assumptions.²

2. The typical member of the middle-income family of today, has become so obsessed with the idea of income from personal "financial portfolios," that he, or she tends to associate the notion of national economy with the actual or merely imagined yields which might be found on that grandest of all gambling casinos, known as "the financial markets." The popularity of legalized gambling among state governments, is a symptom of the widespread influence of this mental disease of "the magic of the marketplace." "What is happening on the markets?!" is the midday war-cry even among an astonish-



Chairman Greenspan remains in control

Chairman Alan Greenspan's "goldfish bowl" of economic-policy axioms shuts out the real world of the physical economy, which is being destroyed. The mental health problem strategically crucial to today's ongoing economic collapse, is that the citizen's "whole world" of economic thinking, is bounded by the goldfish bowl of free-trade axioms.

The trouble is, that the typical citizen views the opinions he, or she, derives from such axiom-like assumptions, as "practical." He, or she, therefore considers opinions contrary to those assumptions as "impractical," "only theoretical," or, perhaps what the sick-minded existentialist of today derides as "conspiracy theories."

So, the unwitting citizen's mind is imprisoned within a goldfish-bowl-like wall, in which that mind swims, as if refusing to accept the notion that anything really exists outside that wall, or, even the existence of that wall itself. Such a citizen, within his bowl of self-delusion, becomes, thus, comparable to the legendary lemming, running over the edge of the cliff to the rocks below, for the sake of "party unity," because he rejects the notion that it were socially unacceptable to act differently. However, usually, the man in the bowl does not actually run over the cliffs; rather, he lets his bowl of delusion carry him to his doom as if spontaneously. So, the world's most productive economy of 1963, has been transformed, over forty intervening years, into the disaster which acquired habit has produced for today.

I shall return to that strategically crucial problem of the mental health of the U.S. today, at a later point in this report, after I have lain the basis for that discussion, by, first, now,

ingly large ration of members of the U.S. Congress during deliberation on some important issue, such as U.S. national security! This is clearly comparable to the mass-insanity of the Eighteenth-Century John Law and South Sea Island bubbles which pauperized so many in France and England, or by Martin van Buren's Land Bank swindle of the period of the Andrew Jackson administration. Few of the Baby Boomers in those brackets can be fairly described as inhabited by their "right minds" where matters of income and life-style are considered.

identifying the way in which a "free trade" system, such as the present "floating-exchange-rate" monetary-financial system, destroys an economy by destroying those modes of capital investment on which continued prosperity depends.

1. The Notion of Capital

Forget what most among us today had been taught to believe that they knew about economics. Ignore what today's usual university-trained economist attempts to teach you about economics, even in face of the evidence that those teachings have led our nation into present conditions of virtual U.S. national bankruptcy. Instead of accepting such popularized delusions, think as a scientist should.

From the standpoint of any competent form of elementary business management practice, the notion of capital is associated with "stored up" costs of production. Two directly opposite notions of such capital, physical versus financial, exist. In today's widespread, disoriented state of mind, which has become commonplace among most economists, accountants, and the general public, it is assumed that capital is essentially of the form of financial holdings (which are, after all, only "paper," rather than being measured primarily, ontologically, in real, which is to say, physical, terms).

Real, physical capital includes improvements, such as those in basic economic infrastructure, which are a form of physical, rather than often delusory, fictitious notions of financial capital which are still widely popularized today. Otherwise, apart from such accounting fantasies as those, we may agree with that practice of most accounting which defines "current" as what might show up on the balance-sheet and profit-or-loss statements at the close of a fiscal year. Using a one-year cycle as a standard for comparisons, just as we use the same measure, the cycle of the Solar (or, Sidereal) year, as the comparative standard for astronomy, we have, then, the following relevant distinctions for our discussion here.

We must make the approximate distinctions among: short-term capital (that invested in the interval, often less than a year, between the start of production of a product and its purchase for consumption); medium-term capital (involving a cycle of investment, production, and consumption contained within a few years; and, long-term capital (such as machinery, plant, and equipment) whose life-cycle of investment may be as long as one to two generations (a quarter- to a half-century).

In all competent discussion of the role of capital in an economy, we start with the notion of physical capital, and compare cycles of growth and depletion, and trends so defined. We must contrast the actual, physical capital invested, to the money-value used for financial and cost accounting for those physical investments. This confronts us with the challenge of regulating financial values of capital to conform to the functional, rather than object-by-object notion of com-



"This role of sanity by government, is what is known as protectionism." But the unions and workers who demonstrated for steel tariffs in 2002 did not understand that the purpose of protection must be to develop investment in the productive technological power of the domestic economy, not just to substitute for imports.

parative financial valuation attached to physical values. The regulation of financial and monetary behavior, for the purpose of controlling the wild-eyed follies inhering in the irrational behavior often induced by blind religious faith in money, is the means, by which, despite delusions about money, we are enabled to foster a sane effect in the real, physical economy. This role of sanity by government, is what is known as "protectionism."

Two contrasted, but each valid ideas associated with the notion of a physical value of physical capital, must be compared:

First, we must replace the physical capital which is being used up. Second, we must take into account the additional effects of technological attrition. We must not merely replace worn-out capital; we must introduce the new, more advanced technology needed to overcome the backwardness caused by lack of technological improvements.

That pair of considerations obliges us to introduce the notion of physical-economic values as such, in the following way.

Gauss, Riemann, and Economy

On the subject of an economic science, as in the case of any branch of science, there is always a single, underlying, universal principle which properly defines the subject-matter. Without adherence to a valid such principle, there is no science, but no more than a sophist's mere opinion, as the latter fault is typical of the customary textbooks and classroom instruction on economics today.

As a matter of physical-scientific principle, the known basis for a science of economy is, as I shall indicate here, at least as ancient as the adult lifetimes of Athens' Solon and Plato; but, the existence of a true economy is a creation of modern European history, which dates from its beginning in

the founding of the first modern nation-states, Louis XI's France and Henry VII's England, during the late Fifteenth Century.

The underlying, fundamental principle of a science of economy, from whose application modern economy is derived, is the notion of "powers" (ancient Greek: *dynamis*) which Plato adopted, chiefly, from the work of the Pythagoreans. All of the important varieties of incompetent modern doctrines of political-economy, such as the empiricism of Locke, Mandeville, Quesnay, Adam Smith, and Jeremy Bentham, take the root of their intrinsic incompetence in either simply evading, or flatly denying the existence of the principle of "powers," as Euler and Lagrange, et al., have denied the actual existence of those *Leibnizian* universal physical principles which are higher in authority over the universe than any mere financial or other arithmetic.³

The presently onrushing collapse of the world's floating-exchange-rate monetary-financial system, is an example of the outcome of the most extreme kind of general incompetence in thinking about economics, as by most among the generation of those currently leading political and academic figures, who are typical victims of the "Baby Boomer" generation, who are currently either in their fifties, or entering their sixties. Recognition of that systemic incompetence, is key, as I shall show later in this report, for understanding the follies

3. Carl F. Gauss, *The Fundamental Theorem of Algebra* (1799), in *Carl Friedrich Gauss Werke*, Vol. III (Hildesheim, Germany: Georg Olms Verlag, 1981). The reference is to Leibniz's discovery of the fundamental principle of the perfectly infinitesimal calculus, the principle of universal physical least action. Leibniz's treatment of the implications of the catenary, as expressing a physical, rather than Cartesian geometry of space-time, is the underlying characteristic of the complex domain as conceived prior to the impact of the work of Gauss, Abel, and Riemann's attention to the implications of that work.

of much currently prevalent academic opinion on the subject of tariffs and trade.

What reductionists such as Leonhard Euler, Thomas Huxley, and Frederick Engels, or the far more radical reductionists Ernst Mach, Bertrand Russell, Norbert Wiener, and John von Neumann, never wished to understand, is that the human individual is neither a higher ape nor a form of non-life, such as a mere machine. That observation is the essential point of the argument to be made against the reductionists, the argument which Carl F. Gauss made against Euler, Lagrange, et al., in his 1799 *The Fundamental Theorem of Algebra*. There, he exposed the foolish blunders of Euler and Lagrange, on the particular subject of mathematical physics. The “complex domain” of mathematics, which Euler, Lagrange, and other empiricists had rejected, reflects man’s knowledge of those experimentally provable fundamental physical principles which are not perceived *directly* through the senses. Contrary to Euler and Lagrange, Johannes Kepler’s uniquely original discovery of universal gravitation is typical of principles knowable for mankind, which can not be known as objects directly through mere sense-perception.⁴

As I shall emphasize repeatedly here, and elsewhere—

4. The Twentieth-Century doctrine, that the human mind represents nothing more than a mechanical process, owes its current popularity chiefly to such devotees of the cult of Bertrand Russell’s *Principia Mathematica* as the Orwellian utopians Professor Norbert Wiener and John von Neumann. Notable are the Massachusetts Institute of Technology’s “Elmer Gantry’s” of the cult of “artificial intelligence,” Professors Marvin Minsky and Karl Korsch follower Noam Chomsky. Korsch, a leading Communist of the 1920s, was, together with Rudolf Carnap, a founder of that school of linguistics, and mentor of the Soviet Union’s Josef Stalin in the latter’s publication on the subject of linguistics. In 1938, Russell convened a meeting of his “Unification of the Sciences” project, which had been co-sponsored by Chicago University’s Robert M. Hutchins, at the site of the University of Pennsylvania. Participating were founders of the linguistics cult, Korsch and Carnap. One among the numerous notable outcomes of that meeting was the development of a school of linguistics, headed by Noam Chomsky’s sponsor, Professor Zellig Harris, at that university. Later, as an offshoot of the 1938 conference, the Josiah Macy, Jr. Foundation’s so-called “Cybernetics” project, the RLE, was set up at MIT, with Norbert Wiener the totemic figure, Chomsky and Minsky in residence, and former super-Communist Karl Korsch hovering like a familiar witch from a nearby location. However, the leading figure popularly featured in today’s accounts of the actual development of the cult-worship of “artificial intelligence,” has been John von Neumann, whose posthumously published *The Computer and the Brain* has been the principal reference for the spread of the relevant lunacy among the “science-affliction” and IT cult circles of today. The common feature of the problem, as from Euler through “neo-Cartesian” Chomsky, has been the radically reductionist conceit that all knowledge can be generated from the kernel of Lagrange’s defense of Euler’s misconception known as that doctrine of the alleged falsity of “imaginary numbers,” an empiricists’ dogma which Gauss demolished in his revolutionary, 31-page, 1799 statement of *The Fundamental Theorem of Algebra*. After Gauss, as buttressed by the work of such followers as Lejeune Dirichlet and Bernhard Riemann, and after the relevant discoveries of V.I. Vernadsky, the mathematical proof that the human mind represents a phase-space which is both above the abiotic domain of computers, and also above the biotic domain generally, must be considered as fully established among competent scientists.

respecting the case of the “goldfish bowl”—in the course of this report, Gauss’ 1799 argument against Euler, Lagrange, and the reductionists generally, reflects his recognition of the importance of an anti-Euclidean (also known as ante-Euclidean) physical geometry, as distinct from what is fairly described as merely a non-Euclidean geometry (e.g., those of Lobatchevsky and Bolyai).

No lower form of life, including the higher apes, let alone a mere digital computing device, is capable of discovering, and knowing a physical principle. This unique quality of the human species, sometimes called “Promethean” or “the Sublime,” defines the meaning of “spiritual” for physical science, including the science of physical economy. This is the empirically knowable, “Promethean,” or “Sublime” quality of the human social individual, on which is premised the notion of man and woman as made equally in the likeness of the Creator of the universe.

Therefore, this rigorously scientific notion of that special, immortal, spiritual nature of man, as distinct from lower forms of life, is the basis for what is known to competent theologians and historians as “natural law.” The principles of sovereignty, the general welfare (e.g., common good), and posterity, which are set forth, in the Preamble, as the fundamental principles of the U.S. Federal Constitution, are expressions typical of such natural law. All sound political-economy, and related statecraft, such as what Treasury Secretary Alexander Hamilton described as “The American System of political-economy,” is derived from the application of that body of natural law, as I summarize here those relevant crucial aspects of that matter bearing on the issues of regulation of tariffs and trade.

The discovery which Gauss presented in that 1799 paper, reflects those foundations of pre-Euclidean Greek mathematics, called “spherics,” which Thales, Pythagoras, Plato, et al., obtained from under the shadow of those remarkable astronomical instruments known as the Great Pyramids of ancient Egypt.

The relevant argument respecting economic science proceeds from that point, as follows.

Every experimentally validated universal physical principle corresponds to the discovery of some stubborn anomaly within the domain of sense-perceptual experience. Such anomalies reflect the fact, that the human individual’s sense-perceptual apparatus is a part of the mortal organism of the living individual. Therefore, our sense-perceptions are the footprint, not the foot itself, of the passage of the real universe, upon our biological sense-apparatus. The challenge to the human mind is to discover the principle which has generated the footprint.⁵ Gauss’ notion of the complex domain, as pre-

5. I.e., the *Geistesmasse* of Herbart and Riemann. Cf. *Bernard Riemanns Gesammelte Mathematische Werke*, H. Weber, ed. (New York: Dover Publications reprint edition, 1953); “Zur Psychologie und Metaphysik,” “Erkenntnistheoretische,” and “Naturphilosophie,” pp. 509-538. The concept of the notion of a universal physical principle as an object of supra-sensual knowledge (*Geistesmasse*), rather than merely a formal reductionist-mathe-

sented in opposition to reductionist fanatics such as Euler, Lagrange, et al., defines an approach to mathematical physics by means of which we are able to show a functional correlation between the sensed part of experimental experience and the unseen, but discovered principle, which controls the casting of the relevant shadow, the footprint.

Kepler's uniquely original, finely detailed discovery (1609) of such a principle of universal gravitation, is an historic example of this.

My own original discoveries of 1948-1953, within the context of Leibniz's original (1671-1716) discoveries in the science of physical economy, were initially developed by my viewing technological progress as the outcome of those discoveries of universal principle which are situated within the domain of that notion of irony which is defined otherwise, but to the same effect, according to the principles of Classical artistic composition.

In other words, I rejected the contemporary, popularized division of academic knowledge into what British author C.P. Snow identified as a division between "two cultures," physical science versus the arts.⁶ I recognized a Classical form of irony (e.g., metaphor most emphatically), if it were truly Classical irony, as the complement to the paradoxes which promote the birth of discovered physical principles. Physical science, as usually viewed, pertains to the implicitly direct relationship of the cognitive powers of the sovereign individual mind to the physical universe. Classical art, especially Classical artistic irony, references the same kind of individual cognitive powers, but for the case that the immediate subject is the social process, rather than the individual's ostensibly simpler, presumably direct relationship to the physical domain.⁷

I recognized, in a way re-enforced by my subsequent study of Riemann's argument, that it is in the social dimension of cognition, that the individual forms those ideas for practice which are valid universal principles of physical science.⁸ Hence, the relative uniqueness of my discovery on this point.

In the effort to give my own discoveries the "legs" needed for day-to-day, mathematical or quasi-mathematical practice, I revised my preceding discoveries, in 1953, in accord with Riemann's 1854 habilitation dissertation.

Hence, the application of Riemann's discoveries to my own original discovery: the so-called LaRouche-Riemann method. This method has proven itself to be not only the best tool for long-range economic forecasting, but virtually the only known competent, and only consistently successful such

mathematical generalization, is the underlying, applicable crux of Riemann's method, as applicable to a science of physical economy. Compare Riemann's notion of *Geistesmasse* to his references to a "Dirichlet's Principle."

6. C.P. Snow, *Two Cultures and the Scientific Revolution* (London and New York: Cambridge University Press, 1959; 1993 reprint).

7. I.e., Riemann's notion of *Geistesmasse*.

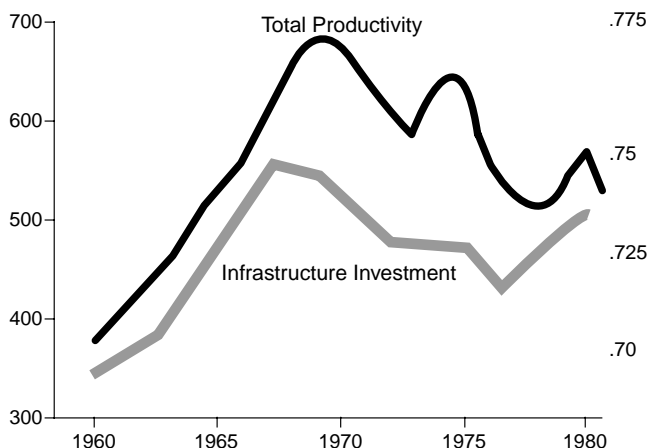
8. I.e., again, Riemann's notion of *Geistesmasse*.

FIGURE 1

U.S. Infrastructure Investment and Productivity, 1960-80

(1960 Constant \$ Millions)

(S/C+V)



Source: EIR.

Infrastructure generates productivity: A 1981 graph of the physical economy of the United States over the previous two decades, using the LaRouche-Riemann Economic Model, showed clearly the direct relation of investments in economic infrastructure, and the economy's real productivity measured the following year (economic surplus generated, S, as a ratio of capital and labor costs, C and V).

tool during the period of about four decades. The "goldfish bowl" pedagogical, treated within this present report, will illustrate the crucial point about my method of long-range forecasting.

Riemann's discoveries, most notably his 1854 habilitation dissertation and his treatment of Abelian functions, are the natural outgrowth of that general theory of curved surfaces which Gauss had developed from the seed of his attacks on Euler, Lagrange, et al., in his own, revolutionary, 1799 *The Fundamental Theorem of Algebra*.⁹

I say again, that the significance of these discoveries was already known, implicitly, to such pre-Euclidean Greek astronomers as Pythagoras, and also to Plato. Gauss' refer-

9. During the middle of the Eighteenth Century, Euler, then based at Berlin, joined with the scoundrel Maupertuis and others, in a rabid campaign against Leibniz's principle of an infinitesimal calculus, against Leibniz's discovery of a principle of universal physical least action. For as long as the great Moses Mendelssohn remained alive and active, the Berlin empiricist fanatics around Euler were cautious about attacking the great Platonist Mendelssohn and his friend, Abraham Kästner-sponsored Gotthold Lessing. When Euler left Berlin, leaving his pupil Lagrange in his place there, the emergence of Immanuel Kant's doctrines became the form of Romanticist corruption which expressed the psychosexual impotence of both Euler and Kant ("I Can't") in the Romantic mode popularized during the Nineteenth Century.

enced 1799 paper refers explicitly to that ancient, pre-Euclidean connection to the geometrical methods of the Pythagoreans and Plato. The case of the doubling of an axiomatic line, square, or cube, is the simplest illustration of the point made by the pre-Euclidean of Plato's time, and Gauss later. These three elementary cases of paradoxical doublings, as amplified by the construction of the Platonic solids, already define ontologically what Gauss presents as the complex domain.

In each case, the solution to the paradox is a principle which is invisible to sense-perception, but which corresponds to a willful human action by means of which the solution is generated, as by the action of construction.¹⁰ The most dramatic of these ancient solutions is, of course, Archytas' solution for the construction of the doubling of the cube, in which two successive mean actions are required. The typical modern example, is, I have already emphasized here, Kepler's uniquely original discovery of universal gravitation, as detailed, for example, in his 1609 *The New Astronomy*. Beyond the scope of Gauss' restatement of the three most elementary Pythagorean examples, is the construction of the Platonic solids, which serves Plato, as in his *Timaeus*, as demonstrating that physical space-time exists beyond the axiomatic bounds of a Euclidean (or, Cartesian) *aprioristic* geometry.

By such pre-Euclidean (e.g., pre-Aristotelean) geometries, we should intend what I have referenced above as what the Pythagoreans knew as "spherics."

Physical Astronomy

Looking up to the night-time sky, we find ourselves, as observers, within what must seem to be a spheroidal physical space-time of unknown diameter. In these observations, we know only angular displacements. Among these observations, we may distinguish anomalous angular motions, apparent motions which are not consistent with a simply regular spherical action: the equinoctial cycle, for example, known to the ancients long before the earliest known sign of civilization of a pre-Dravidian language-group culture called Sumer.¹¹ What are discovered include what Egypt's Great Pyramids attest to be very, very long cycles, which are adduced from study of apparently anomalous patterns not consistent with the attempt to read simply continuous motion into regular patterns of directly sense-perceived angular displacement.

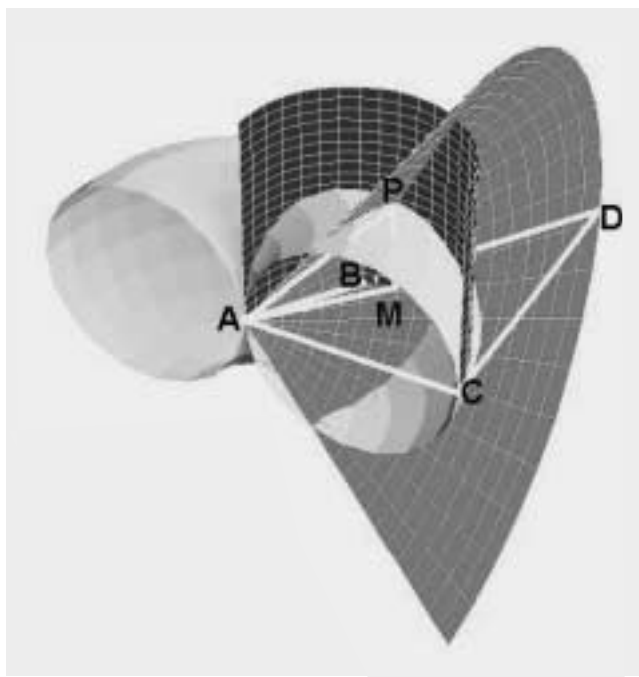
These invisible principles, which produce visible, experimentally proven expressions of universal cycles, or like anomalies, were known to the ancient Pythagoreans, and Plato, as "powers" (*dynamis*). Thus, to those ancient, pre-Euclidean Greeks and their relevant predecessors, no *apriori*

10. Hence, the notion of a "constructive" or "physical" geometry.

11. Cf. Bal Gangadhar Tilak, *Orion* (1893).

FIGURE 2

Archytas' Construction for Doubling The Volume Of A Cube



To double the volume of a given cube, one must find a length equal to what we call today the cube root of 2. Forget the calculator, can you construct it? Archytas, a contemporary and collaborator of Plato, was the first to show how. His solution requires the intersection of three surfaces. The solution is derived from the point P in the illustration, where the torus, cylinder, and cone intersect. Gauss's construction in the 1799 "Fundamental theorem of Algebra" paper also involves the intersection of three surfaces, and can be used to produce the double cube.

stic (i.e., so-called "self-evident") notions of definitions, axioms, and postulates are allowed in science. Only experimentally defined universal "powers" are permitted, in the place where reductionists have wrongly introduced arbitrary, fanciful definitions, axioms, and postulates.¹² Thus, Riemann's 1854 habilitation dissertation brings us, beyond Gauss, to a notion of a universe in which the only axiomatic characteristics of geometry are those powers which qualify as experimentally defined universal physical principles.

