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EXECUTIVE INTELLIGENCE REVIEW

Special Report

Mexico/Ibero-American Policy Study

Operation Juarez

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New York City

August 2, 1982

Author's Foreword:

The United States & Ibero-America

Throughout Ibero-America today, one hears often the wishful delusion: We must remain credit-worthy. Ostensibly, unless this precious commodity, called "credit-worthiness," is protected with the utmost zeal, the angered international financial institutions will withhold new issues of credit from Ibero-American nations.

This is a delusion on three leading accounts.

First, during the Winter months of 1981-1982, the continuation of the so-called Volcker measures in the United States triggered the eruption of a second, worldwide "Herbert Hoover" depression. It is agreed by leading figures of most London and Switzerland financial circles that this new depression will probably lead into a general, chain-reaction collapse of financial institutions by September, 1982, or, alternatively, that the collapse can not be postponed beyond early 1983.

Under these conditions, the external debt of all Ibero-American states will be pushed into a condition of irreparable default, and there will be no margin of international lending to provide refinancing or any other significant form of new credit.

To what financial institution will an Ibero-American nation then present its certificate of credit-worthiness?

Second, as a matter of policy, the principal international financial centers, including the irregular Eurodollar market, have resolved to "decouple" from further financial commitments to Ibero-America, Africa, and Asia—barring a handful of possible exceptions among the nations of those continents. Rather, the appearance of "threatening to lend" is being used merely to seduce credulous Ibero-American governments into accepting cruel, arbitrary devaluations and savage economic austerities, by threatening to withhold the future credit, which is not intended to be forthcoming in any case.

Third, it is the commitment of forces behind former U.S. foreign minister Henry A. Kissinger, to destroy the nations and populations of Meso-America and South America, through scenarios which combine austerity, insurrections and regional warfare, to unleash the depopulating effects of perpetual "Thirty Years Wars" in this region of the world over a span of decades.

These murderous policies are the policies of certain powerful U.S.A. rentier-financier families, including the Morgans, the Harrimans, the Moores, the Rockefellers, and so forth, "families" which control major portions of both the Republican and Democratic parties, and which, at the present moment, are exerting control over the policies of the government of the United States of America.

These are also the policies of the International Monetary Fund, the World Bank, GATT, the Bank for International Settlements, and NATO's Political Secretariat. NATO's "out-of-area deployment" policy, pushed through during the course of the recent Malvinas Crisis, is a commitment to conducting what are called "population and raw-materials wars" against the continents of Ibero-America, Africa, and Asia. These and allied institutions are wittingly committed to the greatest genocide ever conceived: they intend that billions of people shall die of "accelerated death-rates" over the course of the remaining two decades of this century, reducing savagely the numbers of the "non-Anglo-Saxon race."

Their policy is best described as "Malthusian world-federalism." These are the policies of the Club of Rome, of Chatham House's "Year 2000" program, and the Global 2000 program of the recent U.S.A. Carter Administration. These are the policies of Henry A. Kissinger and the circles which own Kissinger.

If any nation of Ibero-America imagines that it has any "credit-worthiness" worth defending, under the rule of such institutions, the government tragically misguides itself. Under present IMF and other "conditionalities" policies, there is no fate available to any nation of Ibero-America but utter destruction of the political, social and economic Structure of the continent during the course of the decade immediately unfolding.

In principle, there is a workable, equitable solution between the debtor-nations of Ibero-America and the creditor-nations of the OECD grouping. To the degree any among the governments of those OECD nations are clinically sane, those governments would gladly accept such a solution. However, as we shall indicate, not all among those nations' governments are sane, either psychologically or morally.

In this report, we accomplish chiefly four general tasks. First: we describe the workable solution to the present monetary crisis, in terms of an equitable rescheduling of the external indebtedness of Ibero-American nations. Second: we examine the economic policies needed to ensure the success of the monetary reorganization. Third: we examine the causes for the insanity, psychological and moral, among powerful supranational forces dominating policies of the OECD grouping. Finally: we reexamine our proposed program in light of the problems posed by this insane, but powerful opposition.

We have named this report "Operation Juarez," in memory of the proper alliance between the American Whigs of the United

States and the Mexican liberals from whose ranks Juarez emerged as a leading figure. If the interests of the United States of America are properly defined, from the vantage-point of the 1775-1783 War of Independence and the 1787 Federal Constitution, then the well-being and secure sovereignty of the republics of Ibero-America is the most vital interest of the United States of America, and whoever breaks that alliance is variously enemy, traitor, or simply fool. In the history of the United States, it is our relations to Mexico's republicanos which have best symptomized whether or not the United States of America is pursuing a proper approach to Ibero-America as a whole. Only patriots of the United States who remember Benito Juarez as our brave and precious ally can understand Ibero-America and its interests.

The deeper importance of that same point will become clearer in due course within the body of the report.

We have accompanied the transmission of this report with two book-length documents. The smaller of the two is a text of a book written for use (primarily) of patriotic economists of India and Mexico, A Conceptual Outline of Modern Economic Science. This is rewarded to complement material included in the body of this present report. The second, longer text, transmitted in pre-publication print, limited-edition-form, is entitled The Toynbee Factor In British Grand Strategy. Although the latter text was written for general, public circulation, it was written to serve as an appendix to the writer's testimony to the U.S. Senate Foreign Relations Committee on the nomination of George Shultz to become Secretary of State. It is submitted here not only as the most thorough study of the policy-shaping ideology behind U.S. foreign policy today, but as in-depth treatment of the problem of moral insanity among forces influencing powerfully the governments of OECD-grouping nations.

New York City
August 10, 1982

1. Meet the World's Leading Experts in Economics

There are numerous circles of economists in the world, who would, more or less sincerely, disagree with most of what is to be reported and recommended in this present report. Since the policy-issues considered here are of the utmost urgency to each and all of the republics of Ibero-America, the issue of the competence of those critics of this report must be settled at the outset. We state, in summary, the evidence proving beyond doubt that the writer and his immediate collaborators are the leading economic scientists of the world today. We demonstrate so, that our critics may be, in some cases, sincerely mistaken; they are all entirely wrong, sincerely or otherwise.

Beginning the last quarter of 1979, the writer and his associates issued the first of a series of regular, quarterly analytical forecasts for the economy of the United States of America. From that point, to the present date, this quarterly forecasting service has been the only governmental or private forecasting which has not been proved consistently absurd when measured against results.

The LaRouche-Riemann quarterly forecast, published by the international political-intelligence newsweekly. Executive Intelligence Review, has been consistently accurate as to projected trends and turning-points. Comparative forecasts by U.S.A. governmental agencies, and by private services such as Wharton, Chase Econometrics, and Data Resources, have been consistently wrong, over the period beginning the final quarter of 1979. In addition, the quantitative estimate of forecast trends by the LaRouche-Riemann service, has been consistently the most accurate ever achieved during the entirety of the past three decades of economic forecasting in the United States.[1]

No "magic," no "crystal balls," no "extra-sensory perception," and no "luck" is a factor in this. The specifications of the LaRouche-Riemann method have been publicized in complete detail.[2] Any of the governmental or private forecasting agencies could have more or less exactly duplicated the results. The costs of running the LaRouche-Riemann method are, furthermore, a tiny fraction of what is expended by institutions such as Wharton. There is no reasonable excuse for those governmental and private services not to have "plagiarized" the LaRouche-Riemann method at least as early as some time during 1981.

We catalogue the principal reasons the LaRouche-Riemann method is right, and competing varieties of theoretical economics wrong.

First, although the LaRouche-Riemann method does include a fundamental scientific discovery, developed beginning 1952, the underlying conceptions are otherwise entirely those characteristic of what was known as the American System of political-economy. This was the anti-British policy of political-economy most prominently associated with U.S. Treasury Secretary Alexander Hamilton,[3] the two prominent Careys,[4] and the famous German-American designer of Germany's nineteenth-century "customs union," Friedrich List.[5] This was the economic policy, directly opposed to Adam Smith's Wealth of Nations, on behalf of which the U.S.A.'s 1775-1783 War of Independence was fought against Britain. This is the policy which informed the successful nineteenth-century industrialization of Germany, the Meiji Restoraion in Japan, and has been periodically hegemonic policy-making in the history of Mexico, Argentina, Chile, and other nations of Ibero-America.

Benjamin Franklin, Hamilton's and Mathew Carey's sponsor, acquired economic science from his republican allies of Europe, from principally those republican networks which identified themselves with the heritage of Jean-Baptiste Colbert and Gottfried Liebniz. It was the discovery of modem economic science by Liebniz, beginning his 1671 Society & Economy, which is the principal basis for the elaboration of the American System by Hamilton.

There are three currents of political-economy, existing as various periods during the eighteenth and nineteenth century, which must be noted, in addition to Hamilton's influence, to afford an adequate background to the LaRouche-Riemann method's starting-point. The industrial development of eighteenth-century Russia, from Peter I, into the ruinous period of Potemkin, made Russia's industries more advanced and more productive than those of Britain during that period. This development was based entirely upon the design for economic development of Russia supplied to Peter I by Leibniz. The titanic achievements in scientific progress an industrial development, achieved under the direction of Lazare Carnot's Ecole Polytechnique in France, were also explicitly based on Leibniz's economic science, if also informed by the work of Hamilton and others in the U.S.A. Finally, Leibniz's economic science was continued through eighteenth-century and early nineteenth-century German development, under the title of

"physical economy," one of the principal divisions of the university program known as Kameralism. The role of the U.S.A., as the inspiring "temple of liberty" and "beacon of hope" for the Old World,[6] during the late eighteenth and early nineteenth centuries, caused all of the branches of Leibniz's economic science to converge under the single rubric of the American System.

Second, the generally hegemonic economic dogma, promulgated by universities and most of the economics profession during this century, has been either, to a lesser degree, a version of what is called the "classical British political-economy" of Adam Smith, Thomas Malthus, and David Ricardo, or, more broadly, the "hedonistic" or "utilitarian" dogmas associated with J. S. Mill, William Jevons, Alfred Marshall, and their British and Viennese successors. This variety of political-economic dogma is intrinsically incompetent; but has become hegemonic, despite its intrinsic incompetence. This hegemony occurs, because of the incorporation of "utilitarian" policies ("monetarism") within the ruling international monetary systems of the post-1870s period to date: the London gold-exchange system, the Versailles system, and the Bretton Woods system.

In no case, from the 1653 defeat of the Spanish Hapsburgs, through the eighteenth and nineteenth centuries, did any national economy undergo successful industrialization, except either by looting of other nations (e.g., the British system), or by policies informed by the economic science of Liebniz.

Third, the LaRouche-Riemann method adds a fundamental improvement to the American System of political-economy. The American System, as understood by Hamilton and his successors, has always been adequate to guide a nation's economic-development policy in the proper general directions. It lacked, however, the kind of mathematical apparatus needed to expose the explicit connection, between rates of technological progress, and rates of economic growth in terms of both scale and rising productivity. The author's essential contribution to economic science has been to recognize, beginning 1952, that the solution to this problem of measuring technology was implicitly provided by the mathematical physics of the most accomplished nineteenth-century physicist, Bernhard Riemann.

Hence, the name, LaRouche-Riemann method.

Looking backwards from today, it is not only arguable, but usefully arguable, mat the

LaRouche-Riemann method was already implicit in the mode Leibniz employed to found economic science. It was merely necessary to have the advantage of Riemann's breakthrough in mathematical physics, to resolve in a more thorough fashion problems of economic science already posed by Leibniz.

We summarize the crucial features of the LaRouche-Riemann method. That done, we turn to the final point to be resolved in this qualification of the writer's expertise: the reasons all econometrics is intrinsically incompetent.

What Is Economics?

Economics is essentially a study of the principles by means of which a people is able to produce the material preconditions for its own continued existence. It is these physical-economic issues which are fundamental; monetary matters, such as currency, credit, banking, and debt, are a subordinate issue.

Leibniz placed the center of economic science in his study of the heat-powered machine. He characterized such machines as the form of heat-powered "artificial labor," by means of which one man might accomplish the same work as a hundred others.

In the simplest notion of powered machine, we study the necessary motions of human labor. We incorporate those motions into the design of a machine. All the essential principles of such machine-design were elaborated by Leonardo da Vinci and his immediate collaborators during the late fifteenth and early sixteenth centuries.

By supplying heat-power to motivate the machine, we break free of the limitations of human and animal muscle-labor, and of the caprices and limitations of wind and water-power.

We have progressed far beyond the limitations of mechanical substitutes for human and animal muscle-labor of that sort, since Leibniz's time, but his essential conception holds true even for the most sophisticated forms of modem designs of productive processes.

The case of agricultural technology illustrates the point.

The total amount of average solar energy received on the earth's surface is approximately two-tenths of a kilowatt per square meter. Generally, no more than 10 percent of this can be captured by living processes, usually one-fifth or less that percentile. Much of the captured energy is consumed in reduction of carbon-dioxide, to produce oxygen, and to .transpire water-vapor. The "inorganic energy" which can be recovered from combustion of biomass is burned at an energy-flux density about one-ten-thousandth of a kilowatt per square meter!

In fossil-fuel combustion by modem, large-scale methods, we reach energy-flux densities (kilowatts per square meter of cross-section of combustion processes) of approximately 10,000 kilowatts per square meter, about half the energy-flux-density at the surface of the sun. With fission nuclear-energy generation, we reach energy-flux-densities of approximately 70,000 kilowatts per square meter. The crudest fusion-energy generation will be equal to or better than fission-energy generation.

Largely through the influence of a German chemist, Gustus Liebig, we have revolutionized agriculture, by breaking out of the limitations of the solar-energy cycle. We supply energy to the soil in the form of manufactured fertilizers. We enable plant-life to utilize available energy more effectively by regulating the required trace-element levels in the soil. We use energy to irrigate crops, thus supplying the water which plants require as correlative of chlorophyll-reduction to produce oxygen, and thus increase the amount of useful biomass and quality of biomass produced per hectare.

Leibniz recognized such general implications of his study of the heat-powered machine. All advances in human productive power could be implicitly measured in what we today call "thermodynamic" terms of reference.

