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POWERS ARE ALWAYS UNIVERSALS:

Cauchy's Infamous Fraud

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Back during 1981, then as part of my effort to clean up the mess associated with an attempted 1978-1980 credit-scam swindle against my associates, a swindle some recall as the Gus & Andy Show, I prescribed an emergency mathematical-physics educational program. This program, supplied to educate my associates in relevant principles of economic forecasting, included assigned classes which were intended to show our associates the nature and cure of that hoax, by Augustin Cauchy, on which the teaching of the usual first course in the differential calculus is pivotted. Unfortunately, in accord with the ironies of our times, the designated instructor, a "Baby Boomer" holding a respected doctoral degree in plasma physics, based his assigned course, not on Leibniz, but on the fraudulent axiomatic doctrine of hoaxster Cauchy.

Now, more than two decades later, the intention of my 1981 physical-science initiative in physical economy is being realized, through the prompting of my design for the self-education program of the LaRouche Youth Movement (LYM). On this occasion, I apply the physical-science implications of that ongoing LYM program, to remedy the prevalent incompetence of the practice of, and thinking about economics, an incompetence among putative professionals, IMF officials, the current President of the U.S.A., relevant members of Congress, and laymen alike. This is a specific kind of incompetence which is the most important, immediate threat to the present security and future well-being of the U.S.A., and other nations, threatened by a general monetary-financial crisis which threatens to set off a chain-reaction physical-economic collapse in the very near future.

Cauchy's standard university classroom hoax, expresses a factional mission whose origins were a key formal feature of a general attempt at defamation of Gottfried Leibniz and his work. That attempt had been launched by the Paris-based, Venetian agent and avowed devotee of the empiricist Descartes, Abbé Antonio

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Under the current conditions of economic-monetary breakdown crisis, LaRouche's mathematical-physics education program, now being carried out through his youth movement, is more important than ever.

Conti. Among its other tactics for this purpose, that attempt launched by Conti had used the political controller of black magic specialist Isaac Newton, England's Dr. Samuel Clarke. That operation was then continued as a Europe-wide operation, by a network of salons organized by Conti. This was a network which is also associated with the same notorious Voltaire, the "den-mother of Jacobins," who also participated in sponsoring the British organization of the Martinist freemasonic cult of Cagliostro, Count Joseph de Maistre, et al., from which Twentieth Century fascist cults, and their presently active following, were all derived.

The key figures in this Conti-prompted, anti-Leibniz hoax, included such notable accomplices of the so-called "Newtonian" fraud against the Leibniz calculus as D'Alembert, and the then Berlin-based Maupertuis and Leonhard Euler. This latter, Eighteenth-Century aspect of the empiricist hoax against Leibniz, was later attacked at the core by Gauss's 1799 doctoral dissertation. That 1799 attack by Gauss on the fraud of D'Alembert, Euler, Lambert, Euler's protégé Lagrange, and others, led into the continuing revolution in mathematical physics expressed by Riemann's 1854 habilitation dissertation and his subsequent work on Abelian functions.

The fact that the argument by Euler et al. was not a mistake, but a fraud, is proven conclusively by examining the work of that Berlin salon of avowedly Newtonian reductionists in light of their knowledge of the preceding discovery, by Leibniz, of both natural logarithms and the catenary principle

of universal physical least action.

The issue of the Newton fraud of D'Alembert, Euler, Lagrange, and their followers, such as Cauchy et al., was what became known during the early Nineteenth Century as the set of ontological issues already posed in reality then, as to the studies of the LYM today, as the physical, rather than merely abstract mathematical character of the concept of the complex domain. The Newtonians, as consistent cult-followers of Paolo Sarpi's empiricist dogma, had reacted against the discovery of the calculus with a fraudulent effort to discredit Leibniz's first, 1676, Paris presentation of his discovery of the calculus; but, after Leibniz's death, had dared to react publicly even much more radically, more desperately, this time targetting Leibniz's fuller elaboration of an infinitesimal calculus, as the universal physical principle of least action (the so-called catenary principle). D'Alembert and Euler were among the presently more notable pioneers in the Voltaireinspired anti-Leibniz hoaxes of the Eighteenth Century.¹

^{1.} The original discovery of the calculus whose development had been specified by Johannes Kepler, had been by Leibniz during the period of Leibniz's Paris collaboration with Christiaan Huyghens. In the first approximation, as in the Leibniz document sent to the Paris printer in 1676, Leibniz had adopted Huyghens' cycloid as an estimate of the principle of *physical least time*. Later, in his collaboration with Jean Bernouilli on the pathway of least-time action (the *brachistochrone*), Leibniz had abandoned the cycloid, in favor of the catenary principle, thus introducing the complex domain, implicitly, as the elementary basis for a modern mathematical physics. Leibniz's treatment

The Nineteenth-Century phase of the combat between the scientists and the Newton-cultists, was fought out, first, not in George III's Britain (where science was hovering near death at that time), but in France, an attack which was then continued in Germany, an attack which was to emerge in early Twentieth-Century Germany in the guise of a ferocious, wartime attack on Max Planck, an attack by the lunatic horde of the radical-empiricist (e.g., logical positivist) German-speaking followers of a certain cult-figure known as Ernst Mach.

Prior to 1789, the fight over science in France was between the Leibnizians, such as the circles of Monge and Carnot, and the followers of the radically empiricist Physiocratic cult of the Quesnay and Turgot upon whom the plagiarist Adam Smith had largely relied for concocting his own 1776 propaganda attack against the American constitutional Declaration of Independence. With London's orchestration of the July 1789 outbreak of the French Revolution by Lord Shelburne's London, the preconditions were established for Martinist-sponsored dictator Napoleon Bonaparte's adoption of the anti-Gauss, empiricist dogma of Euler protégé Lagrange as key mathematical theoretician of Napoleon's science policy.

This influence of the work of Lagrange was continued in France after the fall of Bonaparte, this time under the sponsorship of the London-appointed puppet-King of France, who brought the circles of the empiricist Laplace and his instrument Augustin Cauchy to power over the École Polytechnique there. Laplace and his creature Augustin Cauchy demolished the powerful educational program on which the leading scientific institution of Europe, France's École Polytechnique had been based, and imposed the Newtonian hoax, top-down on France's science, that to the degree Laplace's crew was able to contain the then still vibrant, Leibnizian tradition of the École in France.

Thus, from about 1827, the center of gravity of European fundamental scientific progress shifted, from the heritage of Colbert's France, to the circles of Wilhelm von Humboldt's celebrated brother, the Lazare Carnot-associated Alexander von Humboldt. Thus, with the late 1820s, aided by the founding of a relevant international science periodical, *Crelle's Journal*, the chief impulse for progress in physical science, was shifted to the von Humboldt-associated, Gauss-Wilhelm Weber-Dirichlet-Riemann circles in Germany.

Although much practical progress in mathematical physics, such as the notable examples from Einstein's work, has

of the catenary, which served actually as the elementary basis for Leibniz's development of a principle of physical least action, led Leibniz to the original discovery of natural logarithms and their physical significance, and to the principle of an absolutely infinitesimal calculus. Notably, where Huyghens had not proceeded from Kepler's principle of universal gravitation as a universal physical principle underlying least time, Leibniz's calculus did. Notably, the opposition to Leibniz's discovery of the calculus, by the followers of Conti et al., was essentially a continuation of the empiricist's earlier campaign of suppression of the work of Kepler, and of the earlier Venetian campaign to eradicate the influence of Cardinal Nicholas of Cusa.

occurred since Riemann's death in 1866, the debate over the most crucial issues of scientific method is stuck, still today, where Riemann's principal contributions left them. (The significance of Einstein's work is, thus, best illuminated by attention to his endorsement of the discoveries of Kepler and Riemann as the foundations for a competent cosmic physics.) For the most part, those contributions of Classical physical science up to the time of Riemann's death, at least the most essential ones, are rejected by the presently hegemonic, radical positivist environment created by the last century's reign of our present, Laputa-style academic referees.

Against that background, one of the most significant contributions to the furtherance of the Classical scientific method during a period slightly longer than the recent half-century, has been the set of my own original developments in the field of a science of physical economy.² Therefore, in 1981, and still today, the connection to Riemannian physics of my contributions in physical economy, occupies a crucially important underlying position in the work of my associates.

People who have failed to grasp at least the flavor of my method, include notable cases in which some individuals who have, admittedly, supplied some useful contributions to understanding of particular aspects of economic processes, are, nonetheless, still not yet competent in dealing with the most crucial of the historically determining issues of economy now menacing the world. Under the impact of today's onrushing general monetary-financial breakdown-crisis, the issue of my 1981 proposal for a corrected, bug-free course on the elements of the calculus, is, therefore, today, more important, more urgent than ever before.

In these pages, I explain that connection to my work and to its implications for the urgently needed revolutionary change in U.S. economic-policy thinking. This preface is devoted to outlining the historical setting of the matters of scientific principle on which my work has been focussed to date, after which the body of the text is focussed on the technicalities of the issues of method.

^{2.} The original establishment of an actual science of physical economy was entirely the work of Gottfried Leibniz, who lifted political-economy up to a scientific basis, up from what had been that modern craft called mercantilism of Jean-Baptiste Colbert and Colbert's Fifteenth and Sixteenth centuries French and English predecessors. The difference was Leibniz's emphasis on a modern scientific view of the same notion of a universal physical principle of power (i.e., Kraft) met earlier among the Pythagoreans and Plato. The Anglo-Dutch Liberal reaction against both Colbertiste mercantilism and Leibniz's founding of an actual science of physical economy, was an explicitly anti-science sophistry from the beginning. Thus, although the American System of political-economy developed in a world climate already ruled by the implicitly ultramontane tyranny of Anglo-Dutch Liberalism in world trade, the policies of the American System, such as those of Hamilton and the Careys, and Lincoln and Franklin Roosevelt later, were derived from the Americans' adoption of Leibniz's anti-Locke conception of a science of physical economy, as expressed by the U.S. Declaration of Independence's core principle, "the pursuit of happiness."



Gottfried
Wilhelm
Leibniz, 16461716, was the
father of modern
economics, the
school of
physical
economy.

Where My Work Is Crucial Today

To make the relevant point of introduction to the matter of my own original contributions as briefly as possible here, my own independent discoveries in the field of physical economy, can be understood only as a systemic outgrowth of my stubborn, and sometimes fierce, childhood and adolescent resistance to accepting any form of arbitrary external authority of an axiomatic nature over the formation of my own convictions, whether parents, school, textbook, or the like. It was on exactly this point, that my schoolmates, most elders, and the like of that time, usually parted ways with me.

Thus, from the start, I refused to claim, then, to know the answers, but simply refused to swallow anything tantamount to the infamous "self-evident" axioms of a taught Euclidean or Cartesian geometry. It was those few, tentative, independent discoveries in physical economy which I made, in early 1948, in rejecting the crucial "ivory tower" presumptions of a pre-publication proof-edition of Norbert Wiener's *Cybernetics*, which led me over the 1948-1953 interval to recognizing Riemann's 1854 habilitation dissertation as the key for a systematic representation of the way in which the human mind generates those discoveries of universal physical principle on which scientific and technological progress in economy depend.³

At the start, in my impulse to refute Wiener's silly doctrine of "information theory," I focussed on the way in which in-

vention occurs, so to speak, at the work bench, as the act of insight which finds a "better way" "through going outside the implied axiomatic bounds of previously generally accepted habits of thought, either in that particular field, or in general. That discovery, when it has taken the form of a previously unknown, but experimentally provable principle, can be applied to the process at work, to produce, thus, the effect of a qualitative net increase of the productive powers of labor of that society taken as an integrated whole. The realizable gain in productivity, per capita, and per square kilometer, is implicitly measurable as a gain generated by the discovered applications of newly employed universal physical principles.

The leading, principled implication of my discovery, so summarily described, is that essential progress in man's physical-economic power over nature, per capita and per square kilometer, begins within those aspects of the human mind which set the human individual absolutely apart from, and above any other living species. In other words, this is a thought which converges, implicitly, upon V.I. Vernadsky's conception of the Noösphere. This means, that we must understand human intelligence as essentially (elementarily) individual behavior, rather than primarily the "average" product of a social process; but, at the same time, we must understand the principled features of the social processes by means of which the ideas of discovered universal principle, which can be generated originally only within the sovereignly autonomous recesses of an individual mind, can be efficiently replicated, as ideas, in the minds of some other members of society, and even generations of thus-transmitted culture to come.

Physical economic progress occurs as a categorical change caused by the effect of the action of a discovery made by an individual's mind, upon the way affected people interact. It is an effect prompted and generated originally by the perfectly sovereign creative powers of the relevant individual human mind. Whereas: charlatans Norbert Wiener's and John von Neumann's conceptions of "information theory" and related matters, are simply imitations of the same, intrinsically irrationalist and arbitrary, empiricist principle of Locke, Mandeville, Adam Smith, and Jeremy Bentham, upon which Quesnay and Turgot premised their Physiocratic dogma.

Each and all of these latter, pathological cases, such as the Physiocrats, take a certain phenomenon, and then degrade the discussion of that named subject, that product of their fallacy of composition, to the domain of sophistry. They point to the presumed existence of some determining reductionist's principle, as Wiener does with his reference to "Maxwell's demon," an arbitrary principle which they seek to impose upon their dupes as the definite name of the unknowable action, such as "the invisible hand," which is presumed to be blamed for the effect toward which they point.

With the Mont Pelerin Society's Mandeville, for example, the reductionist principle of those sophists, is their praise for an evil working through "private vices" of individuals. Such are the superstitions expressed as gambling manias, or the

^{3.} My habit, as described in this paragraph, is the paradigmatic trait cultivated by all creative thinkers. A contrary habit is characteristic of a personality which is relatively "blocked," as, for example, pedants are. I have dealt with this elsewhere, repeatedly, in my discussion of the implications of Professor Lawrence Kubie's treatment of the cases of scientifically trained persons fitting the category of individuals suffering a neurotic distortion of the creative process.



German mathematician Bernhard Riemann's demonstration of the need to replace formal, axiomatic geometry with a notion of physical geometry was key to LaRouche's breakthrough in economics.

drug-trafficking vehemently promoted by predatory Mont Pelerin charlatan Milton Friedman, vices which, according to their allegations, produce, magically, a public benefit, such as a public tax revenue on that account. Locke's argument for his notion of "property," or, in other words, what U.S. Justice Scalia defines as "shareholder value," is essentially the same kind of moral corruption being used as a Sophist's substitute for a universal physical or moral principle.

For example, Quesnay, the principal source of Adam Smith's silly myth of the "invisible hand," bases his own dogma on the presumption that the serfs of the landlord's estate do not differ in principle from cattle, but that the "invisible hand" of the landlord's aristocratic title to the estate is, in and of itself, the magical source of the profit taken. The "information theory," etc. dogmas of Wiener and von Neumann are thus based on a variation on the same "invisible hand" dogma of Locke, Mandeville, Quesnay, Adam Smith, and Bentham.

In other words, physical-economic progress is a cognitively knowable quality of social process, but that process is rooted in, and controlled by the relevant autonomous powers of the sovereign individual human mind. In other words, the valid social process is subsumed entirely by those sovereign *subjective* characteristics which exist as potential in the individual human mind, the characteristics which separate the normal human being from lower forms of living creatures.

At the beginning of the 1950s, when this aspect of Riemann's 1854 habilitation dissertation became clear to me from this stated standpoint in my own reflections on the hoaxes of Wiener's and von Neumann's dogmas, I first really understood the way in which the Gauss-Riemann conception of the complex-domain functions, as not merely a mathematical, but an efficiently physical conception. Thus, as Riemann

boldly said and also demonstrated, we must scrap formal, axiomatic geometry, to replace such follies by the notion of a physical geometry, a conception, in fact, which the Pythagoreans and Plato trace back to the spherical physical geometry of Egyptian *Sphaerics*.

My relevant contribution to clarifying these relationships, lies in the way I have defined the principle of Platonic hypothesis itself as an experimentally demonstrable universal physical principle. The LYM has used what Plato referenced as the Delian problem, his Pythagorean friend Archytas' Classical solution for the task of a purely physical-geometric construction of the doubling of the cube as one of the central topics in a science of physical geometry through which Plato bridges his dialectical method in general to mathematical-physical challenges of the quality of what are actually Riemannian issues of universal principle.⁵

Implicitly, then, the notion of a Riemannian physical geometry becomes, visibly and clearly, a matter of the principles of a multiply-connected manifold. The implication of Leibniz's catenary-based definition of a universal physical principle of least action, then becomes fully transparent, when Leibniz's work, Leibniz's universal physical principle of least action (the catenary principle) is reexamined from the vantage-point of Riemann's treatment of Abelian functions.

Admittedly, as I shall emphasize later in this present report: no fully rational comprehension of a modern economic process is feasible from any different standpoint than the linkage among the crucial features of the work of Kepler, Leibniz, Gauss, and Riemann, et al. The widespread failure, and even refusal of most putative economists and laymen to recognize this fact, is the key to the cruelly self-inflicted misjudgments of both most economists and thoughtful laymen alike, still today. The following summary of that problem and its solution, is therefore an indispensable first step of preparation for understanding, from a scientific standpoint, what an economy really is.

The world, and the U.S.A. in particular, is currently gripped by the tumultuous end-phase of a self-doomed world system, the system established during 1971-1975 as a replacement for what had been the successful original Bretton Woods

^{4.} The idea of a pure mathematics, distinct from physical science, is pathological. I note, that, as I have published this fact on numerous earlier occasions, during part of this 1948-1953 interval, during 1952, I concentrated for a while on the work of Georg Cantor, before leaving that behind for focus on

Riemann's work. Attention to the significant difference between the approach of Riemann and that of Weierstrass and Cantor is not necessary for this present occasion.

^{5.} This is the most direct and simple way for demonstrating that the interpretation of Plato's work by such as Leo Strauss and his neo-con followers, is nothing but a case of pure lying. Since Plato's dialogues include unique solutions, by his dialectical methods, for specific physical-mathematical arguments, the interpretation of Plato's use of his method in generating constructible solutions for problems of universal physical principle, draws a clear line between the admissible reading of Plato's intent, in any of his works, and the Sophists' lies of Strauss et al. Also note, that Archytas' proof for the doubling of the cube, is the standpoint for assessing the way in which D'Alembert, Euler, et al., stumbled into the fallacies which Gauss exposed by his 1799 step toward defining a physical complex domain.

system installed under the direction of U.S. President Franklin Roosevelt.

It is now more than thirty years after the 1971-1972 change to the presently self-doomed, floating-exchange-rate IMF system. It is now already past midnight, when Cinderella, her coach and attire vanished, is struggling desperately, barefoot, through the rain, toward the hoped-for warmth of a homely hearth. Unless there is a sudden change in her drama, the worst is soon to come. There is no hope for her, but to change the script and scene, that in a way which overturns, suddenly and decisively, the most cherished truisms of world economic life, truisms accumulated as the habituated academic and popular misbelief which has been adopted by the chief parts of learned and popular opinion over the 1971-2005 period to date.

Idiocy in today's academic discussion of the principles of an actual economy begins, typically, as John von Neumann and Oskar Morgenstern began their awful, and essentially less than worthless *Theory of Games and Economic Behavior*. In brief, imagine that you follow in their footsteps, as by saying, "Take Robinson Crusoe, then bring in Friday." If you continue your definition of economics in such terms, like von Neumann, under your influence, today's President George W. Bush, Jr. Friday economy would not last until Monday.

Von Neumann's concoction be damned; but, passing blame for the pathological mental state of our national and world affairs is useful only to the degree that that is a necessary step toward motivating an otherwise reluctant people to rush to the only available security, a new system, a new system based on adopted principles of economy radically different than any generally accepted among governments and other relevant opinion during the approximately two preceding generations since the middle 1960s. Yet, it is not really a new system that I propose; it is the proven American System of political-economy, as merely updated to meet the added requirements which recent history has dumped upon our doorstep for the coming two or more generations immediately ahead.

