

WHAT THE CONGRESS NEEDS TO LEARN

## The Lost Art of The Capital Budget

by Lyndon H. LaRouche, Jr.

*Dedicated, poetically, to my wife, Helga, for the ominously lovely occasion of our 29th Wedding Anniversary.*

December 22, 2006

Since that notorious uproar of 1968, which erupted in Europe as in the Americas, the mayfly passions of the upper twenty percentile of today's reigning white collar ("Baby Boomer") generation, are frequently expressed as a loss of the desire for the practice of long-term marriages, a loss of caring for the prospects for younger generations, and a loss of any interest in investment in the future of the physical economy of other nations, or even their own. Hence, since that generation dominates our Senate and also much of our House of Representatives, our Congress had, in the main, lately misplaced the pivotal conception on which the future existence of our nation now depends: *the concept of the capital budget*.

This must now be changed.

What has been lost, is a sense of the meaning of "indispensable capital investment in the physical conditions of progress"; it means a loss of the meaning of the investment required, not only to rescue the U.S.A., but to secure the civilized future existence of the world as a whole.

Some among you are perhaps angered by my saying this? Think carefully. Witness the ration of members of the U.S. Congress who count every budgeted dollar of public expenditure as outlays which must be balanced by current tax receipts. From the standpoint of any competent economist, that policy is, in effect, the practice of ruinous, sheer, inhuman recklessness in economic policy of practice.

The change in state of mind respecting economic policy, which had become widespread in the Congress during the course of the recent four decades, has become a radical change, a radical downturn from the level of competence of the founders of our Federal republic, a downturn of more than a quarter-century, in what performance had formerly suggested might be the apparent, functional intelligence-quotient of a majority of those leaders in senior positions. This was an effect shaped, to a large degree, by the stratum, from among the typical university-oriented Baby Boomers of 1968, which had launched a virtual state of class warfare, warfare of white collar against blue collar. They were, more and more, against farmers, industrial operatives, and physical-science-based professionals. Many among them were even against anything which represented technological progress in production and infrastructure. That cultural paradigm-shift expressed by the 68ers, became the cultural matrix which has dominated the downward shift in values over more than a quarter-century to date.

So, we have generations which came to love digital computers, but chiefly as a source of entertainment; they loved the entertainment value of computers so much, that they demanded the replacement of competent scientists, engineers, and machine-tool-design specialists, by the inherently uncreative idiot-machines composed to display the benchmarkers' intrinsic incompetence: we have seen, thus, the reckless use of computer technology for the attempted elimination of the role of the creative powers of the individual human mind of the design engineer in the world's economy.

Formal mathematics is not creativity; creativity is uniquely a sovereign quality of innovation specific to the po-



EIRNS/Stuart Lewis

*Under the reign of the Baby Boomers, our Congress has “misplaced the vital conception on which the future existence of our nation now depends: the concept of the capital budget,” LaRouche writes.*

tentials for self-development of the individual human mind. It is a quality expressed, not by mathematics, but by the discoveries of universal physical principles, such as Johannes Kepler’s uniquely original discovery of universal gravitation, as Albert Einstein emphasized this fact about Kepler’s and Bernhard Riemann’s work. It is the individual creative mind in Classical art, as by Leonardo da Vinci, or Johann Sebastian Bach. The suppression of the emphasis on that kind of individual creativity, produces a kind of society fairly described as an “Orwellian nightmare,” a “Brave New World” fantasy, like that produced by the psychotomimetic mind of an Aldous Huxley.

So, as in our Louisiana, that reigning generation of today, swapped productive development and its necessary basic economic infrastructure, for public revenues based on public subsidy of mass gambling; that generation built casinos, instead of defenses against more or less inevitable hurricanes in the three-to-five-scale range.

That generation exported our industries to places abroad where labor was very cheap, and costs of basic economic infrastructure were chiefly disregarded, thus bankrupting not only more and more of our local communities, but also even entire Federal states. In fact, this practice, sometimes called “outsourcing,” actually lowered the net physical productivity, per capita, of the world as a whole. More of the world’s net productivity, per capita and per square kilometer, was actually lost in North America and Europe, for example, than was gained in Asia.<sup>1</sup>

1. This would be (perhaps, “will be”) evident in the chain-reaction effects of a near-future collapse of the U.S. economy. A collapse of the U.S. economy would mean a collapse of the U.S. as an importer to the world, such as Asia.

Study our nation’s downward plunging physical condition, county by county, since Richard Nixon was inaugurated as President. Produce animated chronological representations of even the most common types of census figures compiled more or less regularly by governments, or by standard private agencies engaged in such economic studies. See the shift in employment, from productive work-places, toward a virtually “Third World” quality of unskilled services. See the collapse in revenues of states and counties, county by county, over these decades. This ruinous trend of the recent thirty-five years, has not been an accident; it has been the product of policy-decisions made in places like Wall Street and the City of London, and imposed, from such places, upon our Federal and state governments. This is the trend in policy-decisions which has now driven the nation into a state fairly described, at this moment, as a national economy teetering wildly on the brink of an abyss.

### **Current Long-Range Policy**

Over the past quarter-century, since President Richard Nixon entered office, the trends in law-making and the political opinions among the upper twenty percentile of our Baby Boomer generation, have now bankrupted our nation. Those habits of opinion are, most unfortunately, the reigning popular opinion among that part of that generation’s legion of “cus-

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It would mean, also, a chain-reaction collapse of the planet’s whole monetary-financial system, unless a Franklin Roosevelt-style substitute were supplied almost immediately. The loss of net productivity through such chain-reaction effects, in Asia, alone, would lower the net productive output, per capita, throughout the world. Thus, taking the world economy as a whole, over the interval 1971-2006, the productive potential of the human species would have shrunk, in net effect, over the course of this thirty-five-year interval.



clipart.com

*The symbol of the 68er economy: gambling casinos on the Mississippi River, which were built at the expense of the basic infrastructure required to protect against hurricanes.*

tomary voters" today. At the same time, the citizens in the lower eighty percentile of family-income brackets, who have been the typical victims of this drift, including the greater number of those not "customary voters," are, therefore, rather angry now, and becoming more so with each passing, ruinous month.

By and large, these guilty Baby Boomers did not intend to be malicious; excepting really evil cases in the likeness of Bertrand Russell and H.G. Wells, and barring typical neo-conservatives, our nation's utopians rarely present themselves as being intentionally malicious. Our upper twenty percentile of the Baby-Boomer generation, were the children, born chiefly between 1945 and 1956, born into a post-war fad sometimes called the "White Collar" generation, or known as the 1950s age of "The Organization Man." It was they who were groomed to make "the white-collar revolution," not because they knew what they were doing, but because, in their eyes, that is what they had been trained, almost as if they had been circus seals, to do.

We have now entered a state of affairs, in which, even among the more respectable Democrats in the Senate, recent legislation has driven the nation ever-deeper into a non-productive direction, and thus toward the brink of a most calamitous national bankruptcy. Meanwhile, the same legislators often delude themselves that the practice of goodness is offering palliatives of mercy to families which the Congress itself has actually ruined, as by its neglecting the defense of the conditions needed for decent employment and for protected pensions at decent levels of family income.

Thus, we hear the cry from such layers among our politicians, that the U.S. government must not make capital expenditures, except by cutting the basis for the existence of those

functions whose existence depends upon precisely those capital expenditures. By such foolish practices, such misguided legislators destroy the very economy of the people whom they delude themselves into believing that they are helping. That is precisely the way in which even those we might consider to be among our many well-meaning legislators, have been destroying the U.S. economy, consistently, since early during the 1970s.

Therefore, for this very practical reason: from the standpoint of any competent historian, any competent scientist, any competent economist, those currently popular Congressional policies of "balanced budgets," are to be seen as ruinous expressions of indoctrinated delusions which have unbalanced minds, a virtual product of the influence of "social engineers" who designed the

aberrant mental habits induced from childhood on, in what we call our "Baby Boomers" today.

For certain reasons, I have a special responsibility, as an economist, for pointing out such presently ominous errors in practice and belief to the members of our legislatures, and to others. The relevant generation, and also others, have become so steeped in the cumulative effects of decades of indoctrination in a system designed, in fact, to ruin our economy, that they have come to believe that a bad performance of the economy, in response to this policy, could only be the failure to continue that policy more energetically, and therefore, in fact, with more ruinous effects. The fault lies, thus, chiefly, not in the legislator's lack of sufficient information, but in the legislator's rejection of information which is seen as contrary to the beliefs which have been already ruining us over the recent thirty-five and more years to date. Like the man who persists in attempting to impregnate a plastic dummy, the harder they believe, the more disgusting the results of their performance become.

Since the establishment of our Federal Republic, the fundamental Constitutional law of our nation had been set forth as the Preamble of our Constitution. The promotion and defense of the security and general welfare of our republic, as much or more for coming generations, as for the presently living, is the principle to which all features of that Constitution are, and must be subordinated, including all amendments to the Constitution introduced since the founding, and into future generations to come.

It must be conceded, that we began as not only a weak nation, relative to the imperial power of the post-1763 Anglo-Dutch Liberal power based in Europe, but as victims of the ricochet from the orchestration of the French Revolution by

London's assets Philippe Egalité and his accomplice, the Jacques Necker who played a key part, with A.R. Turgot, in bankrupting France's monarchy. We were, indirectly, the victims of the effects of the Jacobin Terror, the effects of the wars of the Napoleonic tyranny, and of the merry countesses of the notorious Congress of Vienna.

It was not until our republic's victory over British Lord Palmerston's puppet, the Confederacy, that the U.S. became, and remained, in fact, a sovereign which could not be successfully invaded by foreign powers, until the ruinous George W. Bush, Jr., Presidency. During most of the period since President Lincoln's assassination, and more so since the assassination of President William McKinley, there was a weakening of the Constitutional prescriptions for our Presidential system, a weakening to which those assassinations contributed much, and placed our foreign commerce and trade chiefly under the overreaching domination of an Anglo-Dutch Liberal financier power, a foreign financial power which also reached deeply into our own domestic financial systems.

We were only temporarily enriched by the looting, conducted by our principal debtors, the British and French financiers, of a defeated World War I Germany; but, by the middle of the 1920s, our economy was already in the grip of what was soon to become evident as the 1929 Depression.

We became truly sovereign again under President Franklin Roosevelt. Even Roosevelt's political adversaries among us were not able to challenge the Bretton Woods fixed-exchange-rate system effectively, until after the assassination of President John F. Kennedy. We were undermined by the effects of that latter and other assassinations, and, gradually, with the events of 1968 and the advent of the Nixon Administration, came the floating-exchange-rate dollar, and the other capital follies which have ruined our physical economy, and looted the lower eighty percentile of our families, more and more deeply, during the subsequent thirty-five years to the present date.

The most crucial, long-ranging fact about that 1763-2006 span of our own and the world's history, is that the American System, as defined by the legacy of the Winthrops, Mathers, Logan, Benjamin Franklin, and the first administration of President George Washington, is systemically antithetical to the Anglo-Dutch Liberal system. Our Constitutional system and that of the Anglo-Dutch Liberals, are not congruent systems, but mortal adversaries, and have been so from February 1763, to the present day.

Not only did Adam Smith write what the short title of his writing calls *The Wealth of Nations*; but, the purpose of that propaganda tract, as Smith himself declared, was to incite the crushing of the forces of our Declaration of Independence. Smith was a plagiarist personally assigned, in 1763, by Britain's Lord Shelburne, to create schemes to ruin both the economy of France and of the English colonies in post-1763 North America.

Smith was no genius, but more in the character of a caddis-

fly larva, collecting pieces of flotsam from his surroundings, to build his pupal protective intellectual cocoon. As a plagiarist, Smith relied chiefly on the pro-slavery dogmas of John Locke, the brayings of the Mont Pelerin Society's frankly pro-Satanic Anglo-Dutch Bernard Mandeville,<sup>2</sup> the doctrine of magic projected by the pro-feudalist fanatic Dr. François Quesnay, and by that other notable Physiocrat, A.R. Turgot, from whom Smith plagiarized much of the most crucial technical content of his *The Wealth of Nations*.

From the beginning of our Constitutional republic, the conflict between our American System of political-economy and the system of monetarist usury known as the Venetian-like imperialist system of the Anglo-Dutch Liberals, has represented the principal contending foes within the domain of modern world economy. The fact that we and the British have been sometimes allies, has never lessened the axiomatic-like difference of species represented as these conflicting two systems.

The American System of political-economy, was, in principle, a continuation of that anti-feudalist system of society founded by the mid-Fifteenth-Century Council of Florence, and by the successive steps of establishment of the first modern commonwealth forms of nation-states, in Louis XI's France and Henry VII's England, respectively. The policies of the Plymouth settlement and the New England commonwealth of the Winthrops and Mathers, provided the model background for what would become our Constitutional republic about a century later. The revival of the efforts of those Winthrops and Mathers, during the course of the Eighteenth Century, came in the form of the influence of Gottfried Leibniz in shaping the social and economic thought of those adult youth around Benjamin Franklin and George Washington, such as Treasury Secretary Alexander Hamilton, who fought the post-1763 struggle for our national sovereignty, and for the crafting of our Federal Constitution.<sup>3</sup>

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2. Bernard Mandeville. *The Fable of the Bees* (London: Edmund Parker, 1723, second ed.) A modern reprint can be found in a 1988 Oxford edition.

3. The February 1763 Peace of Paris established the Anglo-Dutch Liberal system as the kernel of a virtual world-empire of a type modelled on the medieval system of partnership of the Venetian financier-oligarchy and the butchering anti-Semites and Moslem-haters known as the Norman chivalry. In a meaningful sense, when the Venetian financier-oligarchy lost its ability to function as a maritime power based in the Adriatic, during the fourth quarter of the Seventeenth Century, those Venetians following the pathway of Paolo Sarpi, moved north, to maritime bases in England and the old Hanseatic region from Netherlands to the Baltic. This system of Sarpi and his followers, has been known as *liberalism* to the present day. This is contrary to childish Romantic images of a British empire as the product of a monarchy; that monarchy, since William of Orange, but, most emphatically, since 1714, is an always potentially expendable instrument of a slime-mold-like social formation, represented by collaborating and competing financier-oligarchs in the tradition of medieval bankers such as Lucca's House of Bardi. The idea of "globalization" as a liquidation of the existence of the institution of the modern nation-state republic, is an explicit copy, in intent, of the medieval system which crashed into a New Dark Age during the middle of the Fourteenth Century.

The ontological difference between the two rival systems, the American System versus the Anglo-Dutch Liberal system, is that the Anglo-Dutch Liberal system is based on the monetarist principle of usury, whereas the American System of political-economy has been premised, from the start, on what Leibniz defined as the principles of *physical economy*.

Admittedly, both we rivals each employ monetary systems. The functional difference is, that our Constitutional system uses, and regulates the monetary process according to the intention to realize those purposes which are identified by the Preamble of our Federal Constitution. The Anglo-Dutch Liberal system, otherwise known as the British system of attempted global imperialism, is a system designed and managed by financier-oligarchical predators in the specific interest of usury as such. John Locke, Bernard Mandeville, Adam Smith, Jeremy Bentham, and the Hailybury School generally, are typical expressions of the modern Liberal's monetarist system of usury.

The recovery of the U.S.A. from the disaster crafted under the leadership of President Calvin Coolidge and Andrew Mellon's Herbert Hoover, was accomplished by President Franklin Roosevelt's dumping of the pro-fascist Wall Street gang's nearly fatal adherence to the British "free trade" system. Roosevelt launched a return to the American System of political-economy implicit in our Federal Constitution's Preamble.

### The Strategic Conflict As Such

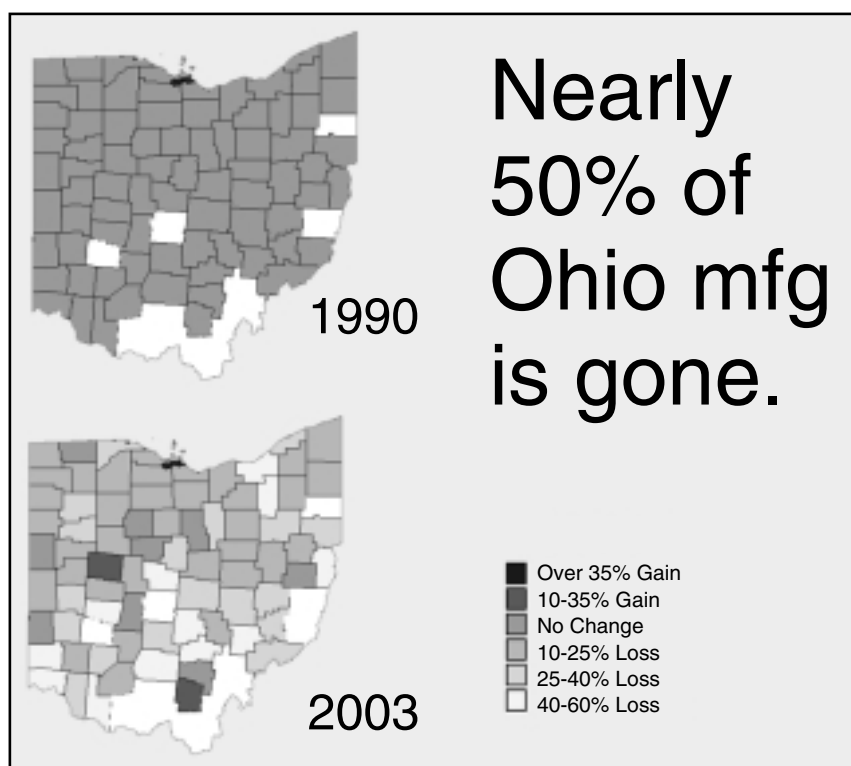
The conflict between the two leading systems of today's world, the Anglo-Dutch Liberal versus the American System of political-economy, can be summed up, in effect, as follows.

The Anglo-Dutch Liberal system, as the Mont Pelerin Society typifies that alien penetration (perhaps we should say, "rape") of our nation, demands "free trade," which means the unhampered reign of the usury practiced by slime-mold-like clusters of financier bandits. This predatory onslaught is typified in the extreme, by the pack of hyenas called "hedge funds."

The American System of political-economy, defines money as our Federal Constitutional system does, as a monopoly of the Federal government. Whereas, the Anglo-Dutch Liberal system's commitment to monetarists' "free trade,"

FIGURE 1

### From a Productive Economy to a Services Economy



Source: EIRNS.

*In the past three decades, the U.S. economy has been decoupled from the American System of political-economy, and has devolved into the services economy promoted by the Anglo-Dutch Liberal system. This devolution can be seen here on a county-by-county basis for the former industrial state of Ohio.*

defines a Hobbesian system of each in war against all. The characteristic of the Hobbesian beast-man, is the Anglo-Dutch Liberal misdefinition of "human nature," which is, in fact, man as beast to man. The American System insists that the money system itself be managed to prevent the evils of the Anglo-Dutch Liberal and similarly predatory systems from operating in our republic, or in our relations with other sovereign nations, as the policies of President Franklin Roosevelt expressed this excellent distinction. (See **Figure 1**.)