From these studies, Leibniz developed chiefly three conceptions, terms today so commonplace that no one seems to realize they were first invented by Leibniz: work, power and technology. These are the crucial conceptions of economic science; work and power, as they appear in Leibniz's development of economic science, are also the familiar terms of physics in general. The issue of economic science is then restated as follows. To measure the ability of a population to produce the material preconditions of its own existence, we must measure the amount

of material improvement in nature which can be produced by the average person in that society. We must compare what that average person produces with what the average person must consume, both as consumer-goods (or the equivalent) and as capital-goods. There is no absolute level of subsistence in society; as the power of individual production increases, the standard of consumption must increase.

We must measure the power to do work of an average person in one society with the power to do work of an average person in another society, or with the average person in an earlier to later period of the same society's development.

Therefore, we take as our first measurement in economic science a quantity we call potential relative population-density. How many people can be sustained per square mile, by means of nothing but the production of members of the society inhabiting the land? Since habitable land varies in quality with improvements and depletion, as well as climate, and so forth, we require a correspondingly relative measurement of population-density per square mile, so that we do not commit the error of comparing population-densities of different qualities of habitable land as if any two kinds of land were equally habitable. We measure not the present habitation of land, but the potential population-density represented by the existing modes of production in use.

For example, if mankind lived in a food-gathering mode, the total population of this planet could never have exceeded approximately ten million persons. Today, because of technological progress (including improvements in hygiene, medicine, nutrition, and so forth) we are approximately four-and-a-half billion persons. With adequate use of technologies readily available before the close of this present century, we could sustain tens of billions of persons at a potentially better level of average existence than prevailed in the United States during the 1970s.

Moreover, technological progress is imperative, not optional. Every level of technology places technological and also labor-cost limitations on possible improvements in land and in respect to the categories of natural resources which can be economically exploited for human needs. Unless we advance in technology of practice, we tend to deplete existing resources of that usable form. Then, the population-density potential would tend to fall below the level of the existing population, with a resulting collapse of the culture—as has occurred every time a sustained policy of zero-technological growth prevailed. Societies not committed to technological progress are societies which lack the moral fitness to survive: Such cultures will die in the rotting wreckage of their own Malthusian follies.

To maintain even a constant potential relative population-density, a society must advance technologically.

The correlative of advances in potential relative population-density of society, is increase in the per-square-mile quantity of usable energy-supplies consumed by the society. This is the basic measurement of energy-flux-density we employ: kilowatts per square mile of usable consumption of energy by society. This measures implicitly the usable-energy consumption for the average number of persons inhabiting that land. However, since the energy consumed per-capita must increase, to achieve technological progress, the required rate of increase of energy-flux-density per square mile is approximately of the second order.

What economic science seeks to define is an institutionalized policy, through which successive advances in both potential relative population-density and energy-flux-density are accomplished. This policy takes the mathematical form of a. continuous function. This is a mathematical continuous function, measuring potential relative population-density, in terms of increases in energy-flux-density. However, energy-flux-density must be measured also in terms of rising per-capita energy-throughput values.

Moreover, the total material improvement (produced material goods, basic economic infrastructure) obtained by a society, is realized solely by the goods-producing portion of its total labor-force. Administration and services are essential, but they produce no wealth; they are useful to the degree they enhance the productive powers of that labor which does produce goods or improved infrastructure. Therefore, we must examine the relationship—the functional relationship—between the total labor-force and the material-goods-producing portion of the labor-force. We must also measure the functional relationship between the labor-force and the total population of society.

We must elaborate the basic continuous function (potential relative population-density in terms of energy-flux-density) in terms of demographic functions.

For example, modem technology requires a basic school-leaving age for the population of between sixteen and eighteen years for all future members of the labor force. For professionals entering the labor force, we require a school-leaving age of between twenty and twenty-five (with some exceptions). It is a simple point to make, that if the average life-expectancy of surviving infants were in the order of forty or fifty years, it would be most difficult to sustain a modem technology. This is shown by taking the ratio of pre-school-leaving-age population to the labor force. We add to the younger age group, those persons who have retired from the labor force, and so forth.

We can not sustain the retired persons of society unless the labor-force employed is reasonably large and productive relative to the retired population. To maintain a desirable ratio on this account, we require a reasonably high birth-rate (to produce the numbers of the future labor force). In this and related ways, the level of technology requires a society of rather rigorously defined minimum-maximum ranges of demographic characteristics. Conversely, the level of technological advancement in practice determines what the demographic characteristics of a society can be.

We require, generally speaking, an expanded population as a precondition for sustaining technological progress.

As technology advances, the division of labor in society increases in complexity. True, we combine several former work-places into a single machine, seeming thereby to simplify the division of labor. However, this merely informs us that we must examine the combined increase of complexity of the social division of labor and of machine. Moreover, the effect of such a process is to increase the complexity of capital-goods production, while contracting the required relative portion of the labor force needed for consumer-goods production. For example, a fusion-energy-based society would require a world-population level of about ten billion persons: this is the result of a fairly elementary sort of industrial-engineering projection of the complexity of the division of labor involved.

To express such functions in mathematical-physics terms, we are obliged to formulate all of these and related considerations

in the form of a continuous function in thermodynamics— just as Leibniz's original development of economic science implies.

The Thermodynamic Function

In elementary thermodynamics, we assort the total energy-throughput of a process into two portions.

The first of these two portions is the amount of energy which the process consumes merely to prevent itself from "running down."

The remaining portion of the total energy-throughput, we usually describe as "free energy." In an energy-flux-density process such as an electricity generating-station, we think of the non-wasted part of the free energy of the thermal generating-process as the power to accomplish work on something outside the generating process itself. There is another class of applications of free energy. In this second class, the non-wasted portion of the free energy of a process is applied to raise the level of organization of the generating process itself: the self-development of a self-organizing, relatively closed system. Society is, thermodynamically, a closed, self-organizing system of this second class.

The only correct form of thermodynamical analysis of a process is, in all cases, based upon the measurement of the ratio of free energy to energy of the system in that process.

All thermodynamical analysis, unless incompetent, is .based on stating the process under examination in terms of a closed system. To illustrate the point most simply: in the proper analysis of a power-generating system of a nation, we must treat the nation consuming that power as a closed system, such that the power-generating-and-distributing part of the national economy and the economy consuming that power are one and the same process. Or, to study any living organism, we must first situate that organism within the total biosphere of our planet, and, second, must treat the biosphere and planetary process as a whole, apart from the biosphere as such, as a closed thermodynamical system.

This principle of "closed system" is the most fundamental requirement for all mathematical physics. All mathematical proofs are, in the last analysis, derived from geometrical proofs according to the rigorous definition of synthetic geometry of Riemann's geometry instructure, Steiner. All geometric forms, including the point and the line, are derived from the circle, topologically defined. All geometric proofs are based on the circle and the sphere. No mathematical theorem is competent, no mathematical description of a process is competent, unless the theorem can be reduced to the form of synthetical-geometrical proofs based on the circle and sphere. The topological property of all competent mathematics, so based on the characteristic closure of the circle and sphere, is closure.

The only mathematical analysis which is competent is that analysis which meets a twofold requirement. It must meet the requirements of topological closure as a mathematical form. The mathematical statements must map a real, empirical system, whose behavior is as closed as the mathematical description represents it to be.

In every case, in which sophisticated mathematicians have produced some elaborate folly, it can be shown that those mathematicians have violated one or both of these two, interdependent principles of rigor. Either they have ignored the mathematical principle of closure; or, they have defined as closed, mathematically, a process which is not relatively so closed in fact.

Similarly, there can be no competent statements about an economic process as to matters of principle, unless that economic process is reduced, either explicitly or implicitly, to rigorous, thermodynamical statements respecting a closed economic process, the society's productive process as a whole.

In study of thermodynamical processes, the universally applicable definition of a thermodynamical function is a study of the change of the ratio, of free energy to energy of the system, over an unfolding period of time. A thermodynamical function is properly defined as a continuous function of this changing ratio over time.

In those continuous functions for which the ratio declines, including increasing of negative values for the ratio, we say that that process defined by this continuous function is entropic. If the ratio either remains constant or rises in value, the corresponding continuous function exhibits "negative entropy."[7] We abbreviate "negative entropy," and say "negentropy."

The biosphere is a negentropic function, mathematically. So are all viable living processes. So are all nations which are not in the process of destroying themselves through entropically-oriented policies of practice.

In a closed negentropic process, the characteristic features of the process are defined as follows. First, the work done by applying the non-wasted portion of a process's free energy to itself, is an increase in the energy of the system of the process. This increase in energy of the system takes the form of an increase of the energy-flux-density of the system. This yields two kinds of negentropic processes. In the one case, which we call relative negentropy, the process develops to a higher level of energy-flux-density, by converting the free energy of the process into such increased energy-flux-density. The free-energy ratio declines toward "zero," and the developmental process stops; or, the free-energy ratio does not fall to zero, but in the case of a sub-system (not closed) within the whole process, the development of the sub-system ends. Thereafter, the relative free energy of the sub-system is applied almost entirely to accomplishing work on the process outside the sub-system itself. In the second case, which we describe as absolute negentropy, the free-energy ratio of the whole process continues to rise, despite the increase of energy of the system as increased energy-flux-density.

A viable society is, necessarily, a process characterized by absolute negentropy.

How Thermodynamics Correlates With Production

In a total economy, the cost of production of the total output of goods includes these factors of cost and expense. First, there is the cost of maintaining the households of labor employed directly in production and physical distribution of goods. Second, there is the labor force (similarly defined) reflected in the cost of replacement capital-goods for production of goods. Third, there is the cost (similarly defined) of maintaining the basic economic infrastructure of production (transportation, water-systems, energy-generation-and-distributing systems, etc.). Fourth, there are the administration and service expenses incurred by production and by the needs of households of the labor-force engaged in production, administration and services.

The total amount of consumer and capital goods produced, obviously, must exceed the goods represented by these four components of costs and expenses.

The four items of costs and expenses are equivalent to the energy of the system of total production. The goods produced in excess of those costs and expenses are equivalent to the free energy of the total economy.

As we have already indicated, the correlation of potential relative population-density with energy-flux-density, the latter both per square-mile of habitable terrain and per-capita, enables us to reduce the production relations so described, to an expression stated as a continuous thermodynamical function.

So, the investment of the net operating profit (in terms of goods) of a total economy, in expanding the scale and improving the technology of production, is a negentropic function. This application must increase the number of usable kilowatts of energy consumed per capita; yet, the implicit ratio of free energy to energy of the system, reflected so in per-capita kilowatts of usable energy-throughput, must also increase.

How is this free-energy ratio maintained under such circumstances? That is the thermodynamical definition of technology.

When economic processes are properly defined in such thermodynamical terms of reference, "return on investment" for society as a whole occurs in a form we may usefully term measurement of "energy pay-back." Given, the amount of energy invested in an energy-generating system (for example), how many years of operation are required before the non-wasted free energy contributed to society by that energy-generating system pays back to society the energy invested in producing that energy-generating system?

For example, solar-energy systems today can never pay back to society the amount of energy invested in producing such solar-energy systems. Employing "biomass" for society's energy-requirements can never pay back to society what it and the biosphere loses in creating and operating such biomass systems. Generally, what determines absolutely the potential energy pay-back of an energy-generating system is the level of energy-flux-density of the heat-generating process employed.

For example, low-head hydroelectric power-generation is a net energy loss to society. High-head hydroelectric energy-generation is usually a net energy gain to society, especially if the hydroelectric generation is a byproduct of a useful water-management system. Fossil-fuel combustion in large, modem generating and process-heat installations is overall marginal in totality of energy pay-back today. Improved systems for combustion of fossil fuels, including MHD development, would be definitely positive in energy pay-back potential. Fission energy-generation is intrinsically our best energy pay-back mode existing today.

However, fission nuclear-energy generation has two unpleasant limitations. First, simple fission plants have upper limits of energy-flux-density; society can never rightly accept any upper limit to energy-flux-density. Secondly, present nuclear-fission generation of electricity uses neutrons to boil water, to drive turbines. This use of neutrons* is analogous to using a jet-engine to supply power to the mechanical horse of a nineteenth-century sort of horse-and-buggy arrangement.

We require much higher energy-flux-densities during the coming century. We require the production of charged-particle plasma-streams, to capture electrical energy by MHD means, and for new dimensions in the conception of applicable process-heat for industrial processes. So, we must have as quickly as possible fusion-energy generating systems.

We apply the same method of assessing capital investments generally. How quickly can we return to society the energy invested in capital investments, and how much does the investment contribute, as net gain to society, during its total useful life?

There is a very large, and very fundamental "however" to be added to such observations. That "however" is the unique role of the creative powers of the mind in generating technological progress.

It is a popular delusion of this century, that labor is essentially the application of the musculature of a man-beast to the exercise of a more or less fixed skill he is trained to perform more or less repetitively. This notion of labor was not that of Leibniz, nor Hamilton. For both, as for all economic science, the labor performed by society is that development of the productive powers of labor we associate with advances in technology of production of goods.

Let us restate this point thermodynamically.

Imagine, for a moment, a three-legged stool standing quietly in a comer of the room. How much work does that stool accomplish? In molecular terms of reference, there is a vast amount of activity occurring within that stool, but all of that work changes nothing, except as the stool may be gradually rusting or rotting away. Yet, the adolescent student's introduction to physics points out to that youth that the mere fact that the stool remains standing quietly represents something of significance; the stool is not falling over sideways, or simply collapsing. The implicit "work" done against falling over sideways, collapsing, or similar calamities, is identified to the student as "virtual work."

A society which maintained a constant population and a constant potential relative population-density, would be behaving in a manner analogous to the performance of that stool. It would be accomplishing no net work.

We measure the net work accomplished by society as the work represented by an increase of the potential relative population-density. This kind of result corresponds, in the immediate experience of the individual within that society, to the combined effect of relatively full employment of the labor force, with advances in average goods-output per-capita, higher standards of household consumption, improvements in health and longevity, all necessarily accompanied by an increase in the rate of net operating profit per-capita for the national economy as a whole. The net work accomplished by society is otherwise what we used to recognize as society's progress.