The fault which must be addressed immediately, is that set of current academic, governmental, and popular errors of assumption, especially assumptions respecting the principles of economy, which have induced the nations of the present world-system to follow for so long, a pathway aimed toward their collectively self-inflicted doom. The obstacle to be overcome, is the present unwillingness of leading institutions and others to consent to change their presently habituated way of thinking, even up to the brink of a plunge into the new dark age which would be the relatively immediate consequence of a broad refusal to abandon those assumptions which have ruled and ruined our nation, and the world during nearly a half-century to date.

For example, the collapse of the U.S. economy under the 1970s and later policies of George Shultz, Henry A. Kissinger, National Security Advisor Zbigniew Brzezinski, and

Federal Reserve Chairmen Volcker and Greenspan, have wrecked the U.S. physical economy, and progressively ruined the physical conditions of life of the lower eighty percentile of the family-income households in a manner and degree far worse, far deeper-cutting, much less reparable than under the ruinous reigns of Presidents Coolidge and Hoover.

Notable for today, is a comparison of Hoover's reaction to the 1929 stock-market crash with the policies, and their outcomes, introduced by Federal Reserve Chairman Alan Greenspan in reaction to the October 1987 stock-market crash.

The worst effect on the 1929-1933 U.S. economy was the result of the unnecessary foolishness with which President Hoover responded to the 1929 Crash. Instead of recognizing the folly which had led into the "Crash," he defended those culpable so-called "principles," with hideous results. Thus, the Hoover Administration's "fiscal austerity" program, which collapsed the physical level of the U.S. economy by approximately one-half between the 1929 Crash and President Roosevelt's inauguration.

This U.S. experience at home is to be compared with the pattern in Germany (and beyond) during 1928-1933. Then, the fiscal austerity measures associated with the formation and early operations of the Bank for International Settlements, created the savage austerity conditions, as under Brüning and von Papen in Germany, which paved the way for the Bank of England's role in bringing Nazi dictator Adolf Hitler into power in 1933.

Today, the reaction by the current Bush Administration over the 2001-2004 interval to date, is comparable to, but far worse than those by Hoover following the 1929 Crash. When the comparison to Hoover's folly is made, the Bush Administration's conduct is fairly described as beyond mere good and evil, as wildly insane.

The Challenge of Recovery

As President Franklin Roosevelt's recovery illustrates the point, the alternative to both President Hoover and George Shultz's Dubya is: the way to bring about a financial recovery of a crisis-wracked economy, is to set its rapid *physical* growth into motion, as through broad-based building and maintenance of basic economic infrastructure and launching of high-gain programs of physical growth in applied technology in private sectors of entrepreneurial agriculture and industry. It is not the growth of financial investors' money which produces economic recovery, but the use of expanded financial resources for increasing both net physical output and the rates and standard of living of employment of the laborforce in infrastructure and closely-held entrepreneurial, small-to medium-sized goods and technology generating enterprise.

As some good leading Democrats and others have stated, if we take the list of long overdue needs for repair and improvement of U.S. basic economic infrastructure on the levels

of Federal, state, and local government, the investment by government in meeting those presently urgent needs would already shift the U.S. economy from the level of present losses due to underemployment, well above the break-even mark. To the degree such employment, by its nature, increases the average productivity of the nation per capita and per square kilometer, such new current investments would have a recovery effect on the economy as a whole which would, in broad terms of estimation, match the comparable recovery-effects under President Franklin Roosevelt.

To state the case briefly, the crucial investments in a good quality of basic economic infrastructure's development are in items which have a physical life of approximately a quartercentury or more. By financing the capital investment in such projects over a term which is significantly less than the expected useful physical life of that improvement, all such investments, if they are prudent in nature, have an impact on the current annual national, state, or local economy which is correspondingly much greater than the cost of maintaining and amortizing the public investment.

With us, such investments of a certain type are financed by converting an installation-cost into state-law-created debt of created private utilities, as in water, power, and so on. The Roosevelt-era rural electrification program is an example of the brilliant success of such kinds of public investments, either by state or local agencies, or with active Federal roles. Long-term investments of such types fit neatly within areas in which Federal, state, and local regulation was required, prior to the ruinous massive deregulation-panic launched under Brzezinski's reign in the post better named then as National Insecurity Advisor, or the kindred, earlier repeal of the Hill-Burton reform, in favor of the increasingly cruel HMO system, under the Nixon Administration.

In these cases, when such public investments are made as vehicles for promoting technological progress, as in upgrading "energy production" from wood, to low-energy-flux-density water-power, to the high-density utilization of coal, to petroleum, to nuclear, the technological advance embedded in the program is itself a source of physical-economic profit margins on the investment.

The same principle applies to private capital investments, if in a slightly different way. Scientific and technological progress are inherently potential generators of increase of the productive powers of labor per capita and per square kilometer. However, whether this benefit is obtained depends upon the way and purpose to which such investment is applied.

The principled character of these considerations affecting investment in public and private forms of physical-capital formation, is shown in the body of this report.

The kinds of reforms I have indicated, means to shift the control over the economy, away from a money-system based on Venetian principles, such as the IMF and Federal Reserve System today, to goals of sustained, long-term physical growth in incomes and output per capita and per square kilo-

meter. With this change to the American System of politicaleconomy, the so-called "profit" motive is maintained, but within the terms of the principles of physical economy. This is the effect toward which President Franklin Roosevelt's successful recovery measures were aimed, that with an astonishingly good result in most instances.

The key to the remedy, then as now, is the creation, chiefly by the inherent regulatory powers of the sovereign state, of a mass of new financial obligations, which, by expanding the current operations of the economy above physical break-even levels, with emphasis on the long-term span of several decades, expands the current debt by methods which increase the long-term ability to repay capitalized debt at far greater levels of obligation than today. The principle is, to grow out of the debt-crisis, by increasing future fungible assets at a greater rate, over the long term, as the example of the TVA illustrates the point. There are few imaginable follies more cruelly insane, than the attempt to fund medium- to long-term real growth within the short-term accounting confines of such lunatic enterprises as Europe's currently infamous "Maastricht" agreements.

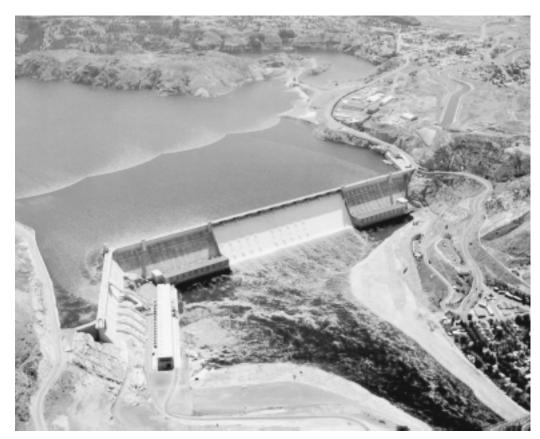
Shift the situation, away from reliance on increase of short-term financial debt-obligations, to long-term capital investments which, by intent of regulation and reliance on technology-driven growth, are to be paid, over the long term, at nominal borrowing costs. Since the present world monetary-financial system is already hopelessly bankrupt, on its own terms, governments must act in concert to affirm reality, by putting indigestible financial claims into the hands of kindly governmental agencies which will make those necessary adjustments to long-neglected economic reality which may be painful to the predatory class, but necessary for the general welfare of the human species.

In contrast to Roosevelt's successes, look at the way the present virtual bankruptcy of the U.S.A. was organized under President Nixon and what followed.

Yet, with all the faults of the post-Franklin Roosevelt U.S. governments, and they were many and sometimes awful, there is a fundamental difference between the direction of the U.S. economy prior to the launching of the U.S. War in Indo-China and since. From the launching of the United Kingdom's first Harold Wilson government, through the 1975 Rambouil-let monetary-policy conference, there was a fundamental change in direction of the U.S. economy: from upward, until approximately the time of President John F. Kennedy's assassination, to descending, at a presently accelerating rate of collapse of not only the presently, virtually bankrupt U.S. Bush economy, but of the global dollar-based monetary-financial system.

We have thus reached the end of the line on the continuation of the current Bush Administration under its current policies. Doom, like the fabled monkey's paw, is now rapping insistently at the door of the Oval Office.

There have been two characteristic functional features of



Investments in basic economic infrastructure, such as the Grand Coulee Dam, shown here, contribute to the increase in productivity for the entire economy, not just the local area.

the way the turn downward was organized. One, monetary, financial, and economic, in the narrower sense of those terms. The other best described as "counter-cultural," the spill-over of the existentialist brainwashing by the forces associated with the post-World War II Congress for Cultural Freedom, into shaping the political and related choices through which the dollar-system was wrecked, and then wrecked at an accelerating rate once the Soviet system had begun to crumble, as I, in 1983, had rather prophetically forecast a likely collapse about five years ahead.⁶

The wrecking of the U.S. economy over the 1964-2005

6. I had made this forecast during early 1983, even prior to President Reagan's March 23rd television proffer to Soviet General Secretary Andropov. My warning to the Soviet government in February 1983, had been that, should the Soviet government persist in rejecting the Strategic Defense Initiative (SDI) offer which U.S. President Reagan proffered on international television conduits on March 23, 1983, the Soviet system would be expected to collapse in about five years. The Andropov and Gorbachov governments rejected the offer of such discussions, and the Soviet system went under, not five, but six years after I had first delivered that forecast to the Andropov government in February 1983. The SDI, as I had proposed it, and Reagan adopted it in the March 23, 1983 broadcast, had nothing in common either with the childish characterization of the President's March 23rd proffer as "Star Wars," or the opposing, kookish "kinetic weapons"-only, "High Frontier" proposal of General Daniel P. Graham's far-right-wing Heritage Foundation. After Andropov had wildly rejected even a discussion with Reagan, I repeated my forecast publicly in the Spring of 1983.

interval could not have been launched as it was, without the consent of what passed for a majority of popular opinion. It was the cultural paradigm-shift of the 1950s, which permitted, and also fomented those changes in sentiment which were crucial in transforming the U.S. from the world's greatest producer society, to the intrinsically bankrupt post-industrial ruin it has become about forty years later, today.

The character of the economic policy of the Harold Wilson government, if the term "character" can be tolerated for use under those circumstances, expressed a dedication to bring down the post-war Bretton Woods system, that by aid of a policy of post-industrial wrecking of the physical economy of the United Kingdom itself. Wilson's wrecking of the U.K. economy, and the correlated orchestration of the Sterling Crisis of Autumn 1967, were used to accomplish the first step toward the breaking the back of the Bretton Woods dollar. During the term of the second Wilson government, the same approach was used, with complicity of U.S. Nixon Administration circles around Shultz, Kissinger, Volcker, et al., to bring about the 1971-1972 break-up of the fixed-exchangerate Bretton Woods system.

Later, under the regime of U.S. National Security Advisor Zbigniew Brzezinski, the internal economy of the U.S. was put through a structural wrecking-process, capped by Volcker's initial role as Federal Reserve Chairman. Volcker led the U.S. into the great stock-market crash of October 1987, and

Volcker's successor, "political hack" Alan Greenspan's financial-derivative and related swindles, have pretty much done the rest.

The cultural correlative of these changes in the direction of monetary-financial-economic policy-shaping, was the way in which the role of the nominally anti-Soviet Congress for Cultural Freedom, over and beyond the 1950s, created the foundations of broad cultural degeneracy, in the U.S.A. and western Europe, for what became known as the rock-drugsex youth-counterculture of the mid-1960s and beyond.

The combined effect of these changes in direction has been essentially as follows.

From Truman and Churchill to Nixon

The death of President Franklin Roosevelt gave Churchill's crowd their victory in the war-time battle against FDR over post-war world global strategy. Where Roosevelt had explicitly intended to end the war by a turn to freeing all colonial nations to become nations developing with assistance of the conversion of the vast war-time potential of the U.S. economy to making the colonized regions full economic, as well as political partners in a world order under a United Nations modelled upon the principle of the 1648 Treaty of Westphalia, the Truman Administration immediately joined the British, Dutch, French, and others, against the now-deceased U.S. President, with military and related enforcement of a joint recolonization policy campaign of the U.S.A. and these European allies. This recolonization policy, which was a correlative of the Truman Administration's unjustified nuclear bombing of Hiroshima and Nagasaki, was extended into the provocation of unnecessary quarrels with Stalin, quarrels which were used by Churchill's partners to launch the 1946 Bertrand Russell campaign for world government through nuclear "preventive war."7

The situation changed when the U.S. recognized the detonation of an experimental Soviet thermonuclear weapon, prior to the U.S. development of such a capability. This and coinciding developments around Korea War policy, brought the Bertrand Russell-crafted Anglo-American policy of "preventive nuclear war for world government" to an end, for that time, until Defense Secretary Dick Cheney's attempted revival of that policy at the beginning of the 1990s; but, this Russell policy of the 1940s was replaced, by the close of the 1950s, by the Bertrand Russell-orchestrated Pugwash doctrine of "mutual and assured (thermonuclear) destruction" through readied deployment of thermonuclear-armed intercontinental missiles.

In the meantime, as a result of the pro-colonialist Truman Administration's anti-FDR turn of 1945, the rational option for post-war conversion of the U.S. economy was crippled. What should have occurred was the long-term capitalization of utilization of a large part of the war-production potential for the development of the sovereign nation-state economies of the parts of the world released from the status of colonized and semi-colonized regions, as FDR had presented this to Churchill at their meeting in Morocco. The result of Truman's backing of recolonization, was, therefore, an unnecessarily severe and prolonged U.S. recession during the U.S.A.'s Truman years.

It must be stated and emphasized here, in that connection, that contrary to the popular mythologies of most of the world during the 1945-2005 interval to date, including much of a U.S. population itself caught up in this myth-making, the U.S.A. has none of the functional characteristics of an imperialist nationality, and, in fact, never had such a characteristic trait. The imperialist impulses from within the U.S. have always been an alien reflection of the role of a section of the U.S. financier interest which was an integral part of the Anglo-Dutch Liberal monetary-financial system.

The U.S. pro-imperialists of that set were, principally, the British East India Company's American Tory assets, such as the Perkins Syndicate, and the pro-slavery turn of the American Tories of the 1820s, a turn which brought Aaron Burr successor Martin van Buren's and Belmont's London-steered financier interests into control of the Presidency with the election of former Aaron Burr asset, van Buren's Andrew Jackson, and the wrecking of the U.S. national bank in favor of van Buren's rapacious land-bank swindle.

The raison d'être of those and related alien currents of influence, living as influentials within our own republic, or among expatriates, is quickly and correctly understood when we recognize that the world's hegemonic monetary-financial system during most of these centuries, has been that brought into existence by that Paris Treaty of February 1763 which established Anglo-Dutch Liberal financier interest as a growing imperial force. That Liberal faction remains, to the present day, the modern continuation of the same ultramontanist system of the medieval period of the Venetian financier-oligarchy's imperialist partnership with Norman chivalry.

For example, the planting of chattel slavery in the American colonies, and the energetic expansion of that slavery under the Democratic Party of Jackson and van Buren, was a reflection of the way in which the Anglo-Dutch Liberals ran the Nineteenth-Century phase of the African slave-trade through, chiefly, their flunkies, their Spanish monarchy clients of the Nineteenth Century. From the 1790s on, the British and our treasonously inclined Liberals, then as now, preferred a more profitable traffic, as did the Mont Pelerin Society's Milton Friedman, the legalization of the drug trade, then, the India-Turkey-China opium trade.

It is to the extent that the imported Anglo-Dutch Liberal financier influences of the American Tory tradition have subverted the intent of our U.S. Federal Constitution, that

^{7.} Cf. Henry A. Kissinger on the Roosevelt-Churchill conflict, Chatham House Address, May 10, 1982.



The shift from President Franklin D. Roosevelt to Harry S Truman moved the United States dramatically away from the American System tradition in economics and foreign policy. From left to right, FDR, Truman, and Henry Wallace.

we have suffered the still-persisting, alien influence of what is frankly a pro-imperialist financier faction in our national life.

If we understand the history expressed in the crafting of the 1776 Declaration of Independence and our Federal Constitution, with its exceptionally remarkable Preamble, over the subsequent centuries, our embedded patriotic impulse has had two leading characteristics. First, as the diplomacy of John Quincy Adams was specific and emphatic on this point: to establish and maintain a defensible, therefore continental constitutional republic, with well-defined, permanent northern and southern borders, with Canada and the republic of Mexico, respectively, and the area within those borders, from the Atlantic to the Pacific. If we had quarrels with Canada, these were forced upon us by the periods in which Canada's status as a British imperial instrument was aimed against us. As for the wars with Mexico, these were fruit of the combined effort of Britain's French, Habsburg, and Nineteenth-Century Spanish accomplices, together with Anglo-Dutch Liberal flunkies, such as President Theodore Roosevelt's uncle and British-run Confederate spy, James Bulloch, from within the U.S.A.

Second, although we were nationalist in the sense prescribed by Secretary of State John Quincy Adams, we were not isolationists. Typical is the role of John Quincy Adams, then a distinguished member of Congress, in the famous "Spot Resolution" effort of then-U.S. Representative from Illinois, Abraham Lincoln, in opposing President Polk's concocted war with Mexico. Wisely, President George Washington had warned against entangling alliances with our enemies, our British and the Habsburg mortal adversaries, such as the cir-

cles of Bentham, the French Terror and Napoleon, Castlereagh, Palmerston, and Metternich, who were the dedicated adversaries of our continued existence up through the point a victorious U.S. kicked the French into abandoning the monster Maximilian, for whom the combined forces of the British, French, and Spanish had deployed their forces, in concert with London's Confederacy asset, to crush Mexico and make it an instrument against the U.S.A.

We wiser patriots have therefore always understood, since the time of the Massachusetts Bay Colony's view of Europe's Thirty Years War and the happy 1648 Treaty of Westphalia, that our national security needed a world in which truly sovereign nations

were related to one another in the manner expressed by Westphalia. It may have seemed, often, as under Dubya today, that we had largely lost our patriotic devotion to that perspective, even for a generation or more. Yet, repeatedly, from among our people, as in the U.S. opposition to Bush's imperialism today, there have been not only leaders, but masses of ordinary citizens, who have rallied in affirmation of our republic's Westphalian roots. Franklin Roosevelt's intention for a Westphalian model for a post-war planet, like the role of President Lincoln before him, or leaders like the martyred Rev. Martin Luther King, express what is truly the typical American, antimperialist, patriotic impulse.

The transition from Roosevelt to Truman spawned an insolent upsurge of the same Roosevelt-hating circles, especially financier-oligarchical circles and their hangers-on, who had once conspired to bring the U.S.A. and Britain into the fascist order emerging in Italy, German, France, and Spain, but had joined Roosevelt only because a section of the British oligarchy, merely typified by Winston Churchill, were determined, unlike others of their class, not to turn the British Empire over to an Austrian immigrant into Germany, Hitler. Once Hitler was virtually out of the way, and Roosevelt already dead, the right-wing, Anglo-American financier-oligar-chy returned to the passions of the days it still admired Mussolini and Hitler. This became, under President Truman, the right-wing insurgency which captured predominant control over U.S. political life during the Truman years.

This crowd of right-wingers had a problem. They hated everything for which Franklin Roosevelt stood, and were determined to uproot all of his social reforms as soon as the opportunity were ripe. But, for the moment, uprooting the

Roosevelt system, and its Bretton Woods extension, was not economically practicable. The right-wing terror of the Truman era, later called, euphemistically, "McCarthyism," was unleashed. The herds of Nazis coopted into the service of Allen Dulles, Spain's Franco, Augusto Pinochet, et al., and our own pro-fascist Buckley tribe, typify the situation. However, the election of a traditionalist opponent of that Trumanled right-wing, an opponent like General of the Armies Douglas MacArthur, President Dwight Eisenhower, gave the world, and the U.S.A. itself, a temporary respite.