Thus, our national goal, at least the national goal of our intelligent and informed patriots, is to promote the increased production of physical wealth per capita and per square kilometer. This, those of us who understand economy agree, means fostering scientific and Classical cultural modes of progress in the development of the community and the individual person. This promotion of the improvement of the condition of the individual, depends upon utilizing the discovery of higher principles in ways which increase the productive powers of labor per capita and per square kilometer. On this account, intelligent patriots prefer to promote the reinvest-

ment of retained earnings in the form of the technologically physical advancement of products and productivity, preferably as closely held enterprises under creative leadership, within local communities, as much as in the economy as a whole.

In approximation, this means constantly watching the shifts in productivity and standard of living in county or multi-county area. It means emphasizing the importance of growth of physical output per capita and per square kilometer in each such area. It means promoting physical production in agriculture, manufacturing, and related research and development, as primary. That primary emphasis requires a continually improving standard of intellectual and social life. The nation is then united by the development of the common means of connecting and coordinating these communities into a dynamic whole, that in the sense of Leibniz's definition of *dynamics*, as distinct from Cartesian-like, mechanistic-statistical ways of thinking.

Thus, for intelligent economists, reinvested earnings to this purpose and effect, should be taxed at a considerably lower rate than conspicuous consumption and runaway profits steered into financial speculation.

All in all, the system of regulation, creating a "fair trade" standard of practice, rather than the intrinsically ruinous "free trade" standard, must be reinstituted, as the "fair trade" standard was approached under President Franklin Roosevelt. This return to a "fair trade" standard would reverse the ruinous effects which the rampage of pro-monetarist deregulation has unleashed upon our poor, and now very, very poor nation, as this rampage was begun, already, during the 1970s. Scrap the so-called Liberal reforms of the 1970-2006 interval; they have proven themselves a monstrous failure.

Now, in this report, we shall first consider those points of natural forms of constitutional law, as just broadly identified, from a national standpoint. We shall then consider the application of the indicated principles of dynamics to solve the crisis within the U.S. domestic economy. After that, we shall apply that to the field of international relations.

Thus, to reach the proverbial bottom line for what has been written above, the strategic situation we face is the following.

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## 1. Science: Redeeming Our Heathen Nation

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On the surface, a capital budget appears to be a straightforward proposition in cost and financial accounting. However, the principles which underlie any competent design of that budget, are profoundly scientific, rather than ordinary expressions of financial and related accounting. This scientific complexity is therefore unavoidable; whereas, allocating a programmed loan is a relatively simple statement in



Courtesy of Nuclear Energy Institute

*"[P]rogress in the discovery of the application of the principles of physical science, such as nuclear and thermonuclear science, . . . expresses the true nature of mankind's powers and assigned mission within this universe." Here, President Eisenhower symbolically starts up the first U.S. commercial nuclear power plant at Shippingport, Pa., in 1954.*

mathematics, the principles which predetermine whether or not the expenditure will work out as intended, are, as I shall show here, at a later point, a much deeper matter of the actual science of *dynamics* than any customary accounting practice is able to accomplish. Therefore, to design a competent capital budget, is a challenge in the domain of physical science, rather than mere accounting. Moreover, the choice of the kind of physical-science practice needed, requires close attention to the special set of underlying assumptions which are specific to the relevant behavioral characteristics of the human mind.

Experience with the discussions of economic policy which appear from within, or around the functions of shaping and assessing the performance of the policies of government, shows us that most of the hoaxes into which our law-making processes have become entrapped, such as the Enron swindle and related phenomena, recall the case of the embittered wife telling the children, "You will not eat this week; your father, again, lost his week's pay in the gambling house which lurks on his way home from work." Such is the "fools' gold" do-

main of gambling, the set of shady schemes known by such names as “financial derivatives” and “hedge funds.”

Therefore, this chapter of the report, will focus attention on the nature of the essential, underlying assumptions to be considered. That said, we now proceed as follows.

Americans of today are mostly heathen; that is to say, even most of those who avow a belief in God, do not actually believe in that Creator presented in *Genesis* 1, who made man and woman in the likeness of Himself. When you speak the word “God,” most do not react by thinking of the living Creator of what the great and good Albert Einstein described as a finite but boundless universe in which we dwell. In practice, most, even still today, prefer a deity more in the nature of the evil Olympian Zeus of the poet Aeschylus’ *Prometheus Bound*. Most tend to believe in what such children of Paolo Sarpi as Thomas Hobbes did; they believe in the doctrine of that Satanic Iago of Verdi’s opera *Othello*, the Iago who speaks of the cruel and evil, Hobbesian god he serves.<sup>4</sup>

That Zeus typifies a terrible oppressor who commands the perpetual torture of the Prometheus who had offended Olympus by giving the knowledge of the use of fire, such as nuclear-fission power, to mankind. Whereas, in fact, contrary to both T.H. Huxley and the Frederick Engels of Huxley’s time, the human being is no monkey, no mere ape, but a creative being made with the built-in potential to be creative, contrary to the cruel law of Zeus; the human being is a person in the likeness of the Creator.

This is not fable; it is history. It is also theology. It is also physical science. It is the essence of any competent teaching and practice of modern economics.

For us who know the truth about mankind, the human mind is distinguished from the characteristics of all beasts. This distinction is expressed as the human individual’s being creative by virtue of the unique nature of his living species;

4. This soliloquy appears, in the second version of the opera, as a modification made by Verdi, at the prompting of Boito.



John Winthrop



Increase Mather



Cotton Mather



Shakespeare’s Iago

Library of Congress

*In contrast to the Satanic Iago in Shakespeare’s “Othello,” the founding fathers of the Plymouth Colony, the Mathers and the Winthrops, believed that man’s mission in life was to do good and improve mankind. Here, the 19th-Century American actor Edwin Booth portrays Iago.*

it is expressed as progress in the discovery and application of the principles of physical science, such as nuclear and thermonuclear science. It expresses the true nature of mankind’s powers and assigned missions within this universe. This is a creativity we recognize as spiritual, saying this to signify that it inhabits the living flesh, but that it is of a higher ontological quality of fully efficient being, higher than that of a mere animal which we might eat as food. Our mortal human body is the host, and servant, from conception, of something which is so defined as the personal spiritual being which possesses the power of true creativity. This is the mission which the Creator assigns to mankind, to assist in the continuing work of universal, intrinsically, *ontologically anti-entropic* creation.

There are those confused and contrary fellows, who may worship the Sun, but hate the processes of nuclear and thermonuclear fusion on which the existence of our Solar System depends. Such unfortunates express that Luddite-like strain of perversity which has become typical of much of the ranks of Baby Boomers of the Americas and Europe, a perversity which has contributed greatly to the suffering rampant around our nation, and the planet today.<sup>5</sup>

The superstitious gnostic believes in a static, not a developing universe. He or she misdefines the universe, accordingly, as a universe whose process of perfection has been ended. For the gnostic heathen of this persuasion, everything is now predictable, and, for him, all that will exist is, therefore, virtually inevitable. That deluded gnostic, therefore believes, that since, in the gnostic's opinion, God must have created a perfect universe, even God Himself has thus eliminated His own capacity to modify the universe thereafter. As the beloved Philo of Alexandria and others have warned, implicitly, Satan, according to the Delphic gnostic, accepted no such lawful, principled restriction; thus affording a license given to Satan's faithful by the implicitly entropic, statistical laws, false laws which, like today's implicitly Satanic hedge funds, were assumed to fetter the Will of the Creator. Those who place trust in Satan's power, so, are great fools.

Contrary to the brutish fatalism of such gnostics as those: in fact, as the evolution of the Solar System from a solitary, fast-spinning young Sun attests, it is an instance of the principle of continuing, anti-entropic creation, rather than a fixed, entropic universe. The Creator's always developing, always finite, but unbounded universe, is a process—an *intrinsically anti-entropic process*—of continuing creation, a process of Creation which it is mankind's function and duty to assist. So, we now move outward to Mars and beyond, to improve the management and development of what we discover out there. Science shows us that the Creator is a perfectly creative, outgoing Being, governing a permanent reign of unending, anti-entropic creation. Consequently, our assigned duty is to perform the universal missions which that commitment by the Creator implies for us.

Our comprehension of these and related matters, has been assisted notably by the work of Russia's Academician V.I.

Vernadsky's development of the proof of the distinction among three phase-space domains: the non-living, the Biosphere, and the Noösphere. These three, dynamically intertwined phase-space domains, and the principles which they express, reflect the following considerations implicit in the proofs supplied by Vernadsky, and also by others supporting the principal relevant discoveries.

As Vernadsky sums up the evidence for living systems, as during 1935-1936, although the chemical elements participating in living processes, are taken from the same domain as non-living materials, the living processes associated with the Biosphere, express a principled quality of *specifically dynamic* organization of a process which, otherwise, does not appear within the domain of non-living processes as such. Similarly, the processes of society employ the materials of the abiotic and Biospheric domains, but are organized by a *dynamic* form of principle of efficient intelligence which does not appear in any lower order of living processes.

I repeat: the empirical evidence proving the latter distinction, defines a principle of intelligence not found in the biology we associate with lower forms of life than the human individual personality. It is this higher quality of efficient intelligence, which distinguishes the Creator and the human individual ontologically from the beasts, which lack that quality of efficiently creative intelligence.

This quality of intelligence is mankind's nature, and his and her mission, as *Genesis* 1 stipulates in its own terms. This is the proper refinement of our understanding of the great principle lodged within the Preamble of our Federal Constitution. ***Mankind's duty is not to adapt to the universe as we find it, but to improve it in a distinctly anti-entropic way.*** It is to be the agent, the instrument of the Creator, in this fashion. Our mission is to improve mankind, and the individual member of our species. This is a principled mission assigned to each of us, the mission of contributing to the improvement of the human condition on this account, and to defend the principle of anti-entropic progress so that we do not retreat to a poorer condition of mankind's existence and role, than was achieved before us.

## Reason vs. 'Logic'

What we have considered in this chapter thus far, must also be restated as revealing the essential nature of the conflict between reason and science, on the one side, and formal logic, on the other. This is otherwise known as the great principle which the successor of Leibniz, of Carl F. Gauss, and of Lejeune Dirichlet, Bernhard Riemann, presents in his groundbreaking, 1854, Göttingen habilitation dissertation, *on the subject of the hypotheses which underlie geometry*. From the starting-point embodied in that dissertation, as continued through such later works as his treatment of Abelian functions, and his defining of the dynamics of physical hypergeometries, Riemann lays the basis for conquering the greatest mysteries which had usually befuddled the study of political-

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5. On the subject of conception of the human individual, the folly of the so-called "fundamentalist" is that he, or she, thinks like a Cartesian, viewing individuals as like particles bombarding one another in a gas system. The existence of living systems is never kinetic, but always dynamic in the sense of the term "dynamic" as encountered in the work of the Pythagoreans, Plato, and Gottfried Leibniz. Society must be designed to promote the conditions of human life. We can not change a bad society into a good society, simply one on one; we must change the axiomatic design of the society as a whole, just as the U.S. Constitutional system is morally superior to any of the relics of feudal tradition in Europe, even still today. To promote human life, you must efficiently promote scientific and related creativity as the constitutional principle of lawfulness on which the society's function is premised.





*Jeanne d'Arc triumphed over a tortured death at the hands of the brutish English chivalry. "The citizen must be assisted to see his or her mortal life in terms of the significance which that brief span of personal life has for generations earlier and later."*

EIRNS

economy earlier.<sup>6</sup>

The usual, modern university student of today, graduates in virtual ignorance of the fact that the true principles of geometry and physical science, associated with the name of *Sphaerics*, were established under the Pythagoreans and the school of Plato, before the production of the Sophist doctrines of Euclid's *Elements*. These great ancient principles of Plato and others were reestablished as modern science through the fundamental discoveries of such followers of the Renaissance's Cardinal Nicholas of Cusa as Leonardo da Vinci, Johannes Kepler, and their followers, such as Pierre de Fermat, Leibniz, Gauss, Dirichlet, and Riemann, all before the process of development within the life-long work of Albert Einstein. Riemann's 1854 habilitation dissertation, thus opened the door to Riemann's own founding of the notions of those *dynamics* of physical hypergeometries on which the conceptual framework of a competent modern economic science, as a body of physical science, as to princi-

6. Late during his life, as at the Princeton Institute, in the company of Kurt Gödel, Einstein gave further elaboration of the argument he made against the reductionist sophistries of the celebrated 1920s scientific conferences. He emphasized that the heart of the achievements of modern physical science was lodged between the book-ends of the fundamental contributions of Johannes Kepler and Bernhard Riemann. Gödel's famous 1930 demonstration of the absurdity of the fundamental premise of Bertrand Russell's *Principia Mathematica* (for which the virtually autistic John von Neumann and his kind never really forgave Gödel), points toward the relevant affinities of Einstein and Gödel. The conception of dynamics reflected in the development of Einstein's thinking, and the view of the principle of dynamics embodied in the work of Academician V.I. Vernadsky, are the key to the practical mastery of economics as a department of anti-entropic physical science today. The distinction between merely formal, and actually physical hypergeometries, is crucial for any representation of Riemann's work.

ple, depends today.<sup>7</sup>

However, the root of all this can be traced to precedents akin in intent to the referenced definition of the nature of man and woman encountered within *Genesis* 1.

In presenting a true economic science to our citizens, we must succeed in bringing the view of the moral realities of the practice of economic science, back to the sense of personal identity of the citizen as a human personality. To understand ourselves, we must move away from the customary, petty, neo-Cartesian statistical mumbo-jumbo of the marketplace today. It is the relationship of the mortal individual to the Creator, and to the ordering of Creation as a whole, which must be adopted as the point of elementary reference in defining the actual identity of each of our selves within the context of a living process of continuing Creation.

It is by this approach, that the citizen were enabled to secure a firm intellectual grasp of his or her personal relationship to the work of the Creator. The citizen must be assisted to see his or her mortal life in terms of the significance which that brief span of personal life has for generations earlier and later. In this way, by making a knowable idea of immortality of the incarnate human personality concrete for the informed practice of the living citizen, a sense of the immortal personal relationship of the mortal individual personality to the immortal Creator is gained. In this way, we foster the moral sense which it is essential to foster in the citizen of the republic, if the survival and prosperity of our nation is to be assured during the course of generations ahead.

The investments which must be made now, if civilization were to continue on this planet, put relatively heavy emphasis on physical-capital investments which have a projected "life span" of a quarter to a half-century, and even longer. This is a span, reaching toward a time beyond the life-expectancy of today's parents of young adults, and is, nonetheless, an investment which must be made by those living now. The only assurance that the promise of the future to the living will be fulfilled, is that the will to ensure that that future benefit, is securely embedded in the work and conscience of present and future generations. Immortality, not greed, is the only honest motive of the true citizen of a republic such as our own. This sense of immortality is not mere fame; even the individual in the relatively meanest circumstances can achieve it.

7. Riemann's work to this effect, by him explicitly, is associated with the way in which the notion of *Analysis Situs*, as introduced by Leibniz, is treated as a crucial conception in Riemann's own work. The comparison of the treatment of this notion of *Analysis Situs* by Riemann, as this had been introduced by Leibniz, impels us to recognize antecedents for this crucial aspect of the notion of *dynamics* as inherent in the Pythagorean treatment of the distinct notions of point, line, and solid, in a way absolutely contrary to Euclid's definitions. It is associated with the famous aphorism of Heraclitus, as this is pertinent to Plato's argument in his *Parmenides*. It is implicit in Cusa's *De Docta Ignorantia*, and permeates the method of development of the founding of modern astrophysics in the work of Kepler.

Again, immortality is not fame. Some of the dearest immortals, have lived lives heaped with official and popular defamation. Immortality is expressed by the enduring worth, for humanity, of the life which has been led. If such a person were despised, betrayed, and doomed in the experienced circumstances of mortal life, like Jeanne d'Arc, his, or her worth were all the greater for that reason.

A "sane," which is also to say "trustworthy," notion of those qualities of certainties which transcend the death of the mortal living individual, partakes of the same quality of the will associated with universal physical principles. The ability to adopt a confident foresight into the future outcome of present activity, requires our attention to the notion of the distinction between ideas corresponding to experience of discrete events of sense-perception, and also corresponding to ideas associated with efficiently universal principles to which discrete events are subordinated. Kepler's uniquely original discovery of universal gravitation, typifies the notion of universal physical principles known to modern experimental science.

Those notions which correspond to universal physical principles of physical science, as also to valid Classical modes of artistic composition and their respective modes of performance, constitute the body of human reason, as distinct from the intrinsically imperfect, inferior domain of mere "logic."

The universal physical principles, as their ontological nature is typified by Kepler's discovery of gravitation as being a principle of harmonic organization of the Solar System, have a demonstrably higher authority, on account of truthfulness, than any simple sense-experiences; but, nonetheless, while they are principles whose efficient existence is conclusively demonstrated experimentally, they are not in themselves tangibly discrete objects of sense-perception in any ordinary way.

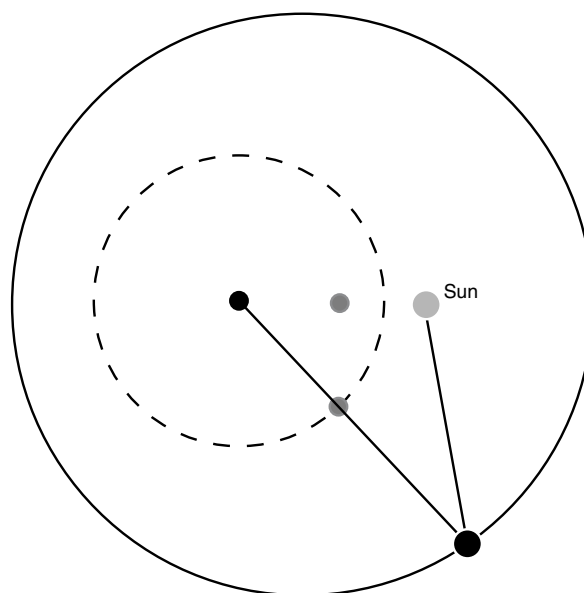
These discovered, universal principles, belong to a category of experience which Kepler was the first to define, through exploring the paradoxical implications of the *equant*, as showing the *ontologically infinitesimal* reflection of any universal physical principle.<sup>8</sup> This was the discovery of the physically infinitesimal, a discovery accomplished experimentally, by Kepler, which explicitly informed Gottfried Leibniz's uniquely original discovery of both the infinitesimal calculus, and his refinement of that discovery, its refinement expressed as the catenary-cued, physical principle of universal least action.

This aspect of the development of the notion of crucial fundamentals of modern physical science, by Kepler, Fermat, and Leibniz, most notably, is clarified by Riemann's 1854 habilitation dissertation, in which only discoverable universal physical principles are the foundations of real knowledge, and other experimental knowledge is merely subsumed by those

8. Although, this is already implicit in the work of the Pythagoreans and Plato, et al.

FIGURE 2

## The Paradoxical Implications of the Equant



Kepler used the construct of the equant (the dashed circle) to demonstrate the movement of the constant angular speed of a planet while it maintains a uniform distance from the center of another circle as it orbits the Sun (the off-center dot of the larger circle). An animation and fuller explanation of the equant by the LaRouche Youth Movement can be found at <http://www.wlym.com/~animations/part2/16/aside.html>.

experimentally discoverable universal physical principles, principles which are, for him, the expression of the hypotheses which underlie physical geometry.