This progress, this increase in potential relative population-density, occurs as an advancement in applied technology. It occurs in the form of more or less continuous changes in the manner in which people work. New technologies, new work-practices, are being introduced more or less continuously, in first this and then that part of the total division of productive labor in society, and also in the activities of administration and services.

So, the net work accomplished by society occurs uniquely as progressive alterations in the way in which people work.

If there is no such change, the society must rot away, and ultimately collapse. Repetitive work can not sustain human existence in and of itself. Only repeated changes in the character of the technology of working can enable a society to survive. The work accomplished by the total of the labor of a society is the net technological advancement in the character of labor within the society.

We measure work, therefore, as a second-order partial-differential expression, within a total potential-function for society. We measure the rate of rate of change of technology of production for the society as a whole; we treat the rate of rate of change of each part of the total division of labor as a partial-differential expression in the potential-function for the technological advancement of the society as a whole. This potential function corresponds to potential relative population-density.

Whence this change, this rate of rate of change?

The source of this rate of rate of change for the potential function, is the creative powers of the human mind.

The "Geometry" of Creative Mental Life

We state, as briefly as possible, the nature of human creative powers. Our purpose here is not merely to demystify the notion of creative-mental powers. Our practical purpose is to show how and why the economic policies of a society are, and must be subsumed by a higher-than-economic purpose. Economic policy is but a necessary means to an end; the means must agree with the end. Any contrary definition of economics is morally absurd.

We are insisting that the end-product of society's practice is the quality of improved human individual society produced by aid of its economic development. We are also saying, that only a cultural policy, including the obvious importance of general public education, which fosters the creative potential of the individual member of society, can produce a population competent to generate and assimilate technological progress.

First, now, to the matter of the "location" of the creative processes of mind within the conscious experience and activity of the individual within society.

The best illustration of this principle is that provided by examining the relationship between an audience and the play in the staging of classical tragedy. Imagine, for a moment, an English audience of 1603 watching one of the first performances of Shakespeare's Hamlet, or an audience during Friedrich Schiller's lifetime watching a performance of Don Carlos, Wilhelm Tell or the Wallenstein series. One might imagine a reader in Spain, during Miguel Cervantes' lifetime, reading Don Quixote—imagine a real-life Sancho Panza reading Don Quixote.

Let us focus in our imagination upon the audience watching a 1603 performance of Hamlet.

In 1603, a Genoese puppet, James I, had ascended to the newly-created throne of the United Kingdom. This accession was the outcome of a bloody coup d'etat conducted under the direction of the Cecils and their thug, Francis Bacon, over the period 1589-1603. All the republican hopes of Tudor England, of Sir Thomas More, Robert Dudley, Christopher Marlowe and so forth, had been crushed. England was as a conquered nation, a mere tax-farm for the Genoese tax-farmers squatting in the City of London. The rich science, technology, and culture of Tudor England were being destroyed, with Sir Francis Bacon the chief thug. It was as if the U.S.A.'s Jimmy Carter had suddenly was imposed as the President of Mexico, and the whole pack of Trilateral usurers and assorted thugs from Manhattan were rampaging through the Republic, looting the citizenry with aid of armed porros assisting the tax-farmers.

The character, "Hamlet," is chiefly Queen Elizabeth I. Hamlet is a somewhat idealized version of Elizabeth I, her best side, blended with the errors of Robert Dudley and so forth. The subject of the play is:' 'How was Tudor England destroyed?" Shakespeare puts the consciousnesses of Tudor England's ruling strata upon the stage, together with a reflection of the consciousness of the audience watching that drama.

The audience of 1603, watching that drama, is observing its own consciousness displayed upon the stage. It is observing the manner the pervasive ideology of Tudor England, led Tudor England to its self-destruction and conquest by the Genoese tax-farmers. The audience sees itself behaving as it normally behaves; yet, it also sees itself destroying itself in practice by following its normal sort of conscious response to daily life.

The audience, recognizing its own consciousness upon the stage, and seeing this consciousness lawfully unfold into tragedy, is made conscious of its consciousness, it sees that it must change its consciousness, or otherwise it must forever repeat the tragedy.

Yet, it sees more. With aid of the "play within the play," explained by Hamlet's soliloquy at the close of Act II, it sees Hamlet become conscious of his own flawed consciousness. It sees Hamlet using the technique of classical tragic drama, attempting so to change the conscience of the King and court. Yet, in the unfolding of the play, this too fails.

It is not enough to change one's consciousness. The question is, in what direction does one change one's consciousness?

In psychoanalysis, this subject was taken up by the late Dr. Lawrence S. Kubie, as in his 1958 Neurotic Distortion of the Creative Process. Kubie located the power to become conscious of one's ordinary, day-to-day consciousness in the Freudian preconscious'. He argued, quite correctly as far as he proceeded, that by making one's preconscious conscious—as Hamlet made its audience conscious—one could change one's ordinary consciousness.

However, one must go further. One must recognize that such a preconsciousness may itself be flawed in much the same sense as one's ordinary consciousness is systematically, self-destructively flawed. One must become conscious of one's preconsciousness in the same sense one may be made preconsciously conscious of one's everyday, simple conscious response-patterns.

This higher power of self-consciousness is what Plato associates with his notion of the hypothesis of the higher hypothesis. It is in this aspect of consciousness that we locate those creative mental powers properly identified with fundamental scientific discovery.

Looking at this matter from the vantage-point of economic processes as such, the relevance of what we have just reported begins to be clear.

Technological progress takes the social-economic form of change in social behavior of populations. The discovery of a "better way" to accomplish results has the impact upon the mind that the earlier, customary manner of performing work (for example) is now made to appear to have been in some sense

"wrong" The new, better way, becomes the "right way to do things."

There is a program involved here. "How do we know that this alteration in our beliefs and behavior is a change for the better? We believe it is better; how can we be certain that it is better?"

We have changed our beliefs. A certain faculty of our mental processes was called into play, to cause us to modify our beliefs. What Kubie identifies as the preconscious processes, were called into play. How can we be certain that our preconscious processes are not either malignant or simply idiotic? How is preconsciousness to be judged? How can we prove that preconscious judgment is either necessarily correct or necessarily wrong?

To deal with this problem, Plato presents the refined Socratic dialogue as a method. As Leibniz demonstrates, by constructing some Socratic dialogues on fundamental questions of physics, this Socratic method is the essence of the scientific method, the method of Necessary Reason.

However, this same Socratic method is the basis for classical art-forms. It is the basis for the dramas of Shakespeare and Schiller, for example, which are simply Socratic dialogue elaborated as drama. It is the principle of classical poetic composition, it is the principle of composition employed by J. S. Bach, the later Wolfgang Mozart, and Ludwig van Beethoven. It is the method of composition of plastic-arts and music specified by St. Augustine. It is the method of composition of paintings, sculpture, and architecture, developed by Leonardo da Vinci and the School of Raphael.

In all instances of masterful classical composition, in literature, music, plastic arts, the characteristic feature of the composition's designed relationship to the audience, is the same principle Shakespeare employs in Hamlet with aid of the "play within the play." Great classical art has the function, to uplift audiences, by making those audiences not merely conscious of their consciousnesses, but being impelled to an awareness of the higher self-consciousness.

This principle was stressed by the great Wilhelm von Humboldt, in specifying the principles of the Humboldt system of education for Germany. Every child must have a rigorously classical education, through which the full potentialities of that child were nurtured, prior to any specialist education. Although the scale of application of the Humboldt system, relative to the population as a whole, was unfortunately limited to those who became Germany's professional elite, it was this educational program which made Germany preeminent in world science into the 1920s. Classical literature (especially classical Greek literature), classical philology, and so forth, served as the foundation for the greatest proliferation of scientific minds!

This seems relatively incredible today. During the course of the nineteenth century, rooted in the dangerous fallacies of Rene Descartes's philosophy, there developed the now-hallowed, and absurd prejudice, that the arts and sciences were separate departments of knowledge, each governed by a different set of principles than the other. Exemplary is the wicked influence of the Pre-Raphaelite Brotherhood of Oxford University's John Ruskin and Benjamin Jowett, who insisted on imposing irrationalism upon all forms of art and political life. Ruskin and others degraded art and politics from governance by rational principles, demanding that the only proper consideration in art and politics was the hedonistic, or "utilitarian" principle.

We have today, for example, the wicked and dangerous proposal, that the youth of a society must be educated only for those specific, repetitive skills they are expected to require in future employment and household life. "Let us not overeducate those who will perform only menial labor, anyway," is the common cry of such wretched folk internationally. The result of such a wicked educational and cultural policy must be to nurture in the future citizens of a nation an inability to govern themselves, and a lack of the developed capacity to produce or to assimilate technological advances.

The function of classical culture is, for reasons we have already summarized, to prompt the future citizen to locate his sense of identity as a person in his higher Self-consciousness. A population so cultured by the age of between sixteen and eighteen years has already a highly developed degree of access to the creative powers of mind. A young person who thinks so, with that classical cultural outlook, before the age of eighteen years, is already a potential scientific thinker, as well as the best quality of future citizen of any republic.

In developing nobler human beings, which is the moral purpose of any republic, we also develop human beings with the highest relative potential to produce and to assimilate technological progress.

"Man is not an animal!" That is the foundation, the essence of all competent education of the young, of the policy of government of nations. If we teach children that "man is an animal," then, since we slaughter and eat cattle, why should we not also slaughter and eat men? What is the difference between all mankind and all animals?

Simply, the range of behavior of an animal is predetermined by biological heredity. An animal may alter its behavior within that range. However, no animal is capable of ordering its species-behavior consciously, as man does in all successful cultures. Only man has the power of higher self-consciousness, of the power to discover ever-more perfectly, Necessary Reason in the ordering of the universe. It is in that higher power, that every newborn infant partakes of a divine potentiality. It is the function of society to nurture that potentiality, and to bring the divine to rule over the hedonistic irrationalism of the infant, in the form of the matured individual.

This maturation of our race requires appropriate improvements in material conditions of life, as material conditions of life. How, for example, could we afford a classical education to every child reaching the age of between sixteen and eighteen years of age, if the productivity and life-expectancy of society were in the order of between forty and fifty years? To continue to produce persons of succeeding generations, and to provide the material conditions of individual life indispensable to cultivate adequately the divine potentialities of those generations, a certain improvement in technology is indispensable.

There is another urgent consideration. Knowledge is not knowledge of repeatable experiences.

Any mere beast has "knowledge" of repeatable experiences, all the way to the slaughtering-pens. Knowledge is that which pertains to the higher order of self-consciousness, to Necessary Reason.

By using potential relative population-density as a measuring-rod, it is feasible to rank cultures and technologies as of a relatively lower or higher form, as relatively inferior and superior. It is also feasible to demonstrate, that there is not only an order in the rank of cultures and technologies compared, but to demonstrate why certain advances in technology are indispensable preconditions for further advances in technology beyond that level of achievement. Not only are all cultures and technologies rankable and relatively inferior or superior to one another, progress in technology is rigorously defined sequentially, as an ordered series in progress.

Let us picture an ordered succession of technological revolutions, as A_1, A_2; A_3, . . ., and so on. Associated with each of these A's, there must be a prevailing day-to-day scientific world-outlook, in the ordinary sense of "science." Each technological revolution represents an over-throwing of an old science by a new science. This signifies that no science peculiar to any age represents truth concerning the universe as a whole, but that nonetheless, each advancement in science is superior to the previous level of scientific beliefs in general.

Then, what is science? How can science be defined to escape this liability?

Every general scientific-technological revolution is associated with an adducible principle of discovery. A certain kind of thinking about the lawful ordering of the universe, leads discoverers to those provable hypotheses by which scientific-technological revolutions are accomplished. If we examine this most closely, studying successive scientific-technological revolutions over the course of the recent 2,500 years, we discover that each of these successive revolutions has been accomplished by application of a principle of discovery common to them all, principles elaborated by Plato about 2,400 years ago.

Science, therefore, does not lie in any set of prevailing beliefs of any one scientific-technological age. Science consists of those principles of discovery which have caused every fundamental advance in scientific knowledge over the recent 2,500 years. This is also Plato's notion of the hypothesis of the higher hypothesis. This is also the principle of hypothesis in Bemhard Riemann's 1854 habilitation dissertation, "On the Hypotheses Which Underlie Geometry."

Therefore, to impart such a sense of science to a population, the daily practice of that population must emphasize technological progress. It is by placing the highest value upon useful changes in technology in production, that we value persons in society according to their contributions to progressive change. We are thus valuing individuals for the development and exercise of that part of their nature which corresponds to the divine. We are providing society, at the same time, with that emphasis in day-to-day experience which places foremost in their minds the experience of progressive changes. We lift society out of the bestiality of sameness, and into the divine work of change.

Technological progress is not only a material necessity for society. It can not be sustained without the equivalent of a classical cultural life for the population, and technological progress is part of that classical culture. The end-result is the production of an improved quality of individual person. It is that person, his development, the nurturing of the good he contributes to society, which is the purpose of existence of republics, and which defines the fundamental self-interests of nations and their populations.

A Difficult, But Critical Point

Although the required mathematical functions for economic analysis are continuous functions, these continuous functions subsume an ordered series of mathematical-functional discontinuities.

There is no mystification in that apparent paradox. Imagine the case in which heat is applied at a constant rate to some very cold ice. At a certain point, the ice melts. At a later point, the water vaporizes. The function is continuous: applying heat; yet, the behavior of the substance being heated passes through three, distinct kinds of behavior: crystalline, fluid, and gas. The change-over from crystalline to fluid, and from fluid to gas, are changes in the physical state of the material. These changes in state have the mathematical form of discontinuities. That is a very basic illustration of a continuous thermodynamical function which subsumes ordered discontinuities.

Economic processes are continuous thermodynamical functions with a very high density of ordered discontinuities. (Econometricians, most of whom understand nothing of the reason for this phenomenon, usually describe such discontinuities as "non-linearities.") Without acquiring the mathematical apparatus appropriate for such a case, competent mathematical economics were impossible.