At the point of his retirement, Eisenhower named the fascist current in America "the military-industrial complex;" he might have called it, with tolerable exaggeration, the "Allen Dulles" complex. Immediately, Dulles et al. began unleashing what their faction had been concocting. The assassination of President John F. Kennedy, among others implicitly on the list of targets, was the stroke of terror which unleashed the right wing, aided by the follies of a U.K. under Harold Wilson. The way was being prepared for the Administration of Nixon, Shultz, Kissinger, Volcker, et al.: the road toward fascism was being cleared.

Under National Security Advisors Kissinger and Brzezinski, the U.S.A. as we knew it was being destroyed. Neither Kissinger nor Brzezinski actually did it; they were merely the Leperellos of the rape of our Constitution. It was the right-wing, the same Anglo-Dutch Liberal crew of Venetianstyle international financier-oligarchy, which had unleashed fascism upon 1922-1945 continental Europe (and beyond), aiming to corrupt and destroy the U.S.A. as a way toward establishing that form of ultramontane, universal-fascist world reign called "post-industrial" utopia and "globalization."

The Economics of International Fascism

Technically, the kind of economic system which has been unfolding in the U.S.A., Europe, and beyond, since the first Harold Wilson government's flanking assault against Roosevelt's Bretton Woods system, is fascism, as the names of Mussolini, Hitler, and Franco would suggest. To put a fine point on that, the present form of this abomination is called by some "international fascism," as distinct from the nation-state characteristics of the past Mussolini, Hitler, and Franco regimes; another name is "Nazi Allgemeine SS," as Defense Secretary Donald Rumsfeld might brightly understand that connection.

Yet, the term is also somewhat misleading, because it does not include one-time asset of Montagu Norman's Bank of England, Hjalmar Schacht among the fascists. To similarly misleading effect, the dubious efforts to set Schacht apart from responsibility for Nazism, corresponds to a much broader, general post-war cover-up of those financier agencies which had created European fascist movements and governments, and who were, ultimately, the principal post-war

owners of the holdings, such as the gigantic Hermann Göring Werke, once listed as "Nazi assets," but whose role was covered over by relevant elements of the U.S. Truman Administration.

The history of the rise of nominally fascist tyrannies in Europe, over the span of time from the Versailles Treaty conference through the capitulation of Nazi Germany in 1945, was not a product of the takeover of European state institutions by fascist movements. The fascist movements spawned by decisions made at the Versailles conference were the creation of a network of private financier interests, a network which called itself "The Synarchist International," a network whose essential elements are often very much alive and in power, sometimes under their old name, in Europe, the U.S.A., and elsewhere today. The documentation of these connections is solid.

To understand the motive behind those bankers' creation of the fascist movements of that time, we have to drop the charade of pretending that the fascist movements were anything more than instruments of the policies of that network of financiers behind a Synarchist International which is very much alive still today. Once you face the fact, that it was bankers who created fascism for their purposes, you are obliged to uncover the secrets of fascism in banking, rather than being one of the silly conspiracy buffs who attempt to explain matters by pointing to *Mein Kampf*; it is the other way around. It was bankers who created fascism as their instrument, but not just bankers in general; it was bankers steeped in the continuity of the ultramontane Venetian financier-oligarchical system, who crafted and used fascist movements and governments in ways intended to serve the special kinds of interests of bankers of that kind.

Remember, it is typical, that it was Montagu Norman, the head of the Bank of England, who used his asset Hjalmar Schacht to orchestrate the bringing of Hitler to power in Germany, just as we should remember that it had been long-standing British asset and Venetian banker Volpi di Misurata who had brought long-standing Winston Churchill asset Mussolini to power in Italy. The role of oligarch George Pratt Shultz in the U.S. government since his crucial role in the Nixon Administration, is typical of the kinds of pedigrees of the men of the family financial corporations who are invariably behind the Pinochets, the Cheneys, and "Governator" Schwarzeneggers today.

^{8.} Venetian banker Volpi's fame and influence began as part of the British operation behind the Young Turk insurgency, and the operations of the famous British intelligence asset Parvus (Alexander Helphand), a gun-runner, grain-trader, and super-spy, like the Jabotinsky of *Jeune Turque*, who also operated for a time in the environment of the Young Turk operation. In exploring the coincidence of the careers of Volpi and Parvus, the Parvus connections to the international operations of the Okhrana's celebrated Colonel Zubatov and the Russian Revolution of 1905, are more than merely interesting.

Similarly, the ultramontane ambitions of the Synarchist financiers of the post-1945 world, had been the guiding hand behind the right-wing turn in the Truman Administration, and have shaped the direction in which the drive for fascist forms of globalization has become the leading thrust of recent decades of development of national parties, politics, and international agreements and acquired habits of policyshaping over the period since the launching of the official U.S. war in Indo-China and the first Harold Wilson government of the U.K.

To establish that kind of ultramontane utopia, it was deemed necessary to destroy the organized economic structure of a sovereign form of modern industrialized nation-state, before attempting to install the relevant altered kind of political movements and institutions of government which we see flourishing again in the U.S.A. and Europe today. Such is the history of the U.S.A. over the period from the death of Franklin Roosevelt to the present time. The following, summary account of that transformation should suffice to make that point about fascism clear.

To understand the modern nation-state, you must first understand the interconnections between two, interrelated aspects of its economy: its physical economy and its political economy.

By "physical economy" I mean to emphasize an analysis of the total land-area and population in physical terms. In the case of the U.S.A., we focus upon unit-areas such as counties, while we consider the density of the population and development of physical characteristics of the area in each area as the type of unit which must be considered in any effort to describe the progress or deterioration of the nation in that locality. People, basic economic infrastructure, physical investment in productivity, and physical productivity per capita and unit of land-area, are considered as a first-approximation measure of the level and changes in level of the productivity of each area. Similarly, we see how well the nation is keeping up, and, hopefully, improving these raw physical characteristics. Considerations such as the amount and development of farmland and the area's infrastructure as this bears on the productivity of each locality of the nation, is an example. Then, we study the rates of changes in relevant categories, to judge, from a purely physical (non-financial) standpoint, whether the nation is progressing or in decadence. Since the late 1960s, especially since 1971-1972, the U.S.A. as a whole has been in a decadent phase overall, decadence now converging on the threat of early doom.

These physical relations define the relationship of the people of the nation to their nation as a whole, politically and otherwise, whether the nation is increasing its physical production of useful wealth per capita *in its own territory*, or is becoming decadent, perhaps fatally, by ceasing to produce at home, because it prefers to import cheap goods from cheap labor abroad.



After the mid-1960s, the U.S. was increasingly taken over by consumerism, with malls like these above replacing factories.

For example, the transformation of the formerly rich U.S. family farmlands and manufacturing might, into today's ghost-town-like ruin, since during the late 1960s, as in Germany's Ruhr, and the descent of the largely debt-ridden lower eighty percentile of our family households into actual or near desperation, illustrate the hollowed-out truth about alleged increases of U.S. prosperity during the recent thirty-odd years. The southward internal migration of the population, away from the great grain-belt and industrial prosperity, is a spectacle of physical-economic degeneration of nation-wide land-use, as in northern Virginia, near the nation's capital, of the U.S. destroying itself over the course of these decades.

The U.S. population emerging from World War II, had experienced great progress by those kinds of physical standards of measurement. The intellectual productive powers of the population as well as the quantity and quality of their output had increased. Their achievements under FDR had made them, for the large part, optimistic. The kind of prog-

ress they had experienced under FDR, was a value which they expected in the performance of the national physical economy, and in the performance of governments responsive to these optimistic perspectives. Until the middle of the 1960s, you could not begin to think of taking these values away from the majority of the adult population. To clear the way for fascism, you must, therefore, destroy the policy-making habits of government which are associated with these values; that can not be done under democratic systems unless the population has become demoralized by the combined experience of seemingly endless deterioration of the physical condition of the territory of the nation as a whole and some terrifying experience which sends much of the population to what might be described as "cowering in their holes."

You could corrupt the parents of the Baby Boomer generation, but you could not take their economic and related morality out of their cultural heritage. It was the children, the Baby Boomers, who absorbed the greater part of the existentialist corruption strewn across the landscape from the death of FDR to the riotous ferment of 1968.

Meanwhile, the fear of nuclear and then thermonuclear warfare provided the conditions under which a rat-like ferality invaded social relations in the U.S.A. "McCarthyism" was a reflection of that. Then, the influence of the existentialist Congress for Cultural Freedom (CCF) on education in the schools, especially in new suburbia, produced a malleability of the moral character of the bright young children who were seen as destined to become the new, "white collar" ruling class of the nation. The terrifying events of the early 1960s, especially the Bay of Pigs, the missile-crisis, the assassination of Kennedy and others, and the threatened drafting of college students into the Indo-China war, created the preconditions for the opposition to "blue collar" kinds of physically productive activity on which the principal achievements of the U.S. had depended up to that time, especially the experience to that effect under FDR and following.

So, by the time U.S. astronauts landed on the Moon, the shifts in policy which had occurred since the middle 1960s had already begun to destroy crucial elements of those technological capabilities on which the possibility of Moon landing had depended. By the mid-1970s, the emerging layers of the labor-force were producing more and more anti-technology fanatics steeped with the kind of existentialist cultural pessimism which the Congress for Cultural Freedom had done so much to promote during the 1950s and 1960s.

Under Brzezinski, the destruction of the systems of "fair trade" regulation and infrastructure-building cut deeply, and, so far, permanently, into the foundations on which the recovery from the Hoover depression, and the U.S. victory over fascism had depended.

Since 1982, there has been a resulting general shift in values, away from physical productivity, toward the mere

possession of money. Not only earned money, but unearned spending of fictitious money borrowed on credit. The worst of the moral and material damage to this effect was done under Federal Reserve Chairman (and political hack) Alan Greenspan's reign of an economy based more and more on gamblers' side-bets, rather than actually earning anything: financial derivatives.

Money is not the cause of growth; money is properly seen, used, and regulated as an instrument of national policy in ensuring high rates of gain in physical output and technological levels in employment and standard levels of income of the typical family household of the population. It is technological progress, as a force for increase of physical productivity per capita and of the population as a whole, which generates the durable basis for what can be recognized as long-term, non-inflationary financial growth.

Thus, the contemporary synarchist international, has so wrecked the economy of the Americas and Europe, including the former Soviet Union, especially since 1989, that the physical-economic values on which modern European nation-states premised their perception of rightness, are either gone or faced with the immediate prospect of vanishing. In the U.S.A. and the U.K., for example, there was an overall downturn, ending the rise in physical-economic values up to approximately the middle of the 1960s. On continental Europe, the downturn came a bit later, but Europe has been catching up at high speed of late.

Thus, we have become a nation so decadent that most of the upper-twenty percentile of the population seems to have no sense of how desperately decadent this nation, and, most of all themselves, has become. The upper income-brackets of Baby Boomers, Tweeners, and Karl Rove's campus Republican goonery, lurch like legendary lemmings to their self-destruction, and are loathe to tolerate anyone who gets in their way. The stink of corruption radiates among those who go to church to worship money, and call this abomination the fruit of a faith-based initiative. We are at the point where so much of the population has lost all sense of sane physical-economic values, that it has become doubtful that this population would awaken in time to prevent itself from being plunged into a global new dark age.

Using those guidelines, we may say with certainty, that there are happy alternatives available for the presently accelerating collapse of the U.S.A. under President Dubya. There are remedies; but to escape the doom our culture has brought upon itself now, Americans must be willing to change ourselves from the wretched moral hulks so many of them have been induced to become. History warns us that the mere fact of the horror into which we, like fabled lemmings, are now plunging, will not be sufficient evidence to cause us to change our ways in time. There must also be a clear vision of the available alternative. That optimistic prospect is the principal task on which I focus your attention here.

What Is the Complex Domain Physically?

We now begin with an introductory summary of a series of key principles which must be identified before undertaking a discussion of the practical matters which the presently onrushing global monetary-financial crisis presents as the key issues of the present world situation. For this reason, we focus attention now on the way in which the function of each among these validated hypotheses acts as a *power (dynamis)*, with that term used in the sense of the usages of the Pythagoreans and Plato.

The idea of actual economics must be developed from the starting-point of a fundamental distinction, the notion of a universal physical principle, a principle which separates humanity categorically from all lower forms of life, the great apes included among the latter. That crucial distinction is the human capacity for formation of Platonic hypotheses which are susceptible of experimental verification as universal physical and related principles. We shall show that whatever might appear to be explained to the credulous about human behavior, by the kind of mathematics allowed by avowed radical empiricist Bertrand Russell and his celebrated stooges, Wiener and von Neumann, must be regarded from the start as not only false, but viciously so.

This principled distinction of man from the beasts, is the efficient physical basis for defining the increase of the potential relative population-density of the human species, as this phenomenon is not possible, in any meaningful sense, in the case of any other species or variety. The ability of the human mind to generate, and socialize the discovery of a universal physical principle, has the kind of effect, in the development of society, which we would be obliged to attribute to a species-jump in any species other than man.

The fact of this distinction of man from beast, was treated by the Russian scientist V.I. Vernadsky as a demonstration of the way in which the potential relative population-density of the human species has been, in fact, already increased, cumulatively, by at least three decimal orders of magnitude, over that of any species of higher ape. The presence of this distinctive quality of the human genotype was recognized by him, as what he named the Noösphere, the latter as a superior form of existence relative to the Biosphere and abiotic domain, respectively.

For example. Although the existence of the human species on our planet Earth has depended upon the development of

The idea of actual economics starts from the universal physical principles which separate humanity categorically from all lower forms of life, the great apes included.





the *Biosphere* to levels at which self-sustainable human populations could become possible, the characteristic distinction of man from the lower forms of life, is not a product of the *Biosphere*, but, rather, human life, as distinct from other species. Human life is a distinct category of existence in a physical universe composed of three distinct, but multiply-interconnected principles: the abiotic, living processes (the *Biosphere*), and cognitive processes (the *Noösphere*). The interdependency of these three distinct processes, determines the reciprocal relations among these types. *It is man's willful action upon this set of reciprocal relations, which determines man's role on the planet, and, thus, the process represented by the planet as whole.*

In the record of the existence of societies on this planet, since, most notably, the emergence of what became known to modern European history as the Egyptian contributions to the Classical Greek civilization of Thales, Solon, Pythagoras, and Plato, two principal "factors" have been predominant in regulating the willful progress of the potential relative population-density of relevant societies. One, the type of development of the individual human mind, which is the power directly responsible for changes in practice through which increases in potential relative population-density are made possible. Second, the characteristics of various human cultures which

account for tendencies to foster, or suppress the intellectual development associated with the discovery and use, within societies, of experimentally validatable discoveries of universal physical and Classical-artistic principles.

The connection between those two phases of the problems of demography, determines the potential of both the planet and its human population.

That said, now, for purposes of maintaining coherence, I now restate, compactly, a crucial point concerning the physical meaning of the complex domain, a point which I have developed repeatedly in other locations. The objective of the exploratory discussion of the matter with which I begin this introduction of those features of the science of physical economy in this report, is to neutralize the erroneous tendency to think of Riemannian physics merely from the standpoint of ordinary classroom mathematics. We aim at that objective by viewing those mathematical conceptions as reflections of that original Classical Greek conception of knowledge best typified by the known work of the Pythagoreans and Plato.⁹

The common, naive misconception of human sense-experience, is the notion of knowledge as primarily equivalent to the experience of sense-certainty. That notion is the mistaken belief, that sense-perceptions are *always* in functionally direct correspondence to those real-world developments which impinge upon our sensory apparatus.

Against that mistaken, but currently still popular opinion, two leading points of correction are to be made.

First, on the relatively simpler level, we must have evi-

dence that what we think we have sensed, is actually a reliable product of an external action upon our sense-apparatus. To settle such questions as that, we rely upon the experimental method, as our way of testing the validity of what we think we have experienced.

Second, we have a deeper, more fundamental challenge, as we confront the case of what might have been a valid experimental test of our perceived sense-experience; as in the case of Kepler's original discovery of a principle of universal gravitation, what we encounter is an anomalous effect which can not be traced to any discrete object existing in the domain of immediate sense-perception, as being a cause of that anomaly. Kepler's discovered principle of universal gravitation, is the Classical modern example of this notion of a universal physical principle.¹⁰

On the one side, in the first case, sense-experience is limited to experimental proof of that experience itself. However, the universal physical principles, such as Kepler's discovered principle of gravitation, exist, and that with full efficiency. These principles exist in a domain beyond simply direct sense-perceptibility of gravitation as an object of sense-perception.

The discrimination between the two kinds of experimental results, defines the second class of experimental knowledge as associated with what has come to be known as the physical, rather than merely formal-mathematical conception of the mathematically complex domain.

Without the comprehension of the complex domain as a physical domain, mathematics may merely sit and count the footprints in the sky. Mathematics by itself seeks to show what has moved; the physical concept of the complex domain shows what is moving the scheme we observe. Such is the concept of power associated with the work of the Pythagoreans, Plato, and Leibniz, the power expressed by a physical notion of the complex domain. This power of discovered universal physical principles, is what moves an economy along an upward course.

As a consequence of this, experimental science in the spirit of Nicholas of Cusa's *De Docta Ignorantia*, is always confronted with a certain kind of dualism. *On the one side, there is the domain of sense-experience; on the other side, there are the effects which are sensed, but whose pattern of behavior can be tracked down to some well-defined experimental demonstration of the efficient existence of an unsensed*

^{9.} The trace is historically backwards in time. Start with the Gauss-Riemann conception of the complex domain as entirely a physical, rather than a formal mathematical domain. See the frauds of D'Alembert, Euler, Lagrange, Cauchy, et al. in terms of back-tracing the way in which Euler, for example, introduces his fraudulent notion of "the imaginary" in the context of the paradoxes implicitly posed by Cardan's treatment of cubic functions. Trace that issue of cubic functions back to Archytas' solution for the purely physical-geometrical, rather than algebraic, of the construction of the doubling of the cube. Then, look at elliptical and higher order functions in the Riemannian physical geometry of Abelian functions, against the background of Leibniz's location of the physical-geometric generation of the catenary as expressed as a mapping of the thought leading into discovery of a universal physical principle of least action. Avoid the trap of attempting to see Gauss's Disquisitiones Arithmeticae as rooting mathematics in algebra, by recognizing that that work, notably the subject of bi-quadratic residues, leads the student away from naive algebraic world-outlooks, into the direction of Gauss's discovery of the orbit of Ceres, on the general principles of curvature, and what Riemann makes of this in his principal works. See the implications of Leibniz's catenary principle in historical retrospect, from the standpoint of a generalization of Riemann's treatment of Abelian functions. The general principle of rigor is to look afresh at the knowledge of the past, this time from the new standpoint of the presently added discoveries of universal principle. True science is reconsidering what science thought it had known, now from the standpoint of a higher epistemological level of subsequent discoveries of the general characteristics of the new, higher standpoint, from which to see the way in which the universe is, ostensibly, actually organized as a whole. See this as a reflection of Cusa's principle of Docta Ignorantia, as Riemann's habilitation dissertation expresses Cusa's principle in more modern terms.