When we take into account, that that knowledge, contrary to Euclid's dogma, was richly developed in Classical culture prior to the death of Plato, we are obliged to recognize the difficulty commonly experienced on this pivotal point, even by professionals with advanced training today. That difficulty is, in large part, the effect of the influence of those fallacies customarily traced to the sophistries of Euclid's *Elements*. Euclid's frauds against a perfectly anti-Euclidean geometry, such as that anti-Euclidean *physical geometry* implicit in Gauss and explicit in Riemann, are the most efficiently relevant illustration, still today, of the manner in which mere logic lends itself to the destruction of human reason. (See **Figure 2.**)

## Euclid's Fraud

So, the legacy of Sophistry embedded in much of the body of generally accepted economy, and related law, in modern Europe and the U.S.A., is to be traced directly to the mistaken adoption of Euclid's *Elements* as the model for the teaching, and practice, of the foundations of physical science in modern schools. The mechanistic folly which René Descartes, and

other modern empiricists, brought to modern European science, is an example of this. The state of mind which this habit induces in both popular and professionally educated practice, is responsible for much of the incompetence in science which spills over into the way in which people generally, and, also, many leading political figures today, think about the named subject of “economics.”

Like most of the systemic errors which permeate cultural traditions, the legacy of the form of Sophistry called “Euclidean geometry,” permeates, “hereditarily,” a very large ration of the literate and related traditions of European culture, since the time of ancient Greece following the death of Plato. It has continued to be, thus, an important factor in causing the lack of the ability of even most ordinary people to think competently about economics today.

The proper essentials of European physical science are met as developed in what we call ancient Classical Greece. This development was expressed as a science which was built on foundations traced explicitly to ancient Egypt’s practice of what was recognized by Greeks, such as the Pythagoreans, by the name of *Sphaerics*. This was the method of Plato and his school, and had also been the foundation of the less well-marked expression of the tradition passed down from Thales and Heracleitus.

To understand the ancient foundations of modern European science, we must focus our attention, initially, on the role of the principles of *Sphaerics*, on which competent forms of ancient Greek science were based, but which the concocted Sophistry of Euclidean geometry was intended to discredit and replace, then, as, later, by such Eighteenth-Century empiricists as the willful hoaxsters Voltaire, de Moivre, d’Alembert, Euler, and Lagrange. Our attention to that matter here, is limited to those aspects of the subject which pertain weightily to sources of the misguided popular thinking about economics and very closely related matters of policy.

The best way to understand the ancient science of *Sphaerics* in a modern way, is to master, at least, the *Mysterium Cosmographicum*, *New Astronomy*, and *Harmony of the World* of Johannes Kepler.<sup>9</sup> The particular relevance of the reference to that study by readers, on this occasion, is not only that Kepler provides the reader with a rigorous way of looking at the stars and planetary bodies as we think we see them, as in the nighttime sky. Since we are on the surface of a planet moving within the Solar System, which is moving against the constellations beyond, much study and some very rigorous thinking is required, to reach the point at which the observer actually knows what he or she is seeing in that experienced

spectacle. It is not sufficient to believe that that doctrine is truthful; the student of the night must live through the process of experiencing that discovery as Kepler did.

On this account, Kepler is unusually significant in the history of science in several ways, but, most immediately, in the fact that he takes the reader of his works, such as, we might hope, relevant members of the U.S. Congress and their staffs working on matters of national and international economic policy, through each step of his thinking over decades of work of discovery, so that the thorough student of his work is able to relive the actual experience of each step of those successive discoveries. It is crucial that policy-shapers not merely know some hearsay in this field, but actually grasp the conceptions as matters of principle, principles of experiment, rather than merely repeatable opinions. On this account, Kepler’s written work is the best education in the experience of rigorous modern forms of scientific thinking, including the premises needed for the comprehension of dynamics, the best available in the published literature of modern European civilization, still today.

A more adequate appreciation of the implications of Kepler’s method, requires reliving surviving knowledge of the methods and achievements of those ancient Greeks associated with the methods of *Sphaerics*. This is a method identified by the Classical term *dynamis*, a term whose meaning Gottfried Leibniz represented by introducing the term *dynamics*, in the course of exposing the frauds of René Descartes.<sup>10</sup> Riemann’s 1854 habilitation dissertation, implicitly, revives the principles of *Sphaerics*; Riemann’s treatment of Abelian functions, then, leads toward the general principle of dynamics expressed in the notion of a physical (rather than merely formal) *dynamics* of hypergeometries.<sup>11</sup>

Thus, in the instance of the work of the Sophist Euclid, we are dealing with the Euclidean’s reification of the theorems already developed by Euclid’s predecessors, such as (implic-

9. Johannes Kepler, *Mysterium Cosmographicum (The Secret of the Universe)*, trans. by A.M. Duncan (New York: Abaris Books, 1981); Johannes Kepler, *New Astronomy*, trans. by W.H. Donahue (Cambridge, U.K.: Cambridge University Press, 1992); *The Harmony of the World by Johannes Kepler*, translated by E.J. Aiton, A.M. Duncan, and J.V. Field (Philadelphia: American Philosophical Society, 1997).

10. E.g., Leibniz, *Specimen Dynamicum* (1695). See the crucial Leibniz, “A Brief Demonstration . . .,” (1686) in *Gottfried Wilhelm Leibniz Philosophical Papers and Letters*, Leroy E. Loemker, ed. (Dordrecht: Luwer, 1989), where the famous specific criticism of Descartes’ incompetence in method is presented.

11. The principles of *Sphaerics* were preserved in the school of Plato’s Academy, as exemplified by the work of Eratosthenes. With the deaths of Eratosthenes and his correspondent Archimedes of Syracuse, and the rise of Rome to imperial status, European science virtually died, but for exceptions such as the Baghdad Caliphate’s cultural zenith and Ibn Sina. These lost principles were revived, chiefly, by Cardinal Nicholas of Cusa’s *De Docta Ignorantia*, whose followers included, most notably, Luca Pacioli, Leonardo da Vinci, and Kepler. This is reflected, most clearly, in the crucial elements of the work of Pierre de Fermat and Leibniz, as in the leading teacher of mathematics during the middle through late Eighteenth Century, Gauss’s teacher Abraham Kästner. This is to emphasize that the tradition of anti-Euclidean *Sphaerics* reaches back into the astrophysics of the ancient Egypt from which the relevant Greeks derived the foundations of their own practice. It were not only fair, but precise to say that Riemann realized the principles of physical anti-Euclidean geometry already clearly implied in the work of Cusa, Leibniz, Jean Bernoulli, Gauss, Dirichlet, and others.

itly) Thales, Heraclitus, and, clearly, the Pythagoreans and Plato's own immediate circles otherwise. The products of the principle of *dynamis*, which governed the scientific achievements of the Classical Greeks prior to Euclid, were maliciously reformulated by Euclid et al. as alleged products of a set of definitions, axioms, and postulates which implicitly assumed a "four-square" linear universe of the type later echoed by the incompetent René Descartes. The assumption was made by Euclid et al., that all that is true was that which could be derived, by deduction, from a set of definitions, axioms, and postulates which presumed that the universe is the solid, simply mechanical extensions of a flat surface, in which the sphere itself is, as elliptical functions show, misconceived—misconceived as if it were a product of that mechanical, "solid" extension of a flat surface.

The definitions, axioms, and postulates are never proven by the Euclidean and their followers; they are simply asserted to be "self-evident," or, as it is said, *a priori*. In effect, the Euclidean is asserting, simply, like any modern Sophist form of academic, or other moral degenerate: "This is who, and what *I have chosen to believe on this particular occasion*."

The real physical universe, has utterly no resemblance to the Euclidean outlook and its premises.

## Euclid & the New Oligarchical Model

Since the beginning of European civilization, the ancient roots of the current world crisis are to be found in a social phenomenon known to historical times as "the oligarchical model," as that model was typified by the imperial systems based in Southwest Asia. The clearly documented struggle between those systems and the attempts to establish a system of sovereign nation-states, as our American System best typifies the notion of a republic, is that traced by the poet, historian, and playwright Friedrich Schiller, as the model conflict between the republican initiative associated with Solon of ancient Athens and the Lyscurgan Sparta which meets the requirements of what is termed "the oligarchical model."

The essence of the struggle against "the oligarchical model" rooted in Asia, as known to European history since that ancient time, is treated by the dramatist Aeschylus in his Prometheus trilogy, as represented by the middle section of that trilogy, *Prometheus Bound*. The torture of Prometheus, on the charge of providing mankind with knowledgeable use of universal physical principles, as this is charged against Prometheus by the Olympian Zeus of that drama, is echoed by the referenced case of Euclid's *Elements*, and by the related case of the introduction of the Cartesian system of mechanistic-statistical method, as an opposition to the dynamic scientific method of the modern echo of the Pythagoreans, Socrates, and Plato, as typified by Nicholas of Cusa's *De Docta Ignorantia*, and the revolutionary discoveries in modern science by the anti-reductionists Kepler, Fermat, Leibniz, Riemann, et al.

The Euclidean view, was given its modified modern ex-

pression, in those arguments of Descartes which Leibniz demolished with scientific proof of the requirement of the dynamic principle, which is traced to ancient Pythagorean *Sphaerics*.

The intrinsically fallacious Cartesian model, as an outgrowth of Euclid's work, assumes, thus, axiomatically, the percussive motions of abstract particles banging each other in empty space and time. To grasp the practical significance, for today, of the destructive effects of the Cartesian form of mechanistic-statistical method, as in commonplace practice of the economics profession, we must return attention here, in a brief summary, to the sweep of ancient through modern European history leading through and beyond a medieval development usually referred to as Europe's *New Dark Age*.

It is necessary to treat the conflicts so defined as a matter of physical science. To understand the origins of the relevant conflict within the body of modern physical science, we must locate the source of this conflict in the persisting role of the ancient oligarchical model in modern society today. On this account, the reductionism of the ancient Greek reductionists, such as the Eleatics and Euclid, and modern empiricism, are to be recognized as essentially methods of social control intended to promote the interest of the oligarchical model of society, which the Anglo-Dutch Liberal model exemplifies for modern society now.

That connection between science and social systems, is the pivotal, global issue underlying the great, oncoming crisis in world civilization today.

Our objective in presenting this summary at this point in the report, is to clarify the sources and nature of the pro-oligarchical form of mental behavior which has repeatedly driven European civilization into great and deep waves and periods of economic and related collapse, during the course of the entire sweep of European culture to date.

To put the contemporary expression of that ancient and continuing issue into a modern perspective, consider the following line of approach.

As I have indicated above, and have presented this case in locations published earlier, the Anglo-Dutch Liberal system of usury emerged as a modified form of its medieval predecessor, a predecessor which had been the combined reign shared between a Venetian financier oligarchy and the Norman chivalry. The actual medieval system is associated with the emergence of the Norman role in both the Albigenian Crusade and a crusade usually identified as the Norman Conquest. It is the heir of the wicked, actually anti-Christian system of all of the Crusades. It is otherwise identified as the *ultramontane* system. That medieval system was driven, by its own, internal, systemic follies, into a self-collapse known as the aforementioned *medieval New Dark Age*.

However, the remnant of the Norman chivalry's power remained as a ruling force in England, in particular, until the fall of King Richard III. Although the accession of Henry VII marked the entry of England into modern history, the cultural

effects of the medieval system have lingered, as through most of continental Europe, to the present day. Most notably, for the purposes of this report, the Venetian system of financier oligarchical rule, also outlived the Fifteenth-Century rise of modern civilization. It is those nasty remnants of the Norman and Venetian systems, the children of an earlier, evil medieval system, which are the core of the principal external, and also internal enemies of our U.S. republic today.

However, those remnants underwent a crucial evolution, an evolution into a form which served as a parasite-like adaptation of medieval relics to the setting of modern European civilization. One expression of this is modern European fascism, which emerged, in its germ-form, as a reflection of the Norman Crusades under Spain's brutish, anti-Semitic Grand Inquisitor, Tomás de Torquemada. Torquemada was a modern relic of the Crusader system expressed, later, as both the Napoleonic system, and the outgrowth of the Napoleonic model as the pro-satanic excrescence recognized as modern European fascism. Today, the systemic principle of modern fascism, as traced from Tomás de Torquemada and Napoleon Bonaparte's Martinist political tailor, Count Joseph de Maistre, is also costumed in such cloaks as those worn by the neo-conservatives of the Mont Pelerin Society and American Enterprise Institute.

The Venetian side of what had been the feudal form of Venetian-Norman system, also evolved in ways of adapting itself to the conditions defined by the emergence, out of the great Fifteenth-Century Renaissance, of that commonwealth form of modern sovereign nation-state which was the underlying intention of the establishment of our U.S. Constitutional republic. This emergence of a form of neo-feudalism, appeared as the New Venetian party under the leadership of Paolo Sarpi. This Sarpi is known for his role in shaping such personalities as his lackey, the hoaxster Galileo Galilei; as England's Sir Francis Bacon; as Galileo's apprentice, Thomas Hobbes; and, later, as René Descartes, John Locke, and the Eighteenth-Century empiricists David Hume, Abraham de Moivre, Jean le Rond d'Alembert, Leonhard Euler, Joseph Lagrange, Immanuel Kant, et al. This new form of the Venetian system is what is known today, either as empiricism, or Kantianism, or as such more extremely decadent outgrowths of empiricism as the radical empiricism, including what is known as logical positivism, of Bertrand Russell and his present-day devotees.

For strategic-historical reasons, the center of the current political expression of the power of the empiricist New Venetian party, was produced, as I have said here earlier, by the latter quarter of the Seventeenth Century, as the New-Venetian tyrants of Anglo-Dutch Liberalism.

As I have elaborated on this principled issue of competent modern political-economy in numerous locations published earlier, the difference between the simply Aristotelean dogmas of medieval times, and Sarpi's New Venetian party, was that Sarpi et al. dredged the gutters of medieval life, to resur-

rect the figure of William of Ockham; this resurrection, insofar as it has been a putative resurrection of the original "Ockham," is the root of the most significant corruption, historically, of both modern scientific teaching and practice of what passes among the more literate credulous for both physical science, and for the Anglo-Dutch Liberal varieties of modern Anglo-Dutch Liberal (and also London-spawned "orthodox Marxist") dogma in the field of political-economy.

This became what the standard of Classical scholarship would define as the "new oligarchical model."

## The Subject of Modern Sophistry

The work and influence of Cardinal Nicholas of Cusa, is typified by the combination of his works in defining the principle of the modern sovereign nation-state, in his *Concordantia Catholica*; his founding of modern physical science, beginning his *De Docta Ignorantia*; his precedent for the 1648 Peace of Westphalia, *De Pace Fidei*; and, his launching of the plan for what became Christopher Columbus's voyage of re-discovery of the continent lying across the Atlantic Ocean. These discoveries, and their offshoots, created a form of society, the science-driven development of the productive powers of labor under the modern, commonwealth form of sovereign nation-state.

In response to the resurgence of the Venetian system, which had occurred conspicuously in the aftermath of the Fall of Constantinople, Cusa's proposal for transoceanic explorations to engage other parts of the planet, outside a Mediterranean-centered Europe, led, most significantly, to the system of development in the Americas out of which the U.S.A. emerged. As I have stated the case as succinctly as possible, on various occasions over recent decades, the ideas upon which our unique form of constitutional self-government was premised, were to carry the goals of modern European civilization to what we might have hoped would have been a safe distance from the hegemony of the oligarchical system's relics within Europe, still today.

My late collaborator, and professional historian H. Graham Lowry, summarized the most crucial turning-points in that development of European civilization within North America.<sup>12</sup>

As the military writings of Niccolò Machiavelli illustrate this point, the superior power of the city and state under the new system of government, spelled the defeat of the attempts of the medievalists to regain their power, *unless the oligarchical forces made certain concessions in their doctrine of practice*. This is the significance of the influence of the New Venetian party of Paolo Sarpi. The choice thus confronting Sarpi et al. was that, on the one side, unless the neo-feudalists adapted to the pressures of scientific and technological progress, they were foredoomed to defeat. Yet, if they accepted

12. H. Graham Lowry, *How the Nation Was Won* (Washington, D.C.: Executive Intelligence Review, 1988).

the underlying principles of generation of scientific progress, they were politically doomed, as a virtual species of existence, by the antiseptic action of their own hand.

Empiricism typifies the attempt by Sarpi and his followers to resolve this paradox. Their compromise was, to use, selectively, certain discoveries, as the empiricists associated with the name of Isaac Newton, followed the lead of the Sophist Galileo in plagiarizing the work of Kepler, to appear wise, while, at the same time, working to castrate knowledge of the actual work of Kepler. Their Sarpian intent was to obscure the methods by which scientific progress would have an effectively independent development, such that the independent populations generally would no longer submit to oligarchical models of government.

This neo-Venetian policy is the foundation of empiricism, as Sarpi's lackey Galileo typifies this, and as followers of Galileo such as Thomas Hobbes, Descartes, Locke, Hume, Kant, et al., typify the empiricist efforts to weaken and control scientific discovery through the mystifications associated with empiricism.

The pedagogical mechanisms employed to induce that intended effect of the influence of empiricism, are predicated upon the Euclidean model's use of the defective method of a body of practice premised on a set of so-called "self-evident," *a priori* definitions, axioms, and postulates. As I have already indicated, earlier in this chapter, competent physical-scientific practice harks back to the method of Sphaerics employed by the Pythagoreans, Plato, et al. It does not tolerate any *a priori* sorts of axiomatic-like assumptions.

In competent scientific method, for as far back as we know a recognizable scientific practice, science is premised upon the notion of *universals*. The relevant notion of universals is associated, primarily, with celestial observations, especially observations which express the characteristics of astronavigation. On this account, the most interesting quality of the ancient evidence reflects adducible cycles of the North magnetic pole.<sup>13</sup> The deep implications of this point of reference for defining the appropriate notion of the "meaning" of "universal," were finally brought properly into focus through Kepler's original work in defining, first, the principle of gravitation for the alignments of Sun, Earth, and Mars, and, later, for the composition of the Solar System. As Archytas' construction of the doubling of the cube illustrates in a dramatic way, the *ontologically universal* is that which, as Albert Einstein emphasized, is implicitly as big as the finite and boundless universe itself, and which, therefore, is also expressed locally as a power which is infinitesimal in the sense of the

13. Young adults associated with me, have founded an internet publication entitled  $\Delta Y N A M I S$  (*Dynamis*), whose December 2006 (Vol. 1. No. 2) includes a translation, by Tarrjana Dorsey, et al., of Carl F. Gauss's Introduction to his 1838 *Allgemeine Theorie des Erdmagnetismus* (General Theory of the Earth's Magnetism). See [www.seattlelym.com](http://www.seattlelym.com). This work by Gauss has implications brought out by Dirichlet and Riemann, successively.



clipart.com

Christopher Columbus studying the map for his voyage, provided by the circles of Nicholas of Cusa. Columbus's voyage grew out of Cusa's plan for "transoceanic explorations to engage other parts of the planet, outside a Mediterranean-centered Europe."

ontologically existent, rather than otherwise.

This quality of experimentally premised conceptual evidence, which is associated, like the Pythagorean *comma*, with the notion of universals, implicitly defines the physical universe as composed *not of, but by* universal principles of this quality. These do not represent a perfected set of such principles, but a set undergoing implicitly *anti-entropic* developments. Any event in that universe is acting upon, and is acted upon by that universe, as Leibniz makes this point in, as referenced above, his sundry, anti-Cartesian writings on the subject of dynamics. This anti-entropic quality of the universe so defined, is echoed as the implications of Kepler's empirical demonstration of the problematic character of the implicitly anti-entropic notion of the paradox of the *equant*.