It is for this reason that no mathematical economics can be competent, except as it is based methodologically upon the mathematical physics of B. Riemann.

Among professionals, Riemannian physics has a false reputation for esotericness. In fact, a properly educated graduate of a secondary school could efficiently comprehend everything essential about Riemannian physics. The problem is that even most graduates with terminal, university degrees in physics today, are very viciously miseducated in the relevant fundamentals. Such professionals make matters unnecessarily difficult for themselves, on the subject of Riemannian physics, by demanding that Riemannian physics be explained in such a way as to include axiomatic assumptions which are contrary to Riemann, and which are, in fact, long ago proven to have been absurd.

Nonetheless, popular opinion and professional education being in the condition they are today, there is a painful, apparent difficulty in a few aspects of the immediate, next point to be made. What are the crucial features of Riemannian physics, as that physics bears directly upon competent mathematical-economic forecasting? Once we have completed this subsumed point of our introductory remarks, we have reported all that is essential for the reader to know respecting the writer's expertise in this field. That completed, the remainder of this introductory chapter is devoted to identifying the crucial reasons all contrary versions of political-economy, and econometrics, are absurd in performance.

Cases including twentieth-century study of the electron (by Erwin Schrödinger), isentropic compression in effecting thermonuclear ignition, and proof of Riemann's calculations for the generation of "sonic booms," have all, in effect, proven that our universe is "Riemannian," and not the universe of Bacon, Descartes, Newton, Cauchy, and Maxwell. With one very crucial

exception to this, Albert Einstein's statements on this point stand as essentially correct to the present date.

In the history of modem science, beginning with Cardinal Nicholas of Cusa and Leonardo da Vinci during the fifteenth century[8] there have been, since Francis Bacon and the hermeticist-cultist Fludd, two ultimately irreconcilable definitions of mathematical science. All of the fundamental contributions to mathematical physics, beginning with Johannes Kepler, run through such names as Pascal, Huyghens, Leibniz, the Bernouillis, Euler, Monge, Camot, Gauss, Lagrange, Dirichlet, Weber, Riemann, Weierstrass, Cantor, Max Planck, Felix Klein, et al., constituting what British usage since the late seventeenth century has identified chiefly as "continental science." The opposing, Jesuit or Cartesian school, Bacon, Fludd, Newton, Cauchy, Maxwell, et al., the so-called "delphic" school, is typified by British empiricism and Viennese radical positivism. No known fundamental contribution of human scientific knowledge has been generated by the latter, delphic faction.

The empiricist-trained current among professionals has, of course, contributed a number of important discoveries to what is called "applied mathematical physics"; the case of Rutherford suggests itself as a twentieth-century example of this. They have, sometimes, done some excellent engineering. Nonetheless, listing each and all of the fundamental scientific discoveries of the past five hundred years, all have been produced by the "continental science" faction.

This is no merely contentious assertion. Teams of researchers working for more than a decade have proven this reported fact conclusively, respecting each and every fundamental discovery of the past five hundred years of science. This has been accomplished by reference to the relevant archives of several nations of Europe, as well as the United States. Once one puts to one side, the gossip of such secondary sources as textbooks, to examine the working-papers of scientists from the period discoveries were actually made, the case is immediately conclusive.

The widespread mystification of scientific knowledge today, is chiefly the outcome of demanding that science's contents be plausibly (i.e., delphically) explained in terms of reference of the false assumptions embedded in the Descartes-Cauchy-Maxwell, empiricist-positivist faction's dogmas. We shall not treat that matter in detail here, of course. It is necessary that the fact of such a problem be noted.

All modem science begins with a discovery first known to have been made during the fourth century B.C., at the temple of Ammon in Cyrenaica. A contemporary and collaborator of Plato, working at that temple, proved that only five kinds of regular polyhedrons can be constructed in Euclidean space. The essential implications of this discovery were comprehended and reported by Plato, in his Timaeus dialogue. For that reason, the five unique kinds of polyhedra have been known over the subsequent millenia to date as "the five Platonic solids." Modem mathematical physics began with Johannes Kepler's proof that the universe is organized in the manner Plato's Timaeus argued it to have been.

The fact that only five species of regular polyhedra can be constructed in Euclidean space, is conclusive proof that Euclidean space is geometrically "bounded."

Since the work of Gaspard Monge, of Riemann's geometry-teacher, Steiner, and of the refinement of topology by Riemann himself, we know, during and following the nineteenth century, a great deal more than ever before, what the physical significance of the notion of "geometrical boundedness" means for scientific practice. Euclidean space, we know, is the visible space of the space-time we see. That is what "Euclidean space" ought to mean, and nothing more. Steiner's methods of "synthetic geometry," indicated earlier here, are the key to understanding this point. We throw away all axioms, all postulates, all methods of deductive "proof," all theorems (e.g., all "Q.E.D."), from Euclid's Elements. Only what we can reach by construction, using Steiner's principles of rigor of synthetic-geometric construction, are proven for knowledge. That, and nothing different, is what we must intend to signify by "Euclidean space-time."

The limitations upon what we can construct, and what we cannot construct, by Steiner's synthetic-geometric methods, are the basis for what we term the "geometrical boundedness" of Euclidean space-time, as Riemann, during the 1860s, emphasized to his student and collaborator, the great Italian scientist Betti. The essential empirical proof of this point was comprehensively provided by the work of Johannes Kepler.[9]

It is from this standpoint, and from no other standpoint, that the problem of, and solution for, apparent "non-linearities" in economic processes, can be mastered.

The inspirer of modem science was Cardinal Nicholas of Cusa. Among Cusa's most important, immediate followers, was the great Leonardo da Vinci. Da Vinci and his circle of collaborators laid the foundations for everything we term modem science today, with Leonardo basing himself principally upon the program for science outlined by Cusa. The implications of the "five Platonic solids" were the center of everything from that point onwards, from Kepler through Riemann.

If Euclidean physical space is geometrically bounded, as the "five Platonic solids" prove this to be the case, then the following additional conclusions follow immediately and directly. First, what we see as visible space reflects reality, but is not itself reality. Secondly, visible space is not merely a mirror-reflection of reality, albeit a highly-distorted mirror; the mirror is itself an embedded, inferior part of reality. The reflection we see is distorted according to the same geometrical principles which are reflected to us as the boundedness of Euclidean space.

For example, the circle of Leonardo demonstrated empirically that all living processes elaborated themselves morphologically according to what we today call self-similar proportionings, as the snail's shell illustrates this in the most rudimentary way. These self-similar proportionings of the morphology of living processes, are coherent with the construction of one of the plane, regular pologons associated with the "five Platonic solids," the pentagon: the so-called "Golden Section" is characteristic of the ordering of living processes in Euclidean space.

Kepler sought to prove the thesis of Leonardo et al. conclusively, and succeeded in doing so.

First, employing the same principle of closure integral to proving the uniqueness of the five Platonic solids, Kepler reduced the problem from that of the sphere, to the corresponding circle. He inscribed the regular polygons corresponding to the Platonic solids, and determined thus the musical, monochord values for these circumscribed pologyons.[10] He then used the same principles to determine the possible positions of the planetary orbits, and to

determine whether the ratios of the orbital velocities (aphelial, perihelial) constituted a harmonic series of the Platonic ordering.

There are two sorts of marginal errors in Kepler's calculations, but merely marginal. First, Kepler merely approximated the elliptical functions required (a problem finally resolved by Riemann). Secondly, his musical values were not quite the correct values; he was unfamiliar with the kind of ordering of the complex domain we now know through the successive work of Lagrange, Gauss, Dirichlet and Riemann (especially). If Kepler's method is repeated for the complex domain, the precisely-correct harmonic values of reference are adduced by synthetic-geometrical methods.[11]

Two things must be said, as a matter of general observations, respecting the validity of Kepler's proof for today.

Firstly, Kepler's method for determining solar orbits is the best method we have still today. Newton's "action at a distance" is a failure, as well as a hoax.[12] Not only are Kepler's determinations for all of the planets correct (including planets unknown to Kepler). Kepler's laws hold also for the moons of the planets; even "visitors" entering orbit, fit into the system prescribed by Kepler's laws. Kepler is successful; Newton is a hoax and failure. Furthermore, the case of spiral nebula implicitly conforms to Kepler's method, and Kepler's Third Law, derived from the same methodological approach as the rest, is indicated to hold for rotation in galaxies as well as for the solar system, as Mexican astronomers have demonstrated this point.

More crucial is Kepler's showing that an exploded planet must have necessarily existed at one time in the orbit presently known to us as the asteroid belt. As Karl Gauss was the first to prove, toward the end of the eighteenth century, the harmonic values of the principal asteroids' orbits are exactly those identified as the values for the "exploded planet" by Kepler.

Kepler proved that cause-and-effect has nothing to do with action at a distance among bodies within visible space; cause-and-effect is located "outside" of visible space. The ordering of bodies and motion in visible space is determined by the characteristic geometry (the geometrical boundedness) of the "mirror" which we see as visible space.

He proved, that the order in what we see in visible space is an harmonically determined order. It is the kind of choice of available harmonic orderings seen which informs us, chiefly, what kind of real action is being reflected in the mirror.

This was the methodological standpoint, respecting numbers, and so forth, of Blaise Pascal. Leibniz adopted the specifications for a differential calculus provided by Kepler, and employed Pascal's work on differential number-series as a crucial aid in solving the task defined by Kepler.[13] The work in synthetic geometry by Lazare Camot's teacher and collaborator, Gaspard Monge, was crucial in the revolution in science (the theory of mathematical functions, thermodynamics) developed by the Ecole Poly technique, through the point of Louis Lagrange. After Augustin Cauchy's leading post-1815 Inquisition in France against the Ecole Polytechnique,[14] French science exiled itself to Prussia, under the protection of Alexander von Humboldt.[15] The fusion of the school of Gauss with the allied school of Lazare Camot, made Germany world-supreme in fundamental scientific work until the 1920s.

What Kepler did not accomplish, and could not accomplish with the resources then available to him, was to define rigorously the nature of the larger reality for which the images of visible space were a distorted reflection. This was completed, in all essentials, by Bernhard Riemann, over the period 1854-1866. The essential work supplementing that of Riemann, was the work on continuous generation of discontinuous functions by Karl Weierstrass, and the 1871-1883 work on ordered transfinites, by Weierstrass's student, Georg Cantor. Building (chiefly) on the work of Karl Gauss and Louis Lagrange, and under the immediate influence of Steiner, Lejeune Dirichlet, and (as to electrodynamics) Weber, Riemann completed the essential basic solution to the problem posed by Kepler's proof. With aid of the work of Weierstrass, and Cantor's work on the transfinite, we now possess all the mathematical-conceptual apparatus needed to handle the problem of continuous functions subsuming ordered series of discontinuities.

We limit our emphasis here, to those points which bear directly upon mathematical economics.

What we see, as visible space, we call a discrete-manifold.[16] We see a distribution of bodies in a space-field, discrete bodies, apparently bounded by' 'open space." We measure the distribution of action among such bodies in discrete-manifold space in two ways: harmonically (as Kepler illustrates the point), and in terms of what is usually termed a "generalized Pythagorean." By the generalized Pythagorean, we signify that if a process observed in visible-space terms of reference, has N independent variables, we should measure the characteristic, action within that phase-space by means of an expression of the Pythagorean form: $S = \sqrt{x^2 + y^2}$. Thus, for N degrees, we require $S = \sqrt{x^2_1 + x^2_2 + x^2_3 + \text{—}.\text{—}.\text{—}.x^2_n}$. We may, sometimes, wish to describe this as a statement of the "metrical properties" of (discrete-manifold) N-space.

The Lorentz transformation, the Einstein development of the argument for special relativity, and so forth are the modem, classical treatments of such a problem.

Against this, we confront the proof, first developed by Kepler, that this visible space is but a projected reflection of reality: The actions observed in the discrete-manifold are not caused by relationships within the discrete-manifold. What we see in a distorted mirror (St. Paul's "as in a glass, darkly," or the shadow on the wall in Plato's Cave) does not act upon itself to cause the motion we see in that mirror.

What we see is a projection of real action occurring in a continuous manifold, the higher-order complex domain. The question posed is then, what is the necessary nature of this higher-order, complex domain, sufficient to account for the behavior of the images in the distorted mirror?

This takes us into general topology. The essential question of sane topology (as opposed to some lunatic varieties of "algebraic topology"), is, "What properties of relationship seen in a discrete-manifold are also necessarily properties of a continuous manifold's images projected into the images of the discrete-manifold?"

The images of discrete objects in the discrete-manifold are necessarily projections of singularities of a continuous manifold. However, if the continuous manifold were of a fixed order N, those singularities could not correspond to efficient bodies of a discrete-manifold. For this (and associated reasons of proof), the continuous manifold can not be of a static, fixed order, N. It is a continuous manifold characterized by constant "integration" of, abstractly, one-at-a-time, some of the N degrees of freedom of that

continuous manifold. In such a case, the continuous manifold has the properties we require of it. The unit of action in the continuous manifold is an act of "integration," such that manifold N is going over into manifold N+l.

Very nice. How do we prove this empirically? For this Riemann specified the principle of the unique experiment. The 1859 paper, "On The Propagation of Plane Waves of Finite Amplitude"—the key reference for the LaRouche-Riemann method, is the prototype for all unique experiments.

The going over from N to N+l degrees of freedom is the most characteristic of those topological invariances which carry over by projection, from a continuous manifold of reality, into the distorted mirror of the discrete-manifold. Therefore, the effect of this topological invariance is empirically observable in experimental inquiry into the discrete-manifold's images. This kind of transformation is manifest only under conditions of observable phase-space change in the discrete-manifold. The key, associated features of such a transformation in physical phase-space, of phase-change in a process, is a manifest change in both the harmonic and generalized-Pythagorean features of the discrete process observed.

Therefore, first, if it can be demonstrated empirically, that unique experiments conform to Riemann's specifications for the ordering of continuous manifolds, then our universe is Riemannian. That unique experimental proof has been accomplished; our universe is Riemannian. Second, only those kinds of experiments which focus upon successive phase-changes (N into N+l), inform us of any principled, lawful features of the real universe. Conversely, all lawful principles of the real universe are demonstrated empirically only by means of unique experiments.