^{10.} Kepler reflects the modern version of the ancient Classical Greek notion of universal physical powers, as the concept of powers is associated with the Pythagoreans and Plato. It is important to repeat: that the modern version was introduced by Cardinal Nicholas of Cusa, as in his *De Docta Ignorantia*. Luca Pacioli and Leonardo da Vinci, are direct reflections of Cusa on this account, as Kepler attributes his work to the legacy of Cusa, Pacioli, Leonardo, et al. Riemann's 1854 habilitation dissertation and 1857 Theory of Abelian Functions express Riemann's full-fledged adherence to Cusa's principle of *Docta Ignorantia*.

universal physical principle. The effect of the existence of the principle is sensed, but not the existing, suprasensory principle which generates that perceived, sensible effect. The defense of Leibniz's universal principle of physical least action, as expressed by Gauss's referenced 1799 dissertation, implicitly defined this dualism of the mathematical representation of experimental knowledge as a complex domain, the physical complex domain.

In the latter domain, we have measured sense-experience against a conception of our existence's containment within a universe organized, from the preliminary experimental standpoint (the first level of experimental work) as the spherical physical geometry of primary astronomical observations. This was the ancient Egyptian astronomy's conception of *Sphaerics*, as adopted by the Pythagoreans. However, within the domain of *Sphaerics*, we must also deal with those experimental anomalies, as in astronomy, from the second, higher level of experimental method; that is, from the standpoint of observed motions which reflect an "interfering" action of another, superior geometry. This other, superior geometry, is expressed as anomalies projected from the domain of the unseen, upon the sensed projective screen of what might be imagined to have been seen as a spherical universe.

In that context, the task of physical geometry is to show the interaction between the two domains, the spherical domain (the imagined screen on which the events of sensory-experience are displayed to sense-perception) and non-spherical domains whence other geometries are acting, in the guise of what we must recognize as universal physical principles, to produce the apparently combined, anomalous effect recognized as the paradoxes which higher reality presents to sense-perception. This is the latter, second standpoint of Riemannian Abelian functions which corresponds to, at first, approximately elliptical, and, then, higher order geometries.

In serious studies in physical economy, we do not think of such matters as from "inside" the standpoint of a formal mathematics. Rather than relying upon mere formal mathematical description, we think of the formal mathematics from the higher vantage-point of a conception which subsumes, and thus rises above those formalities. We look at the subject from a standpoint outside the limits of the axiomatic assumptions of a relevant, particular mathematics. For example: without such an approach to physical economy from the latter, higher vantage-point, it is impossible to understand those higher physical-economic processes which come most directly into play, as today, as society enters a period of breakdown of its previously habituated economic systems. 11

The level of the efficient, but unseen physical principles which order the appearance of regular anomalies in the directly observed domain, is the superior level of universals. For example, we mean this in the sense that the principle of gravitation acts everywhere, as an unseen, efficient object; but, it is not an object of the type we may associate with the class of objects of mere sense-perception, objects defined by their apparent physical space-time boundaries within the visible domain. Every valid universal physical principle, so defined by unique appropriate (e.g., Riemannian) form of experiment, exists as a universal, not a discrete object in the sense of a sense-perceived object, nor as in the sense of a formal classroom style in mathematical procedures. This view of universals is of crucial importance for understanding the difference between a situation in which the employment of a physical principle prompts an increase in the productivity of an entire economy, whereas certain different uses of the same principle fail to produce that desired effect (i.e., Analysis Situs).

There is a practical difficulty involved in this. Although all normally born human beings are born with a creative ability of this potential characteristic of their species, an ability which sets each apart from, and absolutely above the beasts, many people act as if they were beasts, either in frankly brutish ways, or simply by being conditioned to suppress the use and development of the innate cognitive potentials which they are given as members of our species. In the history of what has become, now, globally-extended European culture, we witness the suppression, and even destruction of the cognitive potentials of the human individual which are frequently greatly impaired, or even destroyed, by influences which include what fits the model of a Dionysian perversion, such as the case of our existentialists today, or simply a suppression of the expression and development of their creative powers by modes, such as sophistry, Aristoteleanism, empiricism, or related "philosophical reductionist" conditioning.

So, in modern European culture, the spread of the inherently stultifying dogmas of Aristoteleanism and empiricism, are the predominant forms of relatively civilized ways in which the creative powers of the individual are crippled in ways corresponding to psychiatrist Kubie's discussion of the problem of "neurotic distortion of the creative process" even among notable case of scientifically trained persons. ¹² One of the effects, and causes of this neurotic crippling among trained intellectual workers, is the acceptance of reductionist

^{11.} For example, in discussions of ways of reacting to today's mounting international monetary-financial crisis, the knee-jerk reaction among most is to discuss the character and role of money in a post-crash system from the standpoint of habituated, more or less fetishistic dogmas of money prevalent

in the system which is now destroying itself. In this state of affairs, a new conception of money is required, as I have repeatedly warned; yet, others, even those who are relatively expert in the dying system, cling, as if hysterically, to confidence in a continuation of the way in which money operates under the old system.

^{12.} Lawrence S. Kubie, *The Neurotic Distortion of the Creative Process* (Lawrence, Kansas, 1958), and "The Fostering of Scientific Creative Productivity," *Daedalus* (Spring, 1962).

mathematics, and related forms of so-called "logical" discipline as a substitute for actual creativity. The person so crippled by acceptance of that conditioning, says, "Put it in my terms of reference," a proposal, which if accepted, condemns the discussion thereafter to muddle in fruitless mediocrity in respect to any subject-matter which demands an actually creative solution.¹³

That kind of widespread moral-intellectual mediocrity, of the type referenced by Kubie, expresses itself in what I have often described as a "fishbowl" mentality. Like a pet fish in a bowl, the individual's mental life is confined to sets of axiomatic, or axiomatic-life assumptions. Thus, any real-world development which does not fit within the fishbowl of such assumptions, has the effect, like the Jacobin Terror, of tending to shatter the bowl, dumping its doomed fish onto the living-room carpet, perhaps to be found dead, there, in the morning. That is precisely the nature of the danger to the U.S.A. and its inhabitants today. That "fishbowl syndrome," is the nature of the threat of self-inflicted doom inhering in the popular and academic cultures of the Americas and Europe today.

Mathematics is necessary, but do not weave it into the building of your personal fishbowl, especially at a time, as now, when the customary fishbowls are beginning to crack all around the world.

The effect of a discovery of a universal physical principle may be described in mathematical terms after the fact; but, this description becomes possible only after proof of the revolutionary change in choice of working principles has been crafted. You will not get to the discovery by standard classroom mathematical methods. The discovery amounts, as Riemann's case illustrates this so clearly, to the effect of the introduction of something from outside previously established mathematics, something which smashes the pre-existing set of relevant mathematical assumptions (i.e., the method of Docta Ignorantia). The attention of competent scientific practice is always focussed on the matter of those yet-to-bediscovered universal principles of some relevant doctrine, whose discovery will smash the existing mathematics associated with that doctrine, as Gauss's 1799 smashing of the axiomatic assumptions of D'Alembert, Gauss, Lagrange, et al., typifies this form and quality of action, and as referenced chiefly among the principal works of Riemann, such as his habilitation dissertation and "Theory of Abelian Functions" do this in a more general way.

The language of the quality of science which is capable of dealing with such challenges in the domain of formal mathematical physics, is what is known, formally, as the metamathematical practice called *epistemology*, as the work of Plato best typifies the dialectical principles of epistemology. Epistemology, properly understood, is the language of reference to the existence of those principles which belong within that second order of experimental work which I have located as the characteristic distinctions of mental life which place Cusa, Leonardo, Kepler, Leibniz, Riemann, et al. outside and above the level of Aristoteleans and empiricists such as Euler. *Epistemology is the language of universals*. ¹⁴

So, from the standpoint of *universals*, a person, such as a scientific discoverer, such as the ancient Archytas, Archimedes, and Eratosthenes, whose work has an efficient application in the widest range, even beyond the mortal bounds of birth and death, is a universal personality, as all of the greatest scientific discoverers typify this; or, as Jeanne d'Arc's expenditure of her mortal life on behalf of the establishment of the modern sovereign nation-state republic as a replacement for the empire and medieval ultramontane systems earlier, renders her immortal because the effect of her mission has a universal quality of outreachingness.

Such a person's existence within the universe is immortal. The person dies, but the radiated efficient effect of his or her existence as a cognitive being radiates through the simultaneity of eternity, after the mortal flesh is long gone. This quality of unbounded immortality is found only in the individual's

^{13.} Take the case of some brilliant experimentalists, with solid creative powers in their experimental practice, but who shrivel in fear of the tyrants of the cult of Newton, when the issue of proof of principle is shifted from its native domain, unique experimental results, to the terms of the discussion demanded by the virtual Babylonian priesthood reigning over academia today.

^{14.} The fallacy of Aristotle's method is treated famously by Philo of Alexandria. Philo shows that Aristotle's doctrine is based on the sophistry of the argument made by him: that if the Creator were not Himself imperfect, then His act of Creation itself were ruled by perfect laws, which He Himself could not violate. As Philo crushed those Aristoteleans, the evidence is that the Creator is A Perfect Creator of a self-developing universe, in which mankind, or the individual human being is obliged to contribute to that process of change which is an ongoing process of continuing creation. Thus, the reading of Aristotle ridiculed by Philo shows the Aristotelean theologians to have proposed implicitly, in this way, that God is effectively dead, and those Aristoteleans are therefore the clearest example of Gnostic theologians who have consigned day-to-day power in and over the world to a different sort of reigning deity, such as the Satan of the Mont Pelerin Society's Mandeville. The same issue of Aristoteleanism, as posed by the ancient Claudius Ptolemy's fraudulent treatment of the earlier discovery of Earth's Solar orbit, as by Aristarchus, the fraud concocted by the Roman Empire's Claudius Ptolemy, was made a theological issue of the agenda of Sixteenth-Century modern Europe's Inquisition. This latter fraud was the modern attempt to uphold the hoax of the geocentric universe against the work of not only Aristarchus and other Classical astronomers, this time against Cardinal Nicholas of Cusa during the Fifteenth Century, represented the same gnostic "God is practically dead" notion attacked by Philo. The theological issue is, in fact, the effort of the Roman imperial tradition to uphold that Gnostic doctrine of the Olympian Zeus which is the subject of Aeschylus' *Prometheus* trilogy: men and women must not be permitted access to knowledge of universal physical principles. Such theology works to keep God from interfering regularly in Satan's (e.g., Bernard Mandeville's) world. On this account, the empiricism of Venice's Paolo Sarpi and his house-lackey Galileo Galilei, has no essential, underlying disagreement with modern Venetian Aristoteleans such as Henry VIII's marriage counsellor, Francesco Zorzi (aka Giorgi). Much of the corruption of science by the work of contemporary science referees working in the tradition of Cauchy, is to be recognized a Gnostic enterprise of the same sort as the Hellish cult of Claudius Ptolemy's hoax.



The "fishbowl syndrome," shown here in the extreme case of Federal Reserve Chairman Alan Greenspan, describes how individuals, or a culture, gets trapped inside certain axiomatic assumptions, which are often leading to their doom.

efficient existence as a cognitive being, as only typified by the author of the radiation of experimentally validated universal physical principles.

The person who looks at the matter of such universals from the standpoint of personal identification with the domain of sense-certainty, becomes exactly what Shakespeare has Hamlet describe himself to be, in the famous Third Act soliloquy. The scientist of such a disposition, like that Hamlet, is gripped by such doubt of the reality of the higher domain, that he would rather condemn himself to a shameful, self-inflicted death, than take any action of belief which would prompt him to recognize the reality of his identity in the higher, apparently ghostly domain.

This treatment of the concept of universals, was, as I have just said, the method, and working principle of Kepler.

Thus, each universal principle which generates such anomalies in a spherical domain of perception, is acting universally upon the real world which includes both the perceived effects of the spherical domain, and the set of unseen, but efficient universal physical principles.¹⁵

The consequent definition of the scientific world-view, presents us with the contrast of the case of the thinker who has succeeded in making the shift, from considering sense-perception itself as reality, and principle as merely shadow, to the outlook of that better-qualified scientist who sees sense-perception as merely the screen on which the unseen, real universe's principled effects, such as Kepler's universal gravitation, are projected as shadows are. Here, we meet again the famous passage on seeing in a mirror, darkly, in the Christian Apostle Paul's I Corinthians 13.

Here lies the cause for the stunning effect of the opening, and closing paragraphs of Bernhard Riemann's celebrated 1854 habilitation dissertation. ¹⁶ Every discovered universal physical principle, such as the universal gravitation of Kepler, is an efficient instrument of action universally. The principle is a definite object of the human mind, but is bounded by its universal function (its characteristic action) rather than bounded simply, as empiricists would have us believe, by naive notions of physical space and time.

When we act in ways comparable to fostering net physical economic growth, per capita and per square kilometer of the total area, we are employing known universal principles to the effect of generating an ostensibly anomalous, but beneficial effect, an effect we observe as an anomaly experienced as such in

the sensory domain. This phenomenon is characteristic of societies which are raising their level of potential relative population-density, but is absent in the ostensibly willful behavior of an animal ecology, or, similarly, a so-called "traditionalist" culture.

Admittedly, all living species are distinguished by characteristics which are attributable to what we term loosely the genetic characteristics of that type of species; the difference is, that the animal can not change its species' genetic characteristics at will. Man's discovery of relevant universal physical principles has the effect of what would be considered a willful upgrade of our species, as Vernadsky's concept of the Noösphere illustrates that principled point. Man is the only known instance of the existence of an immortal universal species inhabiting our Creator's universe, a species thus made, by the Creator, in the likeness of the Creator Himself. The discovery and adoption of a power, in the Classical Greek sense of power, and Leibniz's, is the power to change the universe by a relevant kind of act of will.

Competent physical science is not the business of contemplating man's experience of an observed universe, but man acting, through discovery of powers, as the Pythagoreans and Plato define powers, to change that experience.

This definition of power—the Kraft of Leibniz's science of physical economy, a definition which must be traced to today from the conceptions of the Pythagoreans and Plato, is the indispensable basis for a competent science of physical economy, and, therefore, the basis for any competent analysis of the functions of political-economy under the conditions of existential crisis wracking the world today. The widespread failure, among economists, accountants, and other persons

^{15.} What I have just written here, touches, by implication, on what is known as "Dirichlet's Principle," a concept which is of crucial and pervasive importance in Riemann's more advanced work.

^{16.} Bernhard Riemann, Über die Hypothesen, welche der Geometrie zu Grunde liegen Bernhard Riemanns Gesammelte Mathematische Werke (New York: Dover Publications reprint edition, 1953) pp. 272-273, 286.

of relevant ignorance, to recognize the defining role of the function of *power*, so defined, in physical economy, shows up as the leading factor of terrible incompetence underlying the degeneration of the world economy (taken as an interdependent whole) under the international monetary-financial system of the 1971-2005 interval to date.

In short, the typical economist and accountant is not capable of distinguishing between investments which actually contribute to the general welfare, and those which have either no useful outcome for the economy as a whole, or whose effect is systemically negative. This cause of failure in performance is most notable as among the effects of the shift from a "traditional" economy of increasingly physical-capital-intensive agro-industrial development, to the presently hegemonic trend in Europe and the Americas, toward a "post-industrial" economy based upon monetary speculation.

The Role of The Human Mind

Just as we have not yet isolated a uniquely specific kind of simple principle of life, which separates living from non-living processes, we have yet to identify that principle, which is lacking in all lower forms of life, but which adds the quality of cognitive powers, thus to yield a creature, the human individual, an individual uniquely capable of adducing an added universal physical principle. Nonetheless, there is a clear, functionally, rigorously definable separation between living and non-living processes, a separation sufficiently well defined to compel us to separate the abiotic domain from the Biosphere. So, the defining function of the human mind is absolutely differentiated from all other known forms of life.

There is no point in becoming terribly agitated about the way in which we are obliged today to treat the presently continuing lack of a better definition than that for these two pieces of elementary principle in human knowledge to date. Louis Pasteur was extremely cautious about the matter of pointing to something which might be claimed to be a principle of life. Vernadsky, who came to be associated with relevant scientific circles in France during an important interval in his own adult life as a scientist, manifestly recognized Pasteur's point of caution, and learned from Pasteur's prudence. Vernadsky's masterful sense of this class of problem in reaching simple definitions, shows clearly enough in his own approach to stipulating the existence of two domains distinct from non-living processes, the Biosphere and Noösphere.

In such matters of science, competent thinkers rely on stating what we do know about such a matter, rather than running around like a love-sick banshee, shouting "Eureka! Eureka!," claiming to have discovered some infinitesimal object which, like the mythical "philosopher's stone," is presumed to be either the distilled essence of life, or of higher cognitive powers.

In the preceding portion of this chapter of the report, I have already stressed that fundamental progress in scientific knowledge comes from moving upward from an existing hierarchy of presumed mathematical scientific knowledge, into

the higher, meta-mathematical domains beyond any established level of knowledge of already tested regions of mere mathematical formalism. Thus, Vernadsky defined the principle of life in the implications of the history of fossils, and, then, applied this same approach to define the principled nature of the existence of the Noösphere.

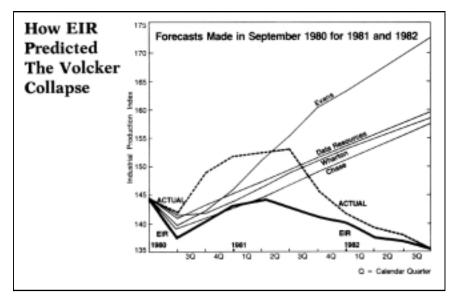
Similarly, I have used my experience of what nearly five decades has been shown to have been a relatively uniquely successful, "top down" approach, an approach comparable to Vernadsky's approach to defining the Biosphere, for defining the factors which must be considered in long-range economic forecasting. The significance of my method of economic forecasting, which contrasts it to the failures of the usual sets of my putative rivals, has been that, rather than attempting to extrapolate from what so-called "ordinary" statistical methods treat as trends perceived within the existing set of prevalent axiomatic assumptions, I look for the critical point at which the fallacies embedded in the combination of the axiomatic implications of currently practiced beliefs, and related, strongly promoted patterns of shifts in the setting of political-economic trends, will, if continued, generate a future breakdown in any economy which sticks indefinitely to such combined trends in policies of practice.

My top-down approach in economic forecasting, leads to a rigorous definition of the role of the human creative processes in determining the characteristic distinctions of society from animal ecologies.

Notably, the first of my forecasts focussed on those U.S. trends in production and marketing of product of the 1954-1957 interval, as merely typified by automobile marketing of that time. The focus was upon policies associated with the early 1950s reform of the internal revenue system, as expressed in expanded sales of leading hard-goods categories of consumer products. I focussed upon cases in which the rates of expansion were not only in excess of the actual rate of growth in household and related income during that interval, but in which the discrepancy between these factors of growth of household income and credit-expansion of sales in these categories, was moving toward a calculable point of breakdown. "Breakdown" meant a point at which the physical life of much of the product being sold, largely on increasingly reckless credit-terms, was less than the relevant financial life of the product which had been sold in this way.

My insight into this, which led to my firm, 1956 warning that we would experience a U.S. credit-crunch crisis beginning early 1957, was prompted, initially, by my studies of the dubious practices of the leading automobile manufacturers under the retail and wholesale market-conditions associated with plainly dubious manufacturers' franchise agreements with the distributors.

The result of that practice, already in 1956-57, was that the virtually same make, manufacturer's year, model, and condition of a specific type of used car could be bought by new-car dealers on the wholesale market, at a far lower price than the new-car dealership was carrying its "trade-in" stock



LaRouche's economic forecasts, beginning in the mid-1950s, have proven devastatingly correct, because he understands the unseen "powers" which are determining the direction of the economy. Here is the most graphic example, comparing LaRouche's forecast of what would happen after Fed Chairman Paul Volcker raised interest rates in 1979, with other "reputable" institutions.

of the same quality of product. This was the result of the stipulated accounting system which manufacturers had imposed upon their franchised dealers. At the time, it was immediately obvious to me, that that accounting system was designed to show a profit on dealerships' new-car sales, where, usually, no such margin of profit on the sale had actually been earned. To conceal what had been the heavy discount on the typical new-car sale, that discount, and sometimes more, was buried, statistically, in a wildly excessive inventory valuation of the unsold portion of those used-car stocks taken in trade.