"Powers" so defined, are the absolutely exclusive basis in principle for any competent form of study of political economy. Such a political economy is, essentially, a science of physical economy. The relevant connections are, summarily, as follows.

Broadly stated, were man a species of higher ape, the

12. Riemann, habilitation dissertation, op. cit., pp. 272-273.

human population would never have much exceeded several millions living individuals. Today, we have a reported total in excess of six billions. Animals, including apes, can not acquire powers beyond what is implicitly in their relatively fixed, “genetic” dispositions. Thus, we measure the effect of the relative viability of a culture by measuring its estimated *potential relative population-density*. The gains in potential relative population-density are delimited by the accumulation of those powers *currently employed* as the repertory of that society. This is the required approximate measurement of the relative productive powers of labor of a given, current national culture, for example. The rate of discovery of such powers, and the rate of realized application of those discoveries, indicates the potential of that society for growth, and for recovery from man-made or other catastrophes.

So, the competent modern form of a science of physical economy is broadly defined as Riemannian. In place of fanciful, aprioristic definitions, axioms, and postulates, we allow only the notion of powers, and of changes in geometry of practice effected through employment of newly discovered, relevant powers. Such is a generalized notion of a Riemann surface as applicable to the domain of practice of a science of physical economy.

Now, examine the practical implications of this for shaping policies of nations. Start with the distinction between basic economic infrastructure and entrepreneurial-local action.

2. Basic Economic Infrastructure

The same levels of an individual’s skill will have different outcomes in different environments. The productivity of the individual, or individual entrepreneurship, exists within an environment determined not only by the technology employed, but by the relative level of development of the infrastructure in which that individuality operates. On this account, the current, “cross-sectional” state of economic progress of society, is determined by two leading considerations. First, the development of what is called basic economic infrastructure. Second, the degree to which the population is developed, and employed for its relative cognitive potential, rather than as virtual beasts of repetitive, relatively simpler forms of (“cheap”) labor.

Glance first at the second consideration.

What we know of the history of mankind, shows that until the revolutionary, Fifteenth-Century European Renaissance, the general, physical-economic characteristic of society, was a relatively smaller number of persons exploiting a larger number as virtual human cattle, either as wild cattle to be hunted down, or, as often enslaved, tamed, herded cattle, kept in flocks which are (usually) duly culled in a timely way. If fact, the latter were not less than human; they represented the individual’s potential for discovery and employment of

powers; however, in the main, their lives were regulated, by punitive and other measures, in such a way as to suppress the natural expression of the cognitive potential within them.¹³ They were, thus, bestialized in that degree.

Modern European civilization was born during the Fifteenth-Century Renaissance. This liberation from the medieval feudalism of the Venetian bankers and their Norman allies, was the result of a combination of actions. Most important among the positive features of the situation, was the included return to the Classical Christian humanism of the Platonic Greek tradition, the tradition of Christian Apostles such as John and Paul, combined with the related birth of modern experimental physical science, as the latter was typified then by the initiatives of Brunelleschi, Nicholas of Cusa, and Leonardo da Vinci. This Renaissance produced the founding of the first nation-states, Louis XI’s France and Henry VII’s England, committed to the notion of a *commonwealth*. Under that new form of nation-state, the legitimacy of government was conditional upon its efficient service in promotion of the common good of all of the population and its posterity (*agapē*).

Thus, the Fifteenth-Century Renaissance’s liberation of mankind from a “traditional” state, in which the majority of persons were treated as wild or herded human cattle, was the beginning of the modern form of sovereign nation-state, as typified, early, by the mission of Jeanne d’Arc, by Louis XI’s France and Henry VII’s and Sir Thomas More’s England. The notion of natural law, that government were not morally legitimate, unless it were efficiently committed to the promotion of the general welfare of all of the people and their posterity (*agapē*), is the founding distinction of modern political-

13. For example, after the close of the U.S. Civil War, many among those who had opposed chattel slavery, earlier, turned against the cultural policies of such as Frederick Douglass (development of the highest known powers of the human mind, is freedom of the soul, through which the freedom of the body may be won). They proposed that the mass of freed slaves not be educated above the level of their expected condition of employment. That is an obvious extreme; however, it should point our attention to a general travesty practiced widely in the name of both secondary and also higher education today. Similarly, when it became obvious that the wave of scientific and cultural progress unleashed by Europe’s Fifteenth-Century Renaissance could not be stopped entirely, Venice’s leading factions (both the old Sixteenth-Century faction, associated with Francesco Zorzi, the marriage-counsellor of England’s Henry VIII, and the so-called new faction of Venice, associated with Paolo Sarpi and his household lackey Galileo Galilei) resolved, to adapt to the unavoidable effects of the Renaissance, by adopting a certain stripped-down version of modern science (Venetian neo-Aristotelianism, neo-Ockhamite empiricism), but to ban forms of education which might be designed to foster knowledge of that principle of Platonic hypothesis on which valid forms of scientific progress depend more or less absolutely. Friedrich Schiller has described such reductionist forms of education as producing “*Brotgelehrte*” (not educated above the level needed to qualify to earn their bread). Such latter is the approximation of education, and popular entertainment selected for slaves, which predominant in U.S. educational policy of practice today, especially since the impact of the post-1963 “cultural-paradigm” down-shift on policies of secondary and higher education today.



Infrastructure is both science and art, both expression of the Sublime in human existence, and the means of increasing the general welfare and the human power over nature. The highest expression of the breakthroughs of the European Renaissance, was the U.S. Constitution which dedicated a nation, in perpetuity, to the general welfare of its citizens and their posterity.



economy, as distinct from, and opposed to both the Norman-Venetian *ultramontane* model,¹⁴ and the financier-interest-ruled Anglo-Dutch Liberals' Eighteenth/Nineteenth-Century, pro-imperialist parliamentary model, a model also known in Eighteenth-Century Europe as "The Venetian Party."

The crucial distinction of the U.S. 1776 Declaration of Independence, and the 1789 U.S. Federal Constitution's doctrine of natural law, as expressed by the Preamble, is the distilled prototype of the genius of the modern sovereign nation-state, and of modern political-economy. The establishment of the U.S.A. as the first modern constitutional republic,¹⁵ was a unique expression of that Renaissance heritage. President Franklin Roosevelt's defense of the general welfare against predatory oligarchical usury, was a reaffirmation of that character of the U.S. as a republic of unique distinctions.

However, during the recent four decades, most of the adult population of the Americas and Europe which came into maturity following 1963, has been relatively bestialized by the

transition of the U.S. from the world's leading producer economy, into the "post-industrial" decadence of "bread and entertainment circuses," a decadence echoing the tradition of ancient imperial Rome.

Similarly, the introduction of the radically neo-Lockean dogma of "shareholder value," as from the lips of the frankly fascistic U.S. Supreme Court Associate Justice Antonin Scalia,¹⁶ is an implicitly treasonous attempted transformation of the U.S., juridically, from a true republic to a society based on the subjugation of the lower eighty percentiles of family-income brackets to that systemically brutish corruption known today as "popular culture." The return, as by Scalia, from the principle of the general welfare, to the inherently predatory, neo-feudal doctrine of Lockean "shareholder value," is a signal expression of that corruption.

For reasons which I shall show here, the notion of basic economic infrastructure must be derived from the approach expressed as the historically determined features of what our republic's first Treasury Secretary, Alexander Hamilton described as "The American System of political-economy." Hamilton expressed the U.S. republic's scientifically grounded alternative to the academically popular, but pathetically failed, reductionist Anglo-Dutch Liberal parliamentary models of the British East India Company's Haileybury School. The latter are, notably, the "free trade" models which

14. The use of the term "ultramontane" to identify the anti-nation-state policies of the Venetian financier oligarchy and its ally the Norman chivalry, takes its origin from the fraudulent assertion that the authority of the Pope was the imperial law-making power conferred by a so-called "Donation" of such authority over western Europe by the Byzantine Roman Emperor Constantine. The imperialism of the Habsburgs/Hapsburgs, of the Eighteenth/Nineteenth-Century Anglo-Dutch Liberal model of financier (i.e., India Company) interest, and contemporary "free trade" and other "globalization" dogmas, is a continuation of the Venetian financier oligarchy's commitment to an ultramontane doctrine.

15. I.e., a form of society, a Presidential form of sovereign republic, freed of the form of the evils of both the neo-medieval Habsburg reign and the Venetian tradition of a financier-ruled, Eighteenth-Century Liberal model of parliamentary democracy.

16. What became known as "fascism" during the interval 1922-1945, was the outgrowth of the Romantic school of law, founded by Hegel and Savigny, who were enraptured to this effect by the model of the rise of Napoleon Bonaparte's tyranny. Scalia's doctrines of "text" and "shareholder value" combine that legacy, of Nazi Germany's Crown jurist, Carl Schmitt, with the unreconstructed, Lockean doctrine of the Preamble of the Confederate States of America.

Karl Marx praised as “the only scientific political-economy” of his time of studies under his British intelligence controller Urquhart at the British Library.¹⁷

The true history of today’s typical academic indoctrination in economics, shows that indoctrination has ill-served most of the world, as the generally accepted recipes for global catastrophes such as the world’s presently collapsing, “floating-exchange-rate,” monetary-financial system. Unfortunately, “Economics” as it is usually mistaught today, as that incompetence defended by most among the putative academic and other experts, is, as some say, “an altogether different kettle of fish,” as you shall now see in my following series of summaries on the underlying principles of basic economic infrastructure.

To Understand Our Hamlets

As Professors Minsky and Chomsky have shown, at MIT, it is possible to make a credible likeness of the behavior of an ape out of a man (even out of a pair of Professors), but to make a thinking man of out of an ape, is an impossible species-jump. The first law of infrastructure, which should be taught in every introduction to the subject of economics today, is that infrastructure is nothing less than the human species’ indispensable management of what V.I. Vernadsky defined as the Biosphere.¹⁸ Thus, the functional definition and analysis of infrastructure, is an expression of that quality of the human species which does not exist in any form of life except mankind. The difference that makes, is literally Earth-shaking, as I shall indicate in due course, at bit later, here below.

The concept involved in understanding that distinction, is older than Heraclitus’ “nothing is permanent except change.” By discovering the kind of added universal physical principles implicit in Gauss’ 1799 attack on the fraud of Euler, Lagrange, et al., man becomes capable of distinguish-

ing himself, practically, as a form of existence expressed by a principle of such quality of change. The fact that the universe not only tolerates, but obeys such progress by mankind, demonstrates, that this principle of change is a characteristic principle of the universe itself. That is the notion which underlies Plato’s *Parmenides* dialogue, as it also does Heraclitus’ famous aphorism. Man is the only known creature made in the image of the Creator of the universe, a universe which is not the fixed creation which the reductionists have assumed it to be, but a self-changing, self-developing universe, which develops in a way comparable to mankind’s change, through applied fundamental scientific progress, in mastery of that universe.¹⁹

The immediately foregoing considerations, lead us to the conclusion that any scientific notion of the roots and characteristics of the functions of basic economic infrastructure, must be derived from the concept of a mission-oriented *predetermination* of long-term investment in certain kinds of choices of investment in infrastructure. This sense of mission is aptly illustrated, if negatively, by the famous case of Shakespeare’s Hamlet. An understanding of the tragedy of Hamlet is a better choice of point of departure for discovering the principles of modern economy, contrary to all of the customary academic trash accumulated under the rubrics of Locke, Mandeville, Quesnay, Adam Smith, Jeremy Bentham, John von Neumann, et al.

Accordingly, what I have just stated, summarily, has several crucial practical implications for the design of the much-needed economic-recovery policy. One of those implications is the subject of Shakespeare’s *Hamlet*, notably the issue posed by Hamlet’s Third Act soliloquy. It was the crucial issue of that kingdom of Denmark; it is the same crucial issue in making a choice of President of the U.S.A. under the conditions of existential crisis facing this planet now.

Hamlet, the killer swordsman, is not frightened by dying, but by what might come after his death. So, he dies as a pathetic fool, taking his kingdom to disaster with him, not for fear of death, but fear of immortality. Review that soliloquy, this time thinking of any typical selection of candidates by the Fowler side of the Democratic Party, the side of National Chairman Terry McAuliffe. See the tragic Hamlet in the faces and conduct of even the relatively best of those candidates. Remember that this play was composed by a true genius, William Shakespeare, a true student-follower of Sir Thomas More’s inspiration, who thought like a great historian. What you hear from the lips of Shakespeare now, is no fanciful

17. Urquhart, a veteran British foreign-intelligence officer, was assigned, under his rival, former Jeremy “Principles of Morals & Legislation” Bentham protégé Lord Palmerston, to be seated at the British Library, where he served the British Foreign Office as corresponding secretary of Palmerston’s Giuseppe Mazzini-led “Young Europe” and “Young America.” It was through this channel, that Mazzini “Young Europe” asset Karl Marx was assisted in his studies of political-economy, under Urquhart’s personal guidance; and, it was Palmerston’s asset Mazzini who personally, publicly appointed Marx as leader of the newly founded “First International.” It is notable, for relevant contrast, that Marx’s father, Heinrich, had been among the supporters for the cause of the American Revolution, and that young Marx himself had completed his secondary school studies at Trier, Germany, under the famous Classical humanist, and scholar of the Brothers of the Common Life, J.H. Wytenbach. Later, Marx had gone over, after his adolescence in Trier, to the opposite side, of Hegelian and post-Hegelian Romanticism, and fell under the influence of the Bentham-Palmerston-Mazzini operations of the British Foreign Office. All this being extremely salutary enlightenment for our putatively anti-Marxist, Adam Smith-loving right-wingers of today, as for today’s typical, academically trained American and western European economists generally.

18. Lyndon H. LaRouche, Jr., *The Economics of the Noösphere* (Washington, D.C.: EIR News Service, 2001).

19. The reductionist, such as pathetic Immanuel Kant (“I Can’t”) is unable to solve the relevant ontological paradox. Contrary to the reductionist’s hysterical delusion, God (the Creator) can change Himself, that according to a principle of change which is His essential form of knowable existence (e.g., as *Geistesmasse*). Cf. Philo (“Judaus”) of Alexandria on the relevant incompetence and false theology of the Aristotelean heritage of Philo’s time. If the reductionist were not a gnostic, he would have recognized the nature of his error.

piece of mere entertainment, no concoction by the like of an Orson Welles, but a profound and true insight into one of the greatest principles of the known history of mankind.

“To be? *Or, not to be?* That is the question:
Whether ’tis nobler in the mind to suffer
The slings and arrows of outrageous fortune,
Or, to take arms against a sea of troubles,
And, by opposing, end them? To die? *To sleep*
No more: and by a *sleep* to say we end
The heart-ache, and the thousand natural shocks
That *flesh* is heir to? ’Tis a consummation,
Devoutly to be wished! To die: to sleep.
To sleep! perchance *to dream?* Ay, there’s the rub.
For in that sleep of death *what dreams may come,*
When we have shuffled off this mortal coil,
Must give us pause: there’s the respect
That makes calamity of *so long life.*
For who would bear the whips and scorns of time,
The oppressor’s wrong, the proud man’s contumely,
The pangs of despis’d love, the law’s delay,
The insolence of office, and the spurns
That patient merit of the unworthy takes,
When he might his quietus make
With a bare bodkin!? *Who* would fardels bear,
To grunt and sweat under a weary life,
But! that the dread of something *after* death,
The undiscovered country, from whose bourn
No traveller returns: Puzzles the will!
And makes us rather bear those ills we have
Than fly to others we know not of?
Thus, conscience doth make cowards of us all;
And, *thus,* the native hue of resolution
Is sicklied o’er *with the pale cast of thought;*
And enterprises of great pith and moment,
With this regard, their currents turn awry,
And *lose* the name of *action.*”

These candidates, even the relatively best, or, also, the least worst among them, have thus, so far, *lost* the capacity for name of *action* respecting those matters which are of life-death importance for our nation, our civilization today. They condemn themselves to relive the tragedy of Hamlet, perhaps even throughout eternity.

Take another dramatic lesson, this time the case of Jeanne d’Arc. Our included advantage in this choice for our reflections, is the essential dramatic agreement between the thoroughly studied facts of the case, and Friedrich Schiller’s insightful *Maid of Orleans*. The purpose here, is to emphasize the contrast between the tragic Hamlet and the Sublime Jeanne. She had a mission, which she refused to betray even at the price of being burned alive for that cause; a dedication which aroused France to the liberation which enthroned the first modern nation-state, that of Louis XI, and had also added

a crucial impulse to the great Fifteenth-Century Renaissance’s rebirth of the Papacy.

We all die. Life is a talent, like a penny to be spent; the trick is to spend it wisely, to spend it fruitfully for humanity. To be fruitful in the higher sense, is, as the Apostle Paul warns in his *I Corinthians* 13, not to pass a standard Texas schoolbook examination in the current President’s textbook morality, but to act for love of mankind, to bring forth not that which was expected, but that unexpected which were needed. That is the *Sublime*: to go beyond the limits of the customary, to find a higher solution in the domain beyond the customary, or even the known. To be fruitful in that way, is to act as did the authors of the 1648 Treaty of Westphalia, in finding escape from more than a century of preceding religious warfare by putting first, not one’s own desire, but something outside the reductionist’s small-mindedness, *the advantage of the other.*

Therefore, the most pitiful thing, is to be the kind of leading figure in one’s own nation, who, like Hamlet, evades the existential issues of one’s time, as my rivals for the Presidency have done, by flight into the imagined safety of avoiding the challenge of the great issues on which the future of one’s nation, or even more, depends. They ignore the crisis on whose outcome their nation’s, and mankind’s fate hangs. Instead of courage, they offer “My Plan is. . .” They do not call such behavior by them by its right name—a cowardly spirit of inaction—but, rather, they choose, slyly, a less abrasive term, the ring of which were better consolation for the conceits of sorry fools: “prudence,” or, even worse, “temperance.”

That is but a subsumed aspect of the issue on which we must focus at this juncture. Hamlet typifies the human being, the leader, who has failed. What is the remedy for such examples of tragedy? Look to the other side of the matter; what should be the normal behavior, the normal attitude of the moral individual? What is tragedy? It is failure to meet the challenge of the future; it is the failure to bring forth today, that which the small mind deems a “seemingly impractical” action, but an action on which the possibility of existence of an acceptable tomorrow depends.

Therefore, the most important characteristic of a healthy individual human personality, and the only alternative to tragedy, is a controlling sense of mission-orientation. The moral and related *natural* intellectual quality of the healthily developed individual, that which should be considered the normal, e.g., *sane*, human individual, is a commitment to bring about the discovery and beneficial use of principles of the same type of quality as Kepler’s discovery of universal gravitation, or Leibniz’s discovery of the principle of universal physical least action. The moral, and immortal function of the mortal human individual, is not to do what is expected, but to perform that unexpected action which contributes to pushing the universe a notch upward, at least by a nudge or two, of making the universe a notch newer and better than it was.

This quality of mission-orientation, looking always outside and beyond the habituated ways, expresses the essential

nature of man, the distinction of man from the beasts. The individual who, under conditions of crisis, clings to what he or she considers the safe side—popularized habits, the “generally acceptable”—is not acting as a person, but as yet another tragic Hamlet-like figure, a person whose motivating self-image has retreated from the divine quality of man, into the realm of the beasts who do, customarily, as their fathers and grandfathers have done dutifully before them. This is the essence of the higher realms of strategy in general; it is also the key to the needed crucial insights into the role of basic economic infrastructure. Take, for example, the investigation of this type of problem by the late Dr. Lawrence Kubie, a distinguished psychiatrist who had something of relevance to say on this matter.

The problem on which this aspect of Kubie’s work was focussed, was expressed by his aptly titled book: *The Neurotic Distortion of the Creative Process*,²⁰ as amplified by a later publication, “The Fostering of Scientific Creative Productivity.”²¹ It was my own studies of the possible causes for relatively successful and failed performances of employees of a large consulting firm, and similar other studies to the same effect, which led me to discovering Kubie’s work, a work whose conclusion I found consistent with my own experience of this same problem. The problem which my studies encountered, and Kubie’s, is widely characteristic of, among others, post-baccalaureate university professionals. The pattern is congruent with the Hamlet syndrome, and also some leading Presidential pre-candidates and similar cases today. The pattern, as experienced by me, and as described by Kubie, runs more or less as follows.

Given promising young intellects entering university science programs (for example), now as then, there is a tendency for them to lose their creative impulses as they approach the point of being awarded higher professional degrees, or settling into the early phases of their post-graduate career appointments. Like a well-trained old dog, they retain the skills they have acquired through their youthful conditioning in the academic kennels, but their ability to go beyond that has been sharply attenuated, as their efforts focus upon defending the actual, or imagined status they have acquired against the risk of “discovering something” which might prompt their actual, or imagined, ever-vengeful peers, to put their own presently secured career-track into jeopardy.

Hence, I have placed a particular form of importance on young people between the age-interval of 18-25 years, when they are no longer adolescents, but are emotionally young adults, and have perhaps avoided, thus far, the decadence to which Kubie refers, a decadence which often sets in for life thereafter, somewhere between eighteen (or even earlier for the precociously sycophantic) and an age of not much

later than thirty.