Principles are not something amid, and as if connecting Cartesian-like objects in a pair-wise fashion. They are the essential, existing matter of which the universe is composed as a universe. It is a self-developing universe, in which essential action is expressed as, or in resistance to efficient action supplied by, for example, the human individual's will. This is, essentially, *dynamics* as its experience is traced

in known history to the method of the Pythagoreans and Plato's circles.

This notion of *dynamics*, is the essential subject of a science of physical economy. Human willful action in this domain is bounded efficiently by these expressed notions of dynamics for us. That means, in practice, that competent practice of economics as a science, proceeds from the whole process as a starting-point of reference, and proceeds from that conception to determine the effect of either local actions, or local inactions, upon the development of the process considered as a whole.

These immediately foregoing considerations situate the significance of Riemannian dynamics expressed in terms of physical hypergeometries.

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## 2. The Dynamics of U.S. Recovery

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The primary feature of any form of society congruent with the essential distinction between man and beasts, is the society's reigning, practiced emphasis on the human individual's intrinsically sovereign, cognitive powers. These are the powers which are, at the least, the potential which is associated with each and every individual human mind. That is the power expressed by a sovereign individual mind, a power of the universe, thus comparable to universal gravitation, which is expressed as Vernadsky's *dynamic* principle of the *Noösphere*. This is expressed in its effect on the individual human mind, but in no other species. It is expressed as the act of discovery of a universal physical, or equivalent principle, a power which is expressed as the functional distinction between the human individual and all other forms of living species.<sup>14</sup>

*That is the specifically creative power of the individual human mind, on which any competent notion of an economy absolutely depends.*<sup>15</sup>

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14. That is, as if to say, that it is an anti-entropic quality of power of the universe, which the human mind may "tap into," as no other species exhibits this potential. Clarity on this point was made possible by Vernadsky's rigorous definition of the Biosphere; that dynamic distinction of the Biosphere from the chemistry of the non-living domain, showed that a comparable separation of phase-space existed, in the function of man, relative to the Biosphere: the Noösphere. This statement reflects a similar notion which I adopted during the immediate post-World War II interval, a notion which crystallized for me during 1948, as this was prompted by my reaction to the obvious absurdity underlying the principal theme of Norbert Wiener's *Cybernetics*. My view of the connection of this 1948 notion to Vernadsky's conception of the Noösphere emerged approximately a decade later, as a consequence of my gradual recognition of the broader implications of my earlier, 1952-1953, recognition of the significance of Riemann's principle.

15. The popular, slovenly usages of language today, bestow the word "creative" on all sorts of innovations which have no relationship to the use of the term "creative" to signify an experimentally validated proof of a definite universal physical principle. Here, only the strict use of the term, for physical science or Classical artistic composition, is allowed.

That notion of creativity, as we shall consider the point here and now, is the moral and scientific principle upon which our republic's adopted commitment to long-span capital budgeting is implicitly premised.

That definition of the development of the sovereign cognitive powers of the individual mind, underscores the most essential point of difference between competent economics, based on this notion of the sovereign powers of human creative cognition, which are the expression of any true principle of individual, human personal freedom; and the opposing view, which implicitly defines a society self-doomed to a great catastrophe, unless it mends its ways in time. The opposing, latter view is typically premised upon the kinds of practiced folly which have come to dominate U.S. national practice, increasingly, during the course of the recent four, post-President Kennedy decades.

Ironically, when the U.S.A. had put men triumphantly on the Moon, the changes in leading trends of moral and economic thinking which had already been expressed by the revolt of the 68ers, had produced a culturally diseased condition which, by the beginning of the 1980s, had already caused our national economy to undergo a pathological change in reigning principle; this change was *a cultural-paradigm downshift*, a change which had unleashed a process which had been destroying more and more of the underlying policies of practice on which the original Kennedy manned-landing mission had been premised and achieved.

This consideration introduces the foremost, and the most crucial principle, but not the only one, of a science of physical economy today. This is presently describable as the principle on which the prospect of avoiding a planet-wide "new dark age" depends, absolutely, at this present historical juncture. There is recent evidence which causes us to wonder whether the elected members of our Congress are capable of overcoming certain past habits of that body, at least to the degree that the doom which past policies have now brought upon us, might be reversed in a suitable way, even at this time of impending disaster. It is that concern which must be put forward, and kept plainly in view of our consciences, lest we flinch, out of fear of misguided popular opinion, and lose our republic as a consequence of wavering, once again, in the way we, in net effect, ruined the conditions of life of more and more of our population during the course of the recent four decades.

The most significant distinction of true republics, as our Federal Constitution's Preamble itself is to be recognized, is that fact, that when that principle is actually supreme in our Federal practice, that, in itself, defines a true republic, a true republic as distinct from other organizations of society. Societies based on Anglo-Dutch Liberalism, for example, are typical of cultures morally inferior to our own constitutional order, and are not actually republics in the specific sense of the U.S. Federal Constitution. This feature of our Constitution is to be recognized as the same anti-Locke principle of Gottfried Leibniz, which the circles of Benjamin Franklin, Thomas Jef-



person's mentor for that occasion, introduced to the U.S. Declaration of Independence as "the pursuit of happiness."<sup>16</sup> These and kindred connections are most notable for their bearing on the design of policies of economic recovery urgently needed for our acutely troubled U.S. economy today.

As I have written in the preceding chapter of this report, the U.S. economy was founded, not on the premises of the British (Anglo-Dutch Liberal) monetary doctrines, but on the notion of Leibnizian physical economy. For example, our U.S. constitutional policy respecting the nature of money, was already implicitly expressed in a practice introduced during the pre-1689 Massachusetts Commonwealth. Leibniz's "the pursuit of happiness," represented, for us, a concept which had been introduced to Massachusetts earlier, by Cotton Mather and Mather's young follower Benjamin Franklin, both of whom used the expression "to do good," with the same type of connotations as Leibniz's "pursuit of happiness."

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16. That expression, "the pursuit of happiness," was taken by the founders of our republic from Gottfried Leibniz's *New Essays on Human Understanding*. The work in which that expression was located for Franklin et al., had been written by Leibniz as an intended part of his ongoing literary debate of principles with John Locke. Locke's death held back the publication of the *New Essays* by Leibniz at that time. However, later, German circles associated with the leading teacher of mathematics of that time, the German Abraham Kästner, had caused this Leibniz text to be forwarded to Franklin via London. There were problems in the initial delivery, but the work reached Franklin later.

This work represents a significant element in the entry of Leibniz's work on politics, and from his founding of the science of physical economy, in 1671-1672, into the later shaping of those features of the U.S. Constitutional system of self-government and economic policy reflected in the work of Alexander Hamilton. These connections to Leibniz's work played a crucial, leading role in defining the U.S. Federal Constitutional system, as in direct and total opposition to the thinking of English empiricists such as John Locke.

A.G. Kästner was born in 1719, in Leipzig, thus, shortly after the death of Leibniz. As some relevant biographical details are now rather conveniently available to researchers in the work published, with Johann Ehrenfried Hofmann's foreword, in a 1970 reprint edition of Kästner's *Geschichte der Mathematik* (New York: Olms, 1970): Kästner was the son of a Leipzig University Jurist, who became, in turn, an extremely influential figure of his time, both as a mathematician, but also as an important figure in the revival of Classical culture in Europe. Kästner, who adopted a lifelong dedication to defending the principles of the work of Leibniz and Johann Sebastian Bach, is otherwise famous as the teacher and friend of the Gotthold Lessing who, together with Moses Mendelssohn, launched the cultural movement which made European support of the American cause possible.

Kästner's academic career eventually brought him, as Professor in Mathematics and Physics, to Göttingen University, where he became the host for a visit there by Benjamin Franklin. Kästner, as the founder of an explicitly anti-Euclidean modern geometry, is otherwise famous in the history of mathematics from his part, together with Zimmerman, as among the key figures in the education of Carl F. Gauss. Unfortunately, Hofmann's representation of the issues of Kästner's defense of Leibniz, against the hoaxes of the Euler, d'Alembert, Lagrange, Laplace, et al., is a factitious concoction, directly contrary to fact, as this is shown by the fact that Kästner student Carl F. Gauss demolished the Newtonians on the issues of their method, in Gauss's 1799 dissertation, a dissertation on the subject of what was later retitled as his first version of *The Fundamental Theorem of Algebra*.

Unfortunately, the tendency among our political illiterates today, has been to read "pursuit of happiness" as the embrace of a hedonistic principle. Given the ideology prevalent among the victims of indoctrination in what we can strictly define as "Baby Boomer" ideology today, the fact of the current preference for hedonism, over the common good, should not astonish us. In reality, "pursuit of happiness" pertains to the anticipated outcome of our having lived, rather than the immediate, hedonistic experiences of the living. Our "Baby Boomer" generation has been, predominantly, of the hedonist and Sophist persuasions, which, in the presently more advanced age of the members of that generation, tends presently toward expressions of distaste, even enmity against the young adults of today, young adults of the same age-range which fought and, largely, led the American Revolution and the formation of our national Constitutions, of 1776-1789.

Practically, "the pursuit of happiness" pertains to a mortal individual who lives, by conscience, in anticipation of that outcome of his, or her life, a conception of outcome which would meet the tests of immortality: "What will my life, as lived, do for the benefit of the future of mankind?" or, a child's "What will I be when I grow up?" Good deeds as such are not sufficient; we do good when we pledge to the future: "What necessary principle will our dedication promote on the future's behalf?"

All genuine development of personal moral character depends upon the considerations which enter into the individual's ability to defy the prospect of torture, such as torture intended by Vice-President Dick Cheney's policy, and to defy death itself: "Do what you will, you brutes, to my body. Falsely imprison me? Torture me? Kill me? Your ministry of pain can not take my immortal soul away! You will not make me a vengeful, Hobbesian beast, as you, for example, appear to have become!" So, Jeanne d'Arc triumphed, at a later council of the Catholic Church, and also through the monarchy of France's Louis XI, already during that same century, a triumph, thus, over a tortured death at the hands of the brutish English chivalry.

For the founders of what became our republic, who were chiefly Christians (despite the poor moral quality of some of their neighbors in the colonies and republic during relevant past times), they were seen by themselves as persons who, like the devout Christian ecumenicist Leibniz himself, held to the notion of "the pursuit of happiness," as Leibniz defined it in opposition to Locke; it was, for Leibniz and for our republic's founders, an expression of the most deep-rooted certainty respecting the relationship of the mortal individual to the immortal personality participating willfully in the Creator.

The connection of such reflections on the roots of our U.S. Federal Constitution, should be clearly seen as bearing very much on the issues of our topic of capital budgeting. People whose moral outlook does not look beyond the mortal issues of hedonistic pleasure and pain, have no efficient passion in



the matter of those decisions which are the principal concern of persons sensible of the importance of their own souls. Therefore, they have no serious commitment to their contribution to the future.

Thus, people whose moral development has not risen to the level represented by the U.S. Declaration of Independence's "the pursuit of happiness," and submission, on that account, to the authority of the Preamble of our U.S. Federal Constitution, lack an effective conscience respecting the efficient realization of the future, and, therefore, tend toward the so-called "hedonistic principle." The morally crippled among us, have leaned toward the utilitarianism of the frankly pro-Satanic leader of the British Foreign Office's "Secret Committee," Jeremy Bentham. Like Aaron Burr, the New York banker who was a protégé of the British Foreign Office's spy-master, Bentham, they can not be trusted with matters pertaining to the life-and-death issues they might bequeath to future generations, to our posterity.

The truly existential crisis which has now overtaken our United States, requires intentions which rise above, and reject the passions which have governed our national trends in economic and related practice, increasingly, over, most emphatically, the recent three and a half decades. This correction must now be made among our citizens and other relevant persons. The future existence of our nation, and the meaning of your having lived, after you are gone, depends upon finding that quality of commitment within yourself.

### The Case of Poor Myron Scholes

The most crucial of the practical questions posed to any thoughtful person, is that posed by locating morality in respect to the issues of the commitment of our present experience of living, that within the context defined as *the outcome of what we do, now, for reason of the future, rather than as reaction to the experience of what has apparently occurred until now.*

Consequently, the crucial question is posed by merely asking, "What is that future?"

There are two mutually irreconcilable ways of treating the meaning of "future" in that frame of reference. One, intrinsically incompetent approach, is the statistical outlook, which is in accord with the attempt to see the future as determined, as if statistically, by presently operating principles, rather than seeing the future as a change in course imposed by the onrush of new kinds of principled operating conditions. The only competent approach is that which I have presented in earlier pages of this report; for example, as the approach of the competent method of scientific inquiry which is to be traced in European culture from the standpoint of that Pythagorean method taken, in turn, from the starting-point of Egyptian astrophysics, *Sphaerics*. This I have defined above as the same method which the follower of Nicholas of Cusa and Leonardo da Vinci, Johannes Kepler, displayed in his uniquely original creation of *a systematic structure for modern physical science considered as, implicitly, a whole exploration of a single,*

*finite but unbounded universe.*

The defective approach, as typified by René Descartes and his followers among the professed "Newtonians," is the mechanistic-statistical method, that premised on a modern, empiricist, virtually "flat Earth" reading of the precedent of Euclidean *a priorism*.

Consider the notorious incompetence of the mathematical method of the Myron Scholes and Robert Merton associated with the authorship of the August-September 1998 financial catastrophe, and the present resumption of a far vaster echo of that 1998 crisis. This 1998 development was and is a crisis based on a current persistence of the same silly system as that of Scholes and company, in the world system as a whole today.<sup>17</sup> This experience warns us that the way in which currently hegemonic economic dogma views and prescribes for the world at large, is a systemically deadly kind of incompetence, incompetent respecting its portent for civilization as a whole. It represents the kind of corrupted thinking about economics which should be studied only from the standpoint of the relevant quality of mortician, and never permitted, ever again, to infect human life!

The morbid, statistical method expressed, typically, by Scholes and his dupes, is otherwise derived from the legacies of the Physiocrats and their Haileybury School followers; it is the corollary, in method, of a radically reductionist view of the Cartesian method. This was a method, derived from ancient Euclidean sophistries, but which had learned to speak British—or, were it "Brutish"?—at the feet of René Descartes. This is also the English copy-cat of Descartes, called "Newtonianism." In other words, the economics behind the chronic follies of the work of Myron Scholes, is a radically positivist version of the same incompetent method, the mechanistic-statistical method, derived from the failed physics of René Descartes.<sup>18</sup>

17. Myron Scholes was identified as a co-author with Robert Merton, of the Black-Scholes formula, on whom technical credit for the 1998 LTCM catastrophe was bestowed. The Black of the Black-Scholes formula was the Fisher Black who died in 1997.

18. The introduction of what became known as Newton into the ideological follies of the British Isles, was accomplished by a Paris-resident Venetian cleric in the Paolo Sarpi tradition, a fellow known as Antonio Conti. Conti, an avowed worshipper of Descartes, sought to find a way in which to bring a mental disease, Cartesianism, from France, into an England which, officially, usually hated everything French at that time. To this end, Conti's English accomplices selected a poor dabbler in black magic, Isaac Newton, as, so to speak, their "pigeon." (Later opening of the chest of papers of Isaac Newton, under the direction of John Maynard Keynes, revealed a lunatic asylum's worth of black magic and similar stuff, but no traces of actual scientific work! Keynes, after revealing the horrid stuff so uncovered, denounced the contents of the chest as lunacies worthy of the Babylonian priesthood—and, actually, the loan-sharking, Pythian Delphi Apollo cult of Gaea; he suggested that the chest be closed forever.) There is no proper mystery in this; the fractured forgeries of selected work from Kepler et al., had actually been done by teams, based on frauds by Sarpi's lackey Galileo, and included the toils of figures like Hooke. By the ruse of assigning authorship of what was allegedly Newton's work to a scientific idiot such as Newton himself, they had selected

Real economic processes are *dynamic* in the sense of ancient Pythagorean *Sphaerics*, *dynamic* in the sense of the method of Cusa and Kepler, and, are, therefore, premised on conclusive proof, against the folly of Cartesianism, a proof provided by Leibniz's introduction of the ancient principle of *Sphaerics*, *dynamics*, into modern physical science.

Before continuing with that argument itself, it is almost certainly necessary, for the purposes of typical readers of this report, that I interpolate some words of caution here, on a relevant aspect of scientific method.

Throughout this report, thus far, I have repeatedly emphasized the crucial distinction which must be made, in the domain of mathematical statements about science, between merely formal and actually ontological conceptions.<sup>19</sup> This acquired habit of mine, was first developed, in germ-form, in my mid-1930s devotion to Leibniz, and was crucial, later, for both what I adduced from the portions of the work known to me by Academician V.I. Vernadsky, and in the way in which I developed a more advanced approach than earlier, to a science of physical economy which I had adopted from the starting-point provided by what I had learned from Leibniz beginning the mid-1930s.

As I have already emphasized, in preceding sections of this present report, all approaches in physical, and social science, must proceed from a top-down, rather than bottom-up approach. This approach, which I have adopted from among the relevant authorities which I had considered from over a span of no less than about three thousand years before me, requires a top-down view of the superior functional role of discovered universal physical principles, as this view is to be applied to the domain of activity to which those notions themselves are applied. Vernadsky's allotting of physical ex-

perience to three qualitatively distinct phase-spaces, including the separation of life from non-life, and human cognition from mere biological experience in general, typifies this approach. This applies, in broad terms, to the entire sweep of the subject of physical economy as a distinct ontological category of investigation. It is key to understanding development within the context of economy in general.

In each case, the ontological distinction of the physically efficient phase-spatial separation of two domains, by a universal principle, defines, and bounds the subsumed domain as a whole.

These boundaries, which define the outer limits of a phase-spatial process, are the primary subject of reference for any competent attempt at forecasting with any system which may be defined as dynamic in its relevant set of principled characteristics.

This is in contrast to the mechanistic-statistical approach of most taught and practiced, but defective economics doctrine today. That defective approach is one which seeks to define possible discontinuities of a process, by extrapolation of percussive (e.g., statistical) interactions. In the real universe, as opposed to what is still, presently, the usually taught economics, it is the boundaries of the dynamic quality of phase-space which acts upon the process, rather than the reverse, mechanical, statistical approach on the phase-space. This has been the "secret" of my personal success in long-range and related economic forecasting since my first "trial run" of this approach for what I forecast as a near-term recession, in 1956. This is also the reason why I never, since that time, make the mechanistic-statistical types of forecasts commonplace in generally accepted academic economics dogma today.

Human society, to put the emphasis in the right place, is a reflection of the human will, a reflection which includes actions of a quality absent from the animal kingdom, absent from any domain associated with the methods of Bertrand Russell's dupes Professor Norbert Wiener and John von Neumann. In society, there is no inevitable quality of consequence to be rightly associated with the usual attempt at prediction. As long as people are human, every forecast has a set of "maybes" attached to it; otherwise, without those expressed "maybes," it is simply incompetent, or worse. All forecasts premised on a "take a number from one to ten," reveal a forecaster, or questioner, who is to be compared with Kant's reference to the old quip about the one man attempting to milk a he-goat, while the other holds the sieve.