The key to this swindle was not only the larcenous impulses of the Wall Street gang behind all this, but the moral laxness of the general buying public, a laxness which was expressed in their role in this disgraceful affair. Without that popular corruption, paralleling the decadence spread widely and deeply by the influence of the Congress for Culture Freedom, the great credit swindle of the 1950s were not possible.

My 1955-56 case studies of this pattern in automobile marketing, led me to compare the more or less similar cases for each of a number of other categories of leading consumer-market products. The conclusion from these studies, all situated within the available statistics for the U.S. economy in general at that time, was that we were on the verge of the biggest U.S. recession since the immediate close of World War II.

The psychological root of the 1957-1960 U.S. recession which ensued precisely on my forecasting schedule's projected arrival-time, was the role of increasingly popularized trends toward monetarist ideologies in both popular and management philosophies, trends which failed to recognize that it is long-term factors of growth of net physical capital which

must be placed foremost in designing the monetary-financial policies of both the nation, and key sectors of its national economy. The unfortunately, all-too-short-term active life of the Kennedy investment tax-credit program, is an example of the importance of the promotion of healthy growth in net long-term *physical* capital, instead of *merely financial* capital. It was the typical Wall Street accountant's emphasis on preference for financial capital, at the expense of physical capital, which was expressed by the way in which the 1957 recession was pre-orchestrated.

Once the 1957 recession had happened exactly on the schedule which I had forecast, I focussed attention on the state of mind of the government, the markets, and so on, as shown by the near-crisis by which the U.S. dollar itself had been threatened by the U.S. Federal Reserve System during Spring-Summer 1958. Despite a famous ad-

dress by Federal Reserve Chairman William M. Martin, the lesson of 1957 had not been learned in these policy-determining areas, and had not been learned in the wider reaches of the government and financial establishment. Therefore, during 1959-60, I reached my subsequently often-stated conclusion respecting the likely course of the 1960s: that if the kind of mentality associated with Arthur Burns' role during the 1950s were to be continued into the 1960s, we must expect the eruption of a series of international monetary crises during the latter half of the 1960s, a series of crises which would lead toward a breakdown of the Bretton Woods system, unless relevant policies were changed.

The source of the anomalies of the U.S. economy of the 1950s, was twofold. The temporary success of such swindles was possible at that time, because of the U.S. advantage from increasing rates of physical-capital formation under the postwar economic reconstruction in continental Europe at that time (and somewhat later). The source of the motive for this swindle from the U.S. side, is found in the way in which the "American Century" perspective for the post-war, post-Franklin Roosevelt world had been crafted. The Anglo-American financiers' right-wing, then currently predominant among Franklin Roosevelt's U.S. and London adversaries, hated, and sought to rid themselves, as soon as possible, of that American System of political-economy which Roosevelt represented. Their instinct, as reflected by President Truman's preference for the policies of Roosevelt's strategic adversary of that time, Winston Churchill's imperial policies of "world government through preventive nuclear warfare" and neo-colonization of the world at large, let those Roosevelt adversaries' own lustful preference for financial capital, over

physical economic capital, shape the characteristics of the changes, toward a post-Roosevelt policy launched, under Truman, more or less immediately, at the close of the war.

Arthur Burns, the notable predecessor in U.S. national policy-shaping of George Pratt Shultz and Burns' own Golem, Milton Friedman, typifies the way in which the proimperial tendencies of financial-capital interest worked to shape U.S. policies, more and more, at the expense of U.S. net physical-capital interest, over the course of the post-war decades. The automobile-credit bubble of the late 1950s was a perfectly lawful expression of that kind of now still-continuing process of moral degeneration of the physical economy of the U.S.A. (among others).

Therefore, the crises which I had forecast to occur within the international monetary system, erupted "on time," under the influence of Britain's Harold Wilson, during Autumn 1967. The U.S. made its first capitulation to Wilson's "I will bankrupt us all" blackmail in March 1968, a capitulation which helped to prepare the way for the wrecking of the world monetary system, under Nixon, during 1971-72. In the meantime, the savage 1967 cut-backs in the U.S.'s most successful economic science-driver program, the Moon-landing-pivotted space program, began causing its long-range, continuing experience of economic attrition to the present date, thus turning away from what had been the U.S.'s technological progress in continuing the increase of the physical productive powers of average labor in agriculture, infrastructure, and industry. These are the forces of attrition in the 1960s sciencedriver program which were, and are still—despite the sexualfantasy-ridden illusions associated with the later "IT revolution"—continuing their destructive work, from 1967-68 to the present day.17

The election of a radically monetarist Presidency, under Richard Nixon, fostered an outbreak of wildly insane extremes of reactionary monetarist ideologies in the policyshaping of the public and private sectors of the economy. By the point of the rampage of economic lunacy under National Security Advisor Zbigniew Brzezinski, as capped by Federal Reserve Chairman Paul Volcker's midnight madness of 1979-82, the degeneration of the U.S. economy accelerated, following Soviet General Secretary Andropov's own economically suicidal, flat refusal to discuss the Reagan SDI program, a program which would have meant a resurgence of the already ravaged physical economies of both the U.S.A. and its European alliances, and also the Comecon economies.¹⁸

This handful of excerpts from my experience as a longrange economic forecaster, illustrates two crucial points which bear on the way in which the creative powers of the individual human mind predetermine the potential for longrange economic trends.

First, that long-term and related historical trends in physical economies are determined, not by the inertial guidance of financial statistics as such, but by ideological factors disguised, psychologically, as virtual universal principles of economic practice. Second, that, therefore, the control of the destiny of nations and their cultures lies essentially within that domain of epistemology which deals with the adoption and superseding of ideas which, true or false, have the practical effect of acting as axioms.

Therefore, it should be obvious, that the common, frequently fatal habit in the shaping of national, and also world politics, is the tendency of political leaders and popular opinion alike, to be controlled by fear of opposing those bodies of popular opinion which contain what are currently habituated, widely worshipped axioms. Hence, usually, the reversal of the evils of what is currently generally accepted official and popular opinion, occurs only through the effects of a crisis which tends to undermine continued adherence to the sets of beliefs which have become habituated trends of policyshaping and practice over relatively long preceding periods.

Political leaders and public alike, usually turn away from any remedy, no matter how practicable rationally, which is deemed "impractical" solely because it would go against pre-existing trends in official or public opinion. ¹⁹ Like the Hamlet of Shakespeare's Third Act, such folk would rather plunge into the deadly folly of a waiting doom, as most U.S. leading circles have been committed until now, rather than venturing a turn into a world which they might describe, as Hamlet did, as a world from which no traveller has been recently seen to return. That is the way in which nations have often been destroyed by the hand of their own traditional opinions; that is the way the U.S. population, in the main, has marched, so far, down the road toward now threatened doom, over more than the three past decades.

The "mechanisms" by means of which a needed revolution in currently axiomatic opinions occurs, are rooted in the

^{17.} The discussion of the reasons for the frequent lack of correspondence between investment in military "wonder weapons" and productive impulses in the physical economy as a whole, belongs to a later point in this report, when the significance of the "economic realization" question is presented.

^{18.} The Soviet economy after Stalin was dominated by two conflicting ideologies bearing on economic policies of practice. On the one side, was the inherent resistance to autonomous generation of high of rates of technological progress in the "civilian" sector of the economy. This reluctance was largely

a reflection of the implicitly zero-technological growth practice of the non-military sector, as contrasted with the high rates of gain in technology of the science-driven military sector. The cure for this disparity lay in spilling the science-technology-driver characteristics into the non-military sector, as agreement on SDI would have done this. In this sense, it was the scientific bankruptcy inherent in Marxist ideology which is crafted in opposition to the sounder principles of Hamilton, the Careys, and Friedrich List, which did cause the deciding margin of attrition in the self-inflicted economic collapse of the Soviet system. Count Witte was, after all, right on this point, together with the Mendeleyev who had pushed the American System of political-economy from 1877 on.

^{19.} E.g., the whimpering objection to change from bad policies, sometimes expressed by the plaintive protest of the stubbornly suicidal political lemming: "You can't put the toothpaste back in the tube."

same qualities of the individual human mind which distinguish persons from beasts: the same creative powers of the individual mind we meet in physical science and Classical art. As Percy Bysshe Shelly writes of the political effect of Classical culture in his *Defense of Poetry:* it comes in those revolutionary periods when there is a reawakening of the habit of "profound and impassioned conceptions of man and nature."

As the experience of the French Revolution of July 14, 1789 illustrates, such revolutionary influences are as often, unfortunately, as wicked as they might have been good, as the point is illustrated by the July 14th upsurge conducted by Philippe Égalité, on behalf of Britain's Lord Shelburne and Shelburne's puppet Jacques Necker, as contrasted with both the Germany-centered Classical revolution of Gotthold Lessing, his friend Moses Mendelssohn, and their followers, and the American Revolution whose success was prefigured by the simultaneous rise of the Franklin-led American Revolution in North America and the forces of the Germany-centered Classical revolution, of the followers of Leibniz and J.S. Bach, in late Eighteenth-Century Europe.

In more than 2,500 years of the history of European civilization, the well-springs of revolution are, typically, either the Dionysian current leading into Grand Inquisitor Tomás de Torquemada, Nietzsche, and Hitler, or, the "conservatism" typified by the Aristotelean, or, the progress expressed as the Promethean impulse, the latter as by, among others, Shelley. The Promethean impulse typifies the creative impulse of those kinds of youth movements, as from a trend among the youngadult group between 18 and 25 years of age, during the period of adulthood before cognitive calcification tends to set in in society, as today. The exemplary cases of a Leibniz arriving in Paris in 1672, Gauss of 1799, young Dirichlet coming under the patronage of Alexander von Humboldt in the Paris environment of the Leibnizian faction of the École Polytechnique, Abel, and Riemann of 1854-1856, like the comparable figures among the Pythagoreans and young Plato, or the Platonic Academy's still-youthful Cyrenaican, Eratosthenes, beginning his career in Egypt, are only typical of this in physical science. A look at the roster of the followers of "Papa" Benjamin Franklin among the founders of the U.S. Declaration of Independence and Revolutionary War, attests to the same fact.

These cases reflect on the characteristics of the cognitive domain, as the fossils as defined by Vernadsky, define the reflected principle underlying the phenomenon of the Biosphere. It is by studying the way in which creativity generates those discoveries of principle in the domain of Vernadsky's Noösphere which correlate with principle-driven revolutionary progress in the potential relative population-density among societies, that the way in which creativity works can be understood. It can be understood, in this way, although we have not yet isolated the specific "ontological" characteristics of that feature of human brain function which might be pre-

sumed to set the human individual apart from lower forms of life.

If my thus sampled experience as a forecaster is rethought, as an experience, by the methods of the collection of Plato's dialogues, we have the following indications of the way in which uniquely human qualities of creativity may be located to the effect implied by Vernadsky's representation of the Noösphere.

We do not yet know a self-standing ontological principle which might account, in and of itself, for the difference between non-living and living processes. Nor, do we yet know, of a parallel case for an ontological principle which causes the difference between the human creative powers and the lack of those powers among lower ranks of living species. This fact should not surprise us; only a compulsive taste for absurdity could demand the discovery of the principle determining a higher form of existence, from obsessive search of the internal characteristics of the lower domain of existence. Yet, the qualitative differences among the abiotic, living, and human-creative types are clearly defined phenomena experimentally and historically, if we but have the patience and determination to examine the matter from the top down, from examining the principled characteristics of the lower order of existence from the vantage-point of the higher.

That is not all. By comparing the results of the method of Plato's dialogues with the opposing methods of the reductionists, we are able to know the way in which the creative powers of the individual human mind work to produce the difference between man and beast. We know this, then, in the same way in which Vernadsky correlates the fact of the difference between abiotic and living processes with the fact of the "history" of fossils. We know the role of the epistemological method of Plato's dialogues in adducing the principles of discovery which are reflected there, as fossils reflect the "history" of a principle of life, reflected in the shaping the history of the development of human society through ideas defined in the epistemological way Plato's dialogues illustrate.

To understand how the individual human mind works in relevant ways, it is necessary to experience the history of ideas from the standpoint of the Platonic dialectic as a method of physical science as also history generally. My summary account of my initial experience in successful long-range economic forecasting, is an illustration of this principle. The study of ideas must be a rigorous, experimental exploration of the way in which ideas are generated and used, which are truthful, and which are not, in those terms of reference. The ideas which survive that kind of test are the ideas which reflect the creative principle setting mankind apart from, and above all other known living species.

It is then sufficient to study the Leibniz-Gauss-Riemann development of the physical principle of the complex domain, from a still higher vantage-point, as a special case of the larger principle of human social history which knowledge of that notion of the complex domain reflects.

How Economies Work— When They Do?²⁰

At this point in the present report, I focus on a crucial practical aspect of our subject: the way in which *power* (i.e., the *dynamis* of the Pythagoreans and Plato, and the *Kraft* of Leibniz's science of physical economy), when expressed in the quality of a discovered universal physical principle, allows that principle to be transmitted, as Leibniz's *potential* (*power*), from a point of its first introduction as an application to the economy, into moving the *potential* of the entire economic process upward throughout.²¹ In other words, how does technology work, such that its application at one place in an economy may radiate, in the form of *potential*, to raise the level of productivity distributed throughout that economy as a whole.

In this matter, the choice of ordering of the transmission of this *power*, so defined, within the physical-economic process as a whole, ordered in the Leibniz-Riemann sense of *Analysis Situs*, determines the relative success or failure of the introduced technology to boost the economy considered as a whole.

In service of the effort to make this otherwise unfamiliar, but crucially important, specialized topic of economic science comprehensible to present-day economists and others, let us take the case of the way in which a science-driver program aimed for a military program may, or may not "spill over" with significant benefit, in the form of *potential*, into the non-



The science of the Strategic Defense initiative is a perfect example of the kind of application of a discovered universal physical principle which will drive the entire economic process upward.

military functions of that economy. One may refer to my proposal for what became known as President Reagan's own original Strategic Defense Initiative (SDI) proposal of March 23, 1983 to Soviet General Secretary Yuri Andropov, in which this principle of a Leibnizian science of physical economy was the critical technical feature of feasibility in the making of a proposal which Andropov, unfortunately, foolishly and summarily brushed aside.²²

For example. There are few pieces of practical economic lunacy imposed upon physical science generally and economic science in particular, which are worse than the currently rampant doctrine of "dual-use technologies." Frankly, this is not merely like, but reflects a kind of utopian thinking related to the implicitly fraudulent extension of the use of

^{20.} Future reports will trace the subject of this chapter of the report, from the principle of physical-economic potential, treated here, in this chapter's discussion, to the specialist's interest in this subject's connections with Bernhard Riemann's treatment of what he defined, most clearly as "Dirichlet's Principle."

^{21.} Given the state of academic and related affairs today, it is necessary to point out that my use of power, in the same sense as Plato, Leibniz, Riemann, et al., here, has no ontological congruence with that widespread misuse of the term "energy" which was launched by the neo-Cartesian thermodynamics school of Clausius, Grassmann, Kelvin, et al., with the attack on Riemann by the Clausius who based himself on Grassmann's calculations. The ironical feature of Clausius' attack on Riemann, is that that attack was supported by the innuendo of H. Weber, the editor of Riemann's Werke—even within the pages of the published Werke itself. Editor Weber was also the brother of the Wilhelm Weber whose discoveries are reflected in the Riemann paper which Clausius attacked. Energy is an effect, not a principled expression of causality of motion. Kepler's development of the discovery of universal gravitation, is a prime example of the way in which the competent notion of power (e.g., dynamis, vis viva, potential, Kraft) was re-introduced to modern science by the effects of Europe's Fifteenth-Century Classical Renaissance.

^{22.} Notably, Lawrence Livermore Laboratories' Dr. Edward Teller's late 1982 remarks on "the common aims of mankind," showed his understanding of this economic-political basis, in so-called "dual-use" effects of sciencedriver programs in military technologies, for what I had proposed as a strategic defense alternative, first, in my 1979 Presidential campaign-statement on the subject, and, more successfully, at the beginning of 1982. On this count Teller was among the politically more notable circles of scientists and leading military professionals in Europe and elsewhere, such as Germany's late General Karst, who, in 1982, grasped the economic-political principles underlying my proposed strategy: not quite as profoundly as I did, but well enough to cause a build-up of international momentum in support of what became Reagan's March 23, 1983 televised proposal to Andropov. Of course, my success up to that point resulted in a now heavily documented, decadelong effort (1983-1989) by both the U.S., and Soviet opposition to have me eliminated, by assassination or fraudulently arranged imprisonment. What I had proposed, with such near-success, had cut deep to the bone of the "MAD" policy's leading supporters on both sides of the so-called "Iron Curtain" at that time. To the present day, under the controllers of puppet-President Dubya, relics of the same strategic-economic insanity of MADness of Kissinger, Brzezinski, et al., remain the dominant, wretchedly incompetent trend in thinking about strategic hardware and military-economic strategies.

patent laws by overreaching corporate interests, to loot and ruin independent farmers, and nations, too, and even to patent the genetic characteristics of its victim, a human being.²³ The doctrine of "dual-use technologies" was concocted as part of the same "imperial monopole" dogma as neo-con utopian Francis Fukuyama's foolish "end of history" rant. The term represents the attempted use of raw imperial power, not only to destroy the sovereignty of nation-states generally, but, even more, as a calculated step toward establishing a global system echoing the medieval system of ultramontanism. 24 Today, the range of such closely interrelated doctrines are each and all aimed toward the attempted elimination of the existence of national sovereignty, in favor of a Wellsian "Brave New World" of "globalization." Indeed, such utopian thinking is an echo of the Olympian Zeus's efforts to ban knowledge and use of fire from Prometheus' mortal clients.

Since the so-called "spill-over" from one side to another of what fools call "dual-use technologies," can be assuredly prevented only by "Gestapo" methods, the attempt to enforce a prohibition will either simply fail, or will lead to the intended victims' provoked reliance on relevant sorts of asymmetric warfare. What we have seen spilling over, on this account, as applied utopian dogma, from Afghanistan and Iraq, toward the alleged "outposts of tyranny" under Dubya today, reflects the doomsday implications of the thinking of desperado financier circles typified by third-generation oligarch George Pratt Shultz and his like.

At the most, an attempt to prevent such a "spill-over" is, on principle, something which can be maintained among scientifically literate cultures only over a relatively short-term interval. Under present world-wide economic circumstances, the continuation of that attempt itself were most likely to lead to nothing but a plunge of the planet as a whole into a generations-long new dark age.

At the same time, as the Manhattan Project scientists warned decades ago, the attempt to block exchanges of such knowledge among scientists would, inevitably, tend to cause the intellectual failure of the project's assigned mission. The unfettered progress of science requires a free and open social setting of the type which, in fact, would echo the form, and intention of the dialogues of Plato. Or, as in the Soviet case, in particular, the effort to enforce military-technological secrecy will only tend to dumb down the population in general, and thus undermine that intellectual development and production performance of that economic basis on which power of the society depends for its total mission as a society.

To sum up the leading point presented in this present chapter of our report, a society's gains in productivity through technological progress, are not, contrary to the accountants, the arithmetic sum of the nominal financial gains at each point in the process as a whole. Rather, the required function must do as Dirichlet's Principle would imply, address itself to the primary objective, the goal of raising the productivity in the part, by deploying the application, as an expression of potential, in ways which are expressed as the raising the productive power, per capita and per square kilometer, at virtually every point of the map of the society-economy treated as an indivisible whole unit-process.