The more important class of victim of this pathetic syndrome, is the all-too-common tragic case of those gifted physical scientists, whose experimental work is brilliant, but who are terrified of presenting any result, however valid, which might bestir the wrath of the high Babylonian priesthood of generally accepted classroom mathematics. Such are the kinds of real-life cases considered in Kubie’s reports in investigations of emotionally driven failures in the field of scientific progress. Mathematicians are, generally speaking, the worst in this respect; the productive experimental physicists have built-in qualities which are, relatively speaking, redeeming, that for much the same reasons which set Gauss apart from and above such formalist fanatics as Euler and Lagrange.

The frequently mistaken reading of such evidence, is expressed by the misguided, all too superficial diagnosis, that the subject person has “gone stagnant” intellectually, his creative powers seemingly aborted in the aftermath of some particular achievement. The problem is not merely that the individual has failed to make a new breakthrough. Science is not a series of steps; it is a continuing process of creativity, in the sense of Heraclitus’ “nothing is permanent but change.” It is a creativity properly nourished by each accomplishment, an accomplishment which itself moves the healthy mind onward and upward toward greater challenges than those he, or she has just conquered.

It is not “a change” which defines science; it is an ongoing, unbroken, growing, ever-strengthening process of constantly changing, a progress which continues to the last good years of an individual creative life. Scientific achievement is not a discovery; it is an unending process of further discoveries. The true scientist is not a discoverer of this or that; he, or she, embodies a process of ongoing, successive discoveries. It is not the act of discovery, that defines the scientist; it is the unending process of generating new discoveries.

So, contrary to the creative personality, the stultified academic neurotic considers himself, or herself, at a certain point, like Hamlet, a perfected swordsman, a professional. That neurotic becomes for us, thus, as like a dead Egyptian soul, like poor Hamlet, admiring the image of his mummy. Some might, therefore, say of him: “Mummy-dominated.” In contrast to that wretched outcome, the healthy mind locates his or her identity in being on a continuing mission of discoveries, continuing change of accumulation of principles. He or she has a mission-orientation in life. He does not merely have an adopted mission; *his or her life, his or her very existence, becomes an impassioned mission-orientation*. So, we have the contrast between the politician who fears risking his career, as Hamlet might; and, the rarer, needed political leader who rises to the challenge to become whatever society’s progress requires him to put himself at risk to become.

The Hamlets of political life understand infrastructure after it has been developed. Morally, for them, life then ends as with a frightful, necrotic-like dream. They have not grasped

20. (Lawrence Kubie: University of Kansas Press, 1958).

21. *Daedalus* (Spring 1962).



"The true scientist is not a discoverer of this or that; he, or she, embodies a process of ongoing, successive discoveries." Here, the late Dr. Robert Moon, veteran of U.S. fusion and fission research, at a Schiller Institute camp for youngsters in 1986. Dr. Moon's collaboration with LaRouche prompted him to reopen his own earlier studies of the constructive geometry of Mendeleyev's periodic table.

the necessary further development of infrastructure as an urgent mission of change. Yet, for the sane human individual, life goes on, without end; the mission of the deceased lives on, in the fruitful achievements of the successors. It is that which lives on, in the simultaneity of eternity which must follow death, which is the only motive of the morally healthy mind. It is the quality of the Prometheus hated by the Zeus of Aeschylus' *Prometheus Bound*.

Take the case of Eratosthenes' measuring the circumference of the Earth, a measurement whose memory was to be reborn in the map which Cardinal Nicholas of Cusa's collaborator, Paolo dal Pozzo Toscanelli, crafted, and entrusted to the Christopher Columbus who re-discovered the lands across the Atlantic Ocean. Cusa was the founder of the modern conception of the sovereign nation-state (*Concordantia Catholica*) and modern experimental physical science (e.g., *De Docta Ignorantia*). Cusa, then a leading Cardinal, was the source of the policy of exploration of what he, and all competent scientists of that time knew to be the spheroidal-like planet Earth, across the Atlantic, and into the Indian Ocean, to come around behind the Ottoman Empire, and to ally with the peoples living at the opposite extremity of such voyages. Those who are wise and potent live in perpetuity, in that, from them, which enriches the work of those who have gone before them, and makes eternal the benefits which they give to future mankind.

In the development of great projects of basic economic infrastructure, we are launching works to be realized over an immediate future period of not less than one or two generations, and are thereby laying the foundation for a future benefit of mankind which lies many generations beyond that. It is that passion of individuals which is expressed as a mission-

orientation in life, which generates great works of infrastructure, and thus makes possible the existence of a future mankind. Without that mission-orientation, decadence looms.

Without that foresighted passion, what had become urgently needed for mankind, had been undertaken much too late for those deprived of existence of what had to have been built a generation or more before!

This is not simply a passion for the general idea of doing some good. It is the active principle which makes possible the coming-into-existence of that good which is produced. A series of good deeds does not define a moral person; rather, it is a moral person, committed to creative innovation, and dedicated to love of mankind, which imparts the commitment to generate good results to others, and, also, to himself, or herself. Persons who lack that quality of mission-orientation are already psycho-sexually inert, virtually already dead. That sense of deadness is what we feel when we are in the presence of persons who have been seemingly burned-out by what Kubie described as "the neurotic distortion of the creative process."

Vernadsky and Infrastructure

Since no later than ancient Greece, European civilization has known that the universe, as we know it, is composed of what modern science would term three distinct, but interacting universal phase-spaces. In that tradition, we speak of the *abiotic* (universal non-living processes), the *biotic* (living processes and their products), and the *noëtic* (the creative processes uniquely expressed by the Creator and human individuals).

The subject of the distinction and connection among these three phase-spaces, has been the pivotal feature of my intel-

lectual life since approximately the age of 14, when I, in despair from knowing the lack of truthfulness in my own family, schools, and so forth, adopted the resort of taking up reading of the compared works of the leading English, French, and German philosophers of Europe's Seventeenth and Eighteenth centuries.²² It was during those years, that I chose Leibniz, over Hobbes, Descartes, Locke, and Kant. During the years immediately following World War II, it already seemed clear to me from my recognition of some of the deeper, intrinsic philosophical-scientific incompetence of philosophical reductionism, that life represented a different universal phase-space than the intrinsically non-living, and that those processes of discovery denied by Kant also defined a phase-space higher than biotic phase-space in general.

These notions assumed what might be described as a crystallized form in my 1948-1953 encounters with the work of the radical reductionists Norbert Wiener and John von Neumann, an encounter which impelled me to respond by seeking out, and making relevant discoveries, including some uniquely original ones, in the domain of a science of physical economy. In the course of this, I had my first, initially shadowy encounters with the work of Russia's V.I. Vernadsky; but, it was much later, during the post-1989 years, that I was able to examine his method for defining the Noösphere in a more precise way.²³ Broadly, the conceptions expressed in his 1938 paper, pointed out the way in which to approach the task of integrating the region of central and north Asia into the tasks of building a Eurasian infrastructure adequate for the long term (two and more generations duration, in this case), for the initial development of a great new social and economic potential for that Eurasian inner space, now coming within reach of mankind.²⁴ The rigor of Vernadsky's argument²⁵ also permitted me to state the case for infrastructure generally with qualitatively better precision than before. From that 1938 writing itself, the Vernadsky one meets there was a rigorously hard creative thinker of a type rarely encountered today, not one to brush away fleeting warnings on the presumption they were not socially acceptable facts in the academic commonplaces of his time.

There are two sets of pivotal implications of Vernadsky's work which are of crucial relevance for the specific policy of infrastructure-building which is required for the U.S. national, and world-wide situations presented, today, by the

presently accelerating onrush of the rotten-ripe general collapse of the world's present, floating-exchange-rate, monetary-financial system. The first set, references the revolutionary significance of Vernadsky's 1938 summary of his case for understanding the economic significance of infrastructure.²⁶ The second focuses upon the unique qualities of the human mind which must be more clearly defined for comprehending the way in which Vernadsky's contributions are to be focused for world economic policy-making under today's global conditions.

The first set of implications is adduced, in first approximation, by comparing the long-term, planetary relationship between the biotic and abiotic phases of our planet's "history," as viewed from the standpoint of the special form of physical chemistry developed by Vernadsky: biogeochemistry. The study of the accumulation of fossils added from outside the abiotic functions of the planet, demonstrates the superior, long-term powers of life over the abiotic processes. Then, we compare the functional relationship of the cumulative impact of the sovereign noëtic powers of the individual human mind, upon the combined abiotic-biotic domain; the human mind's superior, noëtic powers are in the process of assimilating the planet under its control.

These accumulations reflect the increasing power of the biotic over the abiotic phase, and of the noëtic over both; these increases are correlated with the relative mass of the biotic and noëtic fossils. *This combination of growing accumulations of such fossils, and of the increased rate of action to the same effect, defines the appropriate functional notion of basic economic infrastructure.*

This role of the noëtic processes, so situated, and examined in the way those views of Vernadsky's work so implies, focuses our attention upon the implications of Carl Gauss' attack on the folly of Euler, Lagrange, et al., and implicitly also the intellectual sterility of I. Kant, in Gauss' 1799 *The Fundamental Theorem of Algebra*. By contrasting Gauss to the "Hamlets" of mathematics, such as Euler and Lagrange, we gain an intimation of the way in which the world must define the function of development of basic economic infrastructure for present crisis conditions.

Consider the following points in that light.

When we, as Vernadsky did, make an experimental distinction between the abiotic and biotic domains, as functionally defined phase-spaces, we mean that we can not derive living processes from the principles adduced for non-living processes as a category. This signifies, experimentally, that the action of living processes, not only produces those characteristics of living processes not found in the abiotic domain, but, also, that the principle of life can impose its "will," its specific phase-spatial characteristics, on the non-living (abiotic) domain. The transformation of the composition of the planet Earth by the accumulation of fossils produced only by living processes, is superseded by the effects of willful (i.e.,

22. This was governed by the combination of the contents of my family household's library, including the Harvard Classics and similar reference-work collections and individual texts, and what I could supplement from a respectable assortment of relevant whole works which I was able to withdraw from the Lynn, Massachusetts public library, or study as reference works available in that library's reading room. In later years, the Boston Public Library at Copley Square became, similarly, one of my favorite haunts. Where are such libraries, at home, or in the public domain, available to adolescents and young adults today?

23. V.I. Vernadsky (1863-1945).

24. Cf. LaRouche, *The Economics of the Noösphere*, op. cit.

25. *ibid.*

26. *ibid.*

“voluntary”) human noëtic action.²⁷

The phases of that described relationship between increase of mankind’s potential relative population-density and the role of the development of basic economic infrastructure, may be summarized as follows.

In the first approximation, mankind acts to improve the biosphere in itself. In this phase of the action, we ignore anything done by man which does not replicate what nature itself would have wished to have done, but was unable to accomplish without man’s assistance. Man thus seeks to discover how the Biosphere tends to produce itself, and we, discovering this, help the Biosphere to walk where it would fail, or limp along poorly without our intervention. So, it is said, “We make the deserts bloom,” treating the planet as a whole as the best traditions of agriculture worked to optimize the biosphere, rather than plunder it. Typically, we seek to increase the conversion of solar radiation into upgraded qualities and extent of biomass.

In that way, we make the planet more habitable, and able to support a higher quality and quantity of human population, even in that relatively most obvious way. Did we not do that, mankind’s potential population, and quality of individual life would never have risen above the condition of a baboon. Those deranged ideologues who denounce man’s every intervention into “natural nature,” should inform us what they propose to do, by “Auschwitz” or kindred methods, with a present human population in the amount of more than six billions presently living persons, exceeding what were possible in a sub-human state of culture.

In the second approximation, we introduce “artificial” elements into the biosphere, such as mass transit (e.g., sailing ships), power generation, communication, sanitation and health care, housing, urban infrastructure, and so on. We must

class these as basic economic infrastructure, because that is the way in which they function to support a generality of human life. By increasing the relative power (e.g., “energy flux-density”), in both quality of level and amount, we transform mankind’s relationship to the universe, as measurable in potential relative population-density. We increase man’s power to exist, per capita, in the universe, and to produce new qualities of effects in service of that intention.

At this same level of second approximation, we move masses of water, by what might be fairly understood as “artificial means,” from one part of the territory to another. We do the same in other respects.

Mass transit changes the environment (and the meaning of geography) as this bears on human activity as such. Mass communication is a kindred case. These changes in infrastructure bridge the relationship between the functions of the biosphere and human, noëtic-driven activity.

In the third approximation, we are dealing with maintaining a process of noëtic self-improvement of the characteristics of specifically human behavior. The introduction of that consideration into our discussion of infrastructure, obliges us to turn our attention now to the matter of the fact that a competent science of physical economy is characteristically Riemannian. This brings us to the role of the concept of *power*, as Plato, for example, defined *power* as a notion not to be confused with Aristotle’s notion of “energy.”

This returns our attention to the implications, for the definition of human nature, of Gauss’ 1799 *The Fundamental Theorem of Algebra*.

3. The Concept of Power

At this point this report, it is essential that I stress again, as earlier, that the known origin of the concept of “power” is traced explicitly to the work of the Pythagoreans, and, implicitly, to that development of the principles of “spherics” which is implied by the astronomical features of the design of Egypt’s Great Pyramids. Earlier in this report, I defined the elementary difference between man and lower species, as the fact that mankind is able to free itself from that naive sense-certainty which shows the observer only the shadow-like effects of the action of the real universe upon the biological sense-organs. What the individual person accomplishes, on this account, is the discovery of the universal physical principles which are acting to produce the shadows called sense-perceptions.

The proof that those discoveries of invisible powers are not delusions, is supplied by relevant types of what are called *unique experiments*.²⁸ In the design of a relevant sort of unique experiment, there is a distinguishable feature of the structure

27. From the standpoint of science, the most stunningly impressive lesson to be learned from the 1917-1991 experience of the Soviet Union, is the tragic role of the social-democratic “anti-voluntaristic” dogma which, ironically, Soviet founder V.I. Lenin violated in the extreme: by foreseeing that all of the social-democratic tradition, like all of the Liberal and other political currents opposing the Czarist rule, were self-foredoomed to fail in a manner and degree which is to be seen, retrospectively, as consistent with Kubie’s observations on “the neurotic distortion of the creative process.” Thus, in the domain of the Soviet science-driver programs driven by military and related kinds of existential-strategic imperatives, the anti-voluntarist dogmas of the social-democrats and Bolshevik bureaucracy were, in net effect, bypassed. In other aspects of the economy, where that mission-orientation was resisted, the Soviet literature from the 1954-1991 interval, documents a frightening persistence of neurotic (anti-voluntarist) disaster. We experience a parallel case in the post-Kennedy shift of U.S. policy into a “post-industrial” orientation. The accumulated, disastrous effects of the combination of “post-industrial” and radical “free trade” ideologies, especially the Mont Pelerin Society’s extreme right-wing “free trade” fanaticism, have had more radically deadly effects on the economies of the Americas and western Europe, since approximately 1971-72, than what “anti-voluntarist” currents did to wreck the Soviet economy. Thus, the situation of basic economic infrastructure in the U.S. today is, relatively, vastly worse than when Franklin Roosevelt entered office in March 1933.

28. The notion of unique experiments, emphasized by Riemann, avoids the sophisticated sloppiness of the term “crucial experiment.”

of the experiment which implies the design of an apparatus by means of which to embed the use of the discovered principle into a relevant application. The *qualitative* gain in man's power over the universe so acquired, corresponds, functionally, to that Classical-Greek use of the notion of *power* (*dynamis*) referenced earlier. This is the same notion of *power* associated with constructable solutions for crucial ontological paradoxes arising within a Pythagorean mode of constructive geometry.

Those conceptions from pre-Euclidean constructive geometry, are, still today, two-and-a-half millennia later, the indispensable, principled foundations of elementary competence in the subject of economy.

As I have emphasized earlier here, and repeatedly throughout the past fifty-odd years, the fundamental principle underlying all matters of the subject of economy, is the absolute superiority, and separation of the human species over all other forms of living processes. In other words, this is the same notion of the uniqueness of man and woman, when expressed in terms of physical science, as in *Genesis* 1.

The following, interconnected points, regarded as a single conception of principle, are of primary relevance for any competent treatment of matters of economic principles. Any adopted notion which is contrary to that conception, is a kind of elementary incompetence which, if extended in practice over a lapse of time in the order of several generations, will produce a manifest social-economic catastrophe, such as the general breakdown-crisis of the present world monetary-system currently in its terminal phase. In earlier history, the speed of the relevant reactions was relatively slower; for example, the transformation of the U.S. from world's leading producer society to today's collapsing wreckage, has been less than two full generations.

The argument to be made on those premises, is as follows.

The effect of the incorporation of realized discovery of universal physical principle within the repertoire of social practice, has an impact corresponding to a genetic up-shift among animal species. Therefore, mankind, be fruitful, multiply, and assume responsibility for the management of all creatures and things under the Sun! There is no possibility of a competent understanding of either human society, or the troubles for which it has shown itself susceptible, without proceeding from that absolute, "axiomatic"-like distinction of man and woman from the beasts. The moral, as well as intellectual incompetence of reductionists, as typified by such sorry, but influential figures of modern academic life as Euler, Lagrange, and Kant, is only one variety of the typical results of the worst possible form of ignorance, today's widespread ignorance of the principled, scientifically definable difference between man and beast.

Those sorry opinions, of such as Euler, Lagrange, Kant, Mach, et al., not only deny the nature of mankind, degrading man to a beast. The so-called "Eighteenth-Century Enlightenment," which empiricist fanatics such as those typify from

that time, was politically motivated by the effort to stop the development of the human condition along those lines typified by the impulses from the Fifteenth-Century Renaissance. The false axiomatic ideas respecting man and nature expressed by Euler et al., were a servant's hod-carrying for such predatory, oligarchical masters as the Anglo-Dutch Liberal system typified by the Eighteenth-Century British East India Company's rise toward becoming a new form of a Roman Empire.

It is only when the intellectual crimes perpetrated in, and spread from the mathematics textbooks and classrooms are understood as politically motivated, that the mask is ripped from the face of the reductionist doctrinaire, and the leering hatred of mankind itself displayed without disguise.

Explicitly contrary to the conceptual sterility of the ivory-tower-mathematical argument shared among empiricists such as Euler, Lagrange, and Kant, the original discovery of a universal principle, is not merely an increase in the efficiency of the application of previously known principles deemed universal. It is, as Gauss references the demonstrations by the Pythagoreans, on the doubling of the line, square, and cube, by no other means than geometric construction, the discovery of that *power* which is expressed, in a unique way, by that specific kind of physical act of construction. Kepler's uniquely original discovery of universal gravitation, as detailed in his 1609 *The New Astronomy*, is not only of the same quality as the creative act of physical construction in the elementary cases of doubling; Kepler's discovery depends more immediately on the implications of the construction of the Platonic solids, in dividing the universe between two universal phase-spaces, the abiotic and biotic.

In every case that society discovers and employs a newly discovered, true universal physical principle of that type, the society has effected an up-shift of its quality of living, to a *qualitatively* higher form of existence. This includes, more obviously, the notion of a scientific-economic revolution, as merely typified by the passage of social practice of society from the lowest physical state of human life, using sunlight for a fuel, to combustion of wood-stuffs and comparable materials, to mined coal, to the abiotic fossils of natural gas and petroleum, to nuclear fission, to thermonuclear fusion, and, probably, the mastery of the principled implications of matter-antimatter reactions.

One of the most important and destructive forms of widespread ignorance about matters of physical science and of economy, is the falsehood, which the modern classroom has traced from the influence of Aristotle: the reductionist's assumption that power is a result of heat, rather than heat being merely one of the ways in which the effect of power may be expressed. Heat is not, in itself, a cause; it is an effect: the increase of mankind's ability to generate controlled heat, is a footprint of progress, not a step of progress. It is often expressed as a by-product of power; but power itself is essen-

tially of the type expressed by the developing of the science of what is known variously as constructive, or physical geometry, by the Pythagoreans, as by Plato.

The World's Deadly Power Shortage

Focus now on one of the most crucial of the practical expressions of those issues, the awesome shortage of capacity to supply power in the U.S.A. (among other nations) today.

The discoveries of universal physical principles within the domains of microphysics (e.g., atomic and nuclear physics), are examples of discovered powers by means of which man is able to employ objects from outside the realm of direct sense-perception, as powers, by means of which mankind's power in the universe is increased qualitatively. To describe this in what will pass today for conventional academic terms: the way mankind has proceeded to the level of nuclear, and toward thermonuclear power, as primary sources of applicable heat, shows the simplest measurable effect of the rise of the human condition above the bestial level of reliance upon solar radiation. This represents an increase of the amount of the heat-effect transmitted across a square kilometer of cross-section of the radiated effect. This measurement is named the "energy-flux density" of the process. At certain critical points in the process of increasing that *energy-flux density* of man-controlled processes, a qualitative, rather than a merely quantitative change occurs.

Typical of this was the leap upward in the productive powers of labor, and family income, available to the average member of the U.S. population, through the generation of electricity not only for lighting of cities, but as a higher quality of power which began to be supplied to the U.S. as power supplied for operation of rotating machinery, discoveries which were made possible through the original work of such scientists as our own Benjamin Franklin, Ampère, Gauss, Wilhelm Weber, and others.

Those old enough to remember the time when entire factories were still powered by a snarl of shafts and belts, to deliver power from a steam-boiler in the basement, or abutting the building, to the leap in productivity achieved from introduction of electrical motors attached to the function of the individual machine, could recall this leap upward.

It was recognized from the work of Rutherford and others, during the first decade of the Nineteenth Century, that the nuclear power expressed by the radiation from radium represented the future source of power for the world's economy. This represented a rise in the level of cross-sectional energy-flux density to levels of application at which otherwise impossible increases in mankind's power in and over nature could be achieved.