The following leading conclusions, bearing upon economic science, follow directly from this.

First, the universe as a whole is absolutely negentropic. The relationship (N+1)/N, is the ultimate, geometric expression for the free-energy ratio. This relationship is expressed as a continuous function, is a potential function of the Riemannian form. The integration of this potential function, yields a transformation from a potential function of order N, to a higher potential function, of order N+ 1.

The energy-flux-density of the universe is increasing, in the sense of a closed system characterized by absolute negentropy.

This eliminates absolutely several commonplace fallacies of pseudo-scientific belief, including the fictitious Conservation of Energy, the notion of energy as ontologically a scalar magnitude, and the notion that negentropic life exists by "running down" the potential of an entropic universe.

Second, technological progress in societies is of this same form.

If we total the social division of labor in production, and also the social division of labor "collapsed" into design of machines, etc., any economy can be approximately described, "instantaneously," as an input-output process of an order N. Technological progress always involves both the elimination of some elements of the input-output matrix, but the addition of more new elements than old elements discarded. This transformation in the matrix is accompanied by an increase in the potential relative population-density.

So, the transformation of the form N into N + 1, and the corresponding integration of potential functions, is the required form of mathematical analysis of this thermodynamical function. These successive integrations of the potential function, in a Riemannian manner, subsume, under continuous integration, successive phase-changes in the economy, those kinds of phase-changes which are reflected to the apoplectic econometrician as "non-linearities" of the economic process.

Current Status of the LaRouche-Riemann Models

Up to the present time, the various published versions of the LaRouche-Riemann method, including the quarterly forecasts for the U.S.A. economy, have been an informed approximation of the original design. Beginning September 1982, this will change. By as early as the final quarter of 1982, regular forecasts will be based upon the upgraded form of computer-assisted analysis.

Although the LaRouche-Riemann method has been in various forms of development and increasingly successful application since the initial discovery of 1952, the decision to apply this to the task of computer-assisted reports was made only during a seminar of December 1978, a seminar devoted principally to comparing the indicated relative progress of Soviet and U.S.A. work on thermonuclear fusion.

During that seminar, special emphasis was given to a Soviet use of Riemann’s cited 1859 paper outlining a unique-experimental approach to shock-wave propagation in the Soviet H-bomb development Although U.S.A. circles were fully aware of this paper, on one level, its deeper implications had never been generally accepted as part of U.S.A. research-policy. It was the group's continuing experience, up to that date (and, in fact, since), that there was a stubborn counterproductive resistance on this point among leading U.S.A. research-circles. The question was how to persuade these U.S.A. circles to correct their error on this point—since certain important problems could not be effectively solved in fusion and related research, until that stubborn error was corrected?

It was the writer's observation that the 1859 paper included, implicitly, all of the apparatus needed to reduce his economic science to the form suited for computer-system applications. A successful such application to economic forecasting, he proposed, must necessarily prove vastly superior to all existing governmental and private forecasting institutions' work. Such success would, he proposed, serve as leverage to persuade many, including some stubborn plasma-physicists, of the power and importance of these methods. Immediately thereafter, he elaborated the schedule of constraints to be used in developing a computer program appropriate for applying Riemann's 1859 paper.

A projection for India's development, and the production of the quarterly LaRouche-Riemann USA economy forecasts were the principal work of 1979. These did not directly employ Riemann's method; rather, Riemann's method was used to shape the choice and use of informed approximations. Those approximations, with certain refinements, were the basis for the eminently successful performance of the forecasts to date. Meanwhile, studies of Mexico, the Federal Republic of Germany, and other cases have been in progress.

The problems which obliged earlier resort to informed approximations have been several. Want of funds for staff and

computer-usage, constricted the rate at which progress could be accomplished. Otherwise, the problems of acquiring a cleansed, cross-checked data-base for economic statistics as such, and the greater difficulties of developing usable data-bases for energy-flux-densities of production, and demographics, have been serious difficulties. Finally, only by working through the entirety of the internal development of mathematical physics leading into

Riemann's work, could proper decisions be made bearing upon many detailed questions of mathematical procedures themselves. It was necessary to conduct research into neglected archives in Europe, to dig out previously unpublished working-papers, as well as long-neglected, but urgent material, to accomplish this part of the work.

Now by mid-September 1982, there will be available the most powerful mathematical apparatus ever known for treating whole economies. Most important, it will now be feasible to effect long-range projections for national economies with practical accuracy of the degree required by policy-makers. This has never been possible before this point in time—except in those terms of approximation which Leibniz developed for Peter I, and Friedrich List developed for Germany.

On that basis, we are situated to make authoritative statements about the economic-development requirements of and prospects for Ibero-American economies. Within thirty years or so, the economies of Ibero-American could double in population, and could increase per-capita output, on the average, between five to ten times present levels, That is a very conservative estimate of the possibility. We are now situated to develop such feasible programs with a forecasting accuracy beyond anything ever before dreamed possible.

The General Failure of Contemporary Economists

The normal, patriotic economist of Ibero-America will have little difficulty in understanding, and applying the variety of method we prescribe. Every Third World patriot is "instinctively" a "neo-mercantilist," instinctively a would-be practitioner of the American System of political-economy.

Such economists will gladly embrace our emphasis upon physical economy. The difficulty, among such economists, occurs entirely with respect to the monetary side of economic processes.

The problem is commonly expressed: "What you propose is fine, but, how can we accomplish this under the conditions under which we have to live?" By "conditions" is signified, most emphatically, the International Monetary Fund, the World Bank, the GATT, the Bank for International Settlements, the Paris Club, the London bankers, the New York bankers, and the Eurodollar market.

The cruel fact is, no Ibero-American nation has been sovereign recently in matters of national credit, currency, and public debt. The international monetary and associated institutions have imposed a dictatorship upon all such nations, a dictatorship become more cruelly harsh since Henry A. Kissinger assembled the wicked Rambouillet conference of 1975. The conditions of prices, credit, currency and debt, built into the world market and the domestic market, become the "conditions of life" under which the patriotic economist must seek to find physical-economic solutions.

This presents to the developing-nation economy several, interacting problems.

First, international monetary authorities (aided by the threat of coup d'etat or assassination against governments which displease them) do not permit developing nation economies to establish sovereign forms of domestic monetary organization. The nation is not permitted to devise a form of national, internal monetary order conducive to emphasis upon physical-economic development.

Second, foreign credit is limited in availability for development of the nation's physical economy, but relatively abundant for raw-materials and other investments, which tend, in total effect, to distort the development of the internal physical economy, and this aggregately to crippling effect.

Third, developing nations are forcefully prohibited from establishing those forms of national banking and exchange- and trade-controls necessary to force investment of domestically-generated savings into beneficial investments. Slight manipulations of exchange-rates, interest-differentials, and so forth, thus suck money-capital out of economies into foreign markets, increasing the nation's dependency upon the cruel mercies of foreign monetary and financier powers.

Fourth, the political-economic dogmas embedded in these monetary and related practices are all of the form of either the British or Viennese varieties of incompetent concoctions. Either Adam Smith's apology for the British East India Company's colonialist "free trade" policy (against which the U.S.A. War of Independence was fought), or the utilitarian varieties. Acceptance of these destructive dogmas by developing nations is made, very efficiently, a "conditionality" for relatively more tolerant treatment by international monetary and financier potencies.

We examine summarily, the intrinsic incompetence of these political-economic dogmas, and, after that has been done, turn to the derivative intrinsic incompetence of all econometrics today.

It is urgent that Ibero-American economists give attention to the writings of the two Careys, as well as Hamilton and List. We refer, emphatically, to Mathew Carey's 1819 lectures exposing the evil of "free trade" policies (today, called "free enterprise" policies)[17] and to the work of his son, Lincoln's economic adviser. Henry C. Carey, in dissecting the feudalistic character of the British economy.

Henry C. Carey rightly emphasized that the British economy was not a capitalistic economy, at least not in the sense of capitalist economy defined by the 1787 constitution of the United States of America. Rather, Britain was primarily a feudalistic economy, with significant elements of capitalist development subordinated to that feudalistic order. This observation is not premised merely on Britain's monarchical form of government, or the dominant role of a titled oligarchy under the monarchy. "Feudalistic," for Carey, has a rigorous and proper significance, bearing upon the crucial, distinguishing features of the British economy and law.

The war between capitalistic and feudalistic forms of economy is based on a fight of earned, reinvestable profit, against the feudal traditions of ground-rent and usury. We capitalists do not object to rent, insofar as rent is a form of payment for the maintenance of previously created improvements, such as in real estate. Nor do we object to an interest-rate which covers actuarial risk to lenders, plus their personal cost (as bankers and savers) in

managing such forms of investment. Such rent is not ground-rent; such interest-charges are not usury.

What we object to, is a purely monopolistic rent of real estate, and a monopolistic form of charge on loan of money. We refuse to tolerate a landlord's charging an arbitrary rent, merely on premises of owning land: ground-rent. We refuse to tolerate a monopoly over regulation of credit, currency and debt, by a cabal of private, rentier-financier interests.

The policy of "free trade" has the effect of forcing excessively competitive lowering of prices of produced agricultural and industrial goods. Manufacturers and farmers are able to bring costs within the range of prices only by exploitative rates of compensation of productive labor, including the owner-operator farmer's own labor. This depresses production-levels, lowers the rate of investment in employment-creating production, and prevents the agricultural and industrial entrepreneurs from emerging as a class more powerful than the combined forces of feudalistic landlords and rentier-financiers. By establishing themselves as the dominant financial power in a nation, or in world markets, the feudalistic class is able to corrupt purchased politicians, parties and governments. By means of this power and corruption, ground-rent and rentier-financier usury income is enhanced, while profits and wages of production are kept relatively depressed.

This increased role of feudalistic ground-rent and usury is the direct cause of the business cycle. The accumulation of feudalistic financial holdings and charges against society grows, relative to investment in production and circulation of newly-produced goods. Since production must supply all of the payments to ground-rent and usury, when the charges of ground-rent and usury become very large, relative to the income of production, the rate of profit on feudalistic and profit income combined must tend to collapse. This leads toward contraction of values, or actual collapse in financial markets. To the extent that the privately-owned financial markets control the major part of a nation's supply of credit and investments, the collapse of the privately-owned financial markets causes a prolonged depression.

No such problem can occur in a properly constituted capitalist economy. In such an economy, the state, through its national bank, is the sole supplier of lendable credit in excess of lending of deposited savings of combined bullion and currency. A low-interest-rate policy for national-bank credit, undermines usury. A relatively savage taxation of ground-rent income, as unearned income, prevents the feudalistic element from engaging successfully in large-scale accumulations parasitically. No depression occurs.

The feudalist defends his practices by means of physiocratic fallacies. He argues, falsely, that all wealth ultimately comes from the land ("natural resources"). Or, like Adam Smith, he includes the labor of beasts and men, treating man as like laboring cattle. He rejects the fact, that the sole source of sustained wealth-production of society, is development of the productive powers of labor.

It is of the utmost relevance, that all British political-economy is the product of the British East India Company, is intrinsically colonialist economic dogma. Smith was an agent of the British East India Company's Scottish (Edinburgh) offices. The first chair in political-economy in Britain was established by the British East India Company, for its protege Thomas Malthus. David Ricardo, another physiocrat, was an official of the Company. So were Jeremy Bentham and James Mill. So was John Stuart Mill.

The image is of a group of murdering gangsters, who have taken possession of a village. Occupying the village by force, they proceed to preach the ethics, morals, business acumen, and general philosophy of "we, successful" forces of society, to those from whose labor they parasitize.

The British dogmas reject the fact, that society exists only by increasing potential relative population-density, by advances in technology. The British deny that man's creative-mental powers create wealth; they insist that wealth comes from feudalist-owned land, and that society generally exists at the mercy of landlords charging an arbitrary rate of rent. That is the essential feature of "classical British political-economy."

British political-economy underwent a qualitative moral degeneration during the nineteenth century, with the rise of the utilitarians, John S. Mills, William Jevons, and Alfred Marshall. Mill and Jevons were very plain-spoken, very emphatic; the only truth in human practice, they insisted, was the irrationalistic form of hedonistic appetites of the individual. Society, they insisted, represented an effort by a horde of such Hobbesian individuals, to optimize the relative pleasure and pain of their interaction. Mill and Jevons insisted that the only basis for political-economy, therefore, was the "hedonistic calculus" of Jeremy Bentham. They insisted that buyers and sellers reflected the relative pleasures and pains of the transaction by adjustment of the selling and buying price. Over many exchanges in a state of anarchic competition among buyers and sellers, they argued, the money-price for commodities would converge, statistically, upon a price which optimized pleasure and pain among all buyers and sellers.

Except for some reversions to Smith and Malthus, all modem British (Oxbridge, London) and Viennese economics dogmas are derived from the radically hedonistic dogmas of Mill, Jevons and Marshall. All British dogma is based upon "price theories" derived from the evil, hedonistic irrationalism.

They argue, that the physical economy's development must be subordinated to the requirements of a British-style monetarist order; whereas, we republicans insist that the monetary system must be designed and regulated to meet the requirements of a prosperous, capitalist form of development of the physical economy.

Econometrics

Modem econometrics is based upon an absurd set of presumptions put forward by John von Neumann. Von Neumann employed three assumptions, two stated, the third so axiomatic to him that it undoubtedly did not occur to him to mention it. He asserted explicitly, first, that an economic process was an entropic system adequately described by a system of linear-algebraic inequalities. He specified, additionally, that the hedonistic principle of marginal utility was the determining value in an economy. He asserted implicitly, without stating that point in this connection, the Cartesian dogma respecting the composition of the universe as a whole. On the basis of this set of presumptions, he proposed to create a mathematical economics based on his model for the theory of games.

All modem econometrics is premised upon those wretched assumptions of von Neumann's.

The least fault in econometrics is the fact that it can achieve a modest degree of descriptive accuracy, but only in forecasting and analyzing those conditions of economic processes which have no interest to policy-makers. The only "interesting conditions" in an economic process, are those phase-changes which the econometrician abhors as "non-linearities."