That brings into play the matter of the way in which the deploying of new principles is ordered within the economic process as a whole, an issue of *Analysis Situs*.

The simplest illustration of this point about Analysis Situs, is provided by the case of basic economic infrastructure, whose essential product is not "things," but rather a raising of the level of potential productivity of the whole economy, in which that economy is treated, functionally, as essentially an indivisible unit, as in the way implied in Riemann's view of Dirichlet's Principle.²⁵

This requirement includes the development of the Biosphere in the nation's territory as, functionally, an indivisible whole. It is artificial, high quality water-management systems of the territory as a whole, for the population as a whole. It is integrated national transportation systems, such as waterways and railroads or the equivalent (with a subsidiary role for highways). It is the production of electricity at, primarily, increasingly high energy-flux-densities. It is universal public health and sanitation combined, which may be a composite of public and private functions, but which functions overall to a single effect for the population and territory as a whole.

It is reversing post-war trends in the U.S.A. (among other parts of the planet), by returning to pre-World War II emphasis on the organization of cities and farmlands in ways which concentrate access to required conditions which are clustered within the relatively shortest distance between points, and provide access to places, including places of employment with the shortest time, the relatively greatest convenience, and, approximately, again, the shortest distance. It is education and all of the other general functional needs of the population made accessible at the will of the individual choice. It is being able, once again, to stroll within a city, on foot, where everything of relevance to life of persons in that city is within a reasonably short walking-distance, or by the provision of the equivalent of this through freely accessible mass-transit systems. After all, simply unexotic walking, early, late, and often—lots of it, as I used to do before security considerations

^{23.} The law must be enforced: you are not permitted to secure a patent on a principle of nature.

^{24.} Which was defended on the pretext of the fraudulent doctrine of "The Donation of Constantine."

^{25.} Dirichlet's and Riemann's understanding of this principle, was already expressed as an implied, but underdeveloped conception, in Gauss's 1841 work on Earth magnetism. All of these views converging on Riemann's use of Dirichlet's Principle, are premised on the use of the notion of *potential* in the specific anti-Cartesian sense of Leibniz's notion of universal *powers*, as otherwise expressed by his use of the term *Kraft* as the central principle of a science of physical economy.

interfered, some decades now past—is good for you.

As I emphasized at the relevant Berlin seminar of this past January, it means recognizing that we have reached the limit of treating what we call "raw materials" of production as if we were scrambling for control over the last remaining so-called "raw materials" resources of the planet. It means that the development and maintenance of adequate supplies of the world's raw materials, at appropriate prices, must become a "public utility" of the planet, in effect. The cost of supplying adequate supply of such materials, to each and all nations, at reasonable prices, must be treated as an essential, regulated, planetary public utility, as part of the costs of the planet's basic economic infrastructure.²⁶

Once we have introduced a new *power* (i.e., *dynamis*) into the production and deployment of military goods, where does the effect of the injection of that power into that production and use go from there?

It does tend to feed back into the economy through the improvements in production mobilized for the production of the military systems. That is, the refinement of, and innovations required for that production will inform the shaping of the more broadly applicable production capacity of the vendor. Hence, the vendor's development of that improved production-capacity, will tend to feed into technological improvements in the general product design and methods of production which had been developed for the military program, unless that avenue of "technological spill-over" were blocked, as by government intervention.

In general, the blocking of any technology whose development is thus prevented from spreading into the economic process in general, results in poorer performance in the progress of the productive powers of labor in the economy as a whole. The only reasonable security in use of scientific principles, comes from maintaining a high velocity in the rate of generation and realization of new, fundamental and related discoveries of physical principle.²⁷ My personal experience shows, that hoarding secrets is a folly suited to creatively blocked, highly neurotic people who are habituated to getting out of bed (mentally) only very late in the morning, if ever. Success is rising before dawn to slink into undisturbed, intensive and prolonged concentration on problems involving a matter of development of a discovery of principle.

So, to assess the benefit which any technology contributes

to the economy as a whole, we must take into account the losses in benefit which occur because the use of the technology more broadly, is either blocked, or is channeled into activities which have little, or no benefit, as potential, for improving social production of wealth considered as a whole.

Consider the benefit from shifting the ration of output, through utilization of technological progress, to less-laborintensive modes of employment. These shifts not only raise life-expectancies of the population and its labor-force, but the upgrading of technology, to make production more knowledge-intensive in its composition, raises the age-level at which what is relatively, fully productive work, can still be performed, relative to lower-life-expectancy populations at the more poorly paid, lower technological levels of comparably labor-intensive occupations. The raising of the quality of life of the affected older strata of society, preserves the stock of knowledgeable development within the population as a whole. Because of the cultural-paradigm downshift in the U.S. population since the 1960s, the continuing winnowing, by sickness and death, of the ranks of knowledgeable persons from the World War II and Korean War veterans' generations, has the ongoing effect, currently, of lowering the level of culture of the population as a whole, by the drip, drip, drip of attrition, every day.

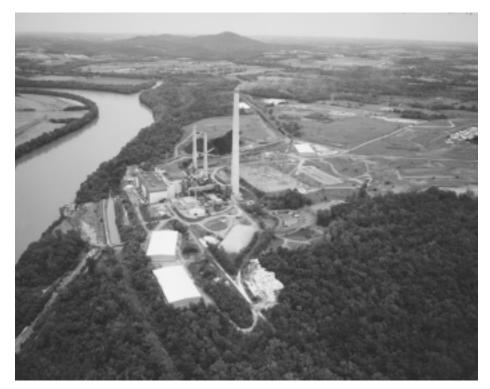
For example, the resort to "out-sourcing" has relied largely on cheaper labor, and with the resulting contraction of the quality and quantity of both productive employment and of both basic economic infrastructure and production capacity, and also the loss, through attrition, of the productive powers of labor in the importing nations. As a result of "outsourcing," the level of the quality of existence and production has been lowered world-wide, as so visibly, since 1977, in the U.S. itself: although populations may grow, the potential relative population-density is lowered in both the importing nations and in the world population as a whole—when the two curves intersect, a crisis ensues. The world's standard of living drops, and the potential productivity of the world's labor-force drops, as the largely cannibalistic process of socalled "globalization" converges on the limits of the world's population as a whole. Ever-cheaper labor means poorer quality labor of poorer quality populations, with a resulting collapse of the potential relative population-density of the world's population as a whole. Such trends, in and of themselves, tend, already, to drive the world into the direction of a threatened new dark age.

These sampled cases point toward the relevant concept I have already emphasized in this chapter thus far.

The object of national and world technology policies, must aim at the technology-driven increase of the average productive power of labor as a whole, as *potential*, at every point in the process of the economy considered as an indivisible whole. This corresponds to national full-employment policies, policies based on the technological and related upgrading, and increasing general increase in physical capital-

^{26.} See Lyndon LaRouche's keynote to the Jan. 12-13, 2005 Berlin seminar in *EIR Feature*, Jan. 28, 2005, as well as his dialogues with other speakers in *EIR*, Feb. 11 and Feb. 18, 2005. See also his Feb. 6 paper "The Global Option for This Emergency: Beyond Westphalia Now," in *EIR*, March 4, 2005.

^{27.} The relevant included folly (among many others) of my notable adversary of that time, utopian General Daniel P. Graham's High Frontier, was expressed in Graham's hysterical rant against me, and also Edward Teller, personally, on the Graham's adopted imperative of confining strategic defense to "dusting off the shelf" technologies already in the hands of the double-dipper's nearby friend, the defense hardware contractors.



The production of electricity is one of the elements of basic economic infrastructure which raises the level of potential productivity of the economy as a whole.

intensity at every point in the system, and in the system as a whole.

This view of the objective overlaps the concept of technological progress as flowing in waves along the time-axis, from the earlier phases of the production process-sheet, in the cycle of physical production, toward the outward boundary of consumption. Think of the process-sheet which represents the process beginning the first step in the planning of a productline containing a new technology. Think of all of the elements, including mobilization of production of relevant materials and other components, which must be set into motion in the steps leading to the delivery of the finished result. In modern production, this process-sheet represents a lapsed time of years, sometimes many years. During that lapsed time, the economy as a whole is undergoing changes, including, hopefully, the rapid influx of newly employed technologies. The earlier in the cycle improved technologies are introduced, the greater the rate of benefit for the economy as a whole.

This flow is associated with a required, ongoing upgrading of general education, as in rising average levels of technological advancement throughout every part of the economy as a whole. Don't leave children behind, or allow them to loiter behind; kick their behinds in ways which prompt their intellects into creative forward motion. Don't bore them to death with readings of "My Pet Goat"! Bestir their wits with the challenge of making breakthroughs through the use and

development of their creative potentials. Have them relive the birth of modern European science in the work of such as the Pythagoreans and Plato; let them re-experience, in this way, the ancient rebirth of modern civilization inside themselves. Do not encourage backwardness and intellectual conceptual laziness. The notable included result of taking this view, is, as I have just pointed out above, the recognition that the highest possible rate of technological progress in the early phases of that cycle, will produce the relatively highest rate of gain in the lapsed-time course of the cycle as a whole. This means that the adoption of new technologies for current production must look ahead to the impact and requirements of still more modern developments which will occur within the life-time of the use of the currently introduced innovations.

These cycles are also defined, in ordering of their significance,

by relative physical-capital intensity of investment, which defines the front end of the relatively long-term cycle as a whole. The most weighty factor of this sort, is concentration in basic economic infrastructure and in development and production of primary materials. The impact of the U.S. Tennessee Valley project typifies this principle.

In contrast to the great projects of the Franklin Roosevelt era, the "IT revolution" has been worse than a grave economic disappointment; it is a national tragedy.

We spin our wheels faster, and faster, and faster with "IT," but we are going nowhere in terms of the *net* physical standard of living of our population as a whole, and, manifestly, in terms of such factors as national current account deficit and national fiscal deficit. Thus, in net effect, we have increased, not our wealth, but our life-threatening national obesity.

The problem of "IT" is primarily twofold. In the way the U.S. economy is organized today, IT's positive potential is poorly realized, if measured in terms of improvement of production of needed goods at the end-phase of the production-cycle. This failure of the "IT" revolution of the 1990s, was made virtually inevitable through the collapse of the U.S.A. domestic production of essential physical goods, the natural market for the intermediate product which IT product represents in a healthy economy, rather than consumer product, a relative collapse in the "realization" factor for the physical economy as a whole. In sum, the U.S. attempted to improve



"A crucial part of the intrinsic short-comings of 'IT,' is the fact that its mode of proliferation is chiefly a reflection of the emphasis upon the pathological mathematical dogmas of such Bertrand Russell appendages as Professor Norbert Weiner and John von Neumann." Frenetic stockbrokers buying and selling on computers are shown here.

its enjoyment of the decadence of pleasure-seeking in a socalled "post-industrial" society; we gained more than as much decadence as we might have desired, but once the financialmonetary accounts of our bankrupt nation are brought in for settlement, we find that our nation today can no longer afford the luxury of such decadence.

A crucial part of the intrinsic short-comings of "IT," is the fact that its mode of proliferation is chiefly a reflection of the emphasis upon the pathological mathematical dogmas of such Bertrand Russell appendages as Professor Norbert Wiener and John von Neumann. As is typified by Wiener's pathological notion of "information theory," these dogmas outlaw the notion which is actually the determining factor in fundamental scientific progress: the factor of potential, of anti-entropic creativity which is, in turn, the essential driving power of scientific and technological progress in the physical economy. Thus, the actual scientific principles of the "IT" revolution are buried, so to speak, in the technology applied to the manufacture and development of the product, not in the product itself otherwise. Thus, the benefit of "IT" lies in both the scientific creativity which is looted to produce "the stuff," and in the application of the product to processes, beyond the direct reach of the computer, which do contain, within themselves, an actually anti-entropic factor of scientific-technological progress.

Hence, looking back from today, we can trace the dismal effects of Norbert Wiener's fraudulent use of the term "negative entropy," and the more lunatic concept of "artificial intelligence" promoted by Wiener's Russellite sibling John von Neumann. Both of these and their like deny the existence of actual human creativity, which is admittedly not expressible within the Procrustean limits of the form attributable to Machian Ludwig Boltzmann's "negative entropy," but, actually exists only in the anti-reductionist comprehension of the "anti-entropy" of a Riemannian universe, such as the universe of Vernadsky's Biosphere and Noösphere. The hoax of "information theory" is to be traced most immediately to the

continuing self-degeneration of the modern influence of the empiricism of such followers of Venice's Paolo Sarpi as Sarpi's house-lackey Galileo Galilei, and Sarpi's devotees Francis Bacon, Thomas Hobbes, Descartes, and John Locke, who eliminated from their calculations, and from their philosophy, the role of those creative powers of the individual human mind which distinguish many among our best political leaders from apes.

So, today, gas-guzzling SUVs, the co-flag-bearers, with Soccer Moms, of the tragic outcome of the 2000 Gore-Lieberman Presidential campaign, gather, like our burgeoning mass of desperately unemployed, as also a kind of homeless persons, in suddenly abandoned masses, on used-car lots, where they have been abandoned to do little, at current fuel prices, but seem to us, the observers, to sit waiting, and rusting, while dreaming of days before the collapse of the "IT revolution." We produce less and less, and, at present rates, will not be able to afford to buy, or even produce, much longer, unless we change our ways, suddenly and radically. In such cases as the auto industry, the most conspicuous benefit is, that with aid of "IT," we are able to count our current President's failures much more rapidly.

The Global View: A New Treaty of Westphalia

Now, begin what is to be said here with a new view of the matter which I have just discussed up to this point of the present chapter. This time, look at the matter from a global standpoint.

In a relevant series of recent articles, and in the transcript of my presentation to a January Berlin seminar, ²⁸ I have emphasized the urgency of combining the presently indispensable move toward a rebirth of the original Bretton Woods monetary system, with a political goal which had been implicitly intended by President Franklin Roosevelt for the post-

^{28.} Lyndon H. LaRouche, Jr. *Earth's Next Fifty Years* (Leesburg, Va.: LaRouche PAC, 2005)

war world. The intention was, a concert among perfectly sovereign nation-states modeled, in fact, upon the principles of the 1648 Treaty of Westphalia. Consider that proposition from the standpoint of what I have emphasized in this present report, thus far.

Begin this account by considering the currently popular lie put forward currently in defense of the elimination of the modern sovereign nation-state republic. This lie is presently much more significant in western and central Europe, than the U.S.A., but it is also the recent trend of opinion in important leading circles within the U.S. itself. *The lie is, that it has been the emergence of the nation-state which has been the cause of terrible wars.* Such opinions show either bald ignorance, or a pathetically compulsive disregard for all of known history prior to the Fifteenth-Century European Renaissance.

Contrary to that lie: Since that great ecumenical Council of Florence, and the establishment, on that Council's principles, of the first modern sovereign nation-states, Louis XI's France and Henry VII's England, the major warfare within European civilization, to date, has been caused, not by the existence of the nation-state, but by the efforts of a resurgence of the medieval, pre-Renaissance, ultramontane Venetian party of financier-oligarchical interest. This was the reactionary party which intended to crush the modern nation-state out of existence. The chief cause of modern religious and other wars has been the reactionary effort to reestablish the medieval ultramontane system under new banners. Since 1648, the chief cause of major wars, such as so-called World Wars I and II, has been the effort of the Eighteenth-Century Anglo-Dutch Liberal's self-styled "Venetian Party" to crush the aspirations for, and existence of modern nation-states modelled on sovereign nation-state constitutions such as that of the U.S.A. of Benjamin Franklin and President George Washington.

Putting aside the pro-ultramontanist lunacies of the fascist "rat-line" element still polluting the Catholic Church's community, even still today, the actual, more widespread, contemporary ideological root of the argument is made on behalf of relatively more influential efforts of those Liberal and other fanatics who are currently determined to eradicate the modern sovereign nation-state republic. That source of those fanatics' lies, expresses the intrinsic *psycho-sexual impotence* of the modern empiricist tradition.²⁹

While many among the latter fanatics, still, so far, make

29.e.g., the passion of the infamous "Don Juan" ("Don Giovanni"), a compelling lust for the bestial aspects of the act, not for the love of the relevant person, not passion for cognitive qualities of scientific and artistic ideas. The term has more general, more significant application as a state of mind of the person who can not rise above grubby, "I can feel and touch," sentiments, to the actuality of passion for important ideas. We speak of the pitiable case of the emotional life of the "blocked personality," whose opinions may be impassioned, even violent, but whose perception of cognitive principles is lacking. The manic-depressive, morbidly "practical," "bi-polar" personality,

a great show of their avowed passion for "liberal democracy," their beliefs, the premises of their arguments, like Kant's, are rooted in those axiomatic features of the radically reductionist dogmas typified by the legacy of Seventeenth and Eighteenth Centuries' empiricism.

As empiricists, or, the more extreme cases, of the positivists, or existentialists such as the Nazi philosopher Martin Heidegger and his Frankfurt School associates such as Adorno and Arendt, these fellows deny, very emphatically, both the existence of knowable truth and, therefore, the existence of the sovereign creative powers of the human individual. As an inevitable consequence of this denial, we have these contemporary radical reductionists, whose mental condition fits the image of participation of rabid anarchists steeped, as California's Governor Arnold Schwarzenegger once described himself, in the enthusiasms echoed from a Hitler Nuremberg rally. These types, like "touchy-feely" existentialist fanatics, deny the existence of the role of those sovereign creative powers of the human individual which Plato associated with the principle of hypothesis.

On that account, the contemporary empiricists of that ilk, are brimming with an existentialist quality of hate against even the bare notion of the existence of a valid basis for what we know as national language and related cultures. The brimming, bestial quality of existentialist hatred which impassioned Bertolt Brecht's lust for destruction of beauty and truth, is a naked expression of this syndrome. Their doctrine is not only a malicious dogma, but, in terms of inevitable economic effects, a belief which fits only the expression of the intended passions of brutishly stupid people.

To understand the implications of these neo-ultramontane fanatics working to uproot the nation-state, review the essential argument on human nature which I have affirmed earlier, this time in the light of the implications for the development and survival of modern national economies.

The essential difference between man and beast is shown most directly and clearly by the definition of the principle of hypothesis permeating Plato's Socratic dialogues. That principle of hypothesis typifies the characteristic mode of action which distinguishes the mind of the member of the human species from the behavior of the lower forms of life.

That said, we are thus prepared to treat the subject of the modern sovereign nation-state republic.

The recognition of the principled scientific character of the issue of the nation-state, has been European knowledge

whose raw-sexual view of all sorts of experiences of the world around him (or, her), is one example of this. This is, for example, the passion of the "fundamentalist religious nut," the preacher of legend who created more souls than he saved

^{30.} The Frankfurt School cronies of the Nazi Heidegger, such as Adorno and Arendt, were avowed followers of neo-Kantian school which adopted Kant's argument against the existence of knowable truth. This hatred of truth was an essential component in the crafting of the pro-fascist doctrine of the post-World War II Congress for Cultural Freedom.

since the work of such ancient Classical Greek thinkers as Thales, Solon of Athens, the Pythagoreans, Socrates, and Plato. However, the first societies which based the constitutional law of a national political system on that principle, were the modern Renaissance nation-states of Louis XI's France and Henry VII's England.³¹ Up to that time, society was largely based, like the "Code" of the Roman Emperor Diocletian, on the condemnation of the masses of the subject population to a "zero-technological progress" emulation of the beasts, to the condition which the Olympian Zeus of *Prometheus Bound* had prescribed for mortal mankind, as creatures allowed only to repeat the allegedly "traditional" role in technology of what their fathers, grandfathers, and earlier ancestors had done.