Unfortunately, although the more general feasibility of controlled nuclear fission was recognized during the course of the 1920s, it was only due to the power of nuclear-radiation weaponry, as first emphasized publicly by the utopian H.G. Wells in the preface to a 1913 novel, that the development

of controlled nuclear-fission technology was set into motion during the 1930s. While the chief authors of modern nuclear warfare, the utopians H.G. Wells and Bertrand Russell, pushed the immediate development of nuclear fission as a weapon sufficiently terrifying to cause nations to submit to world government, others, as I began to do in early 1947, campaigned politically for the development of nuclear power as a crucial source of needed development of new nations such as India, in particular. By the early 1970s, I was pushing for the superseding of the lower-energy-flux-density capabilities of nuclear fission as a power-source, by the development of controlled thermonuclear fusion.²⁹

In the meantime, the neo-malthusian doctrines of Thomas Huxley's H.G. Wells and Abraham Lincoln-hating Lord Russell's grandson Bertrand Russell were at work. The most crucial feature of Russell's influence was his fully conscious role as a Synarchist-like "beast-man." Russell was a "beast-man" in the image of that true progenitor of Adolf Hitler's vast crimes against Jewry and others, the notorious Inquisitor Torquemada.³⁰ Out of Russell's U.S.-based Unification of the Sciences project, came the post-World War II campaign to realize the kind of global utopia depicted by H.G. Wells, as by Russell followers the Huxley brothers, Aldous and Julian, and their fellow-inductee into the psychotomimetic mysteries of Aleister Crowley's theosophical "Gold Dawn," George Orwell: truly men of science, one and all.³¹

The needless dumping of two experimental fission-bombs on the civilian population of two cities of an already defeated Japan, Hiroshima and Nagasaki—continuing the policy behind the needless, and, actually, militarily counterproductive fire-bombing of Hamburg, Dresden, Magdeburg, and so on,

29. It was the political and economic implications of those advocacies of mine which, chiefly, caused me personally, and also my associates, to be subjected to ferociously hateful defamation and political attacks, from within government and elsewhere, during the course of the 1970s and later.

30. When Mephistopheles appeared to Faust, in Christopher Marlowe's *Dr. Faustus*, he wore clerical robes, as Torquemada had done. The most Satanic creatures are those who follow the tradition of the fallen angel, as do the followers of the cult of such as both Torquemada and Hitler's Friedrich Nietzsche in the clergy today. The role of the Iberian inquisition of Torquemada et al., in the launching of the trans-Atlantic African slave-trade, a practice continued by the Nineteenth-Century Spanish monarchy through and beyond the assassination of President Abraham Lincoln, is a reflection of the same evil which produced a kindred monster in different costume, Adolf Hitler. Mass-murderer Russell is therefore known by the fools of the world as a "great pacifist," or better described as the sexton of a planetary cemetery of all mankind. See the writings of Joseph de Maistre, the leading Synarchist (Martinist) ideologue of the period of the French Revolution and Hitler-model Napoleon's tyranny, on the subject of the Inquisition as a model for what became Hitler's fascist tyranny.

31. The term "psychedelic," as applied to the London Tavistock Clinic's synthetic ergotamine, LSD, was crafted as a propaganda-trick, to evade the pejorative implications of the originally, frankly descriptive "psychotomimetic" for the induced, psychotic states of mind of certain drugs, and also certain kinds of monotonous, ape-like pseudo-music in the ancient tradition of the Phrygian cult of Dionysos.

in Germany—was intended, by Russell and his kind, not to win the war against Japan, but to terrorize the world into the advent of a turn of humanity downwards, into a bestialized culture, the Nietzschean “Age of Aquarius.”

The effect of the growing, paranoid form of fear of the very word “nuclear,” spawned by the terror against Hiroshima and Nagasaki, and aggravated, more and more, by the fear of thermonuclear war, was harvested with the 1962 “Cuba Missiles Crisis.” The terror struck by a wave of Synarchist International-directed assassinations and attempted assassinations, as by Jacques Soustelle against President Charles de Gaulle, and, especially, the way in which both the assassination of President Kennedy and of its aftermath were handled by the U.S. establishment, terrified the souls of many among an emerging generation of university-bound young adults into a state of virtual political slime-muck. The cultural-paradigm shift orchestrated by that succession of developments produced the pro-psychedelic “rock-drug-sex counterculture” eruption of the middle through late 1960s, a spectacle of a serpent’s nest of writhing, tangled, naked human bodies in Hell, shrieking incoherent babble, all the while hating all that modern economic-technological progress which they believed had bestowed upon them the misfortune to have been born.

So came “Sun Day,” and a determination to rid the world of technological progress. Fear of nuclear weapons, became the fear of the hated nuclear fire of Prometheus, as from the poor creatures of the evil Zeus’s Olympus. Since the beginning of that spawn of Nashville Agrarians’ creation, National Security Advisor Zbigniew Brzezinski, there has been, until recently, a rising chorus of the ritual chanting, “Nuclear power must go!”³²

Since that time, as the generation which had entered young-adulthood during the early through middle-1960s came into most among the leading positions in society today, the corresponding form of acquired “group-instinct,” of “go along to get along” among the otherwise varied components of that generation has taken control of society. Those who are not fanatically opposed to even the very name of “nuclear energy,” are afraid to express views which would offend the fanatical adversaries of technological progress.

32. The career of Canadian McGill University product Zbigniew Brzezinski began at Harvard University’s department of Government, under the notorious Professor William Yandell Elliott, himself a leading figure of that Ku Klux Klan memorial association known as the Nashville Agrarians. Although Elliott moved Brzezinski out of Harvard into the patronage of Averell Harriman’s circles, to make way for a newly adopted chief protégé, Henry A. Kissinger, the long-standing alliance of Brzezinski and Samuel P. Huntington of “Clash of Civilizations” notoriety has persisted since Huntington’s perennial doctrine of Waffen-SS-modelled military doctrines, his *The Soldier and the State* echoed by Vice-President Cheney’s “preventive nuclear war” dogma. Brzezinski’s authorship of a proposal for a “Technetronic” society, is of specially notable relevance, in proposing to substitute the doctrines of Bertrand Russell, Norbert Wiener, and John von Neumann, for both physical science and economic practice of society as a whole.



To provide revolutionary degrees of technological progress in both basic economic infrastructure and the production of agricultural and manufactured goods, we require sources of power of qualitative higher primary levels of relative “energy-flux density”—notably through rapid expansion of nuclear-fission power, and aggressive work toward bringing thermonuclear fusion on line as a principal power-source.

As a result of those and related factors, we have reached the point that the ability of the U.S. to maintain even its existing levels of supply and of general power is collapsing, without remedy for that dismal outlook on the tables of government. Also, to cope with the new problems posed as needs for more or less revolutionary degrees of technological progress in both basic economic infrastructure and the production of agricultural and manufactured goods, we require sources of power of qualitative higher primary levels of relative “energy-flux density.” This need dictates, among other things, return to emphasis on rapid expansion of the use of nuclear-fission power, and aggressive work toward bringing thermonuclear fusion on line as a principal power-source.

Without reversing the suppression of nuclear power, civilization as a whole is coming into jeopardy, and that rather rapidly.

For the quick-fix needs of the world, we have a proven type of nuclear power installation, the high-temperature pebble-bed reactor, which should be produced in series-production modes in, preferably, the self-regulating rate of 120-200 megawatts. Its smaller size permits earlier and broader installation, and brings us to the point that we can generate hydrogen-based fuels locally, rather than replying upon the costly bulk-transport and related features of low-value-per-ton product in ways which involve a high ratio of transport and other costs of distribution, relative to the value of the product generated at the point of production. The principal waste-product of these synthetic fuels is, chiefly, water.

This application of nuclear power also supports an emphasis on expanded mass-transport of both people and goods,

reducing the trend toward using superhighways, more and more, as parking lots during high-traffic hours. It facilitates the use of magnetic-levitation forms of mass transport of either freight or people, both for urban, intra-urban transport, and as a large shift of present rations of air transport in the less economical range (per ton mile), to maglev along relatively high-density trunk routes of under 500 miles, thus improving air-transport service in efficiency and economy.

However, apart from all the goals which can be expressed in terms of kilowatt-hours of power supplied, there is the more crucial issue already mentioned here.

Mars and More

Consider two among the numerous typical types of challenges the coming two generations of mankind must face: the problems posed by the needed exploration of, and certain developments within nearby Solar space (e.g., the Moon and Mars), and by the increasing rate of consumption of certain raw materials we are accustomed to extract from within fossil regions of the Earth's Biosphere. Consider each in turn.

The greatest danger to our space program, apart from those who are opposed to it altogether, is the tendency which has prevailed since just before the 1980s Shuttle disaster, of reducing costs at the expense of safety. It is fair to say that the notion of space-exploration travel currently mooted in the news media and like places, and within the political processes, is foolishly, even dangerously simple-minded. Three overlapping, but distinct issues of policy are critical: *security*, *capability*, and *mission*.

As to security, in no case should an individual vessel carry a human being from Earth orbit to Mars orbit; and even a flotilla,³³ which could be mutually supporting in interplanetary travel, should not be deployed without continuing acceleration/deceleration over most of the interval of travel.

For related reasons, which include both the role of manned and other exploratory flight, the idea of sending some single object, or even a few coordinated objects from Earth-orbit to Mars-orbit, is proof of incompetence. We must build the capability represented by a supporting infrastructure of space-transport and exploration over the span of relatively frequent flights between Earth and Mars. This means new sources of power deployed for purposes which include powered flights. The building of this infrastructure were not possible without a prior "industrialization" on the Moon. So, we must base our space-exploration policy on nothing less than erecting the necessary supporting intra-inner-Solar-space infrastructure of a long-term, continuing Mars-Moon program.

"Cheap discount flights to Mars" exist only in the dreams of fools.

The third, and rather obvious question to be addressed, is:

33. As was emphasized by von Braun, comparing a Mars mission to Columbus' reliance on a flotilla for following Toscanelli's map in seeking the land on the opposite side of the Atlantic Ocean.

"Why go there at all?" That will lead into the second issue, of the problem of adequate raw materials for us on Earth. The answer to that question does not involve hauling raw materials from space; it involves the lessons about the physics of assuring a future life on Earth, lessons which we must learn, at least in large part, from space-exploration. Our mission is not a junket to Mars; our mission is exploring the Solar system for answers needed for life on Earth, which can not be secured without space exploration.

One should recall the study which showed that the U.S. gained more than ten cents' worth of benefits on Earth, from every penny we spent developing the technology and techniques needed in order to accomplish the manned Moon landing which had been prescribed by President Kennedy. That, however, is only a taste of what is to be accomplished by a broader, mission-oriented space program.

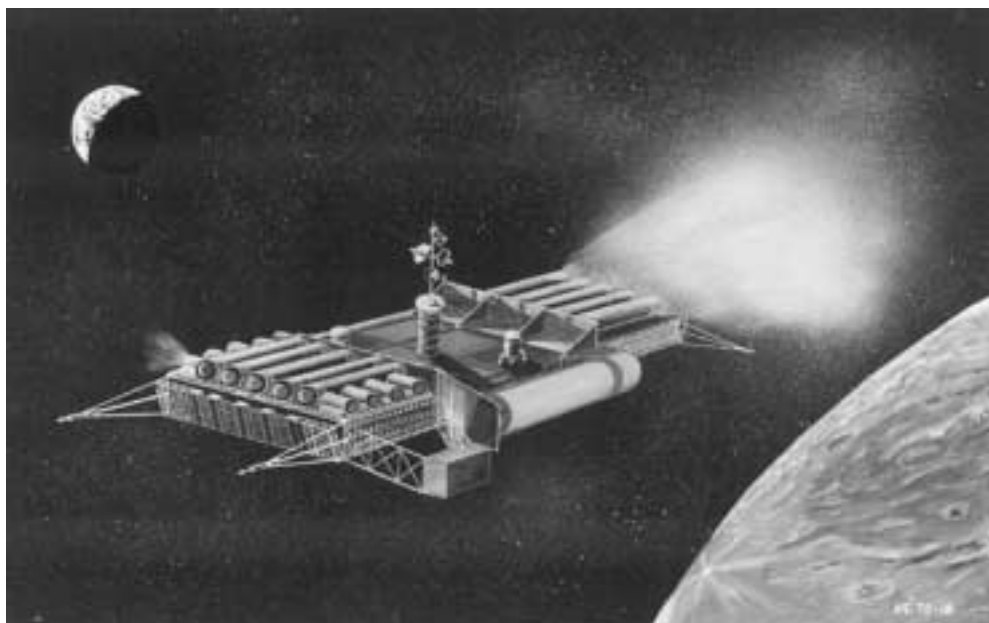
In Central and North Asia

Now look at the future problem of raw materials in that light. Consider the following hypothesis, from during the period of the very early 1980s, when I was working on a design for what President Reagan was to name publicly "A Strategic Defense Initiative." It might be argued by some that this was only an hypothesis, but it is one which must be addressed, in any case, and, it is one which points more or less directly to the long-term problem of securing needed raw materials from within the fossilized layers of the Biosphere.

It was clear from consulting relevant scientists, that the Mendeleyev elements composing our Solar system had been generated by the Solar system itself, during a period when our Sun was rotating much faster than today. It was clear that since the estimated thermonuclear fusion of the interior of the Sun itself could not have generated the full Mendeleyev "table," we must look to the "disc" of material which had been placed then as the "shedding of motion" by the younger years of the Sun. My proposal was, that "polarized fusion" within that "disc" could have generated the Mendeleyev table's components by nuclear fusion, whereas the Sun would have otherwise stopped approximately at Iron; that this was an immediate challenge to be addressed by scientists. Some at Lawrence Livermore Laboratories then agreed that the thesis was a plausible one, on the basis of relevant experimental data on thermonuclear fusion already at hand.

That would signify, following Kepler's original discoveries of the constructive-geometrical form of mathematical-physics composition of the Solar system, that the material produced within the polarized fusion of the disc would have been "fractionally distilled," to be distributed among the available roster of harmonically ordered, potential Keplerian orbits. Gauss' crucial proof of Kepler's argument, in the matter of Ceres, et al., had encouraged me to firm confidence in this view of Kepler's geometric argument.

This investigation died on the vine, except for my mid-1980s proposal for a Moon-Mars establishment of Los



The late space scientist Krafft Ehricke, known as the father of the Centaur rocket, developed the idea of man's "extraterrestrial imperative." His painting shows a freighter transporting industrial materials to and from the orbits of the Earth and Moon, powered with lunar oxygen and aluminum. LaRouche underlines the importance of "industrialization" of the Moon, for a long-term Mars exploration program.

Alamos "science-cities" in the subsurface of Mars and my 1988 national, half-hour TV special, "The Woman on Mars," of 1988. In the meantime, a new, related track opened up. Some of my work had prompted a collaborator, Professor Robert Moon of Chicago, to reopen his own earlier studies of the constructive geometry of the Mendeleyev periodic table. Then, most unfortunately, Professor Moon died suddenly in Chicago. With his death, the examination of the "Moon Model" for the periodic table, went onto the shelf for a decade.

Meanwhile, another track on the purpose of the Moon Model project began to emerge. In February 1983, during a meeting held as part of my private back-channel discussion of a proposed "strategic defense initiative" with the Soviet government's representative, I had the occasion to warn the Soviet government, that should President Reagan make the offer, which he in fact did make on March 23, 1983, and if the Soviet government were to reject that Reagan offer, as my Soviet channel indicated were almost certain, then we must expect that, for economic reasons, the Soviet economic system would collapse in approximately five years. It actually collapsed within approximately six years.

Later, after Soviet General Secretary Andropov had publicly rejected the President's offer, out of hand, I repeated the warning of a probable Soviet collapse within "about five years." It was for that reason, that, on October 12, 1988, I conducted a Presidential candidate's press conference in West Berlin, at which I set forth the expected reunification of Germany, with Berlin designated as its future capital, under the conditions of an already imminent chain-reaction collapse of the economies of Eastern Europe and then the Soviet Union itself, and proposed a U.S. policy for cooperation in the economic recovery of those nations. That October 1988 press

conference was broadcast on U.S. national television a short time later, prior to the November election.

These developments of the 1980s provided the foundation for a 1989 design for what was named a "European Productive Triangle: Berlin, Vienna, Paris," which became the keystone for a 1991-1992 design for a Eurasian Land-Bridge proposal uniting the proposed European Productive Triangle with a network extended to include Russia, China, and India as pivotal reference-points.

The relevant implications of that Land-Bridge design for biogeochemistry topics, are chiefly the following.

The aggressive development of the heavily populated nations of the Eastern, Southeastern, and Southern rim of Asia, poses the long-term question: to what degree can the fossil-based mineral deposits of central and north Asia meet the requirements of the growing, and developing regions of the most populous regions of Asia? At that point, the role of a long-term Moon-Mars exploration mission becomes clear.

Since much of the indispensable mineral wealth embedded within the fossil strata of central and north Asia (and also elsewhere) are limited, how do we face the challenge of overcoming the effects of increasing rates of consumption of these resources by a growing and developing population of east and south Asia, in particular? We do know that most of these deposits were created as the "skeletal" remains of living creatures over up to billions of years. How shall we regenerate what society is consuming? How should we shift the composition of our use of materials, to prevent critical shortages? What are the lawful methods, apart from brute-force techniques, for transmutation of elements and their isotopes?

Faced with that challenge coming up ahead, we need a physical chemistry which does not continue to rely upon blind

faith in “magic numbers,” to seem to explain away how the Solar system actually generated the repertoire of what is already known as the naturally found periodic table of the Solar system. What do we do? The required approach is multifaceted; but, the most obvious of these is an intimate study of the physical chemistry of a planetary Solar body which is not the Earth. The study of the Moon, in this way, is indispensable, but by no means sufficient; the Moon is a child of the creation of the Earth. We must get out of the intellectual prison of our current textbooks, and go to Mars, hoping to find the different physical chemistry which will help us to develop a physical chemistry, including a nuclear physical chemistry beyond what we know from studies on Earth.

In this connection, Russia and Kazakstan have a multifaceted role which is of special importance for the planet as a whole. Not only is Russia the most experienced nation, scientifically and otherwise, in the special problems of management of central and north Asia; Russia’s scientific tradition, since Czar Peter the Great’s visits to the Freiberg Academy in Germany’s Saxony, and Russia’s developments in geology and related matters are of outstanding relevance for the planet as a whole. The traditions of Mendeleyev and Vernadsky are at the center of the relevant Russian scientific tradition today. Kazakstan is a crucial part of the infrastructural, biogeochemical, and astrophysical program needed to address this challenge.

The scientific form of that challenge is the need to free science from the disorienting, reductionist’s grip of the mechanistic concept of “energy,” to return to the standpoint of science associated with that concept of powers underlying Kepler’s uniquely successful definition of a Solar system whose existence, and continuing development requires emphasis on that principle of hypothesis upon which the very existence of competent science has depended since no later than the time of Pythagoras.

We must view the Solar system in which we live as not a fixed thing, but an ongoing process of development, into which we must intervene within that whole system, as such intervention has prompted all of mankind’s successes, as a species, on a single planet, Earth. The relevant argument is as follows.

How Economic Science Works

In that connection, let us reconsider the way in which physical science works. Think of the doubling, by geometric construction alone, of the line, the square, and the cube. Think of the purely geometric construction of the five Platonic solids. Think of Kepler’s discovery of a universal principle of gravitation. Review the way in which discoveries of universal physical principle are made, and proven to be such discoveries.

Anything which is simply perceived as a statistically consistent rule, is *not* a universal physical principle. The discovery, or recognition of a principle begins with recognition of

the stubborn occurrence of something observed which defies those rules adduced from simple statistical “repeatability.”

Kepler’s discovery of universal gravitation, is a prime example of this. In discovering a principle such as gravitation, we have recognized the existence of some regular rule, but a rule of a different quality, a much higher quality, than the rules associated with a “repeatable” observed occurrence. These are the unseen, but demonstrably effective rules which govern the mere shadows of reality presented to us by sense-perception. Hence, the *ontological* implications of Gauss’ notion of the complex domain. These higher rules are recognized by the creative powers of the human mind. They are rules which operate beyond the reach of sense-perception, but, as Carl Gauss’ 1799 paper exposed the error of Euler and Lagrange, they are more efficient in controlling what we perceive than any ordinary, simply arithmetic sort of statistical rules.

In the practice of any branch of physical science, or Classical artistic composition, the quality we rightly associate with genius, we drive existing human knowledge of some aspect of experience to a point beyond all presently explored limits. We seek to discover a stubborn anomaly, a situation in which reality violates, perceptibly, all of the stock of our presently known, most precious rules. That paradoxical event, that anomaly, that ambiguity, poses a challenge to the creative powers of the mind: What is that unseen creature, that universal physical principle, which is producing that *ontological* paradox?³⁴

Thus, to discover those laws, specific to our Solar system, which lie above, below, and beyond what our scientific discoveries thus far have demonstrated, we must go beyond the upper and lower limits of investigations so far. We must discover laws, characteristic of the Solar system, but engaging principles expressed in ways beyond the frontiers of what our experience has enabled us to discover thus far. This means that we must choose the creating of an organized infrastructure of scientific exploration, embracing the Moon, Mars, and the getting back and forth between them, as the frontier of new dimensions of exploration, in search of newly discovered laws of our Solar system and, inclusively, its biogeochemistry. This must be conducted on an astronomical scale, but also, simultaneously, along the frontiers of nuclear microphysics.

What I have just described is a reflection of the fundamen-

34. The reason I chose Gauss’ 1799 *The Fundamental Theorem of Algebra* as the pivotal educational experience of my youth movement of (primarily) young adults in, predominantly, the university-eligible age-interval 18-25, was that Gauss’ attack on Euler, Lagrange, et al., combined with his implicit replication of the argument of the pre-Euclidean Pythagoreans on the line, square, and cube, offers a group of students, as for example in a Socratic dialogue of a class-group of 15-25 students, the most direct, and relatively simplest example of the practical meaning of the term “universal physical principle,” and, thus, the simplest kind of illustration of those demonstrable powers, specific to the human mind, which set man apart from, and above the beasts.

tal, but unfortunately rarely understood, principle of any competent form of economic science. The progress of man, from the ape-like level of potential population of a few millions living individuals, to more than six billions reported today, is the outcome of the application of an accumulation of discoveries of principles, principles accumulated and, largely, transmitted across many successive generations, and also from one culture to another. The crucial feature of that process of increasing the potential relative population-density of the human species, is the act of original or replicated discovery of universal physical principles of the characteristics I have just, once again, summarized above.