So, competent forecasting rejects what are, today, the usually incompetent opinions on the subject of the powers, and also falsely presumed lack of powers, of the human will. What actually bounds a social process, are the limits defined by the discoverable universal physical principles which are operating in that theater of interaction between the voluntary role of society and the physical universe with which society's actions are interacting. It is the universal physical principles operating

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a person who represented no potential for uttering any actual explanations for his alleged discoveries, and thus kept scrutiny of the fraudulently alleged discoveries by Newton out of reach of a public scandal. The principle so expressed, is that if some mountebank claims that a plastic dummy has made a great discovery, there is no danger that that dummy will say something to embarrass those who made relevant claims on the dummy's behalf. Nonetheless, it was Cartesian convert, the Venetian Conti himself, who, with the help of Abraham de Moivre and d'Alembert, kept the Newton hoax going among salons proliferating on the continent of Europe, through, and beyond Conti's own death in 1749.

19. Typical was my experience in my 1941 reading in parts of Princeton's Luther P. Eisenhart's standard text on Riemannian physics, which put me off closer examination of Riemann's work until 1952-1953, when I was driven back to Riemann by problematic features encountered in what had been my impassioned study of the often brilliant 1880s, but also the flawed 1890s work, of Georg Cantor. My own association with the role of technological transformations of the production process, "at the point of production," which had impelled me to denounce the notions of "information theory" of Norbert Wiener and John von Neumann as ontologically frauds, were crucial in my settling upon Riemannian method. My 1952-1953 reflections on my earlier experience with Eisenhart's text impelled me, then, and since, to put the greatest emphasis on the absolute quality of functional distinction between mere mathematics, and the often superficially similar mathematics whose object is primarily ontological in efficiency, rather than essentially formal.

as characteristics of a system, which are the boundary conditions which act upon the wills of society, and which in that sense, and only in that sense, and only in that way, define what can be “predicted,” and in what way.

To restate and summarize this point, we have the following.

Actual physical economies are dynamic processes, not mechanical-statistical processes. That means, among other considerations, that a forecast is implicitly Keplerian, in the sense, both of the notion of an orbit, and, the proof of the test of the equant, that the universe is not simply repetitive, but bounded by higher universal, physical principles which give an ordered character to the evolution of the universe, or any of its phase-spaces, as a whole.

Therefore, in any competent forecast, including a serious sort of economic forecast for a system as a whole, it is the principle governing the “orbit” of that immediate system, which acts upon the system, to define a certain kind of boundary condition. As the system’s evolution approaches that boundary condition, the behavior of the system is changed by that approach, which proceeds, in turn, to a limit, beyond which the system can not continue in its present form. At that point, either the system will be changed, or it will break down.

That consideration represents the presently little known, most essential feature of any system of long-range economic forecasting. We shall consider that matter here, again.

### Economists With Sick, Sick Minds

There is a second ontological paradox associated with the rabid quality of incompetence reflected in the Scholes case. Scholes has merely carried to an extreme, the view of radically reductionist forms of Cartesian statistical method which is congruent with the tradition of such exemplary hoaxsters as Bernard Mandeville, François Quesnay, Adam Smith, Jeremy Bentham, and the British Haileybury School generally.

As Smith argued for the impossibility of scientific forecasting, in his 1759 *The Theory of the Moral Sentiments*:

“... The administration of the great system of the universe . . . the care of the universal happiness of all rational and sensible beings, is the business of God and not of man. To man is allotted a much humbler department, but one much more suitable to the weakness of his powers, and to the narrowness of his comprehension; the care of his own happiness, of that of his family, his friends, his country. . . . But though we are . . . endowed with a very strong desire of those ends, . . . it has been intrusted to the slow determinations of our reason to find out the proper means of bringing them about. Nature has directed us to the greater part of these by original and immediate instincts. Hunger, thirst, the passion which unites the two sexes, the love of pleasure, and the dread of pain, prompt us to apply these for their own sakes, and without any consideration of their tendency

to those beneficent ends which the great Director of nature intended to produce by them.”

Smith is relatively tame stuff, at least in what he was willing to expose about his inner self, when compared with that age of Walpole and the rampant Liberalism expressed by that frankly satanic Bernard Mandeville, as the legacy of Walpole is usefully portrayed for our reference today by Hogarth’s elegant manner of treatment of the inherently inelegant.<sup>20</sup>

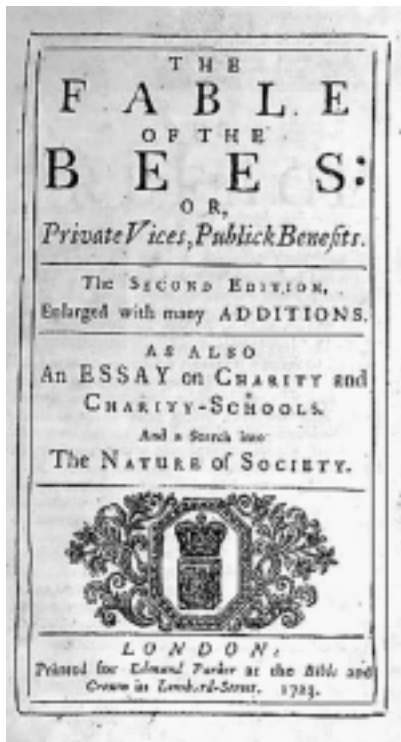
Mandeville’s doctrine, as presented in his *The Fable of the Bees*, is that the frankly immoral must be given license in the interest of public benefits which, according to him, only corruption promotes. We have experienced this, with the help of the contemporary Mont Pelerin Society and American Enterprise Institute, in the promotion of sundry expressions of gambling as a replacement for production of the wealth on which nourishment and medical care depend: crime, organized and otherwise, is regarded, thus, as being mysteriously the magical source, arranged by those curious creatures operating from under the floorboards of reality, of results arranged as the outcome of the casting of the dice above, as if by the presumed magic of chance, to make some men rich, and doom the innocent.<sup>21</sup>

Smith’s explicit precedent for his line of argument was that of the Physiocrats Dr. François Quesnay and A.R. Turgot. Compare Quesnay’s argument with that of Mandeville. Correlate Quesnay’s argument with Smith’s 1759: “. . . the love of pleasure, and the dread of pain, prompt us to apply these for their own sakes, and without any consideration of their tendency to those beneficent ends which the great Director of nature intended to produce by them.”

Quesnay’s argument is implicitly identical to the “cheap labor” injunction of the Olympian Zeus of Aeschylus’ *Prometheus Bound* against the accused Prometheus: the mere mortals, such as the lower classes in service to the feudal nobility, must not be informed of principles of the universe existing beyond the intellectual reach of their assignment to exhibit no more than virtually animal “instincts.” Similarly, for Quesnay, the serfs and the like on the feudal lord’s estate, must enjoy the same order of conditions of life and comfort afforded to useful cattle, but have no moral claim to the product of the estate beyond that. What the apprentice of British economy, Karl Marx, regarded, credulously, as the “surplus value” generated by the Physiocratic estate, was attributed by Smith to the implied magical powers of the feudal lord’s title to that estate: just as Smith makes the same argument for the magical powers of “property per se,” in the cited excerpt, and as his predecessor, the putative father of the Mont Pelerin Society, Mandeville, attributes the source of public good as

20. Cf. H. Graham Lowry, *op. cit.* (note 12).

21. So, in the same spirit, the wicked Galileo specialized in statistical advice to a clientele of compulsive gamblers of his time.



MONT PELERIN SOCIETY



*The immorality of Bernard de Mandeville's "The Fable of the Bees or Private Vices, Publick Benefits" is exemplified today by the Mont Pelerin Society and the American Enterprise Institute, which promote gambling as a replacement for productive labor.*

the harvested fruit of private vices.

Here, we should recognize the echo of that fraudulent argument by Euclid's *Elements*, in favor of "self-evident," *a priori* definitions, axioms, and postulates.

Contrast these referenced arguments from the repertoire of the Anglo-Dutch Liberal cult, to my treatment of the implications of anti-entropy, as I have identified these in the preceding chapter of this report. The power of mankind to increase the potential relative population-density of the human species, is derived from a capability which is unique to mankind, among all known living species. Hence, if we were to encounter a living species in the universe with the kind of capability unique to mankind on Earth, that hypothetical species would tend to think *naturally* as we do, exhibiting the same kind of anti-entropic power of organizing the development of its societies through the discovery and employment of universal physical principles, and would have the same relationship to the Creator as does the human species. *It would, more probably, be a representative of the universal human species as we know that species, as a species, here, today!*

What Scholes' approach reflects, is the attempted substitution of a monetary-financial system per se, for a physical economy. I had presented a relevant forecast in a graphical form of representation at the beginning of my campaign for the Democratic Party's Presidential nomination, in a public address delivered in January 1996. For that occasion, as also later, I illustrated my argument by presenting what I identified as a "Triple Curve," depicting a paradoxical relationship of

rates of change among monetary, financial, and physical-economic curves for the U.S. economy (see **Figure 3**).

This figure did not present data, but the general nature of the principled set of physical-geometrical relationships among the three elements: an accelerating downward rate of emission of net physical product, per capita and per square kilometer; and, an accelerating rate of monetary emission used to support an increasing financial flow, despite the accelerating decline of physical output. During 2000, I introduced a modified version of that illustrative figure, which took into account the tendency of the required rate of monetary emission required to sustain apparent financial expansion, combined with an accelerated rate of decline of the physical economy, per capita and per square kilometer (see **Figure 4**).

Since the 1971-1972 termination of the Bretton Woods, fixed-exchange-rate monetary system, there has been a subsequent, accelerated rate of physical

decline of the U.S. economy, a decline caused by the Trilateral Commission's program of "controlled disintegration" of the U.S. economy, a decline largely associated with sweeping, and deep-going measures of "deregulation." The collapse of the U.S. physical economy, per capita and per square kilometer, has shown itself most clearly, in physical terms, in the increasingly ruined, objective conditions of life of the lower eighty percentile of family-income brackets. This must be contrasted with public subsidies, as through tax-bonanzas to the upper three percentile and the health-care-management system, of apparent, but usually, morally unearned profit, such as those taken as "golden parachutes," and otherwise, in the upper-income brackets.

The combined effects of this were somewhat hidden from view by two factors. First, the fact that the physical losses to essential public and private capital-formations were either partially or entirely hidden in statistical national-income and product accounting, and, second, that the reporting on the economy by the combined efforts of the Federal Reserve System and Presidency, were frankly fraudulent, often wildly so, over the period since about 1982.

In effect, the U.S. economy had become, essentially, more and more, a financial-monetary bubble-economy. On this account, what "the market" came to assume, prior to October 1998, was the delusion that the bubble-economy was the real economy. Financial and monetary speculation in the tradition of the early Eighteenth Century's "John Law"-style monetary-financial bubbles, had been adopted as a substitute for

FIGURE 3

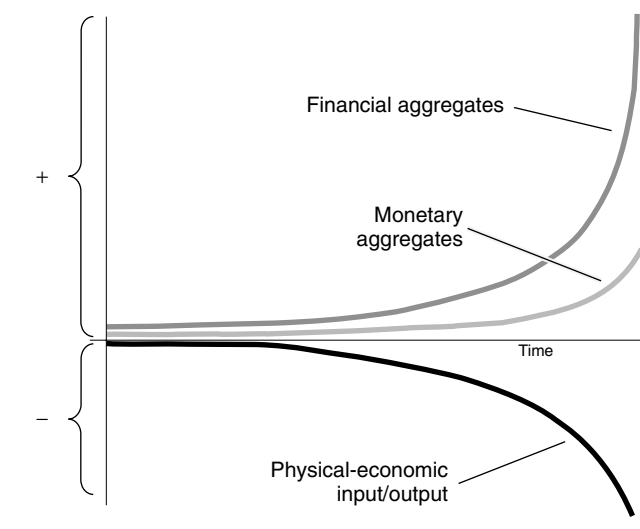
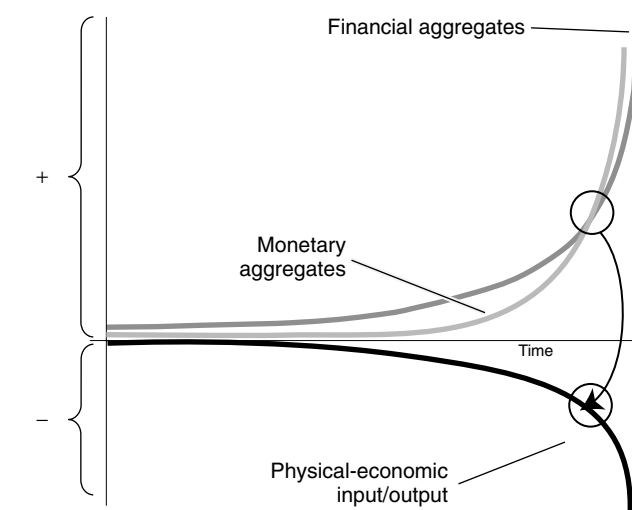
**LaRouche's Typical Collapse Function**

FIGURE 4

**The Collapse Reaches a Critical Point Of Instability**

*LaRouche's Triple Curve graphics present the principled set of physical-geometrical relationships among the three elements: an accelerating downward rate of emission of net physical product, per capita and per square kilometer, and an accelerating rate of monetary emission used to support an increasing financial flow. In short: a bubble ready to pop.*

the image of a real, physical economy.

The Enron swindle, and the ensuing rampage of “hedge fund” bubbles internationally, marked the combined aftermath of the 2000 collapse of the “Y2K” “information age” bubble, and its being superseded by what has become the presently hyper-explosive, “hedge fund” bubble. The explosive state of the related real-estate bubbles of the U.S.A., Britain, Spain, et al., is to be considered as an inevitable effect of attempting to create an illusion of net growth under conditions of hyperinflationary speculation in what is otherwise an accelerating rate of decline of the relevant physical economies, that under the state of hyper-instabilities inherent in the yen-based “carry trade.”

Unless there is a rather immediate, radical, Franklin-Roosevelt-style reform-in-bankruptcy of the combined international monetary system and financial system, the planet as a whole is presently on the brink of a general, chain-reaction collapse into a more or less prolonged, and deep “new dark age” of the type which modern history associates with the Fourteenth-Century collapse of the House of Bardi.

What should have happened as a reaction to the GKO bubble, in September-October 1998, but did not, would have been a general reform of the monetary-financial system then. Such a reform was mooted by President Bill Clinton and his Secretary of the Treasury, but the threat of impeachment, on constitutionally frivolous premises, impelled the Clinton Administration to back away. The difficult postponement of the GKO-speculation crisis was managed, but at a terrible

price, a price reflected in the developments beginning with the mid-2000 demise of the Y2K bubble. Since the November 2000 U.S. general election, the U.S.A. economy has been careening toward presently impending free-fall-like conditions, with the present world monetary system ripe for a blow-out, should the dollar crisis reach the degree of collapse which should be, ordinarily, expected within the span of a few months ahead.

Only a comprehensive monetary and financial reform, of a type which could not be initiated except by the U.S.A., could now prevent an earlier careening of the world at large into a kind of chain-reaction collapse culminating in the early arrival of a planetary new dark age.

It could, and should be said, that the relevant institutions of the world at large, have either failed, or simply refused, on the wishful premises of “No! No! No! It can’t be true!”, to learn the lesson of Europe’s mid-Fourteenth-Century plunge into a New Dark Age.

**The Monetary System**

The idea of a system of value as associated with a money-system, is a hoax and a delusion. Value lies only in the physical form of the economic process as a whole. However, the organization of the combined effort of the society as a unit, requires a system of regulation which guides the participating members of the society in the direction of the desired, combined, future effect. This is required, to the end of promoting the development of the process, as a whole, for both the pres-

ent and future benefit of the population as a whole, in effect.

The required system of micro-management of the small, for the sake of the future advantage of the whole, relies largely on a system of credit which subsumes a money-system. The astonishing, world-shaking success of the system of regulation instituted under President Franklin Roosevelt, provides excellent illustrations of the way in which a modern credit-system may provide the means for channeling individual initiatives to the needed effect on the future condition of the society as a whole. During the 1950s, this sort of regulation in the small for the sake of the whole, was known by such titles as the “fair trade,” as opposed to “free trade,” system. If the U.S. is to outlive the presently onrushing financial-economic storms in progress, a return to the “fair trade” concept must be instituted now.

In other words, *the successful management of the present in the small, must proceed from an efficient comprehension of the future destination to be approached.* Society must know the boundary-condition which encompasses the present economic and related systems, and be guided by navigation focussed upon that quasi-astrophysical boundary-condition of negotiation in physical space-time, rather than by the incompetent mechanistic-statistical, implicitly flat-Earth forecasting methods derived from the failed dogmas of Descartes.

A “fair trade” system, so defined in respect to known boundary conditions, requires a relatively fixed-exchange-rate monetary-financial system. Predominantly, the boundary conditions are defined in terms of the relevant scientific principles which determine new technologies and their processes of development.

This fixed-exchange-rate rule is needed to ensure that the effective rate of financial charges on essential long-term investments in progress, must be lower than the tolerable margin of return on investment derived in the process of production and distribution of essential goods and services. For, if currency values fluctuate, this fluctuation, in and of itself, will prompt effective interest-rates and related charges to creep upward, with the effect of tending to ruin the economy at large.

A balance must be struck, in favor of physical rates of return on long-term capital investment in production and basic economic infrastructure, while allowing a reasonable charge for credit uttered by the banking and related financing systems. In other words, the standard must be set to conform to the needs and goals of a producer society, rather than the presently reigning moral and economic decadence of a rentier society, the economic decadence typified in the extreme by the former Enron and the present pandemic of hedge-fund swindles.

In our history, the needed balance has been best supplied by aid of commitment to national banking systems, as providing the framework within which private banking operates. Currently, this reform is needed to deal with a situation in which the Federal Reserve System as a whole is, virtually,

hopelessly bankrupt, and must be placed in Federal receivership, under Federal management, to ensure the essential, uninterrupted, functional role of the private banking system. We can not permit a collapse of the credit system, but must actually increase the supply of carefully directed credit-issuance supplied to ensure net physical growth of productive employment and output, per capita, and per square kilometer, throughout the nation as a whole. Federal protection for the essential elements of the private banking system, is now indispensable, if a deadly, uncontrollable panic, is to be prevented.

The credit-system created to cope with the present crisis, must be a long-term system, intended to operate within a global, fixed-exchange-rate system, and that over a forward period of about two generations: fifty years. This would be established as a kind of echo of the intended objectives of the original Bretton Woods system, with suitable adjustments of design to fit both contemporary and visible forward conditions.

The global objective, as much as national objectives of the new monetary system, is to bring the level of global physical productivity up to a standard at which the system as a whole is stabilized through an assured level of continued net growth throughout the component elements of nation-state economy, and at which the level of physical productivity, per capita and per square kilometer, among the nations, permits increased and stable reliance on local systems for short-term and medium-term programs of activity. The level of physical productivity and standard of living in the constituent nations, must be brought upwards to a level of durable parity; large margins of inequity among, or within the population of nations, have the effect of serious diseases, with spreading social and other problems attached.

In sum, approximately two generations would be required, even under favorable conditions, to bring a global system of respectively sovereign nation-states, up to a level at which the carried-forward present deficits, and related defaults of the present world system could be brought comfortably under control, and resolved, without aid of further special restraints. Such is the current debt which only a happier future could repay.