The worst fault is reflected in the fact that econometrics treats the income of usury, heroin trafficking, gambling casinos, and politicians' bribes, as equally beneficial to an economy as income from the production of food, medical care, and so forth.

A recent fraud of the Reagan administration illustrates the point.

After a significant period of "policy review," the Reagan administration recently bowed to demands that the President do nothing in the direction of any significant policy-change, until after the November 1982 congressional elections. This agreement meant, most emphatically, no administration action against Paul A. Volcker. As a result of this decision, the administration published a fraudulent report, asserting that the "Volcker recession" had "bottomed out."

In fact, the U.S.A.'s economy continues to decline at a 9 percent annual rate. How did the hoaxsters in the administration cook up the figures, to make a collapse appear to be the beginning of an economic recovery?

There were two figures used to make a collapse appear, statistically, like an economic recovery. First, there was a substantial increase in interest-payments income (a result of the cumulative effect of Volcker's usurious interest-rates policies). Second, the fakers in the administration insisted that an increase in inventories of unsold goods, actually caused by a collapse in sales, represented an increase in GNP.

The political point of this fraud was to excuse President Reagan for not acting immediately to half the depression. "See," the lying statisticians argued, "Not only has Volcker successfully brought down inflation, but we have reached bottom in the recession, and the economy has now begun to move upward." The political point was: "Would you ask us to change a successful policy, just when it is beginning to succeed?"

This sort of fraud is epidemic within what is called the "Gross National Product," or "Gross Domestic Product," methods of national-income accounting among UNO member-nations generally.

The LaRouche-Riemann method is correct, and the GNP and econometric methods are absurd, under all circumstances. Nonetheless, there were special considerations involved during the October 1979 period to date. Under "ordinary circumstances," the LaRouche-Riemann method of forecasting is always superior to any other existing method. However, under "ordinary circumstances," the comparison would not be quite as dramatic during the short term as has been the case beginning October 1979.

The absurdity of econometric forecasting comes dramatically to the surface in short-term forecasting, under conditions in which the evolution of the economy is markedly "non-linear." This marked "non-linearity" of the economic process occurs during either high rates of technological progress in productive investment (i.e., N into N+l), or high rates of contraction in the economy (N into N-1). In the first case, the economic process has become markedly negentropic. In the second case, the economy has become markedly entropic. Under either case, only the LaRouche-Riemann method has even short-term competence as a forecasting method.

What Volcker actually did, beginning October 1979 under Carter, was what had been proposed by the New York Council on Foreign Relations in its 1975-1976 "Project 1980s" studies. That policy was named "controlled disintegration" of the world-economy. During Spring 1979, while campaigning for nomination to become Chairman of the Federal Reserve System, in Britain, Volcker publicly assured the U.S.A.'s British controllers, that he was a supporter of policies of "controlled disintegration," using that specific name for this policy.

What Volcker did was to shift income-flows radically, away from agricultural and industrial production, into ground-rent and usury. By raising interest-rates dramatically, he forced the entire U.S.A.'s banking-system to restructure its capital on the basis of usurious money-market rates. He thus created a condition under which the private banking system of the U.S.A. could not, by its own means, bring interest-rates down. Only government action, during the period since 1980, could have reversed the trend. So, money-capital was looted from the profits and operating-capital of agriculture and industry (and the federal, state and local governments, as well), into a chain-letter variety of non-productive, financial-speculative investments.

Through the combined shock-effect of the October 1979 measures and the year-end, 1979, new sharp rise in petroleum prices, the U.S.A.'s economy was pushed below breakeven during early 1980. That is, if one views the U.S.A.'s economy as a consolidated, single agro-industrial firm, the net operating profit of that consolidated enterprise was driven below zero. So, increased payments to ground-rent and usury came out of the "energy of the system" of production of goods. An N into N-l devolutionary process was imposed upon the consolidated agro-industrial firm.

This N into N-l process of bleeding the goods-producing sectors to death, went through two general phases. The first phase was bleeding of fixed-capital investments in agriculture, industry and basic infrastructure. The second phase, was gouging short-term operating-capital requirements. It was the entry into this second phase, for the economy as a whole, which defined the Winter months of 1981-1982 as the onset of a new "Herbert Hoover" species of general economic depression.

This present report projects for Ibero-American republics, a highly negentropic, dirigist form of economic development.

As a matter of principle, nothing proposed differs from the philosophical outlook of the American System design of capitalist economy. By applying the more powerful tools of the LaRouche-Riemann method, to aid American-system kinds of policies and objectives, we improve greatly what can be accomplished under the guidance of Hamilton's American System. We can master kinds of problems which could not be mastered without aid of the LaRouche-Riemann method.

To make such a rapid rate of economic growth possible, those nations, individually and collectively, must become truly sovereign republics in respect to matters of credit, currency, banking and debt. We must establish a state-controlled creation and direction of availability of low-priced medium-term to long-

term credit for goods-producing and basic-infrastructural investments.

The function of the LaRouche-Riemann method of analysis and forecasting then has the following principal functions:

1. To provide the republics of Ibero-America, individually and collectively, with a competent method for measuring and controlling national-economy performance.

2. To assist governments in selecting priorities for public investments (e.g., basic infrastructure) and encouraging private investments, according to knowledge of which categories of investments will have relatively the greatest value to the advancement of the economy as a whole.

3. To provide the scientific basis needed to assist in developing a national popular consensus, such that public opinion understands the priorities for development, and is mobilized to assist in ensuring the success of such policies of practice in both the public and private sectors of economy.

4. If this can be done, an accelerating rate of economic growth can be initiated. This growth-rate will be highly negentropic, and can be measured and controlled only by employment of methods of analysis and forecasting which can cope with the high density of discontinuities occurring in a negentropic acceleration of development.

2. A Three-Level Approach to Debt-Reorganization

If presently prevailing policies of the U.S.A. and Western Europe continue, it is presently just slightly less probable than certainty that there will be a general financial "crash" within the Bretton Woods system's remains during the month of September 1982. That is the prevailing opinion expressed by the highest circles in London and Switzerland financial circles. It would be technically conceivable that "papering-over" agreements could postpone the general financial crash into early 1983; however, that "papering-over" would require an active role by the London and Swiss gentlemen who are presently planning for the September crash.

This crash might be prevented. That prevention would require a profound shift in U.S.A. monetary policy executed during the present month. If President Ronald Reagan had considered such action earlier, he appears presently to have lost his nerve for any overt policy-shifts of importance prior to the November 1982 round of elections. Some shock of unusual force would be required to awaken the U.S.A. to the realities of the world situation.

On performance to date, the Reagan administration confuses "public opinion" for scientific objectivity, avoidance of unpleasant facts as intellectual courage, and stubborn adherence even to proven follies as firmness of leadership. There is a certain goodness manifest in the President and some of his immediate circle, but nothing of Solon, Alexander the Great, Cardinal Richelieu, or even Franklin D. Roosevelt. Yet, were Reagan to be lost at this moment, the only visible alternatives would be disastrous. Only some shock awakening the present, personally limited President to a sense of reality, could probably bring the U.S.A. to its senses in time.

At the present moment, there are principally two "scenarios" for an Autumn-Winter 1982 worldwide financial crash. The first of these scenarios implies a depression far worse than that of the 1931-1933 period. To find a precedent for the consequences of the second, we must look back in European history to the fourteenth century.

The first scenario involves a possible technical default in Eastern Europe debts, combined with certainty of a chain-reaction collapse within the totality of Third World debt. Such defaults, prompted chiefly by the continuation of the monetarist policies of the U.S. Federal Reserve System, will bring down large chunks of the highly irregular, $1.8 trillions "Eurodollar market," and will strike most powerfully against the rotted-out U.S.A. banking system.

The case of the Ibero-American external debt exemplifies an important aspect of the problem. We have a debt in the order of approximately one-quarter trillion dollars' denomination. As a result of a continued downward-spiraling in world-trade levels, and depression of raw-materials prices, all compounded by highly artificial, externally imposed currency-devaluations, it is certain, under current international monetary policies, that the entire Ibero-American external debt collapses into general default during the months immediately ahead. Not one Ibero-American nation could survive twelve months of continuation of present trends. Only fearful, wishful thinking could prompt any government of such a nation to imagine a prettier picture ahead.

Those U.S.A. commercial-banking institutions heavily engaged in international markets are heavily exposed to both the petrodollar flows and to the Ibero-American debt. Meanwhile, in respect to the U.S. banking system's domestic-U.S.A. positions, their liquidity-rates are already catastrophic. They could not survive, on their own power, any significant blow against their positions. A sudden draw-down of petrodollar deposits would threaten to collapse every major New York City commercial bank excepting possibly Morgan Guaranty. A shock to the structure of the Ibero-American debt, would certainly start a chain-reaction of consolidating loan-positions, starting a financial crash in the internal U.S.A. as a whole. A combined Ibero-American debt-crisis and petrodollar withdrawals, occurring in the context of a Eurodollar-market crisis, would mean presently, a general collapse of the financial system of the United States of America.

Among leading European and some U.S.A. circles, it is presently intended that the projected financial crash will be employed as a pretext for putting the U.S.A. itself under "conditionalities" dictatorship of a radically informed International Monetary Fund. Formal signature to agreements giving such new powers to the IMF, is currently scheduled to be made during September. Signature to proposed agreements would, if tolerated, sweep away the sovereignty of every nation within the IMF system, at a single stroke of the pen of the signators.

The second of the two scenarios is more gruesome.

Israel's Defense Minister, Ariel Sharon, is not only a product of the Orde Wingate "kindergarten," but is a British-trained, British agent of influence. Through complicity among Lord

Carrington, Lord Caradon, Alexander Haig, Sharon, and others, both President Ronald Reagan and Prime Minister Menachim Begin were lied to, manipulated, and outmaneuvered. It is most reliably reported that both Henry A. Kissinger and George Ball had a dirty finger or two in this business. It is reliably reported that Haig used coded channels earlier established by Henry Kissinger to orchestrate the Middle East situation. In any case, a terrorist group controlled by a Sharon-led faction of the Mossad, assassinated the Israeli Ambassador to London, with cooperation of British MI-5. This terrorist attack, Sharon used to maneuver Begin into the position Sharon could launch an expedition intended to exterminate the moderate faction of the Palestine Liberation Organization in Lebanon.

Although President Reagan is proverbially "hopping mad" about the situation, so-called "Zionist Lobby" pressures (e.g., Michigan's Max Fisher), threatening to injure Republican Party candidacies during the November 1982 election, restrain the President from doing anything particularly effective more than attempt to delay the bloodbath Sharon is committed to carrying out.

This operation is part of the overall operations coordinated by Lord Carrington. With the election of the socialist, Mitterrand government, French foreign minister Cheysson and Carrington reactivated the 1916 Britain-France, Sykes-Picot Treaty. This was the 1916 treaty under which Britain and France proposed to divide between them the remains of the crumbling Ottoman Empire. The immediate plan was to push the U.S.A. entirely out of the Middle East. The Soviet Union was to be manipulated into playing an assigned part in this operation. The United States was to be pushed out of the Middle East, eastern Asia, Africa, and Ibero-America, with socialist France to insinuate itself into Ibero-America once the anger over France's role in the Malvinas Crisis had cooled down.

On the British side, it is also the continuing intent to destroy the outflow of petroleum from the Gulf, coupled with a projected destabilization of both Nigeria and Mexico. This is intended to push world-market petroleum prices over $100 a barrel, and to collapse the economies of continental Western Europe (especially the Federal Republic of Germany) and Japan.

The U.S.A.'s apparent complicity in tolerating Israel's horror-show in Lebanon is to lead to the final discrediting of the U.S.A. in the Middle East, and also in other parts of the world.

To the east, the Pol Pot hordes of the British SIS creation, Khomeini, batter at Arab civilization. From within the Arab world, other British SIS creations, the Asharites[1] of the British SIS Arab Bureau's Ikhwan (Muslim Brotherhood) are being deployed for insurrections. British agent of influence Sharon, prepares for the assassination of Jordan's King Hussein, and the carving out of a "Palestinian homeland" in Jordan, expelling Palestinians from "Greater Israel" into this "Bantustan"-like enclave, this murderous desert-ghetto.

The Israeli crushing of West Beirut is to serve as the trigger for a neo-Asharite envelopment of the Arab world, a reaction against the U.S.A., and a shut-down of large parts of petroleum outflow from the Gulf.

NATO "Out of Area Deployments"

That is not yet the worst of it all. One must look behind the British success in pushing the "out-of-area deployments" policy through NATO. One must know what this really means.

Most simply, the NATO "out-of-area deployments" policy is a rallying-point for NATO warfare against the developing-sector nations generally. The key to this policy is the Club of Rome's neo-Malthusianism, and kindred genocidal doctrines, such as Chatham House's "Year 2000," the Carter Administration's Global 2000 and Global Futures, and the "Brandt Commission Report," among many others.

The combined forces of the northern-tier and southern-tier European black-oligarchical "families," for which Lord Carrington represents the British Commonwealth element, is committed to a general destruction of both the nation-state institution and institutions of technological progress worldwide. The policy-objective of these forces is best described as "Malthusian world-federalism."

The object is to destroy all existing nation-states, on every continent of the world, through a combination of monetary and economic devolution and a proliferation of tribalist and other "separatist" insurrectionary and terrorist movements. It is intended, as the Kissinger-sponsored Bernard Lewis Plan projects for the "Arc of Crisis" region,[2] to break up existing nations into regional confederations of semi-autonomous "tribalist," "ethnic," "religious," "cultural," microentities. The regional over-government of each region is to be brought together with similar regional over-governments of various parts of the world, to create a world-federalist government on the basis of the United Nations Organization (an organization whose principal permanent organizations are already under long-standing British secret intelligence control). The UNO, overlapping supranational monetary and military institutions, is to become a world-dictatorship— all this intended to be more or less fully established by the close of the present century.

Since such devolution means a sharp reduction in the potential relative population-density of the world, a savage and rapidly accelerating reduction of the "non-Anglo-Saxon populations" of the world is intended to be launched during the 1980s, and more or less accomplished by the early decades of the next century.