These discoveries act as powers, as Plato, the follower of the Pythagoreans, employs the Classical Greek term *dynamis*, and as Leibniz, the founder of the modern economic science of physical economy, introduces the German *Kraft* as the appropriate synonym of *dynamis* in its Platonic meaning. Those powers which are so defined as expressions of experimentally validated discoveries of universal physical principles,³⁵ define added dimensions of effective human activity. These principles, as reflected in the technologies derived from them, are the primary source of all increase of the productive powers of labor. The study of that becomes more than a bit more complicated as we examine the intricacies of the social processes involved; but the cited elementary principle itself is preserved intact through all consideration of additional features of the process.

The embedding of these discovered intellectual powers in the culture of a society, is that society's primary capital. However, the effective expression of that primary capital, requires investment in the physical activities, including educational activities, and the physical structures through which those powers are efficiently expressed at the proverbial "points of production and consumption." The activities expressing those levels corresponding to an array of powers, are to be regarded as capital investment: as in basic economic infrastructure, in capital of production of goods, and in necessary capital of productive firms and of households.

The prices attributed to these forms of capital must correspond with both the maintenance required to sustain present levels of society's potential relative population-density, and some determined rate of improvement of the society's potential relative population-density. The latter improvement cor-

responds to what might be termed, for convenience, "social profit."

The included function of sundry protectionist measures, including the crafting of both tariff and trade standards, and taxation policies, or minimum wage levels, and so on, is to set limits (boundary conditions) within which a reasonable expectation of a continued "social profit," so defined, might be assured. Excepting extraordinary circumstances, as during World War II, these protectionist measures are not price-control measures, but do function to be effect of being "fair trade" standards.

The general intent is to increase accumulation of effective physical capital, where needed, or where strongly desired in the national interest, while protecting existing levels of capital, including the de facto physical-capital investment in the quality of life of households and labor.

Typical of what is required, is the forms of regulation destroyed under the 1969-1981 administrations which William Yandell Elliott-sponsored Henry A. Kissinger and Zbigniew Brzezinski served as National Security Advisors. We require remedial measures, such as the repeal of the extremely destructive Garn-St Germain and Kemp-Roth legislation. Now, examine the principles underlying that precious, protectionist heritage of our republic, a heritage which those wrongdoers ruined.

4. The Price of Production

It is possible to provide a useful illustration of the case to be made here, from the standpoint of reference to the pre-1983 application of the U.S. system of national product and income accounting which had been developed, in significant part, by the late Professor Wassily Leontief. From 1952, until 1983, in my management consulting and other professional activities, I had relied to a significant degree on comparing studies which I had made, with a combination of the U.S. official and private statistical and related reports and studies based upon that model of national accounting. In my successful, short-term, late-1956 forecast of the worst U.S. post-war recession, as about to break out by Spring of 1957, my studies of the consumer-credit bubble took into account the way in which that bubble was situated within the economy, as represented by relevant Federal statistics on national product and income.³⁶ The pattern of my consistently outstanding successes in long-term forecasting, from 1959 onward, demon-

35. As always with me, my use of "universal physical principles" includes, implicitly, Classical forms of artistic composition. The distinction is, that what we customarily identify as universal physical principles, pertains to the sovereign individual mind's view of the combined abiotic and biotic domains, as experimental domains. Classical artistic composition focuses the attention of the cognitive powers of the individual upon those kinds of universal physical principles which are expressed by social processes as such. For example, the study of history as a study of the experience of generating, transmitting, and applying ideas corresponding to the act of discovery (or re-discovery of original universal physical principles), is the history of social relations being conceptualized as a form of physical science.

36. Typical of the situation in 1956, as echoed by the comparable situation today, the nominal valuation of used-car inventory on new car dealers' lots was far in excess of the value of a vehicle of the same make and model, in comparable condition, on the open market. It was this state of affairs, produced by the policies of the Eisenhower Administration's Arthur Burns, et al., which prompted the deep U.S. recession of 1957-1960. Today's U.S. crisis is qualitatively far, far worse than the situation in late 1956, but the situation is nonetheless broadly analogous in important respects.

strates the conditional usefulness of such forms of analytical reporting in providing the kinds of information needed for the work of the forecaster.³⁷

Unfortunately, during 1982-1983, the reporting by the Federal Reserve and Administration went from somewhat problematic, to outright fraud. In a half-hour nationwide TV broadcast of my 1984 Democratic pre-Presidential campaign, I warned of the systemic fraud in official U.S. government reports on the economy, especially frauds on the subject of rates of inflation, and thus publicly terminated the issuance of what had been formerly my eminently successful quarterly forecast reports. Since then, government reports have become frankly and increasingly fraudulent. Reliable information on the overall state of the real economy has virtually vanished from the official summary reports by Fed Chairman Greenspan, et al., replaced by intoxicated admiration of the increasingly deadly, cancerous growth of the Wall-Street-centered financial bubble.

It should also be emphasized, that my principal achievements in the theoretical side of the development of my LaRouche-Riemann method, were, in significant degree, the outcome of my grasp of the potential fatal weakness, of linearity, in over-reliance upon the Kondratieff-Leontief approach to analysis of national economies.³⁸ Actual economic processes are intrinsically non-linear in the sense of Riemannian physical geometry. Nonetheless, provided the teacher and students understand the implications of that distinction, linear models of a type may be used for the introductory phase of education in economic science, as in classrooms. I include that pedagogical approach in developing my argument here.

For purposes of linear approximation, the standard of measure to be used in national-economic estimates intended for crafting policy, is a certain kind of normative standard of physical family income, including all participation in essen-

tial public services of basic economic infrastructure. The average of actual data is not to be used for the purpose of defining policy; instead, we must use *a standard corresponding to that required of households meeting an adopted synthetic standard, one chosen for a household whose employment expresses a specified level of development technology employed in production*. This standard is extended as a requirement for all portions of the households.

An explanation of that approach is needed at this point.

How Statistics Usually Lie

The most widespread of today's foolishness, by both professionals and non-professionals, in discussing the economy and economic policies, is a fanatical reliance upon what they choose to regard as "statistical facts," which are almost never actually facts in the sense presented, and which are, usually, also the product of a wild-eyed misconception of the nature of what passes for statistics.

As I have already emphasized here, above, no ordinary statistical trend ever shows, or proves a principle of nature. The characteristic failure of Aristotelean and empiricist astronomy, from the Roman Empire's Egyptian hoaxster Claudius Ptolemy, through Copernicus and Tycho Brahe, was the assumption that the apparently consistent orbital pathways, as observed by them or others, corresponded to the knowable laws of the physical universe. In fact, as Kepler demonstrated, it was evidence which stubbornly violated those simplistic statistics of the Aristoteleans and empiricists alike, which reflected the existence of some controlling intention, built into the astrophysical processes, an intention which could be identified as a universal physical principle only through the methods of Platonic hypothesis.³⁹

Statistics, at its best, is incapable of showing us anything but the relatively least interesting aspect of experience. All known important progress of the human species, has depended upon attention to evidence which shows us the folly of blind faith in mathematical statistical consistency. It is the statistically unexpected, sudden changes in the pattern of historical events, for example, which challenge the human mind's powers of creative insight, and, thus, prompt, once again, discovery of that controlling "hand of fate" working from behind the curtain of sense-perception. This is the hand which sane men may recognize as of the quality of a universal physical principle: such as universal gravitation. All of the most significant features of an economic process, have the quality of application of newly discovered, relatively long-term effects of the workings of principles, principles which

37. My first forecast was a short-term one of late 1956. This was made, as an internal policy-memorandum on an early 1957 recession-crisis, to the consulting firm of which I was a member of the executive staff at that time. My first long-range forecast was presented during 1959-1960, as a continuation of the study made for the notably successful, earlier, near-term forecast of 1956-1957. This forecast came into significantly wide circulation during the late 1960s. Its success, in August 1971, led to my public debate with Professor Abba Lerner that Autumn, a debate which I won, but a victory which led to my becoming considered a dangerous adversary to be isolated and defamed, increasingly, among leading academic economists, certain financier houses, and others, from that time on.

38. The principal part of my discoveries, first developed during the course of the 1948-1953 interval was made in rebuttal of the core argument of Norbert Wiener's *Cybernetics* and the closely related notions of "systems analysis" and "artificial intelligence" of John von Neumann. The initial application of my discoveries was made in opposition to that "ivory tower" doctrine of "operations research," of Tjalling Koopmans and others. The latter rebuttal of operations research relied significantly on a study of the influence of Leontief et al. on the appreciation of national accounting for product and income. The significance of my differences with the Kondratieff-Leontief notion of "long waves" is indicated at a later point in the discussion here.

39. Galileo Galilei, the household lackey of the founder of modern empiricism, Venice's Paolo Sarpi, typifies the empiricists of the Seventeenth and Eighteenth centuries. Galileo's attempt to plagiarize the work of Kepler, by introducing the empiricist's ivory-tower conception of "action at a distance," is typical of empiricism generally.

have been operating, apparently, from behind the curtain of the customary forms of statistical analysis.

So, in assessing the cost of producing a certain required quality of cultural development of a typical family household, we must not use those measurements that ignore the actually measured, current real-income levels; but we must not brush aside the need to determine the effects of deviations of actual real-income levels from what is required to sustain the constantly improved performance which society's general interest requires.

There are some obvious illustrations of the point. Education, health care, and conditions of personal life within the household and community, are of crucial importance, such as that determined by quality of housing required to allow efficient privacy of members of the family. We must promote the development of all persons, to produce the quality of capacity, including knowledge (as distinct from mere learning), which is consistent with those levels and rates of scientific-technological, and cultural progress which the leading edge of current national economic activity indicates as needed. We must be educating today's children for adult roles in the much more technologically advanced economy, for example, which they will enter twenty to twenty-five years later. We must be qualifying them, as children and adolescents, for the kinds of new technologies which are currently in the process of emerging.

Too often, even in the case of our own U.S.A., policies of practice, notably including policies of government, are aimed (*post hoc, ergo propter hoc*) to conform to the burdens of past practice, rather than build the foundation for the emerging practice of the future.

There is nothing strange or exaggerated in that statement. Most of the immigrants who came into the U.S. three generations and more ago, landed as poor "green-horns," working to build a better life for their children and their grandchildren. The not atypical case of the history of an immigrant family of our melting-pot nation, from the underpaid factory worker who entered our nation, to the scientist, physician, and so forth among his or her grandchildren, illustrates my point.

So, that much explanation supplied, our national economic policy must be premised on a standard of what the cost of living of a family household should be, in physical terms, rather than accepting the actual current state of affairs as a standard of reference for study of the economy as a whole.

Thus, the attempt to define the price of labor in terms such as a desire for competitive cheapening of wages through so-called "free trade," is both immoral and, scientifically, insane. Lowering the standard of general education of most young to what someone believes is sufficient for their expected employer's requirements, is as foolish an economic policy, as it is also an immoral practice. Lowering the physical income of the household below the standard associated with such factors as both qualitative and quantitative productivity, would be

morally reprehensible in the extreme, and, from the standpoint of promoting physical productivity of a national labor-force, insane. The physical cost of labor, is the cost of producing family households whose labor embodies not only a certain current level of technology and motivation, but also some rate of improvement of those qualities.⁴⁰

That precondition stated, the determining function within a physical economy, is the human activity expressing both a.) the level of technology achieved by the society, and b.) the rate of progress of the further development of that technology through, chiefly, fundamental discoveries of universal physical principle. Consider some of the relatively simpler aspects of this, first.

On the subject of basic economic infrastructure, there is also variability. In the extreme cases, which are not necessarily rare ones, such as inhabiting the desert-areas of the Middle East or northern Africa, the costs of maintaining an area as competitively productive and habitable, means an added margin of cost of development of the basic economic infrastructure. However, usually the gains in productivity of the population through effects of developing relatively marginal regions, both per capita and per square kilometer, will more than offset the continuing costs of development of the area as a region of habitation. Our planet-wide object should be an approximately self-sustaining "greening" of desert areas, by aid of development of relevant micro-weather patterns through large-scale development of forests and other green areas.

By these means, the productivity of the entire population, both per capita and per square kilometer, is raised to a higher level. These gains in the totality of the society more than overwhelm the impact of the higher infrastructure costs incurred for making formerly sub-standard territories productive ones. That deduction from the total wealth of the society, which marginal lands always represent, is overcome in this way.

Otherwise, the individual productive enterprise, of agriculture or industry, for example, like the family household, is situated within a larger area whose basic economic infrastructure can not be rationally assigned to individual private enterprise, but must be provided either by government, or govern-

40. Such valuation of labor is not a self-evident constant, but is variable, according to both the technological potential required by society, and the level of ongoing technological progress to be achieved by that society. In other words, it is not labor per se which represents physical value, but developed labor in a developed, and developing society. It is the physical cost of producing that standard quality of labor from the households of a society in a relevant state of development, which represents the true price assignable to the physical income of family households of that labor. Admittedly, under special conditions, such as warfare or economic depression, we may be compelled to postpone the full payment for that quality of labor; however, over the course of generation or two (e.g., 25-50 years) we must bring the physical income of households up to the level of cultural standard consistent with the adopted goals of technological and related social development.

ment-regulated, sometimes privately-owned, public utilities. This infrastructure's true physical cost of combined operation and maintenance, must be calculated over a span of something in the vicinity of between a quarter and half century. The ratio of physical costs of infrastructure to income of households, is to be so calculated.

In agriculture and industry, for example, the costs of production must include similar estimates of the distribution of physical-capital factors to current operations.

As part of this, we must include a margin for growth. This is expressed as a margin of profit incorporated into the total physical costs of production and household incomes. While this does provide for "horizontal" growth, that is to say on the current level of technology being practiced, the emphasis must be on rate of scientific-technological progress.

Scientific-technological progress includes taking into account the frictional costs of "technological attrition." It also includes a margin of scientific-technological progress beyond what is absorbed in combating losses in relative productivity attributable to technological attrition. This added margin of scientific-technological progress, is the source of the real net growth of the economy.

The denial that such scientific-technological progress is the source of actual economic net growth of civilization, is the obvious source of the statistical lies permeating the recent decades trends in U.S. policy and public opinion. However, the causes for these trends can not be understood efficiently, without looking into the matter more deeply, as follows.

The Crime Which Is Empiricism

Never forget, that, prior to those revolutionary changes in European culture introduced by the Fifteenth-Century Renaissance, all known world cultures were committed, in principle of practice, to forms of society in which the majority of human beings were treated as either wild (e.g., hunted) or herded human cattle. As the cases of Solon, Socrates, and Plato attest, as does the Christianity of the Apostles John and Paul, the best within ancient Greek culture were committed, in contrast to Lycurgus' Sparta, to providing all of society the benefit of the common good (general welfare, *agapē*). The idea of goals of a just form of society had existed, as the Apostle Paul's *I Corinthians 13* attests, but, until that Renaissance, it did not exist as the generalized practice of those principles by any society.⁴¹

From the aftermath of the reign of Charlemagne, through the close of Europe's Fourteenth-Century "New Dark Age," Europe was dominated by an *ultramontane* (e.g., imperial) world order which was ruled, in fact, by an alliance of maritime Venice's financier oligarchy with Norman chivalry, an alliance which we associate with the bestiality of the Crusades, the bestiality of the Spanish Inquisition's Nero-like

mass executions, and as the tradition of bestiality revived by Adolf Hitler's Torquemada-like mass murder of Jews and other selected categories of victims.

The crucial change, toward both the revival and consolidation of the Classical Greek humanist, Christian conception of man and woman, came with the Fifteenth-Century Renaissance. An exemplary part of the leadership for that Renaissance was provided by Cardinal Nicholas of Cusa. Cusa was the author of the *Concordantia Catholica* which contributed a crucial part to the emergence of a system of modern sovereign nation-states; he was also, as Kepler emphasized later, the founder of modern experimental science, beginning with his *De Docta Ignorantia*. In addition, Cusa was the author of the policy of exploration which resulted in Christopher Columbus' re-discovery of the Americas.

It was in that context, that the founding of the first actual modern nation-states committed to the common good (general welfare, common weal) was launched. Louis XI's France and Henry VII's England, became, thus, the models for the establishment of modern sovereign nation-states in general.

During the late Fifteenth Century, Venice and its pro-feudalist allies had already begun to strike back, and that savagely, against this insurgent triumph of Christianity. During the Sixteenth Century, the reaction became systemic. The virtually Satanic Spanish Inquisition and the religious warfare which dominated Europe during the interval 1511-1648, typify the pro-feudalist reactionaries' effort to reaffirm world rule by bestiality.

However, the idea of the sovereign nation-state and of scientific progress, could not be eradicated so simply. So, the reactionaries, typified by the neo-Aristotelean followers of Venice's Francesco Zorzi and the new Venetian faction of the followers of Paolo Sarpi, tried a new assault on the threat which the Renaissance had represented for the Venice-Norman tradition. The slyer among the enemies of the Renaissance, such as Venice's Paolo Sarpi, gave up the hope of returning to feudalism by eradicating science altogether. They resorted, instead, to allowing some of the products of modern science to be tolerated, but, on the condition that those scientists who consented to these Venetian reductionist cults were turned into intellectual eunuchs. The spread of Cusa's scientific method was thus banned, as this banning was typified by both Zorzi and the empiricists and their positivist and existentialist outgrowths still today.

That bestiality of the Venice-led reaction against the modern sovereign nation-state, produced both the neo-feudalist Physiocrats and that axiomatically anti-moral, Anglo-Dutch Liberal form of parliamentary democracy's "free trade" dogma. Similarly, the adoption of a virtually inquisitional form of that doctrine of "free trade," that of the Mont Pelerin Society's ultra-simple-minded Milton Friedman, has transformed the U.S. economy, over the recent forty years, from the world's leading productive power, to the mass of bankrupt, rotting and ruined, parasitical state of Roman-Empire-

41. *I Corinthians 13* illustrates the point most memorably, that it is universal principles, not codes composed of particular basic laws, which define a morally acceptable behavior among people.

style “bread and circuses,” today.⁴²

The essence of the ruse employed by both of these anti-Renaissance factions, was the denial of the existence of that quality which sets man and woman absolutely apart from and above the beasts. The aim of these anti-Renaissance reactionaries, was to obliterate the notion that there exist discoverable universal physical principles which are not directly discernable by the animal-like aspect of man’s nature, sense-perception. The savage, even lunatic attacks on Leibniz by the empiricist fanatic Euler, is the best example of this, since Euler was the most skilled of the ivory-tower mathematicians among those empiricists, and therefore the more consistent sophist in his crafting of the same fraudulent argument proposed by many others, such as his crony and accomplice Maupertuis.

The most significant political expression of this anti-humanistic reductionism of such as Descartes, Locke, Hume, Quesnay, Adam Smith, and Euler, was the Anglo-Dutch Liberal model of parliamentary imperialism. This imperial power was established, as such, by the British East India Company’s 1763 triumph over France, and that Company’s related triumph in India.

The emergence of the power of the British Empire, especially after 1815, defined the Anglo-Dutch Liberal form of empiricism, with Isaac Newton as its ship’s figurehead, as the leading enemy of the Renaissance’s legacy through Europe and the Americas. In this process, the extremist expressions of empiricism, as by Hobbes, Locke, Mandeville, Quesnay, Hume, Turgot, Adam Smith, and Jeremy Bentham, were adopted as the basis for the influential Anglo-Dutch Liberal model of a doctrine of political-economy.

During the late Eighteenth Century, the leading opposition to this Anglo-Dutch Liberal prescription for man’s bestiality to man, was assembled, as an international force, around the cause of the freedom of the Benjamin Franklin-led U.S. republic. The tradition we represented so was that of the 1648 Treaty of Westphalia, which had ended the Venice-orchestrated religious warfare of 1511-1648. In economic policy, we American patriots represented the legacy of France’s great nation-builder, Jean-Baptiste Colbert. In fact, especially from the mid-Eighteenth Century onward, we expressed the constitutional and economic policies of Gottfried Leibniz’s devastating refutation of John Locke’s pro-slavery doctrine of shareholder value, Leibniz’s concept of “the pursuit of happiness,” as the latter, defined in Leibniz’s *New Essays on Human Understanding*, became the principled basis for our form of

constitutional self-government, and the source of the concept of “the pursuit of happiness” featured in the 1776 Declaration of Independence.

It was to prevent the spread of the achievements of U.S. liberty from spreading throughout Europe, that the British East India Company, led by Lord Shelburne, organized the French Revolution, and set into motion the Hitler-like warfare and tyranny of Napoleon Bonaparte.

The Congress of Vienna, which celebrated the ruin of the Emperor Napoleon Bonaparte, is fairly called The Sexual Congress of Vienna. While countesses and others were steered by Metternich’s Habsburg secret police into providing diverting entertainment for many among the representatives of states gathered there, Metternich and Castlereagh made the leading decisions, which led, in due course, to Lord Palmerston’s success in deploying his agent Mazzini, for the mission of toppling Metternich from power.⁴³ The Europe which emerged under the rule of that Vienna Congress, dominated a division of power between the British Empire and a neo-feudalist European continent, isolated and imperilled the continued existence of that constitutional republic we had formed in 1789. It was not until a U.S. led by President Abraham Lincoln freed us from rule by the slaveholder’s doctrine of “free trade,” that the U.S. emerged rapidly as the greatest single economic power among individual nations in the world, a status which it retained, until the lunacy of “free trade” and “counterculture,” which came to grip us about forty years ago.⁴⁴

Admittedly, we came repeatedly under the influence of the London-backed slaveholder faction, as also from the Habsburgs and the slave-trading Nineteenth-Century Spanish monarchy, prior to 1861-1865, and under the influence of pro-Confederacy Presidents Theodore Roosevelt and Woodrow Wilson. Recently, especially since the assassination of President John F. Kennedy, our nation has become the victim of a mimicking of the depraved “free trade” policies of the alien Anglo-Dutch Liberal model. However, despite those excursions into depravity, we have, until now, remained, genetically, in the political sense of the term, what Franklin’s legacy made us, except as we have been, so frequently, the virtually apostate victims of either the evil, over-reaching power European coalitions which hated our existence, or victims of our own willing, induced self-corruption, as today. Our Constitution, and our conception of an anti-British East India Company policy known as *the American System of political-economy*, our fundamental opposition to an intrinsically predatory and imperialist Anglo-Dutch Liberalism, is a deeply embedded special character, our patriotic tradition, even today.