The required measures of transition and development, over the coming half-century, neither require, nor tolerate repressive systems affecting the lives of ordinary citizens, productive entrepreneurs, and relevant professionals. Apart from efficient management of public and related large-scale credit, it were broadly sufficient to emphasize the regulation of the monetary and taxation systems, and promotion of “fair trade” policies. The function of the central government’s role in the direction of the economy, should be the maintenance of a set of reliable and stable monetary and financial systems, through the aid of the functions of “Hamiltonian” national banking, and tariff and taxation policies; and, through the role of the Federal and state governments, chiefly, in the promotion of that development and maintenance of the public infra-

structure which should represent, under present conditions, about half of the annual total capital investment in the U.S. economy as a whole.

These new directions in policies must be made now in three principal ways: 1.) Emergency action to stabilize and maintain otherwise, already implicitly bankrupt present monetary-financial institution and systems of the U.S.A. and other nations. 2.) Mobilization of large masses of public credit at low borrowing costs, to shift the labor force's role away from low-value services employment and outright unemployment, into increasing emphasis on both physical production of goods at modern, progressive technological standards, with the related remedying of the vast dearth of essential basic economic infrastructure which has been created over the recent thirty-five years. 3.) The negotiation of a system of international treaty-agreements, covering a forward period of up to a half century, and employing low borrowing costs within a fixed-exchange-rate monetary system, with emphasis on the leading role of great infrastructural and related projects for building up the potential level of productivity, per capita and per square kilometer of the planet as a whole.

This is the true American way, which we have inherited from the founding and earlier development of our republic. This is the historic mission of our U.S. republic in service to the welfare of future mankind. This is the mission, under the natural law, expressed by the Preamble of our Federal Constitution, which our constitutional republic was created to serve in the interest of all mankind.

That much said thus far, we must now focus our attention on the broader array of essential tasks for which our economy must now be mobilized. I number these, to assist the reader in viewing the array of these tasks as an integrated single mission-orientation for the dynamics of recovery.

### **A. Basic Economic Infrastructure**

In all that is written here, the economic policies we are considering as healthy, are premised on the conception of a dynamic system. Always, ancient Greek dynamics, the work of Kepler, Leibniz, Riemann, and also Vernadsky, are assumed to be the context in which analysis and proposals are situated. Therefore, in all that is written, the target of our attention is the transformation of the planet (and, implicitly, also the Solar System we inhabit) as composed of three general phase-spaces: the abiotic, the Biosphere, and the Noösphere.

The principal actor we are considering, is the cognitive (i.e., creative) processes of the individual human mind. The human mind, acting through living persons, affects a.) the Noösphere which mankind's actions are transforming, hopefully to a higher dynamic state; b.) Man/Society acts on the Biosphere which we are managing, and developing in its role as a Biosphere; and, c.) Man/Society is acting on the relatively "pre-biotic" processes of our planet. Our view of the interaction among these phase-spaces, is implicitly Riemannian dy-



U.S. Bureau of Reclamation

*Under Franklin D. Roosevelt, the U.S. built huge infrastructure projects, like the Hoover Dam, which employed 21,000 men. Today we need to make use of the higher energy flux density of thermonuclear fusion to develop new resources.*

namics, in which each development is interacting with the others, to define a specific physical space.

No mechanical-statistical consideration is substituted functionally for those dynamic considerations.

Our general principle for policy-shaping, is that we must, in effect, be raising the level of anti-entropy of the combined system as a whole, but we must assign preferences in the order of: a.) the individual human mind's creative processes; b.) the Noösphere; c.) the Biosphere; d.) the "pre-biotic" planet and Solar System. The principle which defines that order is the consideration that it is the human individual creative mind which drives the development of the Noösphere; it is the development of the Noösphere, which drives the development of the Biosphere; and, it is the development of the combined Noösphere and Biosphere, which drives the abiotic development of the Solar System and our planet. Such is the conceptual framework in which the notion of the dynamics of economy is posed. Man in the universe is the center of the process, which drives the role of the system of society's development within that universe.

The driver of the dynamic system so defined, is the increase of the power expressed by the development of the

creative powers of the individual human mind, which makes all other contributing goals possible. Thus, the role of development, as in terms of the Biosphere and abiotic domain, in fostering the increase of the effective creative powers of mankind per capita and per square kilometer of the Earth's surface, is the reciprocal, physical-economic goal of the development of the dynamic system as a whole.

Take the illustrative case of nuclear-fission and thermonuclear-fusion-typified technologies.

The function of primary sources of power in the universe so defined as a dynamic process, is typified by what we may term, as if by crude rule of thumb, as the relative "energy-flux density" of the power-source (e.g., per square centimeter cross-section). The greater the "energy-flux density" of the mode, the higher the quality of effectiveness of the power source. Thus, fission power is superior to chemical power, and thermonuclear fusion is orders of magnitude higher than nuclear fission.

These two categories of technologies are crucial now, for reason of the increase of needs for "synthetic" generation of sources of potable water, through both depletion of fossil-water sources, and increase of both population and of current human consumption requirements per capita. There are numerous other needs. The domain of thermonuclear-fusion technologies, enables us to manage other resources, and create new qualities of such resources, and also opens the gates to qualitatively higher productivities.

The increasing of plant growth, especially tree growth, is also a general good which must be promoted because of rising human needs, and also the need for continuing qualitative progress in the physical productive powers of labor per capita and per square kilometer of the Earth's surface.

We must also consider the need to remedy functional disorders which have risen within the organization of society as in the U.S.A. in particular, during the period since the close of World War II.

Speculative financier interest has ruined the organization of our cities, towns, states, and countryside generally. We no longer have an efficient network of convenient mass-transport of passengers and freight, and have passed over from what was a relatively superior and more efficient use and development of land-area, and of management of essential resources such as freshwater aquifers. We create counterproductive congestion in sprawling megametropolises, while imposing economic ruin, and even virtual desertification on formerly prosperous regions.

The shift into outsourcing, and replacing the closely held smaller productive enterprise with great combines, has ruined the U.S. economy, and the lower eighty percentile of our family household income-brackets, most notably, since about 1977, and has contributed in various ways to the collapse of the physical economy of the U.S.A., while increasing the financial cost of living, relative to household incomes for those same categories, and also, now, even relatively higher-

income categories.

By every physical measurement of the standard of living, as distinct from clearly questionable financial measures, the U.S. economy has been ruined by the trends in policy-changes made since the latter years of the 1960s, and, emphatically, since 1971-1972. These problems were neither natural, nor historically predetermined, but, predominantly, the result of defective trends in the making of national and global policies.

It is imperative that we return to a technologically modernized restoration of the proven superior policies of practice of the pre-1966, and, in many categories, earlier dates. The better use and development of land-areas of our national territory, through increased emphasis on decentralization through promotion of technologically progressive forms of closely held enterprises in physical production, and a balanced diversity of such enterprises in each area, must accompany a deemphasis on transnational megacorporations which lack a motive of community interest in local enterprise.

Contrary to doses of mythology combined with foolish propaganda, the promotion of the highest technologies is frequently based in relatively smaller, closely held enterprises, on which clumsier, larger corporate giants depend for essential technologies. It is also a matter of service to several aspects of national security, that our nation command scientific and technological capability in depth, embedded within the pores of our society and its territory, rather than concentrated in large corporate super-enterprises which have been subject to looting by the fanged and wild-eyed, hyena-like predators of rabid financial appetites with no regard for the intrinsic self-interests of nations and their peoples, including our own.

## ***B. The Development of People***

We must create meaningful opportunities for employment. The immediate pressures to this effect are seen in the wasting and demoralization of increasing rations of our general population, especially among the poor, but also more widely. Supplying jobs as a source of income for living, is necessary, but does not address the deeper systemic problem. A nation is not a labor market. A sovereign nation-state, which the Preamble and associated features of our Federal Constitution prescribe, provides for the development of people as people, a people which participates in the maintenance and development of the conditions of life and progress for its people and territory as a whole. What is most important for the citizen as a citizen, is a meaningful role in life, a life which has merit for the benefit of coming generations.

The most essential quality of a nation, is the determination of its people to respond to challenge by mustering themselves to ensure that the nation and, especially, its posterity survive, and hopefully, progress to honorable and memorable achievements in present and future generations. Of late, that quality of our people has waned, and, among a large ration of them, what Emile Durkheim termed *anomie* is rampant.

So, on this account, of late, we have tended, seemingly





NASA

*NASA engineers and technicians in the station flight control room of the Johnson Space Center's Mission Control Center in Houston, monitoring the rendezvous and docking of the Soyuz and the International Space Station, Oct. 20, 2003. "What is most important for the citizen as a citizen, is a meaningful role in life, a life which has merit for the benefit of coming generations."*

intentionally, to foster a no-future outlook among the so-called Baby Boomer generation, and others. We have largely destroyed the role of the actual generation of scientific and related progress as an expression of the vital self-interest of our people in being human. Typical: we are exhausting the few remaining numbers of our professionally qualified historians. We are losing the connection we in the U.S.A., as in Europe, too, once had, to the existence of the preceding generations. We have become almost soulless creatures, obsessed with present pains and pleasures, and a vanishing connection to past and future alike. The extremes, the upper twenty-percentile bracket of the Baby Boomers, and the lower income brackets of our poor, are the most typical of the human cost which this decadence of our nation's culture has brought about.

The following, interpolated point, is supplied here to contribute a sense of concreteness to the foregoing observations on the development of our people.

The youth movement which I have fostered has two relatively unique programs of self-development. The first, is the development of the notion of the history of science from the standpoint of early Classical Greek developments throughout such crucial features of modern European development as the work of Kepler, Leibniz, Gauss, and Riemann. The second is the regular activity in developing Classical choral work from the standpoint of the Florentine *bel canto* voice-training and the Bach motet. Among the intended experiences which have been prompted by the interaction of the physical-science and musical work, is the effect of developing the counterpoint of such choral works to the degree of precision in which the impassioned connection appears between the musical counterpoint of the singers and the passion which ought to be

experienced in the independent replication of the discovery of some universal physical principle.

The problem addressed by this conjunction of music and science is that students usually tend to think of an experimentally proven physical principle in "black and white," whereas practiced discipline in Classical counterpoint prompts a known tendency among trained artists to dream in color. The connection of music and science in this kind of conjunction of the two aspects of the work in the same persons, is the much-desired reunification of scientific and artistic passions: to bring passion to science, and rigorous precision to art. The goal is to bring the two aspects of the great legacy of European culture together as one, to defeat what the late C.P. Snow identified as the two-cultures paradox in modern European culture.

The point I am illustrating by this reference, is that Classical culture, which is actually Classical to the degree it fulfills the type of purpose which I have just described, has a profound importance for society on its own account. The essential feature of the human individual, is the passion which that individual is capable of mustering for work performed as an intended benefit for his or her nation, his or her culture. A population's sense of a fragmentation of a sense of culture—for example: science without passion, and passion without rigor—tends to foster an early onset of intellectual impotence in a people. The political lesson to be adduced from such reflections as this one, is that a people acts effectively according to its sense of passion for a mission, rather than importing an emotional support for a cause which is defined as external to the required supporting passion. Thus, culture and the capacity to muster for a necessary mission are inseparable matters, in fact.

Or, as both Cotton Mather and Benjamin Franklin said it, the welfare of a society springs largely from the passion aroused in its members for the purpose of doing good. If for no other reason than to make our people, and our nation morally stronger, and more efficiently so, promote the creative passion which serves a people as the root of its proper patriotism, its guiding sense of the meaning of the durable choice of passion to do good. The choice must be the right one, and it must be motivated by the passion to do good.

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### 3. A Franklin Roosevelt Memorial World System

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I was born in 1922, and thus experienced the transition from military service to discharge after serving my time in the China-Burma-India theater. For my case, this carried with it some special experiences, unique to me, which are, still today, of continuing relevance in the course of my successive transitions from the one status to another, during that time and the years immediately to follow. Above all of this, I have remained, always, a patriot in the Franklin Roosevelt tradition, from that time to the present. It was because of that experience, and the importance of Roosevelt to those veterans, including some OSS veterans whose secrets I came to know in later times, that I have been occupied, always, with certain features of the Franklin Roosevelt legacy, which I regard today, more than ever before, as essential lessons, essential passions of relevant circles from my own generation. This also includes my important experience of an older generation than my own. From that vantage-point, I foresee the intention which must somehow guide our presently much-troubled nation's view of world affairs today: that not only for our own nation's sake, but in the vital interest of our presently crisis-stricken world as a whole.

Most important of all these experiences, I know that the future of the world changed for the worse on the day that President Franklin Roosevelt died. I have, for example, a reliable, if secondhand knowledge of an incident, involving OSS chief General Donovan, which, with other bits and pieces from hither and yon, and some very solid evidence, too, affirms that conviction. The account of General Donovan's reaction to a certain situation, as he, late in that war, left, saddened, from his meeting with the President, typifies the knowledge which nourishes my passion in the matter; the other, historical evidence in general, lends factual affirmation to the passion.

It had been the intention of President Franklin Roosevelt, as his son reported his own role as an eyewitness, to use the occasion of the coming victory in war, to bring the British Empire and similar enterprises to a close. It was the intention, to eliminate colonialism and kindred trappings of modern history in general, to establish a system of cooperation among a world composed entirely of sovereign nation-states, nations

whose freedom and development the U.S. would assist by technical assistance from the vast productive power which would be reoriented from war, to the missions of peace. Had the President lived, that mission would have succeeded; for, as long as he was alive and punching, those of us who had served abroad, and had seen the conditions in parts of Asia, as I did, would have rallied almost to the last individual veteran, at the call of President Roosevelt for this endeavor. That was my passion for our nation's role while I was back in India after the end of the war; it remains, essentially, my passion for our republic's role in the imperilled world of today.

It did not happen as President Roosevelt had intended. Winston Churchill represented a side of the British Empire, of the Dutch, and other colonialists, which had a contrary mission, and, unfortunately, President Roosevelt's successor, Harry Truman, shared in that pro-recolonizing outlook. Despite some excellent thrusts by Generals MacArthur and Eisenhower, after that war, and also other prominent figures, we lost our way, and have landed, in the end, in the awfully perilous state of affairs in which we, and other nations, find ourselves today.

Now, with one thing and another, betwixt and between, over the recent more than sixty-one years, we have come to another terribly ominous time of world crisis. In principle, in the core of the matter, we are back at the same point of decision which we faced an instant before President Roosevelt's death. The conditions are different, but the mission is, at its core, essentially the same.

The plan, as I see it now, is the following.

The pattern of cooperation among China, Russia, India, Germany, and so on, in most of Eurasia, points toward the need for a massive program of long-term cooperation among Europe, the Eurasian nation called Russia, and Asia, in transforming the partially barren, but also the world's most populous continent, into a prosperous set of cooperating sovereign nation-states. This would be done, hopefully, with the blessing and cooperation of our U.S.A.

At the same time, we are the pivot of a needed system of cooperation among sovereign nation-states of the Americas as a whole, or, allowing for some bits of reluctance here and there, most among them.

Together, we of the Americas and Eurasia must combine our efforts on behalf of the African continent, and bring the odd Aussie and New Zealander into the general scheme of play. Australia has land, mostly waste or wasted, a largely desert continent with tremendous supplies of fresh water surrounding it, but we must use nuclear power to remove the unwanted salt from the relevant part of that adjoining supply of water as a whole, and to assist in reasonable forms of management of our global climate.

We shall thus bring into being a contemporary expression of President Roosevelt's post-war intention, a world of sovereign nation-states cooperating for their common security and the common good. Such was the President's intention for the United Nations Organization, and for the global role of the



National Archives

*President Franklin Roosevelt intended to eliminate the colonialism of the British Empire after the victory in World War II, but, LaRouche writes, "we lost our way, and have landed . . . in the awfully perilous state of affairs in which we, and other nations, find ourselves today." Here, Roosevelt and Churchill at the Casablanca summit in January 1943.*

U.S.-backed Bretton Woods system.

The task so posed to us all, requires a bit of revolutionary effort. The world's population has grown to well over six billions living individuals, most of them extremely poor. To raise the level of the conditions of life, requires a leap in productive potential, a leap which requires energetic progress in the development and use of nuclear-fission modes of use of uranium and thorium, and the urgent development of the much more powerful means represented by thermonuclear-fusion technologies. We need urgently both of these sources of power: without nuclear fission, freshwater shortages now growing through depletion of fossil-water sites, will take a cruel toll both of life, and of the conditions of life of the survivors. Without the development of thermonuclear fusion and related technologies, we can not efficiently overcome the lurking materials problems awaiting us a quarter- to a half-century ahead.

All of these problems are, fortunately, inherently soluble, if we muster the will to bring about this reform, in Franklin Roosevelt's memory.

If we agree, this, then, leaves us with some questions which require some answers. The foremost question, then, becomes: Why the sovereign nation-state?

### **Why the Sovereign Nation-State?**

We are confronted today, especially from western and central Europe, by financier circles operating, even within the U.S.A. itself, in the tradition of Bank of England's Montagu Norman's early 1930s support for Adolf Hitler and the French Synarchist tradition. Their efforts today are focussed upon

bringing the existence of the institution of the sovereign nation-state to an end. The proposed alternative from the same types of influentials, today, which is already very much in the making, is what is termed, euphemistically, "globalization."

That scheme is actually nothing but a new name for imperialism, an Anglo-Dutch Liberal imperialism in the sense of the Bilderberger tradition, under whose reign, clusters of private financier interests, predators in the likeness of present hedge-funds, are already roaming throughout and looting the world, ready to drive herds of the world's already surging mass of desperately poor and homeless, from one place of wretched conditions of temporary employment, and early death in misery, to another.

We have experienced that sort of design in memories of earlier times. In one page of European history it was known as the medieval system, in which a class of armored predators, called euphemistically "the Norman chivalry," deployed at the beck of an imperial Venetian financier-oligarchy, and drove a looted Europe into the hell-hole of a mid-Fourteenth-Century "New Dark Age." The current drive, as by Vice-President Dick Cheney, is to destroy the regular military, as is being done currently with recent and continuing Anglo-American operations in Southwest Asia, and to replace military forces of governments with private armies playing a role akin to that already seen in the predatory Halliburton operations in Iraq. That "sexed up" Anglo-American folly in Iraq, is typical of the reality of what "globalization" would become: a realization of the dream of H.G. Wells' notorious fantasy, "Things to Come."

Admitted, there are still only a relative few, chiefly heav-



*Globalization is a new name for imperialism, the folly in Iraq today, which resembles H.G. Wells' grim fantasy, "Things to Come." This is a scene from the movie made of Wells' story.*

ily financed predators, who wish that kind of horror-show to be played out in actuality. Nonetheless, some influential factions have a different, probably deluded dream of what they hope "globalization" could turn out to be. The latter types protest: "Is there not the possibility of a 'globalization' that would not be as rotten and evil, from early on, as we see the trends toward it moving today?" The more or less popular question we must therefore address, in reply to utopian speculations on the coming of a new, global "Tower of Babel," is: Has the era of the nation-state outlived itself, or is it that the only actually proposed alternative to the nation-state, is something at least less terrible than the frankly evil Dick Cheney's schemes suggest?

To answer such questions competently, we must, again, turn to consider some of that history of European civilization, which lies at the foundations of all that we are today.