Under the new, Malthusian world-federalist order, world-rule is to be secured forever in the hands of a supranational cabal of oligarchical rentier-financier "families." These include the Venetian-centered black-oligarchical families, such as the old aristocratic families of the Austro-Hungarian Empire, of Bavaria, the French Orleanists, the Swiss Protestant oligarchical families (Schlumberger, de Neuflize, Mallet, et al.), the Anglo-Dutch Scandinavian oligarchical families, the Braganzas of Portugal and Brazil, and such colonial additions as the Morgans, Moores, and Harrimans of the U.S.A.

Let there be no protests of "I can't believe that!" on this point. The documentation on the Harriman family's support for both Mussolini and Hitler is massive and conclusive. Moreover, W. Averell Harriman and his family, led by his mother, supported Hitler in 1932, on the basis of Hitler's "racial purification" doctrines, explicitly, the Harriman family, and the Harriman-Morgan, New York City American Museum of Natural History, have been and continue to be in the forefront of demanding genocide against the populations of developing nations. Not only

do they advocate such policies, but they are typical of the major forces, within the leadership of both the Republican and Democratic parties, who are pushing vigorously for immediate actions to unleash genocide in Asia, Africa and Ibero-America.

Although, these are the forces behind the birth-control campaigns of earlier decades, these "eugenicists" are not so ignorant of demographics, that they believe they can substantially reduce populations within a span of two or three decades by birth-control methods. These birth-control campaigns were merely a political-psychological conditioning-process, to' 'soften up" populations for toleration of the real measures the Harrimans, et al. are pushing forward presently: accelerate the death-rates.

The general methods for decimating the populations of Asia, Africa and Ibero-America, all fall under the heading of "unleashing the Four Horsemen of the Apocalypse." There are three principal classes of such operations: (1) Financial and economic warfare against the economies of targeted nations, such as IMF and World Bank "conditionalities;" (2) Wars, insurrections, and other forms of "destabilization" of both governments and economies, to promote preconditions for famines and epidemics; (3) Direct mass-murder, such as that being unleashed now by the "Pol Pot" of Guatemala, Rios Montt.

If we reduce the potential relative population-density of a nation or entire region of the world below the existing levels of population, famine and epidemic, by themselves, will reduce the level of actual population to a plateau significantly less than the reduced potential relative population-density.

If we add to this the introduction of homocidal varieties of religious cults, such as the homocidal cults of the fanatical irrationalists Khomeini or Rios Montt, or the quasi-religious cult of Kampuchea's Pol Pot, ruinous economic and social conditions will unleash that cult-force as a force for massive genocide, lowering the population levels way below the potential relative population-density.

These are not only scientific facts of demography; this is the conscious intent of the forces behind IMF, World Bank, Paris Club, GATT, and Bank for International Settlements "conditionalities."

One Harrimanite policy-influencing circle in Washington, D.C., illustrates the thinking behind NATO "out-of-area deployment" policies. This is the case of the Draper Fund/Population Crisis Committee, staffed by Generals Maxwell Taylor and William Westmoreland.

William Draper, who established the Draper Fund, was among those at the 1932 meeting of the American Museum of Natural History, which praised Adolf Hitler for Nazis' "racial purification" policies, a close associate of the pro-genocide Harriman family. This Draper went on to become a U.S.A. General during World War II, associated with the U.S.A. Strategic Bombing Survey, the group planning psychological-warfare bombing against the civilian populations of continental Europe. At the close of the war, this same General Draper, associated with the Dillon, Read house of New York City, was assigned to reeducate the conquered Germans, and to direct the constitutions of the German central banking system. So, this American Nazi-booster engaged himself in "reeducating" Germans.

General Draper may have become temporarily a "technical" anti-Nazi during the War, in the fashion of any opportunistic political chameleon under similar circumstances. He abandoned nothing of these practices which prompted him to support Hitler in 1932. The Draper Fund was created to promote these Nazi-like racialist doctrines.

Maxwell Taylor insists that U.S.A. military policy must be shifted, to emphasize “population and raw-materials wars" against the nations of the developing sector. Taylor projects extermination of most of the populations of most black African nations. Nigeria, Taylor proposes, is to be treated more generously; its population is to be reduced merely by approximately half during the remainder of this century. Taylor proposes that U.S.A. military capabilities be reprofiled as a force dedicated principally to fighting regional wars against developing nations.

Taylor's proposals are echoed by an assortment of liberal legislators, such as Senators Gary Hart and Edward Kennedy. These policies are understood to be the military implementation of Carter's genocidal Global 2000 and Global Futures policies, and are supported by those elements of the Executive and Congress which support policies such as Global Futures. These are the policies behind the NATO "out-of-area deployment" doctrine.

It is dangerously counterproductive to refer to such policies as, for example, "policies of the U.S.A." None of the industrialized, nominally capitalist nations of the world, excepting the case of Japan, generates its government's policies through constituency institutions reflecting a national interest. All constituency-group influence over the leadership of the Democratic Party in the U.S.A. evaporated during the 1968-1972 period, and in the Republican Party during and following ' 'Watergate." The governments of the OECD nations today are not governed by national constituency-interests; they are all governed, most emphatically in matters of foreign policies and military policies, by supranational factions which have, at most, very weakly-defined national loyalties.

The general situation among OECD countries, is that of an onrush of takeovers of parties and governments by the supranational oligarchical families, against the weakening resistance from vestiges of forces which formerly represented a nationalistic constituency-base and nationalistic definition of policy-shaping self-interest.

Consider, for example, the present, socialist government of France. This socialist government is a common property of two foreign-based forces: Britain's Conservative Party and that southern tier of continental oligarchical families including the Hapsburgs, Braganzas, Orleans, and the Swiss-French Protestant rentier-financier families (e.g., Schlumberger, de Neuflize, Mallet). The socialist government of France is, most immediately, the property of the Grand Orient Freemasonic lodge of Paris, Monaco, Liechtenstein, Rome and Beirut, the mother-organization for the scandalous Propaganda Due (P-2) lodge of Mussolini's former Nazi-occupation OVRA torturer, Licio Gelli. The composition of the Socialist government is chiefly persons who, like Mitterrand himself, are interchangeably socialist or fascist as the occasion demands.

The national-interest force in France today is a combination of fragmented local and other constituency-forces, none of which are presently organized on a national-party footing. These forces represent, at most, a memory of the person and ideas of President Charles de Gaulle. The Gaullist party is Gaullist only (chiefly) in name, and by virtue of the residence of some surviving old Gaullists on its roster. The control over the RPR is presently

divided between London and Munich, as exemplified by the case of Jacques Chirac, Mayor of Paris and RPR spokesman.

The principal policies of the Mitterrand government are not made within France, or in any respect on the basis of definitions of French interests; the policies are supranational in origin, and are merely adapted in rhetoric to French audiences.

The same is true, in principle, of the policies of the U.S.A. As Kissinger stressed in his May 10, 1982 public address at London's Chatham House, since the death of President Franklin Roosevelt, nearly all of the foreign policy of the United States has been controlled from London. London's power to control U.S.A. foreign policy directly, through corrupt foreign ministers (chiefly), would not be possible, of course, without the role of powerful oligarchical families, such as the Morgans, Moores and Harrimans, British agents-of-influence exerting great power from within the U.S.A.

With the crushing of Gaullism in France, except for Japan, there is presently no significant nationalistic sentiment in the OECD nations' policy-making institutions, at least nothing comparable to the degree of nationalistic sentiment active in most Ibero-American nations, India, and so forth. This fact was noted in a certain fashion within the 1975-1976 series of policy-studies compiled by the New York Council on Foreign Relations (CFR), the so-called "Project 1980s" series.[3] Crushing the neo-mercantilist economic-policy impulses of developing nations, together with the economies of Japan and the Federal Republic of Germany, was CFR's adopted strategy in the papers. CFR emphasized, that it is the nationalistic aspiration for progress among developing nations, which nourishes such a neo-mercantilist impulse. Since approximately 1966-1969, the commitment to technological-economic progress has been eradicated from the dominant policy-shaping institutions of the United States and Western Europe.

The practical importance of this point we are stressing now, is that under conditions of shock and stress, nationalistic impulses may be expected to reerupt from their slumbers among at least some of the OECD nations. Financial and economic catastrophe will quicken the populace's insistence that its government take some draconian action to remedy that suffering. If we can drive a wedge of enmity between the popular insurgency of nationalism and the supranational oligarchical families, it becomes possible to secure a qualitative shift in North-South relations among some of those OECD nations.

It is to the degree that ordinary citizens of those nations perceive the oligarchical families to be a supranational (e.g., foreign, alien) intruder, and the cause of the national misery, that the power of the oligarchy over governmental policies can be more or less nullified. That possibility is the chief source of hope for the survival of Ibero-American republics.

Collective Negotiation of Debt-Reorganization

During 1266-1268 A.D., the evil forces behind the Inquisition, the Venetian oligarchical families, defeated the forces of the Staufer in Italy, and forced the abdication of Friedrich II's cousin, Castile's Alfonso el Sabio. A flood of usury and pseudo-Christian cults was unleashed upon Western Europe by the Inquisition's victory. Lombard usurers, typified by the evil banking-houses of the Bardi and Peruzzi, piled monstrously refinanced debts upon the monarchs and lesser feudatories of Christendom.

To pay their debts to the Lombard usurers, the feudal debtors slashed the holidays of their serfs, forcing a reduced number of serfs to till an increased per-capital acreage. Labor on the feudal lord's portion was increased, looting of the peasantry became increasingly ingenious, increasingly wicked, increasingly savage. IMF and World Bank "conditionalities" prevailed.

To pay their debts to the Lombard usurers, desperate feudal lords looted their feudal neighbors, financing these wars by borrowing, at usurious rates from the Lombards.

Intensification of labor on estates led to neglect of improvements of land. Periodic famines erupted, and accumulations of wealth in forms of inventories, of improvements of land, and of livestock, were depleted. The per-hectare productivity fell. Famines increased, nurturing epidemics.

Large portions of the population were driven into vagabondage and banditry. The cathedral towns shrank into ghost-towns. During the hundred years following the defeat of the Staufer, half of the parishes of Christendom vanished, and half the level of the population. England's and other debt-ridden potentates sovereignly repudiated their debts; the Bardi and Peruzzi were wiped out. The debt-repudiation came too late; the Black Death was already being borne upon the ruined, depleted populations by the rat, from the depredations of the Mongol holocaust to the East.

Europe sank into what has been frequently described as a "New Dark Age," from which only the fifteenth-century Golden Renaissance saved European civilization.

Today, as during the fourteenth century, the collective bankruptcy of the debtors becomes the extinction of the creditors. We must put this hard-gained lesson from history to present use.

Unless the bankers of the United States of America are collectively insane or babbling imbeciles, they will joyously embrace a proper proposal for collective financial reorganization of the Ibero-American debt. However, they will probably resist such a proposal to the teeth unless it is made by collective action of several prominent nations of Ibero-America in concert.

We now examine, one by one, the key aspects of such a debt-reorganization negotiation.

To put our minds into the proper frame of reference, we begin by noting to what degrees the financial reorganization of a nation does and does not parallel the financial reorganization of a large industrial enterprise.

In the case, a large industrial enterprise becomes technically illiquid because of inability to carry currently contracted debt-service payments, and that that enterprise is economically viable, it is in the interest of the creditors to provide generous terms of debt-rescheduling, plus new lines of medium- to long-term credit for that enterprise.

Among such classes of cases, we have two general categories of debt-reorganization problems. In one instance, the operating policies of the enterprise leave nothing important to be desired; the illiquidity was caused either by a special circumstance beyond the firm's control (such as a recession in the economy), or by poor terms of financing. In the second instance, the essential viability of the enterprise can not be realized without rather significant changes in operating policies of practice.

We have another sort of case of corporate bankruptcy, in which the enterprise is not economically viable by any reasonable

standard of competitive viability. In such a case, we minimize losses to all concerned by mercifully putting the firm out of existence as quickly as possible.

The difference is, no matter how lacking in economic viability a nation may be, unless we are Adolf Hitlers, we never put a nation out of business "mercifully." No matter how bankrupt a nation may be, we are morally obliged, under any and all circumstances, to make it economically viable at whatever cost.

In the first kind of financial reorganization, in which the economic policies require no significant alteration, the firm's financial management may have committed several varieties of error. It may have used too much medium-term borrowing to long-term investments, or short-term borrowing to cover medium-or long-term investments. If an investment begins to reach profitable maturity at about seven years of development, financing the investment over a three-year term can be disastrous. Or, the firm may have borrowed for things it should not have borrowed for, which have no proper bearing upon its economic operations—such as outside investments in real-estate or something else, as investments for its financial portfolio. Or, creditors may have been in a position to force upon the firm unconscionable conditions. Or, a foolish government may have permitted cutthroat varieties of competition or foreign dumping, forcing the firm to sell competitively-produced product below its cost of production. Or, a foolish government may have permitted a recession or depression to occur.

In such cases, it is sufficient to rewrite a new series of debts, and debt-payment schedules, to replace the previously-existing debts and payments schedules. The new issues of debt replace, or "buy up" the old.

We take the same approach to debt-rescheduling in the second variety of case. However, before we can determine what will be a feasible schedule of debt-repayments, we must design a new program of investments and operating policies for the enterprise. The reasonable performance of the enterprise under that new investment and operating program informs us what a reasonable debt-payment schedule would be. We design the debt-repayment schedule accordingly.

In the case of a nation which appears technically an unsalvageable "firm," we follow the same procedure as in the second case, except that "common sense" may recommend to us that a great portion of the debt were better simply written off—a common condition among "least-developed nations" today.

In negotiations of such matters, we must be guided by an eye to the principle of equity.

Much of the post-1974 condition of finances of developing nations would not have occurred but for the virtual thuggery of Henry A. Kissinger and others, in enforcing the irresponsible and incompetent policies resolved at the 1975 Rambouillet conference and subsequent such conferences. Many of the debtor-nations were forced into refinancing debts at immorally usurious rates, and with other lunatic arrangements, at the point of a gun—sometimes, quite literally Kissinger's guns. Such features of the carried-forward debt of nations can not be considered exactly a debt contracted in good faith. If there are any complaints of losses from debt-renegotiation among creditors, appropriate reference should be made to the injury to the debtors imposed by the wicked

Kissinger and others, at Rambouillet and in related conspiracies.