Today, we are no longer virtually the “only power” on this planet, as we were until President Harry Truman began

42. Cambridge’s Mrs. Joan Robinson, whose circles have never been friends of mine, has nonetheless enjoyed my repeated, and hearty endorsement of her fully justified ridicule of the wretched Friedman, as the economist of *post hoc ergo propter hoc*. The Mont Pelerin Society’s Friedrich von Hayek defined that association as dedicated to the promotion of the Bernard Mandeville who insisted that promoting freedom for the practice of private vices, as Milton Friedman and George Soros have done, was the road to the prosperity of society. Consistently, von Hayek’s accomplice Friedman, like the ugly George Soros, emphatically defended the legalization of the contemporary illegal narcotics traffic of the Colombian FARC and its accomplices.

43. See Rachel and Alan Douglas, *The Trust*, mss.

44. The power of the British monarchy was that of an empire, not a nation.

to spoil Franklin Roosevelt's achievements. However, the American System of political-economy, which is our constitutional tradition, is the rallying-point in tradition around which many nations of the world can be grouped today. This can be done today, on the condition that we dump the imperialistic among some of us, to return to what President Franklin Roosevelt had intended, contrary to the Truman Presidency, had he lived to conduct his own post-war policy.

The purpose of such a coalition must be that which I proposed, and heartily endorsed as the draft for a new, just world economic order, adopted at the August 1976, Colombo meeting of the Non-Aligned nations: to create a just new world economic order among perfectly sovereign nation-states, an order freed from those "free trade" and related policies which have now, nearly thirty years later, brought European civilization as a whole to the verge of willful self-extinction.

The commonly crucial feature of this Anglo-Dutch Liberal model, whether as mathematical physics or political-economy, was the denial of the knowable existence of any universal physical principle beyond the statistical interpretation of mere sense-perception as such. In both of these expressions, the effect was the denial of any knowable quality of the human being by means of which man might be distinguished from a beast. At the same time, as a correlative of this, it was denied that man was capable of discovering, and employing any knowable form of universal physical principle outside the realm enclosed by the experience of sense-perception. In short, man as a fertile creature of ideas, was castrated by the "Ockham's Razor" of Sarpi's empiricism, to produce a moral eunuch, who might admire, and be humbly mystified by the principled artefacts of scientific reason, but could not actually produce them.

The crucial political significance of empiricism, in particular, is that it does as reductionism does in general. It denies, even virtually prohibits that specific quality of man and woman which sets human beings absolutely apart from and above the beasts.

For example, the notorious Physiocrat, Dr. François Quesnay, used his degradation of the laborers on the feudal estate to the same status as cattle, to pretend to show that all of the profit created by the estate was the fruit of the mystical powers of the feudal landlord's title of overlordship. This conceit by the wicked Quesnay was represented by Quesnay's doctrine of *laissez-faire*, which Adam Smith plagiarized as the dogma of "free trade." The same argument had been made by John Locke, earlier, on behalf of the dogma of "shareholder value" (e.g., *property*).⁴⁵ Mandeville, the adopted patron of

45. This doctrine of "property," as adopted by Locke, Quesnay, Mandeville, Adam Smith, et al., is the principal, treasonous feature of the Preamble of the Constitution of the Confederacy, in which the representatives, then, of what we call the Synarchist International today, drew upon Locke to defend chattel slavery as defined under Locke's notion of "right of property." This same doctrine of "property" had been used by the Spanish and Portuguese monarchy, since the beginning of the Sixteenth Century, to authorize the

von Hayek's and Milton Friedman's Mont Pelerin Society, traced the genesis of wealth to the private practice of personal vice, thus choosing Satan as his favorite god. The same argument was made, with slightly different literary packagings, by Adam Smith, Jeremy Bentham, and all other leading ideologues of the Anglo-Dutch Liberal dogmas.

In other words, all of these reductionist ideologues sought to turn back the clock of history, from the high point typified by the Fifteenth-Century Renaissance, back to the form of society in which most people were degraded to the status of either hunted or herded human cattle. The conditioning, one might say "brainwashing," of our young in schools and universities, as elsewhere, into versions of learning which are axiomatic expressions of reductionism, has produced a pervasively stultified state of mind of the population, and of its policy-shaping habits, which repeatedly impels us into forms of mass behavior by which we are repeatedly, nearly destroyed, as by the legacy of Coolidge and Hoover, or the trends of the recent forty years which have brought us to the brink of economic doom today. The kernel of the problem is, that the idea of the existence of the actual creative powers of the individual human mind is either denied, or mystified in such a crippling way, that the factor of actual human creativity is not featured as a determining factor in the welfare and progress of society as a whole.

This was the criminal role of empiricism, and kindred forms of reductionism, in degrading the conception of man and woman to that of mere beasts. The purpose was to ensure that the majority of the population, even those educated as putative scientists, would think of themselves as in the likeness of human cattle. The latter were induced, as Euler and Lagrange were, to think only as Isaac Newton did, as in the likeness of human cattle: denying the existence of those qualities of discovery which located knowledge of principle outside mere sense-perception: denying truth, *hypothesis*, as unnecessary, as Newton did. Compare the case of poor Georg Cantor, once a true genius, but, who, after being driven insane by his persecutors, such as Kronecker, proposed the adulation of Isaac Newton, even if unsuccessfully, to Pope Leo XIII!⁴⁶

Iberian leadership in creating the trans-Atlantic trade in African slaves. When the Dutch and British took over much of the world, during the late-Seventeenth and Eighteenth centuries, they copied Spanish "logic" on this point. The British East India Company dumped the use of their boats (and those the United States' treasonous Essex Junto) during the 1790s, in favor of shifting to the more profitable opium trade; at that point, they left the dirty work of the African slave trade to the British puppet, the Nineteenth-Century Spanish monarchy.

46. This anti-Leibniz doctrine of Euler, Lagrange, Laplace, Cauchy, et al., was premised upon the successive forms of the essential, anti-Socratic argument of Aristotle, Galileo, Descartes, and Newton. This was reflected in the retort by J. Clerk Maxwell, who, challenged on his refusal to acknowledge his extensive reliance on lifting unacknowledged leading discoveries of Gauss, Weber, Riemann, et al. for his own work, replied, that "we" refuse to accept any geometries but our own, referencing as "our own," the aprioristic ivory-tower dogmas of Aristotle, Galileo, Descartes, Newton, et al. This was the same position taken earlier by the Leibniz-hating fanatics Euler and Lagrange.

As a result of this continuing mass-brainwashing by empiricism, that activity which distinguishes man from the beasts, the process of discovery of fundamental scientific principles, is excluded from the taught principles of economy. In a society putatively dedicated to the profits of usury, such as the Anglo-Dutch Liberal system adopted as his model by Marx, the activity which actually produces such margins of gain, the discovery of scientific principles, is excluded from the description of economic processes.

Acceptance of that reductionist's dogma of "free trade," is the crime for which my fellow-citizens, like poor, demented flagellants, are still, often, punishing themselves.

What, Then, Is the Financial Price?

"How smart must a voter be? What level of development of the citizen's mind is needed to enable at least a majority of citizens to make intelligent choices most of the time, at least during periods of crisis?" The problem among us has often been the populist fanaticism which insists that the level of debate must be brought down to the level of popular opinion, rather than bringing the knowledge of the citizen up to the level needed for the typical citizen to make competent choices, choices which would have tended to prevent the kind of degeneration the U.S. and its economy have undergone during the recent forty years to date.

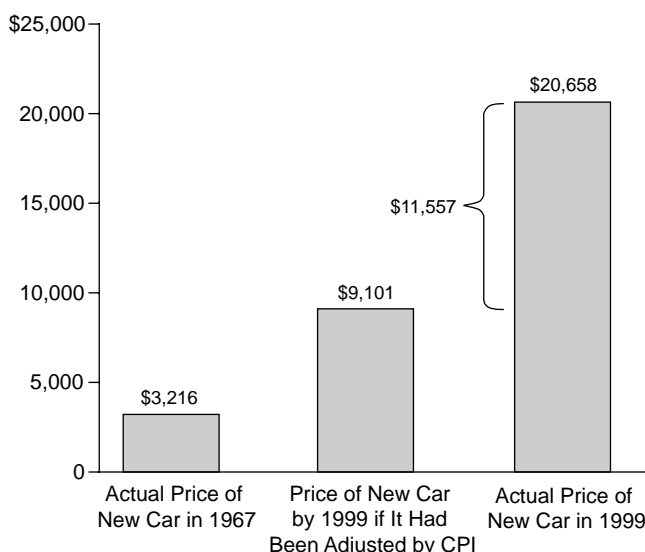
It is notable that the worst decisions, those responsible for the degeneration of the U.S. from the world's leading producer society of President Kennedy's moments, to the gutted, "post-industrial" ghetto of scant bread and Roman-like circuses, has been led by those who are typical of the nominally best educated and most influential of those who entered universities during the middle to late 1960s. Those of this stratum who have successfully misled the other portions of our citizenry, did so by preying upon the most simple-minded passions of the victims. Such is the result of bringing politics down to "the popular level." The evidence is clear; the following facts are typical of that evidence.

During the post-World War II period, following the establishment of the original Bretton Woods monetary institutions, there has been a continuing general monetary inflation of the U.S. currency, first under President Harry Truman, and, second, under the expression of the influence of Arthur Burns, the early sponsor of the career of the notorious Milton Friedman. Lately, since 1996, this inflation has accelerated into becoming a virtual hyperinflation, reflected, more recently, in the steep devaluation of the U.S. dollar, from an \$0.83 Euro to (as of this moment of writing) a \$1.28 Euro, amid the soaring of the U.S. national current accounts deficit into the order of \$1 trillions per year, while productive employment in the U.S. continues to collapse.

The mechanisms responsible for these effects are a combination of, first, simple monetary inflation, either by governments or by the complicity of governments; and, second, increasingly massive fraud in U.S. national income estimates, through such flagrantly crooked devices of the Federal Re-

FIGURE 3

BLS Makes Disappear \$11,557 in Increase in Price of New Car Since 1967



Sources: Department of Commerce's Bureau of Economic Analysis; Department of Labor's Bureau of Labor Statistics; *EIR*.

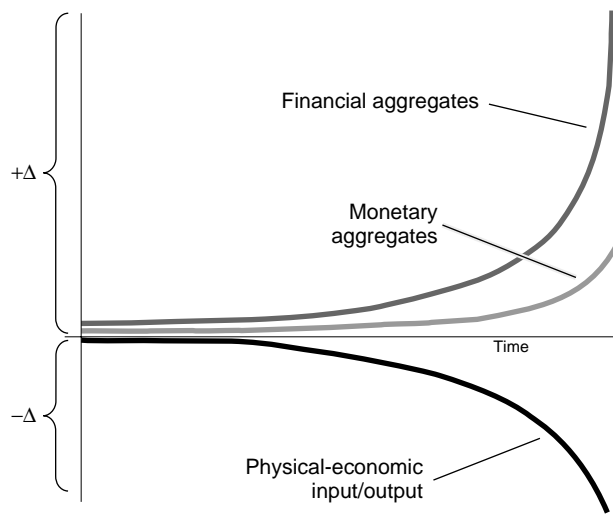
The monetarist manipulations of the Bureau of Labor Statistics, such as the Quality Adjustment Index, make it impossible to rely on government statistics for any real picture of what is going on with the economy. Here, the BLS wipes out the inflation of automobile prices, with a wave of the statistical wand. (The CPI is the Consumer Price Index.)

serve System and Presidency as what is named, variously, by such names as "Quality Adjustment Index" or the marginal utilitarian's "hedonic factors." But for the Quality Adjustment hoax used in official reporting, political factors would not have permitted government to let the U.S. economy degenerate to the degree which it has under Presidents Clinton and Bush.

However, we must not overlook the fact, that the possibility of the continued use of inflationary frauds such as those monetarists' tricks, by governments, has depended upon a monstrous credulity, respecting the nature of value of money, among even ordinary citizens. The need for money, as purchasing (and debt-paying) power, has duped very many among the ordinary citizens into believing that the power of money (or, its want) over their lives, "proves" that the economic value lies within the merely symbolic manifestations of money per se. The galloping spread of "gambling mania," among both ordinary citizens and leading political circles, turning both more or less into stock-market zombies, reflects this already widespread, and currently increasing mental disorder. Sanity in studying modern economy demands, that we distinguish between two kinds of apparent profit, one real, the second a popular delusion.

FIGURE 4

LaRouche's Typical Collapse Function



LaRouche's "Triple Curve" schematic diagram, first presented in 1995, shows how the cancerous rise of financial and monetary aggregates destroys the physical economy at an accelerating rate. Figures 5 and 6 illustrate the process.

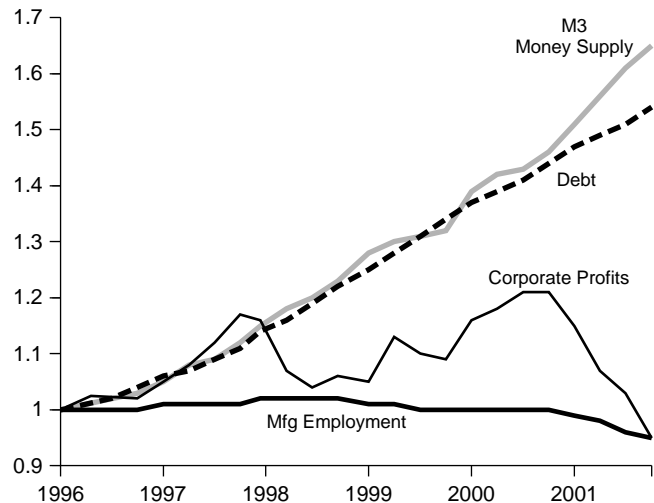
In the case that a national economy is operating at a net physical-economic loss, it is possible to create the illusion of profitability by funneling large masses of money or credit into financial markets. This occurs as a two-fold process of "pumping up" a popular delusion. First, money in one form or another, is injected into the sectors of government and business which generate credit-creating leverage. Second, that credit-creating power is funneled, as under U.S. Federal Reserve Chairman Alan Greenspan, into focused sites such as stock-market, bond-market, or real-estate bubbles. Thus, we have the spectacle today, of, even without taking outright fakery into account, a tendency for a rising Dow-Jones and Nasdaq to soar during the short-term, while the real U.S. economy, and value of the U.S. dollar, are collapsing at what tends to be an accelerating rate.

The role of price-earnings ratios in such markets, creates the delusion of increase of wealth in the categories of investment associated with those essentially nominal, financial-market financial profits. The result is, that President George W. Bush, Jr., and like-minded visitors from Gulliver's Laputa, gasp in awe, pointing to the monstrous cancer coming out of one another's foolish ears, while exclaiming: "See! We are growing!"

When the ratio of the amount of money flowing through financial-profit accounts rises, but, also, while the actual productive activity of the economy is collapsing, we are seeing the makings of a systemic collapse of both the U.S.A. and world economies, not merely as bankrupts, but as systems.

FIGURE 5

The U.S. Economy's Collapse Function Since 1996



Source: EIRNS.

FIGURE 6

Dollar Plunge Continues

(Euros per Dollar)



Source: EIR.

This is what is called a *systemic collapse*, meaning that the collapse is an organic part of the design of the economic system, rather than a result of isolable mistakes which have brought about unpleasant, externally-caused, or temporary problems. The cause of the problem lies inside the minds of both the powerful and the simply credulous poor alike. In such a case, the longer the terminal collapse of that economy is postponed, the more disastrous the situation becomes, as

for the case of the U.S. economy today.

To cut through such masses of delusion as those gripping the minds of most citizens today, we must shift their attention away from nominal money-values as such, to physical values. However, we must not see physical-economic values in terms of discrete individual objects, but, rather, *in terms of the physical processes by means of which the potential relative population-density is being increased*. In this latter view, we must not make the reductionist's simplistic blunder of associating "physical," primarily, with individual "physical objects." It is the process, not the thing, which is crucial. It is by the fostering of those actions which occur beyond the reach of sense-perception, by the mind, actions which are typified by discovery of universal physical principles, that the processes of production generate those improved kinds of products, and improved processes of production, whose existence defines a real, physical margin of profitability for both the individual enterprise and the economy as a whole.

Thus, the truly fair price, to charge to society, of anything worth producing, is found, mathematically, only within what Gauss defined, in opposition to Euler, Lagrange, et al., as the complex domain. This represents, on the one side, both the obvious activity of production, and the components consumed in that process; and, on the other side, the factor of increase of the rate of generation of wealth produced, in the course of such continuing action.

The process so identified involves, in the first part, several elements of capital: current costs and expenses; capital of the operation in which production is performed; capital required for situating the productive acts as such; basic economic infrastructure, such as power, water, transportation, health care, education, and so on, by which that entire operation, and also others, are supported. For the second part, it represents the "intangible" role of the developed creative powers of the mind of the persons employed. It is the last of these, the so-called "imaginary" component of the functional variable, which represents creative action of the mind, which is the characteristic activity by means of which the possibility of an actual, physical, margin of profit is generated.⁴⁷

The first set of objects are products of the previous cre-

ative acts which define the given level of development of the productive process. The second, the creative action of the mind, actually creates the wealth. The first set of objects are tangible subjects of sense-perception; the second, is the human cognitive action being performed from beyond the domain of sense-perception. It is that creative action, which distinguishes man from both a beast and a machine; this is the human aspect of economic processes. It is the failure to grasp these crucial functional distinctions within the economic process, which is the chief root of the manifest incompetence of those economic teachings derived from the empiricist schools of argument.

That taken into account, how should government act to shape prices in such a way as to promote progress in the way this notion of the economic function indicates? How should money be defined, issued, and regulated?

Under our Constitution, the currency of the U.S. is issued as a monopoly of the sovereign nation, only by the Executive Branch's Treasurer, as authorized by act of Congress. The authorization to issue currency is then used as public credit, which may be loaned, as debt of the U.S. government for approved categories of purposes.

This sovereign monopoly connotes the authority, duty, and responsibility of the Federal government to defend the value of that currency (as, for example, against systemic inflation), and to regulate the circulation in ways which include the use of the power to tax as among the relevant means employed. Despite the Federal Reserve System, which was, in fact, a corrupt, but tolerated subversion of the clear intent of our Federal Constitution introduced as a design by U.S. agents of the British King (and Emperor) Edward VII, the normal circulation of currency is properly coordinated Federally through a national banking institution, as the first U.S. Treasury Secretary, Alexander Hamilton, described the nature of this intent to the U.S. Congress.

Now, with the avalanche of collapse within the present international banking system, the survival of nations will depend upon the courage of governments which act, in concert, to put today's intrinsically bankrupt central banking systems into receivership for reorganization in bankruptcy conducted by governments. It would be impossible to induce that intrinsically heteronomic pack of rascals, our present private and central bankers, to generate a viable form of agreement on reorganization of the present world banking system. This means putting the IMF into receivership by governments, to be recast in the image of the post-war Bretton Woods monetary system. It means, in effect, the institution of national banking, at least for the duration of the crisis.

The required reorganization of these banking and monetary systems must proceed with an awareness of the inherent awkwardness of government direction of economy. Government must craft and implement its role in these matters so as to avoid any significant effects of that awkwardness. Government must limit itself to what government is able to

47. Take the case of the Soviet economy as an example. According to the essentially empiricist, radical, virtually anarcho-syndicalist versions of Marx-Engels dogma, for example, it is argued that the creativity of economy flows from the "horny hand" of the laboring "masses," and that the "intelligentsia" (such as scientists) are an unavoidable, unfortunately necessary seed of counterrevolutionary evils. Despite the remarkable achievements of the Soviet scientific intelligentsia, the Soviet economy founded in the dogmatic pessimism, and economic decadence, which flowed from the simplistic views of Britain's Thomas Huxley and Frederick Engels on the emergence of man from the higher apes. This suicidal, "workerist" doctrine of the anarcho-syndicalist variety of socialist ideologue, also served as the axiomatic basis for the dogmas of Social-Democrats Kautsky and Plekhanov, and also a core of Lenin's own Bolshevik faction, in their arguments against a "voluntarist" view of history.

do well, and, thus create the framework favorable to the creative action of individual initiative. Government must limit itself, chiefly at least, to setting the rules of the game, and setting the game itself into motion. On this account, since the present U.S. and world situation is much worse than 1932-1933, we must do more than Franklin Roosevelt did to pull the U.S. out of the depression bequeathed to him by the policies of Coolidge, Andrew Mellon, and Hoover; but we, as government, can not expect to do much better. We shall reach our goals, with a certain awkwardness, waiting for the system we have arranged to "kick in" with its own original adaptations to the combination of general conditions and rules we have set into motion.

Therefore, if what I indicate here as necessary measures, do lead to a certain awkwardness in their realization, that is not competent evidence against what the government must do; it is a built-in awkwardness inhering in this not only necessary, but indispensable setting of new rules by government. Do not find fault with the awkwardness of a recovering patient's gait; he is, after all, walking. Therefore, what I am proposing is not one of the rather typical "cockamamy" plans by typical political candidates; it is a change from those policies which have brought our republic (and much of the world) to ruin, to resume walking, however awkwardly, at the place we have fallen, seemingly helplessly.

How Do We Change It?

I repeat: We do not really know anything, until we have discovered how to change it. To understand the problem of the U.S. economy today, we must discover how to organize the form of general economic recovery which uproots the follies of bankers, politicians, and small-time populists alike, during, especially, the recent forty years.

Our presently appropriate view of the notion of national banking, is defined, still, by the role of President Franklin D. Roosevelt in crafting of the Bretton Woods Conference of 1944. Indeed, the calamities we have suffered from the mismanagement of our affairs since about the time of the launching the official U.S. Indo-China war, shows us today how foolish we have been to depart from the concept of a fixed-exchange-rate world monetary-financial system of the type which had been continued through the Presidency of John F. Kennedy, and slightly beyond.