For a proximate case in the history of European civilization itself, consider the lessons from the struggle to establish a modern system of sovereign nation-states, as Dante Alighieri, for example, had proposed in his sweeping treatment of the revival of a literate form of an Italian language. Italian, was a language older than the Latin which the Roman conquests had turned into a political form of *lingua franca* for purposes

of imperial rule. The use of Italian had been influenced greatly by Roman rule, but, as the brothers Wilhelm and Alexander von Humboldt showed, did not come from Latin. Focus on the specific argument which Dante made, in his *De Monarchia*. Then, turn to a point more than a century later than Dante's work, to Cardinal Nicholas of Cusa's design for what became the commonwealth form of modern sovereign nation-state, in his *Concordantia Catholica*.

To understand the issues posed by the immediately foregoing set of stated historical facts, the following qualification must be stated now. As will be emphasized, in due course, the early Christians did not speak Latin, which, for them, as for those Jews who resisted becoming the beaten dogs of imperial Rome, in the sense of the modern Bruno Bettelheim's description of conditions in the Nazi prison camps, was hated. Latin, for them, was the lash of the despised, but feared Roman oppressor. The Christian Apostles knew virtually no spoken Hebrew—which virtually did not exist at that time—but, rather, Aramaic or some form of Greek, and, among the educated Jews, Classical Greek of the form in use at that time. The articulation of Christian theology occurred in the Classical Greek associated with work of Apostles such as John and Paul. More significant than the influence of nominal conventions, is the fact that the essential conceptions of Christian theology, and also the Jewish theology of Philo of Alexandria, can not be expressed in ancient Latin, for systematic reasons of the type which Cicero would have understood, reasons which I have emphasized in Chapter 1 of this present report: except as a Greek-speaking Christian theology of the Apostles impressed itself upon the emergence of a medieval Latin of the western Church.

The attempt at a Latin empire had failed, calamitously, in the west of Europe, and had been succeeded, after the Roman Emperor Diocletian recognized this failure, by a system premised, under Diocletian's protégé, the Emperor Constantine, on the literate Greek which was native to the leading Christians of that time. The imperial Greek experiment with the effort to create a state religion, as under the Emperor Constantine, provoked the Augustinian alternative, which was pushed from Italy to the Spain of Isidore of Seville, and into the realm of the Irish monks, who miraculously Christianized England's Saxons (at least temporarily, more or less), and, in turn, evoked the emergence of the great Charlemagne as the opponent of the evils fostered and spread by Byzantium. The self-inflicted decadence of Byzantium became the opportunity for the new maritime capital of evil, the financier-oligarchical, maritime center of Venice, to take over and manage the continuing efforts to destroy what Charlemagne had built. This produced the *ultramontane*-ruled system of Norman butchery, anti-Semitism, and hatred of Muslims, called "the Crusades," all of which led, fatefully into the so-called "New Dark Age" of Fourteenth-Century Europe.

With the advent of Europe's Fifteenth-Century Renaissance, which came to be centered on the great ecumenical

Council of Florence, the attempt to turn Latin into a *lingua franca* of a new Tower of Babel largely collapsed. The legacy of Classical Greek science and literature, archived within what remained of a desperate Byzantium, was unleashed into Italy, thus lifting western Europe from the long reign of brutish ignorance, in the great Renaissance on which all of the accomplishments of modern European civilization since, including the birth of the Americas, were premised. The transformation of the mass of the populations of Europe, from underlings cast in the part played by the serfs on François Quesnay's model feudal estates, to be elevated toward achieving human rights, was a feat which required the fostering of Dante Alighieri's program for the restoration, in literate forms, of the language-cultures of Europe. This upshift in the rights of mankind as human, echoed Cusa's *Concordantia Catholica*. This development, centered on the great ecumenical Council of Florence, gave impetus to the realization of what became known as the commonwealth form of modern sovereign nation-state.

Those summary points just stated, in succession, bring us to the crucial point of relevance for today, a point respecting the use of language, and the relationship of this consideration to the needed defense of the establishment of a global system of cooperation among perfectly sovereign nation-state republics.

### The Role of the Infinitesimal in Language

About sixty years ago, the *Seven Types of Ambiguity* of the celebrated William Empson introduced me to what was for many readers of that work, at that time, a fresh way of understanding what we ought to understand as a literate form of use of the English language. Reflect on Empson's arguments there from the point of reference provided by a leading English apostle of the American Revolution, Percy B. Shelley, in his much contested, last to be published among his principal works, his richly Classical, 1821 *In Defence of Poetry*.<sup>22</sup> Consider the implications of the conjunction of those referenced writings of Empson and Shelley, against the backdrop of my treatment of the implications of Kepler's discoveries in earlier pages of this report. The reader of those compared sources should sense the aroma of a common idea about the implications of the serious form of communication of actually efficient forms of ideas, such as the discovery of universal physical principles, or the composition of Classical polyphony in the J.S. Bach tradition, or the composition and experience of Classical poetry, each and all by

22. *In Defence of Poetry*, although written in full in 1821, was first published in 1840, as part of a collection of his essays and some correspondence. It is important that the appreciation of this work be situated in the context of Shelley's studies and their setting at the time the piece was written. Shelley's experience overlaps the succession and contrasts, considered in the work of my wife, Cusa and Schiller specialist Helga Zepp-LaRouche, between Friedrich Schiller and Heinrich Heine in Germany, expressed in their writings, during the relevant period of Shelley's life.

the aid of language.

Think now! If you do not understand poetry as Schiller, Shelley, and Mozart, Beethoven, and Schubert did, you do not know science. And, if you do not know science, as I have treated the subject of Kepler's work, you do not know poetry, or Classical drama in general. You might respond with appropriate affection for either, and that would be good of you, as far as those matters go; but, until you understand the integrity of the two, Classical poetry and science, combined, you have yet to gain a top-down conception of the implications of a functionally literate meaning of the Classical use of language. It is on this account, that I have emphasized the crucial importance of integrating a gradual mastery of the implications of the singing of Bach's *Jesu, meine Freude*, when that is linked, functionally, with the mastery of crucial leading conceptions from such scientific works as those of the Pythagoreans, Plato and his circle, as also Cusa, Kepler, Leibniz, and Riemann. Until we have located the essential principle of action which commonly subsumes both what is truly Classical poetry and polyphony, and their functional association with the Classical science of the exemplary figures I have referenced, once again, here, the human meaning of language as such remains hazy and more or less obscured.

As Shelley emphasizes in the summary conclusions of his *In Defence of Poetry*, although an inspired population may astonish historians with the profundity of its insights, that population usually does not know the actual principle which inspires its unusual rise from the dismal toil of customary behavior, to such a relatively superior moral and intellectual quality, and excitement of social life. It is the function of great poets and like-minded historians, to provide us insights into these empyreal moments of history, and that in a manner, and by a method, coherent with what I have identified as that of science.

The practical issue so posed by the idea of language for economy, is the matter of the ability of a people, once stricken with the dismal prospect like that with which about forty years of economic and cultural decline has now surrounded us, to break free of those compelling, accumulated habits of cultural self-ruin. The change to be effected, is like that of prisoners in a just-freed Nazi concentration-camp, when they have found the gates opened, but can not seem to move ahead, through invisible gates of the mind, to freedom. When a remedy is found, the words used remain more or less the same, but the ideas associated with them have changed, in meaning and in the spirit with which the words are used. The question posed, thus, is: what is the difference?

That function of irony, in language, as in physical science, which distinguishes the creative mental powers typical of the specific notion of the human individual, is the same function associated with the process of discovery of a universal physical principle in physical science, as Kepler's treatment of the fallacy of the *equant*, in proceeding toward the discovery of a universal principle of gravitation, illustrates the existence

of the apparent infinitesimal magnitude associated with the quality of action by a universal physical principle of gravitation. Such, in mathematics, for example, is the difference between a merely formal-mathematical notion of the complex domain, and the physical conception so strongly typified by the work of Leibniz and Riemann. This is the same conception of the apparent infinitesimal met as an expression of dynamics, as, for example, in the notion of the *ontological* distinction of point, line, surface, and solid in Pythagorean *Sphaerics* and in the work of Plato.

In Bach's polyphony, for example, the Pythagorean *comma* appears to express a small magnitude, which, in a practical sense, it does; but the *existence* of the *comma* is *ontological*, not metrical. Precisely the same notion of the *comma* is expressed in the role of Classical modes of irony in language, as Empson's work begs recognition of that fact, which have the same proper function in ordinary writing and speech. The essential feature of literate speech, and its echo in written form, is the appearance of the mark of punctuation which is either the comma, or a related mark, which points our attention to two or more distinct notions of substance, or actions, in such a way that the irony of that conjunction itself, when spoken in a literate manner, conveys an idea which is not literal, but clearly necessary. This distinction lies in the necessary ontological implications of the irony, not some mere decoration. This feature of literate written or spoken speech, has the same function as the expression of the discovery of a fundamental, or related physical principle in an ontologically defined, rather than merely mathematically formal, statement, which references a functionally relevant universal physical principle.

In that sense, all literate speech always reflects the whole span of the use of language or related expressions. It is the whole language, as it exists for the mind of the speakers, which is the implicit context of meaning of each relevant utterance bearing on some matter of principle. Actual ideas are expressed in this way, as ironies of what we may term *creative speech*, whose object is the conveyance of new conceptions, new ideas, rather than the simple regurgitation of the old. Thus, the domain of irony, as irony is to be understood in this way, is the expression of a process of dynamic development internal to the employment of the language as a whole.

Thus, if we permit the principle of the nation-state culture to be liquidated by the introduction of "globalization," we stupefy the affected population, driving its cultural aptitude backward, and downward toward the brutishness which the Olympian Zeus of Aeschylus' *Prometheus Bound* sought to enforce as the spiritual condition of mortal men and women. Globalization is essentially a brutish expression of what the ancient Greeks and others came to know as "the oligarchical principle." "Globalization" and "human freedom" are mortal enemies of one another, as "Globalization" is inherently the imperial enemy of all mankind.

People of differing language-cultures, may know the

same universal truth, but the action of their knowledge of that truth, is rooted in the relevant language-culture as a whole, not as if in some vulgarly literal type of formal mathematical statement. Many among us are frequently challenged by fresh confrontation with this fact, as when discussion of scientific discoveries occurs between people of different language-cultures, or the attempted sharing of what is a very funny story told by the speaker of one language-culture, to the sophisticated representative of a different language-culture. Translingual puns are particularly amusing when the underlying con-

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*Drunkenness is a weakness, but an excess of sobriety is usually a virtual crime, especially in the practice of science, art, and politics.*

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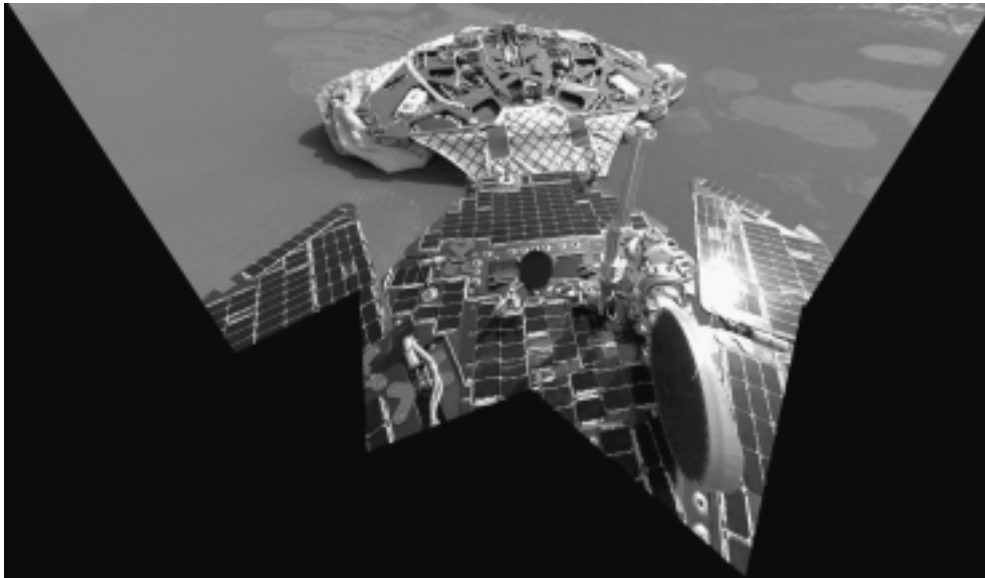
cept expressed is inherently funny, especially as if uttered by a faithful follower of the great, greatly courageous, and amiable François Rabelais. It is, therefore, the fraternity of language-cultures, which is the normally healthy condition of mankind in general, the condition required to promote fraternity, and to promote the advancement of the power in the universe, of a cooperating mankind as a whole.

To round out the essential point being delivered here: drunkenness is a weakness, but an excess of sobriety is usually a virtual crime, especially in the practice of science, art, and politics. Simply, Classical irony is an expression of human creativity, as a distancing of the individual intellect from boredom, meanness, and a resulting tendency of these toward stupidity. All great art and science are based on an insurgent spirit of creative merriment, a state of happiness in a useful problem-solving mission, a perception that a folly is inherently ridiculous, and that pompous creatures tend to behave like that of which honest donkeys would be sadly ashamed to see in a human being. Irony is incipient laughter, an expression of creative joy in being part of mankind. Excessively sober men and women are not to be trusted. To be happy, even laughing lovingly in the face of death, is to be good. Abraham Kästner's student and friend, Gotthold Lessing, would have agreed.

The Tower of Babel, like that of Pisa, was always, as now, a bad idea.

### The Essential Cooperation

The touching of the Moon, and the increasingly sophisticated exploration of some ironical features of the Mars landscape, typify experiences which have given us an increasingly, emotionally and intellectually disturbing, retrospective view of Earth as a whole. The problem here, is of a type similar to that conflict in outlook, between the commonplace



NASA

*On the shoulders of Kepler and Cusa, we must develop the next two generations of citizens into a mission for "the common aims of mankind." With the aid of nuclear- and fusion-powered rockets, we can work with other nations to develop the Solar System. Here, NASA's Mars rover successfully leaves its lander on Jan. 31, 2004, ready to provide man with more detailed knowledge of the planet.*

economic forecaster who projects his estimate of a future time as a mechanical-statistical extrapolation, and my view, which locates the observed sequence of events from the standpoint of the impact of the relevant boundary-condition being approached, in predetermining how the future shapes the optional choices of outcomes for the present developments in progress now.

So, in the astrophysics developed through the mercy of Kepler, as we see the Solar System today, so we must look, as if backwards from the future, to a unified, and unifying conception of the options for development of the whole complex of what should be the respectively sovereign cultures of Earth. We must see mankind as if with God's eyes. You wish to be in the Creator's image; accept the challenge of seeing yourself as the Creator of our anti-entropically developing universe does.

We must define a common mission within, at least, the range of the inner planets and related body of our Solar System, and think of the self-development, and other developments needed to bring the various nations into a condition where each is prepared for some national mission within a well-composed division of labors among the nations of the planet as a whole. We must, in that sense, work separately, but in cooperation, to common aims and ends.

For that purpose, we must return to the subject of the work of Johannes Kepler. Kepler, the avowed student of Nicholas of Cusa and, in a lesser, but important respect, also Leonardo da Vinci, lunged to create competent modern astrophysics, out of the varied kinds of critical failures of notable predecessors such as Copernicus and Tycho Brahe. Modern civilization is not a product of a Copernican Revolution, but of the leading work of Nicholas of Cusa and his follower Johannes Kepler. Cusa defined principle; Kepler discovered the principle which makes the Solar System work, where all attempts by others had failed to grasp the crucial element of solution

for this challenge.

We must focus on using the progressive development of the two adult generations (of approximately twenty-five years, each), of which the first is now in motion, to bring the development of the populations and their settings into, not a state of "globalization," but approximate parity in their ability to participate in what the late scientist Edward Teller, once named "the common aims of mankind." A kind of benchmark for that objective is implicit in the obvious roles of nuclear fission and the region of work associated with thermonuclear fusion, which will dominate the development of any culture of the planet which avoids the immediate threat of a descent into what is at least a catastrophic form of planetary dark age, as we associate those terms with the decline of the Roman Empire in the West.

If civilization escapes the present threat of an early plunge into a planetary new dark age, the next two generations, that now entered into adulthood, and its successor, will manage more and more of the planet's affairs for the remainder of that new century we have recently entered. The implications of both exploration of relatively nearby space, and of a range of technologies congruent with the implications of thermonuclear fusion, and beyond, will be the vision which will dominate the successful passage through that century. If we review the history of European civilization and its outgrowths since a half-millennium ago, especially the internal development of crucial sorts of fundamental discoveries in physical science, we can imagine a point of future reference, from a point outside the Solar System, from which to consider, that in a fully rational way, the future boundary conditions which will shape, more and more, the needed development of life on Earth as a whole.

The most important thing about this view, from where we sit in history today, is to adopt this way of thinking, more than hoping to secure detailed elaboration of answers to the

questions such a view employs. The crucial thing, is to beware of our adopting policies which are stupid from the standpoint of those general considerations. Essentially, we must think of building up the potential of the planet, as potential is expressed by the quality of development of the coming generations, of the basic economic infrastructure of each nation, and of the planet. We must consider, thus, the need to change the way we have come to think, as nations, during the recent two generations. We must change the way most of our people have come to think of the needs of the future two generations, and no less than that. We must come to accept, now, the implied responsibility of ensuring an anti-entropic characteristic of the development of the practice of the planet's human population considered as a whole.

If what is necessary appears to be impossible, then make it happen!

We can not get away from the boundary conditions of specific cultures which define the necessary autonomy of the national cultures of which the planet as a whole is composed. Yet, it is not those differences which should define planetary goals, or the perspectives for internal development of the respective sovereign nations. Rather, the necessary goals must be effectively served in common, despite the fact that certain differences among national cultures are expressions of those nations' required, separate sovereignties. Typical of this challenge, is the unavoidable fact, that the issue of the broad development and applications of nuclear-fission and thermonuclear-fusion technologies are necessary practically, and therefore morally, for all humanity, and all nations. Some differences of opinion are legitimate, while others are intolerable: we must know the actual differences which define that distinction.

This touchy point arising in some people's notion of the function of sovereignty, is resolved by reflection on the essential role of truth as the measure of reason. Our duty as a U.S. republic, is not to dictate what is called "truth" to other nations; certainly, the performance of the present U.S. Administration does not warrant awarding it the privilege of dictating "regime change." The authority of truth begins with our imposing it upon ourselves, which is the first, indispensable step toward the acceptance of truth by others.

We must choose the mission-orientation we assign to ourselves, to our republic. Then, when we have done that, we must tell other nations what we have done, and proffer the opportunity for their cooperation with us. Without reasonable objections, we have the finest Constitution ever crafted for any republic; it has served us well, each time we have served it well. In historical fact, there exists no rational evidence to the contrary, since we emerged as a world power, with the victory over the Confederacy project of imperial Britain's Lord Palmerston. Our Constitution was crafted as a distillation of all of European civilization's experience up to that time, since, literally, the constitutional poem of Solon. As President Franklin Roosevelt's performance shows, the world at large was mostly disposed to accept our policy for global

post-war reconstruction of relations among sovereign states, had we, ourselves, not betrayed the commitment which that President had represented.

The world today could not escape the onrushing threat of a planetary general breakdown-crisis, without our providing the crucial initiative around which the rational governments of the world would quickly rally, out of no more remote motive than a frank perception of their own urgent and desperate immediate interest in survival as nations. No present government of western and central Europe could do this, nor of Asia, nor of other parts of the Americas. Herein lies our national mission on behalf of the rightly sovereign nations of humanity as a whole.