The overthrow, by the great ecumenical Council of Florence, of the fraudulent doctrine of "the Donation of Constantine," had implicitly ended the ultramontane system of the Venetian-Norman alliance for that moment. Despite the repudiation of that fraudulent medieval dogma of "the Donation" by the Council, the resurgence of the Venetian financier oligarchy's power, through the fall of Constantinople, had unleashed an only partially successful campaign, by Venice, to destroy both the work of the Council of Florence and the influence of the greatest scientific thinker of that century, Cardinal Nicholas of Cusa. Even after the Fall of Constantinople, the work of Cusa continued to empower the great movement for scientific progress associated with Luca Pacioli, Leonardo, and Kepler, as well as organizing, in furtherance of Cusa's explicit policies to this effect, the European movement for exploration across the Atlantic Ocean, and around the Cape of Good Hope.

So, the 1492 unleashing of the persecution of the Jews by aid of the pressures of Venice's Habsburgs, who were then engaged in gobbling up the Spanish Trastamara monarchy, touches the root of the subsequent, Venice-orchestrated religious wars of the Sixteenth and early Seventeenth Centuries. This warfare, which was directed against the work of the great ecumenical Council, was therefore also directed against, with special fury, the institution of the modern European nation-state of France's Louis XI and England's Henry VII. This warfare, so authored and motivated, plunged Europe into a pattern of warfare and imperialism which has been continued, through the Twentieth Century's World Wars and "Cold War," to the present policies of the U.S. George W. Bush government and Britain's flagrantly liberal-

imperialist Blair administration.

Throughout the interval since 1492, the efforts of the modern expression of the neo-ultramontanist currents, have been concentrated largely in efforts to eliminate the institution of the modern sovereign form of nation-state republic. This has been a continuing, long-range objective of, chiefly, the Venetian financier oligarchy and its Anglo-Dutch Liberal "Venetian Party" successor. That effort has been, to crush and eradicate scientific and technological progress and the idea of the sovereign nation-state republic from among the habits of the general population of the peoples of the world. The inherent intent of that effort has been, to effect a return to the condition of subject populations under the Emperor Diocletian and his successors, this time of today's contemporary Venetian Party, the Anglo-Dutch Liberal financier-oligarchy and its U.S. appendages. It is that same Venetian financier-oligarchical faction, in that combination of Anglo-Dutch Liberal and "black nobility" incarnations of today, which, as under the leadership of the financier-based Synarchist International's launching of fascism during the 1922-1945 interval, is behind the current drive of today's financier-oligarchical banking interests in the effort to eradicate the remains of the institutions of generalized scientific progress and the modern sovereign nation-state from this planet today.

The intent of this downgrading of the role of scientific progress in political-economy, has been to reduce future mankind into a parody of an earlier, more backward intellectual and moral condition, into a parody of the depravity to which mankind had been subjected under the Roman Empire and its medieval, ultramontane successors. By making people stupid, you render them more amenable to living and thinking as if they were cattle. By eliminating Classical culture and general association with the benefits of scientific practice, you render the victims, the subject population, to the desired cattle-like state of intellect and intentions, as we see this effect in the decadence of popular culture in the U.S.A. and Europe since the influence of the Congress for Cultural Freedom.

The leading, complementary fact of current world history, is the fact that the survival of civilization requires the defeat of that oligarchical, anti-nation-state faction which we should associate with the legacy of Venice's financier oligarchy. The success of the presently urgently needed effort on behalf of our imperilled civilization, depends upon certain economic principles of practice, and upon the social and political doctrines upon which the success of those principles depends. This success would require the uprooting of those popularized, monetarist and related kinds of economic dogmas which have been the guidon for the continuing efforts by those forces, in their effort to eradicate the U.S. patriotic reforms launched by President Franklin Roosevelt.

To accomplish the defeat of the oligarchical objective of our republic's combined foreign and domestic enemies, it were not sufficient that we establish the official position of

^{31.} Cf. Friedrich August Freiherr von der Heydte, *Die Geburtstunde des souveränen Staates* (Regensburg: Druck und Verlag Josef Habbels, 1952). The actual establishment of the first durable modern nation-state was a product of the Fifteenth-Century Renaissance, in Louis XI's France and Henry VII's England, but the struggle, from Charlemagne through the work of Dante Alighieri (e.g., *De Monarchia*) to bring forth the sovereign nation-state, by overthrow of the *ultramontane* Venetian-Norman tyranny, is an essential part of the legal history, presented by von der Heydte, which is reflected in the Fifteenth-Century Renaissance.



"Tollgate fever," of the sort that is taking over the world today, is generally an expression of flagrant political corruption, which shifts the cost of infrastructure from the rich to the population of medium to low incomes.

promotion of a return to policies of scientific-economic progress. Such progress can not be called into being by rubbing a magic lamp. Progress requires a fresh approach to the way in which *popular* culture is organized, in favor of an emphatic return to Classical modes in science and art, away from extremely decadent, presently popular modes which so much of our population has been corrupted into believing that they are enjoying today.

As we see from the experience of the degeneration of western European culture over the course of the post-war years under the depraved influence of the Congress for Cultural Freedom, the intellectual renaissance needed to uplift us from the decadence which has ruined our nations today, must be rooted in the reliving of the relevant act of creative discovery in the education and related experience of the young, the children, adolescents, and young adults, the latter drawn, most notably, from the 18-25 age-interval. This will not succeed, unless it is associated with a Classical scientific and artistic college-age experience.

Frederick Douglass' views on education, for example, must be the model for the policy of uplifting the ranks of our poor from the influence of those post-Lincoln Liberal reformers, who demanded that the children of ex-slaves not be educated above that "My Pet Goat" level of the menial conditions of life which those Liberals deemed suitable for them, then, as today. The "downsizing" of today's typical American intellect, among the broadest layers of our population, is the essence of the corruption which we must resist and overcome, if we are to regain the true sovereignty of our once-proud republic.

Such is the urgently needed Classical renaissance in the culture of what we associate with the name of "European civilization," both in Europe and the Americas.

That much of essentials said on background, turn now to what may be described as the "technicalities" of the matter before us, the crafting of the new form of a Treaty of Westphalia required as an exit-strategy from today's global crisis.

Creativity and Economy

Looking at the record of civilization as far back as might be both convenient and relevant for our purposes here, there are two sources of the growth which has occurred during the relatively more successful periods of each case. The one is what we term "primitive accumulation:" con-

sumption dependent in significant part upon the net looting of man, nature, or both. The other is the fruit of human creativity, as I have affirmed the definition of creativity here. The U.S. economy as defined by U.S. Treasury Secretary Alexander Hamilton's trio of reports describing the American System of political-economy, most conveniently typifies the best design of physical-economic, *relatively* "primitive accumulation"-free conception of the performance of modern civilization.³² The immediate chief opponent of that American System, then, was the innate imperialism of the Anglo-Dutch Liberal System under Britain's Lord Shelburne and his successors.

Typically, speaking in broad but fair terms, like the recurring collapses of the Sumerian and subsequent Semitic cultures of Mesopotamia,³³ ancient systems grew, during their

^{32.} Most emphatically, Hamilton's 1791 Report to the U.S. Congress *On The Subject of Manufactures*.

^{33.} The initial culture of southern Mesopotamia was the fruit of a colony established by a Dravidian-language-group associated with the maritime culture which, as Herodotus emphasized, also established offshoots in Abyssinia and the area of present-day Yemen (Sheba) of what became later the relevant area of development of Semitic-language cultures. Had British Nineteenth-Century Biblical archeologists not made such a terrible mess of the relevant cuneiform records, we would have a far better picture of the foundations of Sumer and Akkad today. Nonetheless, the way in which the bowtenure systems collapsed through the resort to primitive-accumulation methods, is clear. Travelling up the Euphrates, above Baghdad, in Spring 1994, showed me the remains of the ancient irrigation system, sites which attested to the reasons why the population of Iraq then was approximately one-third of what it had been when Haroun al-Rashid's Caliphate had been the pivot of culture for Europe.

ascendancy, by a net long-term despoiling of the land-area and populations on which the social systems of the relevant culture depended; this led to the physical and moral conditions of their decline. So, as a consequence of the method of their success, they collapsed into self-inflicted ruin. It has been only through the application of those creative powers unique to the human individual among all living species, that the apparent progress of a society in its relative wealth and other attributes of well-being has been of a relatively durable form over the longer term. In all forms of animal life, for example, the growth and well-being of the species is defined, chiefly, by factors of animal ecology. Only bestial people would apply the principles of animal ecology to human populations.

The growth of the world's human population has now reached a most ironical condition. It can not continue to grow under governments' present policies of growth, and it would collapse into a greatly reduced world population in a state of general bestiality, if we chose to cease growing, as through austerity measures. Therefore, we, as a unique species, must now do what only our species could do. We must reform society now under the doctrine that we must increase the resources on which human existence and progress depend, by driving the possibilities of scientific progress to the utmost degree. We must create the new, growing margins of resources, including those which we had rather naively called "natural resources," on which a rising standard of living for a growing world population now depends absolutely. We must reorganize the world's economy around a science-driver mission for economy of precisely that type which the Venetian ultramontane tradition of the modern monetarists fears, and hates the most. We must realize the principles of progress of mankind under the governance of what Vernadsky defined as the Noösphere.

The basis for such a reform already exists in the tradition of the modern sovereign nation-state republic. The American System of political-economy, as viewed by Hamilton and others, represents the world's best existing model of historical reference for what we, the human race, must now do worldwide. The science-driver program employed under a U.S. President directly in the Hamilton tradition, Franklin Roosevelt, afforded the U.S.A. a strategic capability, in sheer tonnage per capita, which overwhelmed our war-time adversaries, which, when combined with the best years of the manned Moon-Landing project unleashed by President Kennedy, contains the lessons of experience which point the way toward what we must do today. We need merely add the outlook of Vernadsky's principle of the Noösphere to the American System perspective as already pre-defined by such as Leibniz, and defined in practice, as the American system of politicaleconomy, by Hamilton et al.

For this purpose, the willful development of our planet as a Noösphere, the 1648 Treaty of Westphalia is the indispensable model of reference available to be used by a relevant concert of cooperating sovereign nation-states now.

This undertaking would fail, however, unless we obliterate now all presently ongoing efforts to "globalize the world." Unfortunately, the proof of that fact is a principle of science which has been beyond the mental powers which were shrugged off, long ago, by the like of the late Ayn Rand and her high priest, U.S. Federal Reserve Chairman Alan Greenspan.

The general nature of the task before the human race as a whole today, is to organize relations within (and somewhat beyond) our planet, for a common mission which requires that the partners in that task be organized as a cooperating set of respectively perfectly sovereign nation-state republics. On this account, the 1648 Treaty of Westphalia, and certain among its relevant outgrowths, is the only available basis for a plan of organization of the global efforts required during the decades immediately ahead.

The essence of the matter thus put before us, is the need to mobilize precisely those creative powers of individual human minds which the acolytes of the late Bertrand Russell, and empiricists generally, such as Norbert Wiener and John von Neumann, denied, systemically, to exist. The model of reference for the only approach which could succeed, is the modern outgrowth of the Classical Greek model of social organization for fundamental scientific and related cultural progress, the model associated with the names of such ancient anti-reductionists as Thales, Solon of Athens, Pythagoras, Socrates, and Plato. Plato's *Parmenides* dialogue marks well the dividing-line between the creative powers of the human mind, and the decadence of those, such as the Eleatic and other reductionists, who deny the existence of creative powers, and thus put themselves culturally among the beasts.

Henceforth, civilized society must be defined, explicitly, in constitutions, general law, and other ways, as a system of mission-oriented cooperation among perfectly sovereign nation-state republics. It must be defined as governed entirely by a principle of endless, and accelerating scientific and related progress in the discovery and application of those universal physical principles which Plato defined as fruits of the specifically, and uniquely human powers of hypothesis. Not as a system of government and economy, to which scientific progress might be added. What is required is government itself governed by commitment to the fruits of such scientific progress. This mission-orientation may be conveniently identified now as "The Noösphere Principle."

The New Role of the Nation-State

Despite the savage obstacles engendered by the Venetian financier oligarchy's conduct of the religious warfare of the 1492-1648 interval, the Fifteenth-Century, Italy-centered Classical Renaissance unleashed a long wave of the greatest progress in the growth of population and conditions of life of persons, in all known human existence to date. This net benefit

was chiefly the combined impact of four great European reforms, each and all associated in a most prominent way with the life and work of Cardinal Nicholas of Cusa. First, the adoption of the principle of the modern sovereign nation-state, as sparked by Cusa's *Concordantia Catholica*, the precedent for the later 1648 Treaty of Westphalia. Second, the birth of modern science, premised upon a revival of Classical Greek, pre-Aristotelean philosophy, by Cusa's *De Docta Ignorantia* and his later writings of this nature. Third, the establishment of the model sovereign nation-state of France's Louis XI, which served as the model basis for modern France and Henry VII's England. Fourth, the launching of the great program of global outreach, launched by Cusa, which planned what became the rediscovery of the Americas and the modern maritime reach into the great waters of Asia.

The commonly underlying feature of these four Fifteenth-Century developments, was the repudiation of the tradition of the worst of European cultural traditions before that time, all of which are defined as products of the continuing influence of what was known in the time of Plato and his immediate successors as what was known among Greeks and Macedonians by the name of "The Persian Model." That was the conception of that oligarchical-imperial system, the model on which the bloody-handed emergence of the Roman Empire, and the medieval ultramontane system which followed, were explicitly premised. On related grounds, the poet, playwright, and historian Friedrich Schiller defined European culture's history as a continuing struggle between the oligarchical models of Lycurgus' Sparta and the current representing the universal humanistic reforms in the tradition of Solon of Athens.

The essence of the great accomplishments of modern European civilization, as flowing from, and through the Fifteenth-Century Renaissance of Cusa et al., was the repudiation of the bestializing doctrine of Aeschylus' Olympian Zeus, a repudiation which placed the *Promethean* principle foremost among the needed means for liberation of the great masses of people, and of society as such, from the bestiality which Zeus' oligarchical principle demanded. The engagement of the population in general, in creative innovation in economy and other ways, under France's Louis XI, and the emulation of Louis' example by his admirer, Henry VII of England, typifies in practice, what Cusa taught in doctrine.

To put the same point in the language of the Christian Church, the great reform of the Fifteenth-Century Renaissance, was the liberation of the church of Cusa's life-time from those oligarchical dogmas which licensed such brutish violations of the principle of the *Common Good* (the *agapē* of Plato's Socrates and the Christian Apostles John and Paul), the same *Common Good* taught by Massachusetts' Cotton Mather, taught as Leibniz's "the pursuit of happiness" by the 1776 U.S. Declaration of Independence, and embodied as the highest principle of the U.S. Federal Constitution, as the principle of prime obligation of the nation and its government

to "promote the general welfare."

This was, and remains the principle of the *Common Good* (*the general welfare*) which is set as the first principle of the 1648 Treaty of Westphalia, a Treaty which the bearers of the contemporary oligarchical tradition hate so fervently today. It is not merely a "nice" principle; it is the principle upon whose efficient observance the continuation of civilization on this planet now depends, today.

I refer the reader now to a section of the feature article, "Earth's Next Fifty Years," which was originally published in *Executive Intelligence Review* weekly for January 7, 2005. The section was titled "The Vernadsky Remedy," occupying pages 18-33 in that publication. Since that article is an included feature of a book of the same title, *Earth's Next Fifty Years*, ³⁴ to be released from the printer on March 22, 2005, it is not necessary to republish the content of that section of the article here. In that location, I develop the manner in which the creative powers distinguishing man from ape are expressed as the principle of hypothesis underlying both the discovery of universal physical principles and authentic Classical artistic composition. I use the case of the role of irony in poetry and Classical tragedy, such as Shakespeare's *Julius Caesar* and

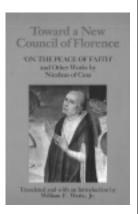
34. Lyndon H. LaRouche, Jr. *Earth's Next Fifty Years* (Leesburg, Va.: LaRouchePAC, 2005)

Toward a New Council of Florence

'On the Peace of Faith' and Other Works by Nicolaus of Cusa

Translations of seminal writings of the 15th-century Roman Catholic Cardinal Nicolaus of Cusa, who, through his work and writings, contributed more than anyone else to the launching of the European Golden Renaissance. The title of the book, *Toward a New Council of Florence*, expresses our purpose in publishing it: to spark a new Renaissance today.

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Hamlet, to demonstrate the way in which the creative powers of the human mind work.

The argument from that location which needs to be emphasized in the present location of this present writing, is the essential role of national language-cultures in providing the medium through which a people is able to organize itself around the discovery of those ideas of Classical principle, which are the creative expression in physical science and Classical artistic composition and performance.

As I illustrate the point in that referenced location, it is through the use of Classical irony within the medium of a specific language-culture, that a people is able to generate and share the replication of the experience of a discovery of universal principle. The crucial point is that the learning to replicate a formulation. as if reading a textbook, does not represent actual knowledge of an idea. The act of original discovery of an idea with the characteristics of a true hypothesis, must be replicated within the framework of the ironies available within the social setting of that culture. The discovery of such knowledge, as it may be shared among different cultures, must be generated, in each instance, within the culture of the person who shares the experience of generating that hypothesis.

The typical pedagogical model for demonstrating a principle of creativity, which is used within the educational program of the LYM, is the case of the incompetence of those theses of D'Alembert, Euler, Lagrange, et al., which Gauss exposes, and refutes in his 1799 doctoral dissertation. In those instances of incompetence, D'Alembert, et al. seek to substitute a mere algebraic calculation for the notion of a universal physical principle. In the real universe, it is the discovery of the kind of universal principles which Euler et al. avoid in that case, which is the efficiently active expression of the discovery of a universal physical principle. It is that act of discovery, within the domain of physical geometry, which typifies the creative-mental action through which the power of self-development of a society is made accessible, and expressed.

I should emphasize at this point, that the argument which I have just made, has an eerie coincidence with the notion of Dirichlet's Principle. A language-culture is not a collection of parts; it is the interaction of ideas of principle within the culture as a whole. In this way, a people is able to think together as a people, through the share which each person has in the potential represented by that culture as a whole. This potential of the culture must be functionally sovereign. In that sense, a nation is, or, at least, should be, a sovereign individuality, part of an array of such individualities which is assembled to a common purpose of benefit to them all.

Now, the time has come for us to relaunch the modern sovereign nation-state, that in a new, higher form than it had existed heretofore. This comes at a time when the emergence of great Asian states to a higher level of independence and power means a great change in global relations, relative to Europe's experience on this planet during the preceding six centuries. We have now reached the level of preconditions for defining planetary civilization as a community of respectively sovereign nation-states, under which all nations must assume the role of partners in a global system of development of that redefined global community which was envisaged by the authors of the 1648 Treaty of Westphalia, and their successors, the authors of the creation of the U.S. Federal republic.

In the language of the Treaty of Westphalia, the new system we must now establish, will be a renewal, and more advanced development of a system of such sovereign nations, a system among nations based upon the commitment of each and all, in which "each part is to promote the others' benefit, honor, and advantage."