Now, the world's present, floating-exchange-rate monetary-financial system is hopelessly bankrupt. It must be placed into governments-controlled receivership for necessary forms of administration and reorganization. Virtually none of the leading banking institutions of western Europe and the Americas (among other cases) are not implicitly bankrupt presently. Therefore, the first, most immediate objective of intervention by sovereign governments must be stability of the normal functions of society; the second, short- to medium-term objective, must be an increase in productive employment

to levels sufficient to bring current accounts of nations into balance; the third objective must be the negotiation of a nested array of long-term sets of protectionist treaty-agreements on credit, tariffs, and trade among a set of leading nations. The latter agreements should range from one to two generations: corresponding to capital cycles of from twenty-five to fifty years.

The possibility of a recovery from the condition presently bequeathed to us by the combination of the floating-exchange-rate IMF system and the wildly aberrant behavior of central banking systems of nations, depends upon a massive supplement of long-term credit for capital formation, with initial emphasis on capital formation in basic economic infrastructure. To sustain such a program of expansion over two generations, as we must, requires a system in which fundamental borrowing costs must be no higher than between 1-2% simple-interest rates. This can be achieved only under conditions defined by a fixed-exchange-rate monetary-financial system. Therefore, this means a "gold reserve system," but not a revival of a British-style (or looney Ezra Pound's) "honest money" sort of gold standard system. This also means a system of long-term trade and tariff agreements among nations, to an effect consistent with such goals as long-term growth of capital formation.

Only government, or concerts of governments, have the power to resist demands by "special treatment" of "special interests," resistance which is indispensable for preventing the abortion of the new system, virtually at birth. Only the power of government to resist the clamor of special private interests, can secure the successful functioning of such a new world monetary-financial system. Therefore, the relevant special interests must learn to behave themselves. The welfare of us all demands nothing less than that.

There is no competent argument for shutting down any program or institution, public or private, which plays an essential part in preventing further injuries to the general welfare. Lowering of the budgets of nations, or political regions of nations, is morally and economically unacceptable. The remedy is cancelling the doctrines of "fiscal austerity" which have already done so much to ruin nations and the general welfare of their people. The policy must be to debride, or suspend what is not relevant to the general welfare, while both increasing the level of total productive employment and shifting the composition of employment, increasingly, toward those activities which are more productive, as measured in physical-economic terms.

Admittedly, part of today's economic problem comes from a shift of employment from useful modes, into either relatively mass unemployment, or downgrading of quality of usefulness of employment. We do have a large accumulation of wasteful forms of employment, as would be expected of a four-decade trend, in Europe and the Americas, of shift from an earlier producer society to a present form of "bread and

circuses” culture dominated by increasingly depraved forms of mass entertainment. The needed shift of employment from pathological categories of employment, to productive, combined with the absorption of unemployed (including statistically hidden mass unemployment), are leading resources for increasing the productive activity and output of national economies.

There are some clearly defined options available to us for such a shift into increased and more productive employment. The most impressive is the tendency for long-term cooperation of western continental Europe with a complex centered around the Russia-China-India “strategic triangle” of Eurasia. With large masses of long-term capital formation, base-rates of 1-2% simple interest, in a fixed-exchange-rate system, a fifty-year wave of growth throughout continental Eurasia will be placed immediately on the table for decision-making among states.

Among the most notable features of that prospect, is the indispensable role to be played by large-scale systems of basic economic infrastructure, as in generation and distribution of power, mass transport, large-scale water-management systems, new urban complexes, and a vast overhaul of regions of central and north Asia which are prime sources of essential raw materials for generations to come.

We have similar prospects for the Americas as a whole. Cooperation between the Eurasian and Americas development programs defines a bright prospect for the nations, their populations, and their entrepreneurs, over more than two generations to come. With cooperation among those continental regions, the resources can be generated for assisting Sub-Saharan Africa in escaping the cycle of genocide which grips it today.

To secure success in such ventures, we must establish a system of intermeshed agreements on trade and tariffs, agreements which are designed to protect the formation of capital invested in public and private ventures of importance to the respective nations. This means, for example, a reversal of the lunatic rampage of deregulation unleashed upon the hapless U.S. people and their economy during Zbigniew Brzezinski’s 1977-1981 term as National Security Advisor. It can be generally assumed, for the case of the U.S.A., that almost every change made in the field of economy by government, since 1968, was probably as bad as the effects of the rock-drug-sex counter-cultural revolution unleashed in the wake of the 1962 missile-crisis, the assassination of President Kennedy, and the launching of the official U.S. war in Indo-China. In some cases, worse.

If we continue to be unwilling to make the kinds of changes I have indicated here, even in face of the presently onrushing general collapse of the existing world system, then we, and our posterity shall pay an awful price for such reluctance: probably a prolonged, planetary new dark age for humanity.

5. The Neo-Manichean Maxim

Now, for the crucial, concluding feature of this report, we turn our attention to the promised discussion of the “goldfish bowl” syndrome. For examples of that syndrome, look at some among the most notable sources of opposition to what I have proposed. Take the case of variations on the theme of that neo-Manichean maxim known by such names as “laissez-faire” or “free trade.”

“Baby needs shoes!” exclaimed the dice-thrower. The fact that the dice-thrower’s prayer is not that of a Christian, does not mean he is not a very, very religious person. Belief in “luck,” bad or good, is a form of pagan religion; it is, among others, the religion of those known variously as the “bogomils” or “Cathars,” and the followers of the notorious real-life “Elmer Gantry” of our nation’s Eighteenth-Century history, the charlatan Jonathan Edwards.

These are not to be condemned as wicked merely because they are neither, in actuality, Christian, Jewish, nor Muslim. They are condemned only when a paganism, such as that of the Roman imperial pantheon, corresponds to a systemic rationalization of the categorical degradation of a part of mankind to the status of human cattle. The revival of an evil sort of pagan cult by “Julian the Apostate” is notable, because of the implicit adoption of Julian as a model adopted by the leading political figure of late-Eighteenth-Century Britain, Lord Shelburne. Shelburne’s house historian, Edward Gibbon, searching for a means by which the newly emerging, post-1763 empire of the British East India Company might avoid the doom of the ancient Roman Empire, blamed Christianity for the fall of Rome’s empire, and proposed the Byzantine Emperor Julian the Apostate as a model to be used by Britain.⁴⁸

The policies of Shelburne’s Adam Smith, Jeremy Bentham, and their followers Castlereagh, Palmerston, and Russell, were in fact essentially pro-paganist in the tradition of

48. As my associates and I have documented in various published locations, the features of Gibbon’s connections relevant to the subject of this report, is essentially, the following. Gibbon, one-time suitor of the wife, Suzanne, of the infamous Jacques Necker, was an intimate associate of the circles of Voltaire at Ferney. The decisive developments in the careers of both Necker and Gibbon are contained within the interval 1763-1790, the period of the rise of Lord Shelburne’s British East India Company as, in fact, the British Empire, already during that period. It was during this same period that the East India Company’s French assets, the Martinist freemasonic cult, prepared the events of 1789-1815 which ended all future French challenge to the British Empire to the present date. These circles intimately overlapped those Physiocrats who, as key figures of the enlightenment, played a crucial role, complementary to the Martinists in both the French Terror and the tyranny of Napoleon Bonaparte. Gibbon’s view in his *History*, and those economic policies of the East India Company which have been, repeatedly, so ruinous in their effects on the U.S. economy, should be understood against those included features of the case of Gibbon.

Gibbon's doctrine. A parallel pro-paganist imperialist dogma had arisen within the ranks of western Christian clergy as the ultramontane, neo-Roman imperialist doctrine promulgated under the rubric of the mythical "Donation of Constantine." This form of paganism, under nominally Christian pretexts, became the characteristic feature of the gnostic cults developed around the post-Charlemagne, imperial power of the Venetian financier oligarchy and its Norman allies, through the Fourteenth-Century New Dark Age. The Sixteenth-Century resurgence of the anti-Renaissance forces, led by Venice, expressed the same gnostic tradition as the earlier Venice, as did the Seventeenth/Eighteenth-Century rise of Anglo-Dutch Liberal forms of pro-imperialist currents.

That kind of paganism is expressed inside the U.S.A. still today, as the religion of Bernard Mandeville and François Quesnay, and the U.S.-hating Adam Smith,⁴⁹ and is simply the blind faith expressed by popular compulsive gambling in the either casinos, up a rubbish-strewn back alley, or in today's financial markets. The essential, functional distinction of these gnostic currents of belief, is the defense of the herding of the majority of human as either hunted or herded forms of human cattle. Hence, the form of law which practices the denial of man and woman as being made equally in the likeness of the Creator, and bans from the domain of mortal life those of mankind's rights which inhere in that likeness, is behavior typical of the obnoxious types of paganism to which I refer here.

Thus, for example, Mandeville's and Friedrich von Hayek's god, was Satan: he insisted, explicitly, that private vices magically promote the wealth of the nation.⁵⁰ Quesnay's god, lurking under the floorboards, dispenses wealth magically to the titled landlord, while relegating those who actually produce that wealth to the status of herded human cattle on the estate. John Locke's notion of "Property," or U.S. Associate Supreme Court Justice Antonin Scalia's radically nominalist conception of "shareholder value," are derived from the same pagan notions of axiomatically irrational, magical powers lurking under the floorboards of known sense-perception. We have the case of the fanatically irrational Adam Smith, whose

49. Not only was Adam Smith's 1776 *The Wealth of Nations*, a British East India Company propaganda-tract against U.S. independence, Smith had been enlisted, already in 1763, by his patron, the India Company's Lord Shelburne, to work on a plan for wrecking the economy of the English-speaking North American colonies. Adam Smith's predilection for such Cathar-like notions did not begin within his 1776 *The Wealth of Nations*. In his 1759 *The Theory of the Moral Sentiments*, he was already insisting upon a "Great Director of Nature" who manipulated men and women for their own benefit through their vices. Similar notions permeate the empiricist tradition down to the present-day paganists' religious devotion to "the magic of the marketplace."

50. Bernard Mandeville, *The Fable of the Bees: Private Vices, Public Virtues* (1714, 1734). Mandeville was adopted as "the patron un-saint" of the Mont Pelerin Society of von Hayek and Milton Friedman. Cf., on Mandeville and his influence, H. Graham Lowry, *How the Nation Was Won*, Vol. I (Washington, D.C.: Executive Intelligence Review, 1988).

plagiarism of the Physiocrats marks his advocacy of "free trade," as exposing him as yet another follower of the pagan magicians' creed of the Cathars.

Examine those Cathar-like, paganist religious notions against the backdrop of our references to the goldfish-bowl-like popular syndromes referenced in the opening of this report. Man's fabrication of his wicked gods of fancy, is typified by the magical being, lurking under the floorboards of sensuality, the pagan's god of Locke, Mandeville, Quesnay, Smith, et al. These paganist religious currents of the reductionist, reflect the perverted way in which the human individual's power of imagination may run amok whenever presumably self-evident sorts of invisible principles replace that search for truth which is typified by Plato's Socratic method of hypothesis. The ivory-tower definitions, axioms, and postulates of Euclid, like the related Aristotelean error in astronomy by Claudius Ptolemy, Copernicus, and Tycho Brahe, illustrate the point. The root of those ivory-tower arguments, is traced in European history through the role and methods of the ancient Eleatics and their sophist followers, whose tradition is the essential feature of most contemporary academic and related teaching of economics in universities today.

Such are the pro-paganist psychopathologies expressed by the substitution of "financial investment" for improved production of physical goods. The fact that such pathologies are currently prevalent popular opinion, does not mean that they represent valid (perchance, because "sincere") opinions; the more popular such beliefs, the more dangerous they are to society, the more they tend to express that type of epidemic threat to society fairly called a mass psychosis. The worst crimes against humanity are often perpetrated under the banner of that morally less than worthless quality of "sincerity."

That kind of sincere addiction to one's own mental habits, is the way a nation, a culture, an entire people destroys itself. Like the deluded children of Hamelin whom the Pied Piper led to destruction, so such trends in popular opinion have been leading the overwhelming majority of the people of the U.S.A. toward collective self-destruction during recent decades, in the aftermath of the 1962 missile-crisis and the Kennedy assassination, in the wake of the plunge into the folly of the official U.S. war in Indo-China, especially those victims of the heritage of Trumanism and like pathologies, who passed out of adolescence during that time.

To cure a nation of the kind of willful self-destruction which has gripped the population of the U.S.A. (among other nations) increasingly over the recent forty years, it is not sufficient to say, "Yes, I admit that is pretty sick." Often, in the next breath, the person who makes that confession will add, "But there is nothing I can do to change that. That is the way I am, and you will have to learn to live with it." The victim of such delusions must recognize the pathological "mechanisms" which are controlling his mental behavior. He must be made conscious of the axiom-like beliefs which are controlling his behavior; only by being aware of, and electing to

uproot those pathological, axiom-like assumptions, can the victim be freed of a compelling mass-delusion of a form such as blind faith in “free trade.”

Hence, my fable of the goldfish bowl. The challenge is to make conscious those kinds of axiomatically pathological assumptions which transformed a nation which President Franklin Roosevelt had saved, into a nation which began to slip from victory, toward self-corruption, and then self-destruction, over the span of the decades since the Allied forces breakthrough at Normandy in 1944.

To deal with such a mass-disorder, two elements of knowledge must be supplied to the victims. First, the rigorously scientific basis for the concept of the goldfish bowl. Second, the falseness of the specific, axiomatic-like assumptions which act as the walls of the imaginary bowl within which the victim’s mind has been contained. Thus, does a people awaken to free itself from a recurring nightmare such as that which has gripped the U.S. population, increasingly, during the recent forty years.

Begin by looking again at the way in which the relevant axiomatic delusions have been induced. Call this complex of delusion, the Aristotle-Euclid-Ockham-Descartes-Newton syndrome.⁵¹ In other words, reconsider, more concisely, the immediately preceding paragraphs’ treatment of certain contemporary manifestations of this pro-Satanic, pro-paganist delusion.

Essentially, Newton Was a Fruit-Cake

The British establishment of that time chose the famous banker John Maynard Keynes as the scientific intellect best qualified to open and assess the contents of a chest containing the papers of the legendary Sir Isaac Newton’s “lost” papers. On that occasion, Keynes astonished the audience for his report, by, saying, in effect, that after examining those papers, he had been compelled to virtually slam the chest shut, simply to protect the reputation of the Anglo-Dutch Liberal system. He explained his actions with words to the effect of saying that Newton was a simmering mass of utterly anti-scientific pagan religious delusions, delusions of the character of “black magic.”⁵²

The apotheosis of Newton, from his status as an academic dabbler in black magic, to a celebrity of the Eighteenth-Century Enlightenment, was accomplished by a leading figure of that Enlightenment, a Paris-based Venetian mystic, Abbé

Antonio Conti.⁵³ Conti, a key figure of a network of salons, including those of Voltaire, Maupertuis, Euler, et al., was a leading influence behind the Eighteenth-Century Enlightenment. Conti’s professedly adopted guide to matters of science and philosophy, was Descartes. However, in the matter of “programming” what became the targetted figure of Newton, Conti stipulated that Descartes must be introduced somewhat surreptitiously among the English, by concealing the specifically French flavor of Descartes’ work. A salon, built up around Dr. Samuel Clarke, was established in England to carry out the desired tilting of Newton’s already fragile mental balance. Conti, operating from France, orchestrated the use of puppet Newton for a politically motivated attack on Leibniz inside England itself. This influence of Conti, through London, Voltaire, and the circles of Maupertuis and Euler in Berlin, gave us the Eighteenth-Century Enlightenment’s Newton myth, a myth which has continued to pollute classrooms and popular opinion alike, through the present day.⁵⁴

The setting for Conti’s operation was crafted by a fraudulent treatment of the late-Seventeenth-Century English translation of Kepler’s 1609 *The New Astronomy*. The notion of “action at a distance,” concocted as an attack on Kepler’s work by the empiricist Galileo, was employed by those who guided the initial phases of Newton’s famous *Principia*. News from Paris, that Gottfried Leibniz had discovered a solution for Kepler’s demand for the development of a calculus, prompted the fraudulent claims on behalf of London’s Newton, claims that Newton, who had apparently discovered nothing more notable than the possibility of opening a window in the house of Parliament, had discovered what was actually a useless counterfeit of a calculus, a discovery which London claimed Newton had made even prior to Leibniz’s work.⁵⁵

In this fashion, the influences of the neo-Aristotelean argument (against Cardinal Nicholas of Cusa) by Venice’s appointed marriage-counsellor to Henry VIII, Francesco Zorzi (a.k.a. Giorgi), the Neo-Ockhamite empiricism of Paolo Sarpi and his lackey Galileo, and the work of Descartes, were

53. (1677-1748).

54. *The Controversy Between Leibniz and Clarke (1715-56)*, in *Gottfried Wilhelm Leibniz: Philosophical Papers & Letters*, Leroy E. Loemker, ed. (Dordrecht: Kluwer Academic Publishers, 1989), pp. 675-721.

55. See Leibniz on “The Origin of the Calculus.” Leibniz’s first major report on his discovery of the calculus, was presented to his Paris printer in 1676, shortly before Leibniz’s return to Germany from his 1672-1676 work with Christiaan Huyghens et al., under the patronage of Minister Jean-Baptiste Colbert. Leibniz’s early work on the calculus, when combined with the Leibniz-Bernouilli development of the notion of an infinitesimal physical calculus associated with a principle of universal least physical action, is the principal antecedent of Gauss’ *The Fundamental Theorem of Algebra*. Newton’s practically useless notion of fluxions, etc., was, at its least worst, simply a rehashing of simple mathematical series, which had no relevance to that matter of physical singularities in experimental evidence, which is central to any competent physical notion of the function of a mathematical calculus.

51. Claudius Ptolemy’s intentional hoax was premised on the doctrine of Aristotle. The same “authority” of Aristotle was the source of the blunders of both Copernicus and Tycho Brahe, as well as the revival of Ptolemy’s Aristotelean hoax by the Venice-led anti-Renaissance (e.g., Zorzi) of the early Sixteenth Century. Where one writes “Euclidean” in modern mathematical practice, read either “Aristotelean,” or the Ockhamite neo-Aristotelean empiricism of Paolo Sarpi et al.

52. John Maynard Keynes, “Newton the Man,” in *Essays in Biography* (New York: The Norton Library, 1951).

melded into a single, mystical, reductionist brew: the Newton Myth, by Conti, Clarke, Voltaire, Maupertuis, Euler, et al.

However, our issue here is not the Newton case as such, but the reflections of the same goldfish-bowl-like reductionist ideology in the forms commonly encountered among U.S. adolescents and adults, among others, today. The role of the Euclidean model of “ivory tower” sets of definitions, axioms, and postulates, provides the simplest kind of rigorous explanations of the kinds of mental disorders expressed by fishbowl ideologies generally.

As I have emphasized this point, repeatedly, in earlier locations, the unique role of Gauss’ first, 1799, presentation of *The Fundamental Theorem of Algebra*, is that it references directly the issue of *powers*, as that issue had been treated rigorously by the Pythagoreans and Plato. This was the issue which had been fraudulently evaded by Voltaire’s personal cronies or followers such as D’Alembert, Euler, and Lagrange; this has been the fatal error of all notable “ivory tower” and other reductionist teaching of mathematics and mathematical physics since.

However, although that error is locatable within the domain of today’s taught mathematics doctrine, it is not essentially a mathematical issue. It is merely a lawful reflection, upon the domain of mathematics practice, of a deeper problem, a problem of a different origin: the typical, systemic pathologies suffered by the individual human mind.

The study of the human mind must proceed, as must anything worthy of the name of truthful science, from a single principle worthy of a corresponding name. The relevant name is *psychology*. Grant, that there are many teachings parading under the name “psychology.” Grant, that much reported under that title has a certain validity, even unignorable validity. Here, I mean by *psychology*, *that principle which distinguishes human behavior categorically from that of beasts*. That means that we must look at the evidence of what is called “psychology” in a way which is different than anything usually taught, a difference which has singular importance.

So considered, human psychology has two aspects which, taken together, define the qualitative advantage of the human mind over what might pass for the mental life of any among all beasts. First, there is human sense-perception, on which account, human mental behavior is comparable to that of the beasts. Second, there is the sovereign capacity of the individual human mind to hypothesize, as Plato’s dialogues afford a rigorous notion of a *principle of hypothesis*. It is the interaction within that complex domain, so defined, between these two aspects of human mental life, which defines a single principle of human psychology.

It is aberrations in the function of hypothesis-making, which define the shortfalls and errors of human psychology in a functionally meaningful way. The distinction is to be made between truthful, which is to say experimentally validatable hypotheses, and arbitrary substitutes for such hypotheses. This distinction defines the root of such systemically pathological mental behavior as the doctrine of “free trade.”

There are three apparent types of psychopathology respecting the principle of hypothesis:

1. The absurd presumption, that there is nothing real except that presented to us by sense-perception: the denial of hypothesis: *the assumption that hypothesis has no legitimate existence*.
2. The absurd presumption that, *although the mind’s capability of hypothesizing might exist, there are agencies which are not knowable through methods of experimental hypothesizing*, but of which knowledge exists “self-evidently,” without need of hypothesis, as by Newton et al. This is the underlying feature of religious and related lunacies, including neurotic compulsions and flight from reality.
3. The assumption that, our powers of sense-perception afford us infallible, *a priori* knowledge of certain “self-evident” principles of sense-perceived physical space-time, beyond which *man is incapable of knowing anything about the universe of sensible experience*. Therefore, hypothesis is not necessary, as the modern positivists, such as the devotees of Bertrand Russell, carry Aristotle, Euclid, Paolo Sarpi, Newton, or Kant to an extreme in this way.

Each and all of these presumptions occur as dysfunctions of the natural human capacity for hypothesizing.