Above all else, we will not build an empire, nor will we tolerate a new one, even of our own making, on this planet. It is in the nature of what we were crafted to become, in the establishment of European colonies, as places of refuge from oligarchical Europe in North America, places made according to the nature of our Federal Constitution's principles, that we abhor any form of empire on this planet, by any national or other form of power, including our own. What we need is a world of neighbors, and a policy which states that we shall defend, with all our might, the right of every people of this planet to enjoy the same freedom.

However, to accomplish that, we must change our ways; to become, again, as under the leadership of President Franklin Roosevelt: wise enough to represent that policy effectively.

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## 4. This Session's Legislative Effort

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As the new Congress comes into its opening session on January 4, 2007, there are many postponed tasks to be accomplished, many of which must be done as quickly as possible. The central issue among all of these, is the pivotal issue of defining and instituting the needed forms of U.S. capital budget.

***Without that form of capital budgeting, our republic would not now survive.***

The principle governing the design and application of a true capital budget, is a reflection of the principles of physical economy, rather than of a monetary system as such. Although this practice of capital budgeting has been incorporated into accounting practice elsewhere, especially in past times, the controlling principle is essentially one bearing a U.S. hallmark. This practice was standard management and investment thinking in the U.S.A. itself, since 1861,<sup>23</sup> until the rabid

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23. The inauguration of President Abraham Lincoln brought what were essentially the agro-industrial and social features of the American System doctrines of Henry A. Carey into U.S. Federal practice, the same policies which Carey personally introduced to Chancellor Bismarck's Germany in the late 1870s, and, indirectly, to Japan. These were the same policies which Mendeleyev carried from the 1876 Philadelphia Centennial Exhibition to Czar Alexander III's Russia. Although the policies had been built into the U.S. republic, by



fit of “deregulation” launched on the initiative of the reforms introduced by the Trilateral Commission, headed by Carter Administration National Security Advisor Zbigniew Brzezinski.<sup>24</sup>

Notably, to make the technical issue clear, it must be emphasized that this radical, and ruinous, change in U.S. policy, under the Trilateral Commission, reflected Brzezinski’s late 1960s advocacy of the shift of the U.S. economy from its traditional economic practices into the fantasy-world of “information theory” and “artificial intelligence” presented as Brzezinski’s notion of a “technetronic” age.<sup>25</sup>

On this same account, it should be added, that, by 1982, with the passing of the frankly wild-eyed Kemp-Roth legislation, and wildly radical hoaxes concocted by the Federal Reserve System and the annual White House reporting on the economy, virtually the last shreds of economic sanity were in flight from both prevailing Federal doctrine and general tax and investment practice.

Soviet General Secretary Yuri Andropov’s refusal to discuss President Ronald Reagan’s March 23, 1983 proffer of a Strategic Defense Initiative (SDI), not only foredoomed the subsequent collapse of the Soviet economy, but removed virtually the last chance for bringing about the shift of the U.S., back to that science-driver form of national economic priority which would have tended to reverse the prevalent economic and related lunacies of the 1970s.<sup>26</sup>

As its reward for those indicated mistakes in national policy, our republic has suffered much, especially the lower eighty percentile of our households, with the immediate pros-

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Franklin, Alexander Hamilton, and others, the setbacks to U.S. strategic interests by the French Revolution and Napoleonic wars, and the advent of Wall Street pawn of Martin van Buren of land-bank-scam notoriety, Andrew Jackson, into the Presidency, postponed the consolidation of the economic policies of the U.S. Constitutional system until the developments under President Lincoln.

24. The New York Council on Foreign Relations’ 1975-1976 *Project for the 1980s* (New York: Magraw-Hill, 1977), was a project co-supervised by the Trilateral Commission, notably the Commission’s former director (1973-1976), Carter National Security Advisor Zbigniew Brzezinski; Secretary of State Cyrus Vance; and Miriam Camp.

25. Brzezinski was the author of *Between Two Ages: America’s Role in the Technetronic Era* (New York: Viking Press, 1970), and *International Politics in the Technetronic Era* (Tokyo: Sophia University, 1971). Addressing the stresses that were emerging in the shift from the “industrial era” to an era of services, automation, and cybernetics, he wrote in the 1970 volume that the Technetronic Revolution is beginning to fracture the nation-state into “a global city—a nervous, agitated, tense, and fragmented web of interdependent relations.”

26. I can report, as a significant insider in these developments, that this change would have been conducted not only in the U.S.A., but in much of western and central continental Europe, too. When Andropov flatly rejected even official discussion with President Reagan, not only was Andropov virtually doomed, but the U.S. opponents of SDI went promptly after my neck, leading to a certain unpleasantness experienced by me and my associates, in both the U.S.A. and Europe, most emphatically, from Spring 1983 until the present day. Real history is often like that.



*The central issue before the new Congress is to define and institute the needed forms of a U.S. capital budget, based on physical economy, rather than a monetary system as such. This means dumping the reforms introduced by the Carter Administration’s Zbigniew Brzezinski and his Trilateral Commission. Brzezinski is shown here at the Democrats’ Center for American Progress in March 2006.*

pect of much worse soon, for all of our households. Without a shift back to what a return to a U.S. capital budgeting policy and practice requires and implies, there is no hope for the preservation of our republic over the period ahead, and there would be the assured doom of a planetary New Dark Age for the Eurasian continent. Folly has run its course, too long to be tolerated any longer. It is time for the U.S. Congress, among others, to be suddenly awakened to the realities of the present global situation.

That much said on background, now to the core of the matter of capital budgeting:

The portion of an investment which may be regarded as consumed within a fiscal year, is the portion which corresponds to the part of an investment which has been used up *physically*. We must not count the balance of investment, after deducting what is used up in the relevant current year, as a current cost. Accordingly, counting Federal outlays for capital projects of several years span, all in the same year the outlay for that project is authorized, represents a case of gross incompetence in judgment, and a source of potential catastrophes if such misguided practices as that are continued. In fact, if we continue to act, presently, as if Federal funds allotted

for capital improvements in the public or private sector were self-evidently current expenses, our national economy were already doomed to experience something far worse than an economic depression, a general collapse like that which medieval Europe experienced as a “New Dark Age.”

What we must do now, is increase the credit uttered by the Federal government, the only agency allowed to do so under our Constitutional system, such that the total amount allotted in each coming year immediately ahead, vastly exceeds the amount used up during the relevant, current fiscal year. This is clearly a tricky business, but an indispensable one, and represents a chore which we must perform, as I can hear in my mind now, the voice of my now deceased, courageous Russian friend, Professor Taras Muranivsky, saying, “in the best way.”

The “best way” signifies that the interest charges on the uttered funds must be decently low, probably in the range of 1-2% simple interest, and that the accumulation of added real (physical) capital exceeds the net Federal debt created in this way. This means, in turn, that we must concentrate the allotment of relevant Federal expenditures away from a “services economy,” except as a temporary social measure of relief in the public interest, and, stay, absolutely, away from financial-speculative forms of investments, or, diversion of flows of national income into gambling, or, recreational drug use, or, kindred waste. The rate of increase of net physical output of the nation, must exceed the accumulation of the Federal debt.

This, of course, means a proportionately large commitment to increase of capital-intensity of investment in, in turn, the increase of physical productivity in the national economy as a whole. The needed balance of investment aims at a public sector of basic economic infrastructure outlays in the fairly estimated order of fifty percent, and requires an emphasis on scientific and technological progress, with emphasis on physical production and related investment. The increase of the physically defined productive powers of labor should be as measured in absolute, not percentile terms, and should express technological progress, rather than labor-intensity.

The development of the physical economy should be steered by the implications of a large-scale investment in nuclear fission as a power source, as a leading mode used in a massive program of desalination intended to cure illnesses of the physical economy such as reliance on fossil-water sources, and for the maintenance of other aquifers, the latter as typified by the case of the region from North Dakota down into West Texas. This must be accompanied by a vigorous commitment to bringing on the assortment of known and potentially knowable technologies associated with the large-scale, relatively early development of thermonuclear fusion, both as a power source for the economy, and for a crucial role in augmenting and otherwise managing so-called fossil resources.

The expansion of the space program should be seen essen-

tially as a science-driver spearheading much of the applicable advances in technology needed for the improvement of the Earth-bound economy.

## The FDR Paradigm

Such a program requires a return to the kind of thinking associated with a “fair trade,” rather than “free trade” economy, and to thinking about physical and financial capital as we did under Franklin Roosevelt.

The principle on which the success of such a program depends, is the principle of fostering the increase of physical productivity, per capita and per square kilometer, through science-driven technological progress in the improvement of the productive powers of labor. This means technological progress as expressed by emphasis on a science-driver economy of the type which brought the U.S. and its allies to victory over Hitler et al. in the preparation for, and conduct of World War II.

Against the customary carping critics of such measures, consider the following.

Had Franklin Roosevelt lived, the freeing of the world from the imperial legacy of colonialism and the like, would have created a vast capital market for the products of a converted U.S. war production buildup, the reinvestment of the war debt margins in new capital formation, here and abroad, although it would have been associated with the combination of a temporary austerity, but a healthy accumulation of real capital. Our experience during the period of the Truman Administration, contained significant evidence in support of this benefit of a continued Rooseveltian, rather than a pro-colonialist Churchillian policy; but, under Truman’s mistaken policies, the proportion of the benefit was just not enough.

The concept is clear, if we consider the facts of the matter from the standpoint of the principles of physical economy, rather than mere monetary theory. Indeed, it is monetarist thinking itself which is the source of the relevant great error in judgment on this subject.

Monetarist dogma assumes that the lending of money generates what monetarism regards as economic value. In fact, as the late John Kenneth Galbraith once said of the money lost in the 1929 crash and its aftermath: *it is only paper*. Under the U.S. Constitutional system, which is essentially a physical-economic system, rather than one premised on usury, the value associated with money is what a government is capable of making money do. As an example of this, consider the manner in which the U.S.A. must act now, to prevent what a deep collapse of the perceived value of the U.S. dollar would do, in triggering a chain-reaction of the entire world’s economy into a virtual, or even actual “new dark age.”

## The New U.S. Dollar

Contrary to monetarist dogma, in reality, the value of the U.S. dollar since 1945 has been premised chiefly on the

perception that the future value of the dollar is more or less fixed. So, at the close of World War II, the U.S. dollar was virtually the world's only stable currency, a dollar whose value was pegged to the assurance of a fixed-exchange-rate system tied, not to a gold standard, but to a far different proposition, a gold-reserve standard.

That system was undermined, chiefly by the combination of the effects of the ill-conceived U.S. war in Indo-China, and the wrecking of the physical economy of the United Kingdom

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### *If what is necessary appears to be impossible, then make it happen!*

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under the first government of the Kingdom's Harold Wilson. The 1967-1968 succession of sterling and dollar crises intersected the effects of the Spring 1968 explosion of the 68ers, when 68er assaults against the "blue collar" strata, wrecked the influence of the Democratic Party's Kennedy legacy. Thus, the 1968 general election opened the gates for a stampede of wild-eyed monetarism throughout the 1970s. In the course of this stampede, the devaluation of the U.S. dollar, and the establishment of the floating-exchange-rate system, in 1971-1972, followed by the Rambouillet conference, created what was, in effect, an international monetary system based on an agreement to believe in the role of the U.S. dollar as the worldwide floating-exchange-rate system's own reserve currency.

The onrushing weakening, and threatened loss of belief in that worldwide U.S. dollar's role as an implicit reserve currency, threatens the rather immediate, chain-reaction-like collapse of an already rotted-out North American and European system; with the collapse of those sectors, the entire planet falls into a global new dark age. Meanwhile, the simmering state of the financial bubble built up on the base of expansion of the mortgage-based securities sectors in the U.S.A., Spain, and elsewhere, is one among the more important triggers for a general implosion of the world financial markets as a whole.

The potential for a monetary-financial and economic collapse of that sort will persist. However, the actuality of that threat can be controlled, if the perceived stable value of the U.S. dollar, over the medium to long term, can be maintained. It is not the monetary value of the dollar which is to be considered; but the political perception that the U.S.A., in concert with other partners, is committed to keeping that dollar at parity, functioning as a virtual world reserve currency, for purposes of scheduled settlement of accounts, over a generation or more to come. The nominal value of the U.S. dollar is therefore its political value, based on the reasonable confidence that accounts can be spread for settlement over the span of that forward period ahead.

The ability to make, and, even more delicate, to keep such promises, demands the erection of a system of protectionist agreements and measures among leading nations typifying the relevant regions of the world as a whole. State to state, and multi-state to multi-state agreements, especially long-term agreements, especially pro-protectionist agreements, would be the bulwark on which the prevention of a presently onrushing general collapse of the current system depends.

The protectionist agreements are needed for state-to-state relations; a sharp reversal of current "free trade" agreements, is also indispensable, for creating the conditions needed for building large-scale shifts from a so-called "service-economy" model, to a capital-intensive production model, within national economies. This form of protectionism does not imply a reduction in world trade; it requires a new physical-capital structure for an expanded, capital-intensive emphasis in technologically progressive, hard-commodity world trade.

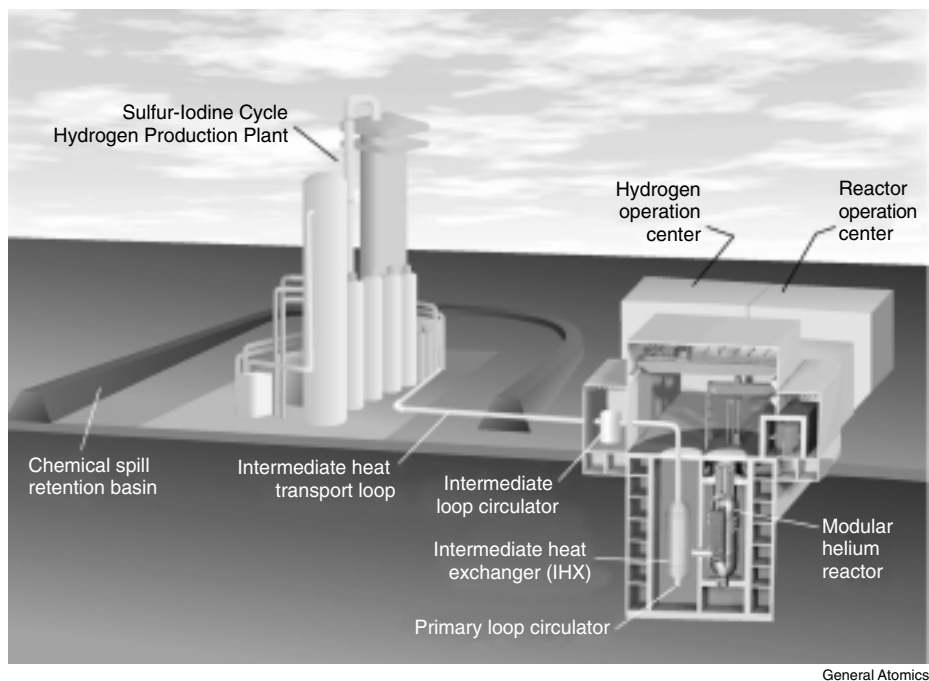
### **Creating New Credit**

The initial surge in any Federal program for economic recovery will be concentrated in investments in basic economic infrastructure, with emphasis on capital-intensive categories, such as power, especially nuclear-fission power, water management, mass transportation, rebuilding the infrastructure for technologically progressive family farming in what had been traditional agricultural regions, and reshaping urban regions. Drastic cuts in the cost to students of higher education will be required, and reorientation of primary and secondary education toward a science-technology, and Classical-culture-driven mode in classrooms of what had been traditionally moderate size a generation or two earlier.

The rebuilding of infrastructure, especially capital-intensive modes, will be the initial driver for reversing the preceding trend from an agro-industrial to a "services"-and-unemployment economy. The stimulation of recovery of private contract and related support for the installation of infrastructure, will move the process toward a resumption of the U.S.A.'s former mission as a leading agro-industrial economy of the world.

The general, longer-term perspective of recovery and development will be premised on the impact of very large-scale use of nuclear fission, plus an orientation toward the oncoming of thermonuclear-fusion-related technologies. These leading-edge technologies are essentially expressions of "high energy-density" effects in technology, and are, when employed in that mode, the upper end of productivity per capita and per square kilometer in the economy as a whole.

The current fad fairly described as the green-energy hoax, typifies the problem in thinking which must be corrected, if a collapse of the economy is to be avoided. Nuclear fission is presently the most efficient source of power. In certain modes, it is a source of local generation of hydrogen-based and related fuels from water, thus eliminating the reliance on the cost



*We need nuclear fission plants to provide local generation of hydrogen-based and related fuels from water. "The notion that corn could be the source of the nation's fuel for automobiles is essentially a fraud and a deliberate hoax." Here, a General Atomics design that couples a high-temperature helium reactor, the GT-MHR, to a sulfur-iodine cycle hydrogen production plant.*

General Atomics

factor of transport of a low-grade material, better used as a chemical feedstock, petroleum, over long, and costly distances. The notion that corn could be the source of the nation's fuel for automobiles, is essentially a fraud, and deliberate hoax. The threat to the food supply from diverting agricultural areas to a gasohol or kindred program, is monstrous, especially if this is projected as currently forecast by relevant sources. The actual physical costs do not justify the claims, and the effect of relying on such sources of fuels would consume so much agricultural land, as to be the great granddaddy of all ecological catastrophes, for which some people's surviving families will live to curse the memories of the authors of such a murderous and inherently wasteful boondoggle forever.

What is probably the most interesting, and important aspect of the process of creating credit for productive investment on a large scale, is typified by the prospects for Eurasian development under the kinds of policies which I am projecting here.

Under our U.S. Constitutional system, credit is created through the lawful commitment of the Federal government to utter currency. The alternative, in world markets, is long-term treaty-agreements among nations. In the latter case, looking at prospects of cooperation among European and Asian nations, our attention should be chiefly focussed on bulk treaty-agreements with maturities of between a quarter- to half-century, agreements covering large-scale, long-term infrastructure investments, and production programs. Again, the recommended charge would be between 1-2% simple interest on primary, long-term credit.

Considering the size and condition of the population of

Asia as such, much of the former industrial and related capacity of western and central Europe will be mobilized to meet the demand. As we see the portent in tendencies, on a more limited scale now, the overall program for Eurasia along such lines will tend to follow the streams from the capitals from Berlin to Moscow, to Beijing, and Delhi, as to other relevant capitals similarly. The U.S.A., while cooperating across the Atlantic and Pacific, will emphasize its partnership with revitalized nations to our south. Together, we of Eurasia and the Americas will assume a leading responsibility for the rescue of Africa.

Without such perspectives, there is no immediate hope for an imperilled global civilization of today. For this mission, we require leaders who think in a certain way, who make and fulfill commitments in that certain way. Who does what is necessary to meet those goals, and who proceeds always, as what Friedrich Schiller identified as "world citizens and patriots," men and women who are true leaders, leaders who have subscribed to a mission for their nation, and also for all humanity? We must think of men and women who see the Creator's eye upon them in all that they do for the sake of the nations, and their people, as the situation requires. It is confidence and performance in the commitment to the mission, which will provide the popular confidence needed to bring the mission to success. In that way, we need not fear the great crisis now immediately before us. It is the restored confidence of peoples in their governments, a renewed confidence of the people in the meaning of the outcome of their own lives, which will, if we allow that, get us, get the world safely through the monstrous storm of crisis now closing in upon us, from all sides.