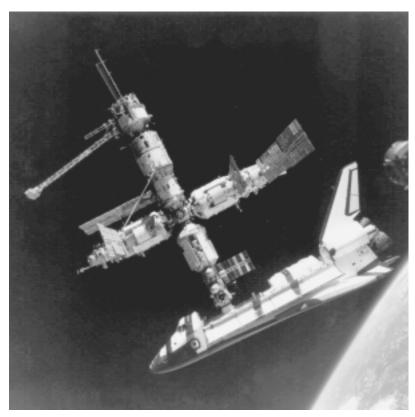
In crafting a policy of survival for global civilization today, two interrelated points for policy-shapers must be placed foremost. Firstly, the foundation for national and global economic policy must be the maintenance and development of the essential public infrastructure of the nation, its regions, and localities. Secondly, the conception of infrastructure for the future world of today must now include qualitative development of the Biosphere beyond any generally accepted notion of this up to this time. In the latter connection, the need to maintain the supply of so-called primary raw materials at acceptable prices to each and all, is exemplary. The development of such essential resources, including abundant supplies, free of charge, or at low prices, for required clean water,³⁵ which must be maintained and supplied to users in that mode, now supersedes the notion of raw materials as defined by a property-right over some piece of real-estate, or policyshaping of some locality. The idea of developing the Biosphere, rather than attempting to conserve it in a zero-growth mode, is now a consideration of overriding importance for policy-shapers in every region of our planet.

Taking this matter into account, return attention, briefly, to the matter of tollgate methods of funding elements of basic economic infrastructure.

For related reasons, the recent decades' increasingly indiscriminate use of the tollgate, rather than the general taxrevenue as a routine source of income for basic economic infrastructure, must be uprooted. The necessary functions of ordinary daily life and work in the area of habitation should not be funded through tollgate methods, but, rather, uses not in excess of an average incurred activity should be a margin of cost paid out of the general revenue. The conditions of life and work of any person in society, is a need, like the air which all must breathe, and potable water each must drink, shared by each and all parts of the total population of that society.

Contrary to today's rampant exhibitions of tollgate fever,

^{35.} The mounting crisis in drinkable fresh water, which is coming like an avalanche in relevant regions of the U.S.A. west of the Mississippi, is typical.



A government space program is the single most important driver of technological progress available for a modern economy as a whole. Here we see the Space Shuttle Atlantis connected to Russia's Mir Space Station in 1995.

the source of the payments which must be made to develop and maintain the environment, will be the general fund of nations. The fund of each nation, and the assistance which must be given to less developed regions for planetary goals in the common interest of the planet and its physical-economic potential as a whole must be arranged accordingly. The reasoning to be employed in decisions bearing upon this, shall recognize the way in which particular action, if it involves a physical principle of economy, raises the potential of the physical economy as a whole.³⁶ Therefore, the cost of providing that potential, which produces a benefit for all affected in that region of the nation, should not be supported usually by tollgate methods.

At its frequent worst, tollgate methods turn out to be ways of passing off the responsibilities for supporting the relevant functions of society as a whole, a practice whose use is a widespread expression of flagrant political corruption, conducted through shifting much of the burden of cost and expense, from the relevant, taxable, and politically influential rich, to the population of medium to low incomes.

Continuing our discussion of the matter of policy which should govern investments in basic economic infrastructure, the purpose of the division between public development and maintenance of basic economic infrastructure and the role of investment in professional practices and other private business ventures, must be along lines of the use of investment tax-credits to encourage private enterprises which promote the benefits of scientific and technological progress for the economy as a whole. The appropriate reasoning which ought to be taken into account in national and international shaping of both physical-economic and financial policies, is that, if we follow an appropriate version of Treasury Secretary Hamilton's argument in his Report on the Subject of Manufactures, as applicable to today's conditions, the portion of infrastructure in total national physical-economic throughput in a typical, healthy form of modern national economy, should represent a portion in the range of more or less half the total national physical-economic throughput of a nation. This portion should be regarded, and assessed as providing the needed potential, in the territory of the nation as a whole, for sustaining and improving the productivity, per capita and per square-kilometer, of the national territory as a whole.

The impact of the Franklin Roosevelt Administration's launching of the Tennessee Valley project, is paradigmatic. This kind of governmental activity establishes and maintains the needed base-line for the benefits generated within the scope of activities of the private sector.

To explore the relevant border-line between the functions of respectively public and private responsibilities for the increase of national productivity as a whole. Consider the example of both the U.S. Space Program and the functionally related role of general technological progress spilling over into the general economy from the military sector.

If we put aside, the ill-advised U.S. cut-backs from a serious Space program, since the 1967-68 interval during the Vietnam War, a government Space program is the single most important driver of technological progress available for the economy as a whole. On the one side, Space programs are, indeed, an essential part of national and global defense against attacks both by agencies which are either natural or manmade in character. As we observe from studies of the "economic spill-over" of the Kennedy "crash program" Space effort of the 1960s and 1970s, this role overlaps the natural role of a well-crafted general Space program as the most efficient driver of increases in physical productivity per capita

^{36.} Here, we have returned to matters to which I have referred earlier here, as bearing on the implications of Dirichlet's Principle.

we have known. Moreover, it overlaps and augments, in their customary medical and sanitation missions, the mission of other combined public and private functions of public health activities along the frontiers of progress.

If we look at the function of a well-crafted mission assignment of our Space programs from the standpoint of the principled lines of thinking represented by the contributions of Vernadsky to the notions of Biosphere and Noösphere, a welldefined Space program by government, and among cooperating governments, is the area of public activity which subsumes all of the functions of maintaining and developing both Biosphere and Noösphere, as that mission is extended into the exploration of nearby Solar Space, and beyond. The notion of developing capabilities for putting men and women into indispensably human functions of exploration of the space of the inner planets of our Solar System (regions in reach of continuously powered acceleration-deceleration by known categories of types of means), subsumes every problem mankind can touch from within the orbits of Jupiter and Saturn during the foreseeable future.

Furthermore, to attempt to define any of a wide range of frontier-problems for human existence today, requires that we free our efforts from any avoidable fallacy of composition in our scientific approach to those matters. We must abandon mentalities which limit thoughts to regions within the combination of the upper regions of the planet and its atmosphere, to take into account those larger processes of the Solar System within which affairs on or near the surface of our planet develop. We must, in general, see the developments on Earth today within a perspective defined by the "history" of the Solar System from its origins in a fastspinning "young" Sun, into the elaboration of the wonderful processes which have now filled the previously empty space around that Sun. We must, for example, include the challenge of putting living persons into nearby space for useful missions, while learning how to keep them alive and reasonably well in that mission.

Science today means Space science, from the top down, down to the little things that happen, or might happen, on some part of the surface of our planet. The practice of Space exploration and Space-related science becomes the super-university of our planet, to which all matters of exploring the Biosphere and Noösphere may be profitably referred. This mission, contrary to the implications of the frauds promoted by Cauchy et al., is to increase the potential relative population-density of the human species, and to define physical margins of profit of national economies as, essentially, the realization of the margin of gain of Dirichlet-Riemann potential which realized scientific progress contributes.

For such reasons, we must put a much higher value on the scientifically/technologically progressive form of closely held entrepreneurship, than the relatively inhuman regimes of the contemporary, public, financier-controlled corporation. For those among us who actually know something of the relevant problems this argument involves, the useful functions performed by financier-controlled corporations have depended, to a most critical degree, upon the technological role of the scientifically progressive, closely-held entrepreneurship. It is here, in the latter category, that the crucial technological risks are taken, and often mastered, mastered in ways which make possible those actual products produced and distributed as the work of the relevant financier-controlled corporations.

These closely-held industrial and related enterprises of that relevance are the small enterprises, of from several to a few hundred employees, which used to speckle the same areas as our U.S. farming communities. It was the close interaction of agriculture and these firms, together with the other closely held enterprises which a healthy county or supra-county region contained, which formerly gave the pre-1971-72 U.S. a much higher level of net physical output per capita and per square kilometer than today. Here, not in the large financiercontrolled corporation, the dynamic of net physical growth per capita and per square kilometer occurred. Look at our bankrupt economy of today, and see and think how this degeneration of the recently thirty-five years came about! See a parallel experience in Europe, especially since the collapse of the Soviet Union in 1989, when the competitive stimulus for continental Europe's technological capability was pulled down by the Anglo-Dutch Liberal predators and their U.S. accomplices.

To reestablish the sovereign nation-state according to the principles of cooperation adopted by the Treaty of Westphalia, let us relearn the lessons of past experience as they must be applied to a new world of today.

Rebuilding Ruined Economies

As the present trends in cooperation between Germany and China typify the opportunities before the world as a whole today, the world is now moving in a shift from emphasis on the export of finished products, to the export of technologies transferred in mid-stream. The most weighty aspect of this process at the present stage, is continental cooperation in a growing flood of development of basic economic infrastructure. We are at the onset of a process which is tending toward becoming what would be fairly described as a re-Earth-forming of our planet. The implications of this can only be understood efficiently from the standpoint of Vernadsky's concept of Biosphere and Noösphere.

The crux of the matter at this moment, is the present world "raw materials crisis." This is, actually, not so much a problem of scarcity of raw materials, but the effects of gigantic financial Golems immersed in titanic competition for control over the world's future supply of raw materials. The crucial portions of the mass of financier power afoot on the planet today, are represented by a monstrous price-speculation in competition to grab future control of such supplies. These monstrous financier parasites must be brought to heel, and control over

the availability of such stocks must be transferred to agencies which represent the vital human interests of present and future populations of the nations of the world as a whole.

From the standpoint of science, there is no visible shortage of raw materials even on the distant horizon. The challenge is to deploy science in ways which ensure an adequate supply of such materials, for present and future generations, through the combined application of gigantic new dimensions of development of basic economic infrastructure and expanding the known frontiers of science today.

At this moment, the pivot of such a needed global development is Russia and Kazakhstan. The vast regions so represented are the crucially placed sites for the organization of systemic cooperation between the nations of western and central Europe and the populous regions of Asia. This pivotal role of development within Eurasia as a whole, parallels related challenges in Africa, the Americas, and Australia-New Zealand. In all, however, the greatest store of materials for the future, points to the need for management of the world's principal oceans and seas.

Ironically, the pivot of the capability for such developments in Eurasia itself is the scientific capabilities still centered in the tradition associated with Russia's Vernadsky Memorial Geological Museum, right across from the Kremlin. That refers not only to the store of raw materials in relevant parts of Eurasia, but to the means which must be developed within the area of what had been the Soviet Union, in order to create the settlements and other infrastructure required for the rational development and continued use of those resources in that region.

What must be done, which can be done only under the conditions set by the establishment of a permanent new version of the Bretton Woods fixed-exchange-rate system, is to organize the management of a system of fair world prices for equitable access to needed raw materials, cutting out the present predatory horde of financier-speculators by whatever means are necessary to that end. Under those conditions, we can, and must add a new feature to the scope and foundations of the earlier Bretton Woods system. This area of price-regulation will then become, quite naturally, the foundation for organizing a quarter-century to half-century span of maturity of the vast new volumes of state-sponsored long-term credit, issued by governments, or through longterm treaty-agreements on financing of trade and payments among governments. The return to a gold-reserve system, not a foolish revival of the now long-deceased British gold standard.

The largest portion of the flow of such newly created credit, by the combination of state credits and trade-agreement treaties among governments, will be concentrated, initially upon long-term, high-technology-oriented investments in basic economic infrastructure. The case of China's urgent need for expanded progress in development of new, nuclear-powered and related urban-agricultural complexes typifies

the kinds of make-or-break requirements upon which success of long-term prospects over one to two generations depends.

This must be accompanied by a rapidly accelerated shift in new employment, away from labor-intensive, toward investments in increasingly advanced levels of "energy-intensive" technologies. Overall, the emphasis must be on developing new "volcanoes" of scientific-technological capital-goods technologies which are the upstream well-springs of technological progress downstream. The overall emphasis must be on "energy-intensity" and productivity per capita and per square kilometer in more and more areas of the planet as a whole. Over-concentration in giant complexes must be avoided, in favor of complexes of multiple fountains of technological progress in local regions, rather than over-emphasis, as now, on the giant enterprise.

Rather than slowing down progress to assess the profitability of productive use of more advanced technologies, the emphasis must be on investing in the newest proven technological advance simply because it exists to be used. The reliance upon small- to medium-sized entrepreneurships, will make this acceleration of the utilization of scientific-technological progress feasible.

In such a world, the emphasis will be on a shift from sales of final products across national borders, to sharing of technology as the growing export-import market in world trade at large.

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Summary: 'A New Global Financial Architecture'

As this is written, the world as a whole is gripped by the onrush of what is already potentially the greatest financial-monetary crisis of modern history. We are figuratively, perhaps even literally, no more than a few steps away from a global crisis which would soon become unmanageable, unless certain specific kinds of reforms were put immediately into place.

The monetary-financial side of this onrushing avalanche of crises is centered in the factors expressed by the current fiscal and balance of payments debt of the U.S.A. Nonetheless, this is not a crisis of the U.S.A., but a crisis of the entirety of the present, U.S.-dollar-denominated world monetary-financial system. A sudden, deep collapse of the U.S. dollar's value would set off a chain-reaction within the world's monetary-financial system. This would set off a global storm of reaction which the rest of the world, presently, could not withstand. Concerted action by a concert of leading nations, including the U.S.A. itself, stands now between the world of the moment and a precipitous, chain-reaction collapse into what were likely a prolonged new dark age for the planet as a whole.

There are remedies, but these potential remedies require certain delimited types of concerted action from among leading relevant institutions of the planet. The relevant problem, presently, is that while there is wide-spread agreement on the urgent need for introducing a new financial architecture now, there is virtually no agreement, apart from some exemplary exceptions, such as those presented in official circles of Italy, on what that new architecture must be.

What should have been done, when U.S. President Clinton mooted such possible reforms, in September 1998, was not done. It is now more than six years since that time. This is the situation into which I step, as I must, at this juncture. For this I have the advantage of having foreseen the crisis of the past three-and-a-half decades, and having consistently pin-pointed the causes, nature, and general remedy for the crisis which the U.S. Nixon Administration unleashed more than thirty-three years ago. For this and related reasons, I have a unique, and uniquely proven record of foresight into both the principled features of this present crisis, and its now very, very narrow spectrum of available remedies.

From the advantage of the consequent authority which I have in this situation, I present my proposals for immediate

action in response to the presently inevitable onrush of global general breakdown-crisis of the present world monetary-financial system.

As long as those institutions sense themselves imprisoned as by oath to honorable service to the relics of the of the existing world monetary-financial system, those institutions will remain incapable of acting to prevent the catastrophe which could otherwise be averted. The remedies which I propose are therefore highly contentious, to say the least, but they represent the only existing option which could prevent a chain-reaction collapse of civilization as a whole. Within these bounds there is no room for dilly-dallying, no margin for sane men's tolerance of evasive "what if" proposals of less prompt, or less pungent remedies.

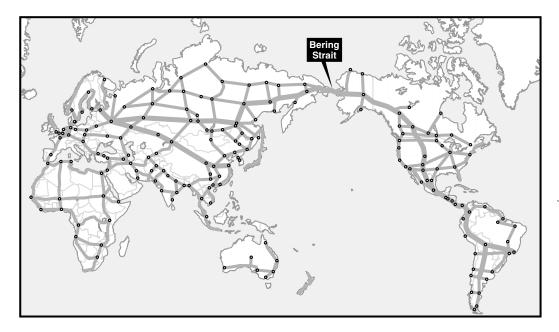
The front end of the presently onrushing crisis is the moment at which a chain-reaction collapse of the U.S. economy and U.S. dollar begins. At that instant, certain kinds of immediate emergency action must occur, actions with as much or more pungency and force than those taken by President Franklin Roosevelt beginning the hours after his first inauguration.

The included measure to be taken, without which the onrush of global chain-reaction collapse can not be halted, is a voluntary measure uttered by the U.S. Federal government, to seek relevant international agreement to fix the relative price of the U.S. dollar through aid of a stated commitment of the U.S. to the creation of large masses of Federal and Federally-motivated credit, in largely 30- to 50-year denominations at approximately 2% annual simple-interest yield, for unleashing massive infrastructure building inside the U.S.A. Only such a commitment, which would immediately bring the current accounts of the U.S. economy back above current and long-term break-even, could restore confidence in the U.S. dollar sufficient to support agreements among key governments to support the dollar at approximately its current relative valuation, the valuation needed to enable a concert among some nations to stave off a general, chain-reaction collapse of the system as a whole.

As Benjamin Franklin said famously in his time, we must say to the most relevant nations today: We shall hang together, or we shall hang separately.

We have already, on the books of Federal, state, and other agencies, including the U.S. Corps of Engineers, the prepared designs for projects of the type required for this purpose. The effect would be that of a "war mobilization" for peaceful reconstruction. This would immediately provide the basis for a recognizable long-term recovery, and, therefore, stability of the U.S. dollar.³⁷ This specific emergency action should be given flanking support by a clear intent to take similar measures for selected issues of credit to be supplied in pre-

^{37.} Such an emergency measure would prefigure the turn to the equivalent of a prime Federal Reserve rate of about 2% for U.S. Federal government debt for the long term, a rate at which levering of essential long-term projects can be sustained for the purpose indicated.



Main lines of a worldwide rail network, from EIR's Special Report on the Eurasian Land-Bridge (1996). This map shows the rail lines involved in full realization of the Land-Bridge concept of development corridors associated with transportation routes.

mium projects for reorganizing troubled firms in the private sector along lines of long-term durability.

Obviously, politically, such measures could occur now only under conditions of the gravest of financial emergencies, conditions which are now moving, as the GM/GMAC crisis only typifies this, to present themselves very soon. This peaceful equivalent of a "mobilization for general warfare" is the only action feasible, under such special circumstances, which could turn the tide from doom in an effectively timely way.

The success, with cooperation of relevant foreign governments, with that preliminary counter-strike against the onrushing crisis itself, would clear the way for two crucial measures of general international monetary reform. First, the reestablishment of a fixed-exchange-rate, gold-reserve-based Bretton Woods system. Second, the adoption of a technologically sustainable fixed price of gold reserve stocks to support that system. Third, the negotiation, within the framework of that restored system, of a global "raw materials" doctrine of the type which I have described above.

The combination of sufficient international acceptance of the emergency action by the U.S. in immediate defense of the U.S. dollar from a threatened chain-reaction crash of the world's present monetary-financial system, with these three measures of reform of the international monetary system itself, creates the environment for fostering of certain strategic objectives for large regions of the world.

Foremost among these is the present trend toward a system of long-term Eurasian cooperation. This is the trend toward a system pivotted, on the one side, upon Russia's dual relationship, with the Asian community now centered around what is known, since Prime Minister Yevgeni Primakov's mission of 1998, as the Russia-China-India Triangle, and, on the other side, with key nations of western and central Europe, including Germany, France, and Italy. Under the immediate

threat of internal monetary-financial-economic crisis of the European Union today, the point of most immediate concern is to prevent an internal collapse of the economies of Europe which are currently leading long-term trading partners of the Eurasian Triangle cooperation. The promotion of long-term internal recovery of productive employment and social security systems of Europe is of crucially strategic importance for securing the clear benefits of currently ongoing, long-term Eurasian cooperation.

Similar concerns must be addressed, secondly, among the economies of the states of the Americas, thirdly of Africa, and, fourthly, but not least, the deadly cockpit of Southwest Asia. The role of Australia and New Zealand is of crucial importance, especially with respect to its role as a focus of European culture's influence within the Pacific region, especially the portion of that region to its north.

These five areas of regional cooperation are bound together by the global issue of programmed design of approaches to what may be treated loosely as "raw materials matters."

The otherwise assured benefits of such reforms as these, depend upon a general reversal of the ideological effects of the ideologies associated with the Congress for Cultural Freedom. Two issues are crucial on this account. First, there must be an uprooting of the poisonous existentialist doctrine based on a denial of the existence of knowable truth. Without truth, there can be no agreement in principle, and, without agreement in principle, the attempted recovery of our planet would soon degenerate once again into the Hobbesian spirit of conflict which has ruined the peace of this planet for the preceding centuries. Second, the principle of truth must be energized for practice by the leading principle of agreement of the 1648 Treaty of Westphalia: "each part is to promote the others' benefit, honor, and advantage."