It is the nature of those pathological forms of axiomatic-like assumptions, that the name of the assumption is sometimes a known name for *the effect* of the assumption, but that *the causal influence* which corresponds to that name is usually not a subject of conscious reflection by the victim of that belief. The power of hypothesizing, and of hypothesizing about hypothesizing, lies in a domain, the *noëtic*, beyond sense-perceptual powers as such; it is therefore not an object of sense-perception, except as it is expressed in terms of the shadows cast by experimental negation of sense-certainty. As long as that conditional aspect, the lurking experimental negation of the assumption, is not recognized, the assumption exerts an axiomatic type of influence over the behavior of its victim. The victim can not be freed from the controlling grip of that assumption, except as the victim becomes capable of knowing, and therefore controlling the assumption itself.

The poorly educated individual divides the world of his, or her mental life between a sense-perceptual domain and a fantastic “parallel universe,” the universe of his or her superstitious fantasies. He tends to distinguish the two, by denoting the first, as tangible, and the second in such terms as “only theoretical.” The power of the so-called “Seven Deadly Sins” is a reflection of the effect of that kind of dichotomy, in which bestial impulses situated within the domain of sense-perception, control the will and behavior of the victim.

This has moral, in addition to economically practical implications. The immoral reaction is, “What will that do to put food on the table of my family, here and now!?” Or, “Don’t

you throw my grandchildren in my face! In my book, you take care of Number One, first, and let the next generations take care of their problems!" Or, "I am sorry, but my choice of life-style, however arbitrary you may think it to be, is important to me."

On this account, the terms "freedom" and "power," as the latter is associated with Plato's usage, are functionally interchangeable, healthy qualities of the human mind.

Power, the Transfinite, and Identity

The situation is this. You are the subject of a drama being performed on stage. Before your eyes, the representation of your part in life is being played by an actor. The play is also being played, at the same time, on the stage of your imagination. Which are you? Therefore, *who* are you?

Are you the person as conceived by the playwright and the actors? How do you see yourself: as yourself, as a ghostly, but sentient presence on the stage of your imagination, while you watch that play unfold?

You also exist in the domain of the abiotic. Your body is also a living process. Your mind, is something beyond the biology of all lower forms of life. What, therefore, is the way in which you express an abiotic action, express biology, or express that noëtic quality of mind which sets you apart from, and above beasts? Which is you? Who, then, are you? Which of you is *the power of being you*?

Most people, in most of life, some in all of their life, are buffeted, so, into a state of uncertainty about who, and what they are. Some are, therefore, failed souls, as the believing existentialist typifies this schizophrenia. Some flee into stages of the imperial Roman theater, to find themselves as the spectator accomplishing the death of the poor fellow playing gladiator on the stage below. A degenerate U.S.A. has become the popular domain of such a fugitive life-style of bread and circuses, eating snacks in the stadium, or before the television screen. These unfortunates are not searching for their real self, but, rather, fleeing from it, in this way. For many, many poor fellows, sexual intercourse as scoring a goal in a game of people-soccer, punctuates the humdrum, as the idealized asocial act.

The identity for which many seek vainly in these ways, is to be found in the essentially human act, the act of hypothesizing.

Am I human, because of my action upon the abiotic domain? Am I human, because I express the characteristics of a living creature? Or, can I also do these things, and yet be human, because, amid it all, I perform a specifically human action? What, therefore, is the nature of a specifically human action?

The answer is: It is a question of power, of what, as I have said repeatedly here so far, Plato terms *dynamis*. Look at this notion of power as Vernadsky recalled the Classical Greek notion of the abiotic, living, and noëtic. The action which sets humanity apart from, and absolutely above all other living creatures, is that power of hypothesis whose unique quality

of action generates the discovery of universal physical principles. This act of hypothesizing successfully to such an effect, is something which lies outside, beyond both the merely abiotic, or the merely living. This is the power which sets the great Classical artist above and beyond the mere trained performer, or typically pathetic "rock star."

The act of hypothesizing, as Plato's dialogues define the meaning of that term, is the expression of that power which lies outside the abiotic and merely living, a quality of action which equips mankind with an increased power of his species in the universe at large. All of this which distinguishes man from the mere ape, occurs as an act of thought. That noëtic act of thought typifies the greatest power known to us in this universe, the power to introduce qualitative changes into the ordering of the universe. *It is in that specific quality of thinking, that a person expresses a truly human identity.*

This is also power expressed as basic economic infrastructure, as capital-intensity of production, and as the individual mind's increased repertoire of scientific and associated technological progress. Denied the development of, and access to the use of that power, man becomes beastly, and many become beasts of burden to those who rule over them in a beastly manner.

Power, as defined by Plato, and by the Pythagoreans before him, comes into existence within society as a mental act of a distinctly specific quality. This is *the noëtic act of hypothesizing*. This generates an hypothesis, which, when



DVD

LaRouche: 'The Immortality Of Martin Luther King'

Lyndon H. LaRouche, Jr. speaks to the Martin Luther King Day Prayer Breakfast in Talladega County, Alabama on Jan. 19, 2004.

\$25 postpaid order # EIR DV-2004-1

Call 1-888-EIR-3258 (toll-free)

EIR News Service, Box 17390,
Washington, D.C. 20041-0390

We accept Visa and MasterCard.

proven by the physical act corresponding to the act of hypothesizing, becomes an added willful power of society in and over the universe we inhabit. This action occurs within the noëtic phase-space, as distinct from the abiotic and biotic phase-spaces. It is a mental act which, thus, exerts authority (power) over the relevant aspects of the abiotic and biotic domains. This power, so expressed, presents us with the specific superiority of the human species to all other living creatures. This is the source of *systemic increases* in the potential relative population-density of humanity. In this sense, we may speak rightly, and precisely, of the power of “mind over matter.”

It is this power which defines a competent science of physical economy. It is this conception which must rule supreme in any competent practice of political-economy.

Hypothesis always signifies a universal principle of efficient action upon the combined abiotic and biotic domains. Hypothesizing, so situated, has several functionally distinguishing levels. Simple hypothesis, that corresponding to a specific kind of universal physical, or Classical artistic action. Higher hypothesis is expressed in such ways as the principle of development which distinguishes physical science from Classical humanist principles of artistic composition. Hypothesizing the higher hypothesis leads upward to that absolute which expresses the power of universal creation itself.

The nature of the noëtic powers of discovery of universal physical principles, puts the essential quality of society’s existence beyond the reach of knowledge limited to the abiotic and biotic domains. To indicate this distinction, we may employ the term *Sublime* to emphasize the impact of those powers operating outside the reach of the abiotic and biotic as such. This notion of the *Sublime* is, for example, Friedrich Schiller’s higher principle of Classical drama and poetry. It is the essential principle of the composition and performance of the Classical musical composition premised on the discoveries of J.S. Bach. In mathematics and physical science, the notion of the Sublime is employed as interchangeable with the term *Transfinite*.

In Schiller’s typical case, of Jeanne d’Arc, Jeanne’s sense of immortality rises above her mortal terror, so that she does not betray her mission even for the sake of avoiding burning at the Inquisition’s stake. This example typifies all of those considerations which make us human, considerations which lie beyond the abiotic and biotic, in the domain of the noëtic powers of the human mind. Jeanne asserts her immortality, whose expressed substance is those noëtic powers.

All Classical art relies upon the principle of the Sublime. The role of irony, including metaphor, in a literate speech capable of conveying actual ideas, reflects the principle of the Sublime. The Classical role of the principle of the flank in strategy, has the same implications. In economy, the improvement of the productive powers of labor, of a society’s potential relative population-density, expresses the same role of principles lying beyond established habits of practice, principles accessed only through the noëtic powers of mind.

In his better years, before insanity overtook him in the 1890s, Georg Cantor had developed a notion of the mathematical Transfinite, which is found intact in his *Grundlagen* and his *Mitteilungen* of the middle to late 1880s.⁵⁶ My shock in a 1952 reading of Bertrand Russell accomplice Philip E.B. Jourdain’s treatment of Cantor, under the rubric of *Contributions to the Founding of the Theory of Transfinite Numbers*,⁵⁷ had the fortunate effect of driving me back to the standpoint of Riemann’s 1854 habilitation dissertation. Even granting Cantor’s relatively weak position in the matter of the continuing implications of the Weierstrass-Riemann controversy, the Cantor of the mid-1890s can not be reconciled with the notion of the Transfinite found clearly stated in Riemann’s habilitation dissertation, or of Cantor himself of the mid-1880s.

The issue of economic policy which is the subject of this discussion of the roots of policies of tariffs and trade, is an ontological issue, for which the comparison of Riemann’s notion of the Transfinite and the shifting notion of Cantor, are of elementary importance.

Who, then, is the human actor? Who are you? Which are you? Are you the person described by the playwright, the other person acted on stage, or are you the person who changes the physical geometry of the world within which you act, the person for whom nothing is constant but change, the Sublime? Are you the person performing that noëtic action of change which, as an act, defines the difference between man and ape?

If not, your personal identity falls between the cracks of the stage on which Hamlet died.

In the science of physical economy, as I have defined and applied it with notably exceptional success as a forecaster during these recent decades, it is changes in governing principle of action which measure the performance of the man, for better or, as in the case of the U.S. and Europeans’ economies’ overall performance since about 1968, for worse. The same decadence pervades modern business management generally.

Incompetent Management Today

The post-1964, systemic disintegration of the relatively successful U.S.A. and western European economies of the Franklin Roosevelt legacy, was brought about on two levels,

56. Georg Cantor, *Gesammelte Abhandlungen mathematischen und philosophischen Inhalts* (Berlin: Verlag von Julius Springer, 1932; 1990 reprint), pp. 165-209, 378-439. On documentation of Cantor’s later insanity, *Georg Cantor Briefe*, Herbert Meschkoski and Winfried Nilson, eds. (Berlin: Springer-Verlag, 1991).

57. (New York: Dover Publications reprint edition, 1952, 1953). Cantor’s use of “Hypotheses non fingo” in the 1895-1897 *Beiträge*. . . is tell-tale. Compare this with Cantor’s correspondence with Johannes Baptist Cardinal Franzelin, S.J., as in Meschkowski-Nilson pp. 252-258. On the earlier Cantor, see the notes on pp. 204-205 of the *Gesammelte Abhandlungen*, respecting the roots of Cantor’s work in the Pythagoreans, Plato, Nicholas of Cusa, and Leibniz. The evidence is, that, in effect, the Cantor of the 1890s had been brainwashed by his tormentors, Kronecker, et al. Subjected to similar treatment by the followers of Ernst Mach (during the 1914-1917 war-time interval), Max Planck proved more durable.

the so-called “macro” and “micro.” This incompetence is typified by what we have met, increasingly, over the course of recent decades, as the entrepreneurial role of what German usage calls the *Mittelstand* (closely held entrepreneurships, especially in science-technology and kindred domains) was superseded by the ruinous effects of the takeover of management of such enterprises by a younger generation, “the Baby Boomers.” The degeneration in quality of management coincided with, but was not limited to the phenomena of the “environmentalist” panic spread among the “68ers.” The habits of mismanagement associated with the pervasive business failures of today, are systemic within the generation, rather than being limited merely to the incompetence of the relatively more fanatical “environmentalists.”

The lunatic adoption of “triage” as a business-management policy, an echo of “fiscal austerity,” is the infallible symptom of such insanity spread among the “Baby Boomer” component of management practice today. The adoption of Garn-St Germain and Kemp-Roth legislation by the U.S.A. of the early 1980s, following the organized mass-lunacy of Paul Volcker’s adoption of the doctrine of “controlled disintegration of the economy,” are reflections of the kinds of changes to the outright madness which has ruined and ruled U.S. and European business management since.

Today, most persons in relevant leading positions in government and business simply do not know what the principles of formerly good business management were. It is on this account, that the Depression of the 1930s was less dangerous to society than the systemic monetary-financial collapse hitting Europe and the Americas, among other locations, today.

Real economic growth, including, of course, growth of productivity generally, is an expression of the Sublime. Good management expresses a commitment to forms of change of practice, for the sake of technologically progressive change as such, which contribute to increase of society’s productive powers of labor per capita and per square kilometer. The uniquely essential function of private entrepreneurial ownership and management in modern society, its superiority, in principle, over corporate management in shareholder interest, lies in the entrepreneur’s impassioned, and, hopefully, rightly informed dedication to do something good for society.

The source of true general economic, and ordinary business growth lies in changes of which Heraclitus and Plato would consider themselves obliged to approve. It is the creative powers of the mind, as I have stressed that here, which are the source of the forms of action on which the durable success of economy depends.

Typical is my sponsorship of a new quality of youth movement, focussed upon recruits from the 18-25 age-interval, the university-eligible age-interval. At a time when the generation of the parents of these young men and women had fled chiefly into a sterile pursuit of a “comfort zone” life-style, as typified by their preferences in entertainment, those viable younger minds in the 18-25 age-interval looked at their parents’ generation with the pained, accusing intent: “You have

given us a society with no future!” Those younger people are absolutely right!

I have observed with conclusive results, that this view of that younger generation of adults, is usually met with bitter resentment, even outright rage, from their parents’ generation: “You young people have no respect for us! You are disturbing our life-style!” The older generation is absolutely, systemically wrong. This is now a pervasive generational conflict between the future (the young adults of the 18-25 interval today) and the recent past (the generation of the 68ers).

The only hope for globally extended European civilization today, is that the younger generation, as best typified by my youth movement’s associates, will win their parents’ generation back, from the corruption habitual to most among today’s 68ers, to a future-progress-orientation, away from a moribund, decadent “life-style comfort-zone” sewer. Together, united by adopting the better future as a common cause, a recovery of civilization is in reach. The presently onrushing systemic breakdown-crisis of the present world economy gives the world no choice but to bring that reversed cultural-paradigm shift about.

To understand the economic ramifications of this inter-generational crisis, we must see how this same problem of decadence is presently expressed in most business and related practices.

Formerly, despite the widespread influence of reductionist ideologies, the “eccentric genius” sometimes disguised as a businessman insisted on introducing kinds of technological innovations in designs of product and business practices, which contributed to uplifting the average physical productive powers of labor. It was these relatively exceptional leaders in the voluntaristic microstructure of the economy, including the compulsively progressive artisan and technician encouraged by such business leaders, who caused an increase in the productive powers of labor of the society.

With the rise of the 68ers, there was a disastrous change, from emphasis on introducing a scientific-technological improvement, into mere financial profits from peddling post-industrial ideology, even profits (and losses) of a purely speculative nature, such as gambling in the financial markets. As the physical economy collapsed through the post-1977 lowering of the net physical income of the lower eighty percentiles of U.S. family-income brackets, and as entire regions of the U.S.A. were collapsed through effects of deregulation and related causes, what could be extracted by selling became less and less, as the real economy contracted.

Look at the way in which this is expressed in salesmanship.

In the relationship between the vendor and the customer, there is a seemingly subtle, but crucial transmission of those ideas of a type which echo the creative mental potential of the people. These ideas, as expressed in more or less useful products, promote the kinds of changes in mass behavior from which real physical-economy profit of the nation, or a particular enterprise, is derived.



"The only hope for globally extended European civilization today, is that the younger generation, as best typified by my youth movement's associates, will win their parents' generation back, from the corruption habitual to most among today's 68ers, to a future-progress-orientation, away from a moribund, decadent 'life-style comfort-zone' sewer." Here, LaRouche Youth Movement organizers campaign in New Hampshire, using a pedagogical example from constructive geometry.

With the older generation of U.S. and European management, the tendency to proceed in that way was more or less instinctive among qualified managements. Among those of today's business leaders and political figures who reached their 18th birthday about 1964 or later during the 1964-1977 interval, that instinct has been lost, or even abhorred.

Look at the youth movement which I have sponsored against that background.

I defined the character of a viable youth movement for our time as centered in the 18-25 age-interval, and composed around the initiating theme of Carl Gauss' 1799 attack on the fatal error of the empiricists Euler, Lagrange, et al. The choice of that work of Gauss was made because of Gauss' direct attack on the problem of knowable scientific truth. In today's Americas and western Europe, where the most extreme sophistry typified by the 68ers is prevalent, no concept of truthfulness remains efficiently expressed by the generality of education or adult behavior of the 68ers' generation. Existentialism typifies the sophistry, the irrationalism, the fanatics' hatred of truth, as was spread among the 68ers and others. Yet, without a valid sense of truth, no young generation can cope reasonably with the pervasive sophistry of a reigning generation of their parents and the like.

Thus, when faced with issues touching upon these considerations, the typical Baby Boomer assembles his or her Klatsch for a confidential discussion beforehand, and then marches into the subsequent negotiations prepared to evade discussion of any facts which might lead to deliberations offensive to the conspirator's intention to defend their chosen ideological "comfort zone" against any mere facts. The fact that such behavior is morally dishonest, is rated as of less moral importance than the "comfort" which the lying defends.

Without a commitment to truth, of the type which Gauss' 1799 attack on the hoaxes of Euler, Lagrange, et al., typifies, it were not possible to produce a viable new leading current from among the youth of today's society. Without that element of influence from youth, their parents' generation would probably remain unsalvageable.

Thus, anti-sophistical notions of creative truthfulness, expressed as ideas generally, and policies proposed, are the most essential source of economic value today. Without the communication of truthful ideas, contrary to the decadence prevalent among today's otherwise self-doomed, reigning generation of 68ers, there were little hope for global civilization's escape from a presently onrushing planetary new dark age.

It is the transmission of that quality of ideas corresponding to fruits of the cognitive powers unique to mankind, which is ultimately the only source of economic value for society. It is that form of action that economic growth represents. It is, thus, the transmission of valid ideas, not merchandise as such, which is the primary source of profitable forms of growth of the firm or the society as a whole. The worst of all practices is the attempt to maintain profit-margins by triage of those elements of the operation which generate progressive forms of change within the population of one's market.

Thus, without youth movements of the type which I have initiated, there would be little hope for the resuscitation of society presently at the brink of a general economic breakdown.

That view of the present situation is to be taken as one illustration of the general class of problems represented by the goldfish-bowl syndrome.

The pathetic forms of Baby Boomer behavior just referenced, correspond rather neatly to Kubie's notion of the neu-

rotic distortion of the creative process. Certain axiomatic-like, false assumptions, create a bowl of “protection” against evidence which is implicitly contrary to those assumptions. This is combined with a relatively fixed character of the axiom-like assumptions which were employed to constitute that “protective bowl.”

However stubbornly the victims of that shared delusion cling to the protection of that bowl, their success in defending their collective delusion merely ensures that the bowl will carry them to the doom toward which the bowl itself is being delivered. Then, if the society does not get out of that bowl, that virtual sinking *Titanic*, before the bowl goes under, the society will be destroyed by an act of its own willfulness in defending the bowl.

That is the situation of the U.S. population today, especially its Baby Boomer strata. If it continues clinging to the acquired assumptions, contrary to the tradition of American technological progress, since the 1964-1972 change, this nation will be destroyed, carrying most of the world down with it. The willingness of those youth who have associated themselves with my youth-movement project, that not only in the U.S.A., but in significant examples within the Americas more widely, in Europe, and beyond, demonstrates the existence of a viable option for bringing about the rapid change in cultural orientation upon which the avoidance of a new dark age depends.

Protectionist Implications

The national economic interest of the U.S.A. corresponds to the level of development of the productive powers of labor which corresponds to a reasonably targetted level of improvement of the sustainable potential relative population-density of our nation considered as a whole.

This achievement depends, essentially, upon the development of the employment of those *powers*, as Plato defined *powers*, whose typical expressions are accumulations of experimentally validated universal physical principles, or of cultural principles of a kindred import.

The development and maintenance of those employed powers, and further improvements in that direction are, to a large degree, made possible through various forms of capital investment in the physical capital of basic economic infrastructure, in public infrastructure, in capital improvements of entrepreneurial enterprises, and in the physical and cultural standard of living of the family households of our national labor-force.

Under the provisions of a protectionist form of policies of tariffs and trade, if operating within the framework of an international fixed-exchange-rate monetary-financial system, it is practicable to define a spectrum of “fair prices” of commodities at the export-import interface of our economy with the international market. In that case, prices of our commodities may decrease as a result of technological advances which do not lower quality, except that wage-reductions may not

be routinely employed as a means for price-reductions of commodities. Trade (import, export, or both) may be used as an added means for regulating forms of price-stability intended to protect the relative physical value of capital invested. In general, lowering standards of living of households as a means for making goods “more competitive,” is effectively outlawed.

Look at what I have just said against the background of that aspect of the post-1977 wrecking of the U.S. economy accomplished by deregulation of freight and passenger traffic. The result was to concentrate traffic among a limited number of “hubs,” with the effect of driving communities in outlying regions into virtual collapse, and often depopulation. This meant that the productivity of the U.S.A. as a whole collapsed per square kilometer, with an accompanying net collapse of the net physical output of the produced by the population as a whole. Insanity? Yes: insanity engendered by the spread of the lunatic dogma of “free trade.”

The object must be to increase the effective physical output both per capita and per square kilometer. This desired effect is fostered by standardized freight-rates, convenient mass-transit of passengers among both principal hubs and regional centers, to such effect that the optimum use is made of the potential represented by the total population and total area of the nation.

Similar advantages from regulation of trade and tariffs are to be sought among nations, more or less on a global scale. Thus, we must encourage the relevant *physical capital formation* throughout the planet, to optimize the rate of increase of per-capita and per-square-kilometer gross and net outputs.

The general principle, bearing on tariffs and trade, illustrated by those cases, is the urgency of shifting the notions of cost and profitability away from cheapness of the physical-capital costs of production and distribution, to gains in the margin of growth per capita which are obtained through raising the objective standard of living and quality and relative intensity of capital formation.

The initial emphasis must be upon large-scale and massive investment in basic economic infrastructure, to effect an urgently needed, qualitative change in the environment of production and family life. That emphasis on basic economic infrastructure, is the only durable means for promoting a general regrowth of a viable private sector.

However, none of this could be accomplished, without reference to the successes of President Franklin Roosevelt in saving the U.S.A. from both a depression at home, and the threat of a Nazi-led world-empire. This requires junking Adam Smith and everything that smells of him, and returning to the constitutional principles of the American System of political-economy as described by Treasury Secretary Alexander Hamilton and others. This means the restoration of those practices of regulation, including protectionism, associated with the Franklin Roosevelt revolution of the 1930s.