The commercial banks of the U.S.A. (for example) heavily exposed in Ibero-American debts are frequently on the verge of technical bankruptcy themselves, because of margins of debt in their portfolios which are already or imminently in default. We propose to them, to help to save them from bankruptcy, if they will only be collectively reasonable, with suitable help from their federal government.

We propose to establish a mutually agreed cut-off date for further accruals of existing contracts of indebtedness of Ibero-American republics. After that date, no further interest-payments will accrue on those contracts. Effective that same date, each of the debtor-nations will deliver to the creditor-banks a portfolio of bonds equivalent in total value to the accrued value of the previous debt-contracts up to the cut-off date. The old debt is thus "sold" for the new debt.

Naturally, it is not quite so simple as that, but that is the crux of the matter.

The portfolio of bonds delivered by each debtor to each creditor will have the following most notable features.

1. The interest-rates on the bonds will be nominal, approximately 2 percent per annum.

2. The final date of payment of principal on the total indebtedness will be significantly later than the schedule indicated by the canceled contracts.

3. In some cases, there will be a period of grace, before payments mature—a deferred-payment provision.

4. Maturities of debt-payment will be determined by maturity-dates of each of a series of bonds issued.

Unfortunately, more or less inevitably, some among the bankers .of lesser intelligence will howl with protest: "We are being cheated out of the interest-income we would have received under the old contracts." Such imbecilic gentlemen need to have matters explained to them in very basic terms: "Try to collect the old contracts, and you force us to default, in which case your banks cease to exist." The advantages of the new arrangement may then begin to be apparent even to the most stupid among New York bankers.

There are other important advantages, which require explanation here. We identify some of these advantages first, and explain how these advantages are developed in a later part of our analysis of this matter.

The new bonds will have low yield, but they will be discountable for certain categories of issuance of new medium-term to long-term loans. The new bonds will be a negotiable asset in that way, and should be a very high-grade variety of asset for these bankers, provided they behave sensibly.

Through a combination of debt-rescheduling and correlated economic measures, the bankers involved will have a very important market for new lending on very sound terms throughout much of Ibero-America. This lending may not be significantly profitable in terms of income on the loans themselves; however, this lending will be very rewarding to the banks' clients among U.S.A. capital-goods exporters, and, consequently, to the banks themselves.

Unfortunately, the rotted condition of both the U.S.A. dollar and the commercial banks is so advanced, that the commercial banks could not dispose of such a debt-reorganization by then-own independent resources. If the problem were merely need for debt-reorganization in foreign accounts of those banks, what is

proposed could be accomplished through negotiations with them. What is proposed would work to the advantage of the banks and the U.S.A., as well as Ibero-

American republics, but this would require coordinated implementation of an already overdue monetary and banking reorganization in the United States.

We are not insisting that acceptance of these proposals by the United States, is the only hope for the Ibero-American economies. It is the best alternative to be considered, and by a wide margin. Were the U.S.A. to refuse, for a period of time, the tasks of Ibero-American republics would be much more difficult tasks, but the alternatives are both workable and indispensable. Moreover, as we shall show, the steps to be taken by those republics toward bringing about successful negotiation with the United States are the same steps to be followed should the U.S.A. refuse that proposed debt-reorganization.

U.S.A. Post-War Monetary & Economic Policies

During the last World War, leading forces of the United States, including President Roosevelt, were committed to a postwar perspective for what was called an "American Century." As the President warned Prime Minister Winston Churchill (cf. Elliot Roosevelt, As I Saw It), the U.S.A. was not committed to fighting a World War to the purpose of, a second time, saving the British Empire. Moreover, the President warned Churchill, the world had already suffered too much from' 'British eighteenth-century methods," the' 'free trade" and related dogmas of Adam Smith's Wealth of Nations. The task of the postwar world, would be to employ American methods, to deliver technological progress to the former colonial nations. The President, according to the account of his son and personal aide, Elliot Roosevelt, pulled out a map of the Sahel, and summarized the transformation of this arid to semi-arid region, to become "the breadbasket of Africa."

In his May 10, 1982 public address to the London, Chatham House audience, Britain's publicly self-avowed agent-of-influence, Henry A. Kissinger, referred broadly to this fundamental difference in policy between Roosevelt and Churchill. Kissinger gloated publicly: with the death of President Roosevelt, Churchill's policies took over the foreign policy of the United States. During the postwar period to date, Kissinger asserted, every foreign minister of the United States, he the most treasonous scoundrel of them all, had been agents of influence of the slightly disguised, postwar form of the British Empire.

The United States' government betrayed the former colonial nations Roosevelt had been dedicated to assist in development, and had, in fact, betrayed the most vital long-term interests of the U.S.A. itself. Once British agents of influence, such as W. Averell Harriman, had used poor, muddleheaded Harry S. Truman to ruin General Douglas MacArthur's political machine, there was no well-organized opposition to virtual, anglophile treason in ruling circles of the United States.[4] Except for echoes of the outlook of his former superior, MacArthur, by President Eisenhower and, momentarily, by the soon-to-be-murdered President John F. Kennedy, the U.S.A. has become what high-ranking British officials refer to privately, smirkingly, and repeatedly, as the "unofficial colony."

Had the U.S.A. followed the American Century policy at the close of World War II, the following principal features would have been noted: (1) The postwar international monetary order, based on the gold-reserve denominated U.S.A. dollar, would have been an international replica of the American System of Alexander Hamilton. (2) The wartime production machine of the U.S.A. would have been retooled quickly, to produce a flood of capital-goods exports, for rebuilding war-torn Europe and Japan, and launching a boom in technological progress among what we call today "developing nations." This would center around a series of large-scale infrastructural projects, of the class proposed by the Mitsubishi Research Institute recently and currently. It would be a world order congruent with the specifications of the 1967 Populorum Progressio of Pope Paul VI, and also the 1981 Laborem Exercens of Pope John Paul II. (3) The Yalta and related agreements negotiated between President Roosevelt and Marshal Stalin would have been implemented within the context of the American Century ordering of world affairs, with the Soviet Union a trading-partner within this American System. (4) The ratio of capital-goods exports to total domestic goods-production of the U.S.A. would have approximated the present-day image of Japan.

Instead, under control of U.S.A. monetary, banking and foreign policies, by Britain and British agents of influence working inside the U.S.A., the U.S.A. has been "American muscle on a British leash," or, as the New York crowd puts the same point more euphemistically, "British brains directing American muscle." As a result, under the Bretton Woods system, the postwar world has been but another tragic revival of "British eighteenth-century methods," adapted to the slightly altered political circumstances of the postwar world.

The failure to recognize that this is the key fact of the postwar world as a whole is the principal, continuing source of danger which nations impose upon themselves: by failing to recognize the most essential problem of the postwar world, the generating problem underlying all other principal problems of finance, economy, and international relations otherwise, every attempt to solve problems is necessarily a failure. By trying to solve symptomatic problems, without considering the underlying causes for those sometimes painful symptoms, the world generally refuses to address the real problem. So, by refusing to understand that the U.S.A. has been chiefly "a dumb American giant on the leash of the wicked British," every purported solution to painful, symptomatic problems simply permits the real problem, "British eighteenth-century methods," to produce far worse symptoms than what the world deluded itself to treat a year or so earlier.

For example, in the instance of the widely-celebrated, three-volume El Liberalismo Mexicano, of Jesus Reyes Heroles, the central thesis is a provably fraudulent representation of the pre-Porfirio Diaz political history of Mexico.[5] The Mexican liberal party of Benito Juarez, et al., was created in coordination with its ally, the U.S.A. Whig Party of John Quincy Adams, Henry Clay, Henry C. Carey, Abraham Lincoln, et al. Although Mexico's liberal republicanos are traced within Ibero-American culture most generally to the policy-initiatives of Spain's Charles III (and allied anti-Jesuit forces in Portugal and Brazil), the immediate co-sponsor for the development of Mexico's liberals and the U.S.A. Whigs was the trans-Atlantic Society of Cincinnatus then led (until his death) by Gilbert Marquis de LaFayette. This political effort overlapped LaFayette's role in sponsoring anti-British, anti-Orleanist varieties of republican freemasonic lodges, in the tradition of Benjamin Franklin's Free and Accept Masons in the

U.S.A., and LaFayette's chartering of black freemasonry in the U.S.A., in the form of the original Prince Hall freemasons.

From the early nineteenth century, into the beginning of the 1870s, the U.S.A. Whigs (including the Whig faction within Lincoln's Republican Party) were consistently allied with the liberal republicans of Mexico. This was most difficult, at times, because of British agents-of-influence, such as Jackson, Van Buren, Polk, Pierce, Buchanan, in the office of President of the U.S.A. General Winfield Scott's relationship to the liberal republicanos under circumstances of the 1846-1848 war between the U.S.A. and Mexico, is illustrative.

Into the 1870s, the liberal republicans of Mexico were committed to the American System of Hamilton, the Careys, and List; any other view of Mexican history is fraudulent.

The same is characteristic in principle of the nineteenth-century history of Ibero-America in general.

The general struggle in European civilization, from the sixteenth-century struggles onward, was to free civilization from the usurpatious grip of the Venetians and their Genoese partner-competitors, a grip established principally through Venetian-Genoese control of their Hapsburg puppet, and takover of Iberia, Burgundy and the Holy Roman Empire under Hapsburg rule, extending to the genocide the Venetians and their puppets conducted against the populations below the Rio Grande. This centered around a struggle to free Iberia and the Papacy from Venetian grip, a struggle coordinated by France's Pere Joseph Tremblay, by Cardinal Richelieu, by the

Pope-appointed successor of Richelieu, Cardinal Mazarin, and by Mazarin's political heir, Jean-

Baptiste Colbert. The defeat of the Spanish Hapsburgs in 1653, and the struggle to enforce the terms of that peace, the Wars of the Spanish Succession, are key to the deep roots of modem republican culture throughout Ibero-America.

During the eighteenth century, this centered in the Oratorian teaching-order of France and Italy, and in the vast conspiratorial networks assembled by Gottfried Leibniz. The accession of Charles ffl in Spain and the 1766-1783 trans-Atlantic republican conspiracy to establish the U.S.A. as a model constitutional republic of the new form, were the centerpieces of this grand design during that century.

It is, to this day, the link between the Spanish tradition of Charles III and its republican echoes in Ibero-America, which is the predominantly Catholic "matrix" of culture and related political thought, which represents the rallying-point in tradition for all of the best-informed, leading forces of Ibero-America. It is, for related reasons, the 1967 Populorum Progesssio and the 1982 Laborem Exercens which represent the best, most efficient rallying of the broadest conscience of Ibero-America to the tasks immediately before us all in this crisis. It is through the prism of those eighteenth-century connections that we understand properly, today, the deep basis for the alliance between U.S.A. Whigs and Ibero-American republicans during the pre-1870 period, understand what underlay U.S.A. Secretary of State John Quincy Adams' design of the 1823 Monroe Doctrine, and understand the role of the American System of political-economy in the struggles of Ibero-America.

The alliance between the patriots of the U.S.A. (e.g., the Whigs) and the republican patriots of Ibero-America is degraded whenever we attempt to explain this in terms of geographic or other vulgar terms of reference. It was never properly construed by patriots on either side of the Rio Grande as merely a matter of geographical or otherwise merely expedient self-interests. We have been deeply allied since the reign of Charles III and the efforts of Gilbert Marquis de LaFayette. We represent a common, deeper moral purpose, a grand design in the tradition of St. Augustine, Charlemagne, Dante Alighieri, Richelieu, Mazarin, Leibniz, Franklin, Schiller, Humboldt, and LaFayette. Our historic mission has been, to establish in this Hemisphere a community of principle among sovereign republics, to tilt the balance of forces in the world against that oligarchical evil epitomized by the oligarchical "families" of Venice and Genoa.

Little people, including those who have lacked a proper education for their moral maturation, think only of very "practical" results in the relatively short term, and in very narrow ranges of personal and national experience. Little people forget that our civilization is a process traced back thousands of years, which must be perpetuated and advanced for thousands of generations to come. Each of us is but a mortal moment in that great span; it is what we accomplish to preserve and further that process of struggle for human perfection, as St. Augustine summarizes this, which gives purpose and meaning, not only to our individual mortal existences, but to the existence of entire nations. We must not ignore the practicalities of the present, but those practical things are properly subordinate to some grand design whose realization stretches over generations to come. Our function is to create and strengthen institutions which shall long outlive each of us, institutions of government and of general culture which will be the proper foundation for the achievements of generations to come.

God save humanity from the putatively well-meaning "little political leaders" who fail to comprehend this.

What is truly important in our brief, mortal lives, is, first, to know that we shall all soon be in our graves, and that it is that which outlives us which is the only truly important thing. If we are wise, we develop our potential talent to accomplish a good which outlives us, to the benefit of generations yet to come. We pursue the practice of that good, and we take care to shape the institutions of government and culture, to the effect that the good may be nurtured, and the degraded and wicked be nullified.

The American System of political-economy is no mere alternative to the evil British system of Adam Smith et al. The American System is a design of the economic institutions of society derived from knowing what features of the economic practice of nations serve an enduring, higher good, a design to ensure that the good is enhanced, and the parasitical institutions of oligarchical ground-rent and usury are nullified: that future generations may live according to the injunction of the Book of Genesis, to be fruitful and multiply, and fill the earth and subdue it, and accomplish that by employing those creative powers which are coherent with the divine potential within the human individual.

It is not difficult to prove, that the economic (monetarist) prescriptions of the Fabian fascist, Friedrich von Hayek, Professor Milton Friedman, and the Chicago School generally, are both incompetent in respect to economic science, and as evil as the measures of Volpi di Misurata, Britain's Montagu Norman, and Hjalmar Schacht, in practice of nations.

It is necessary to examine this problem more deeply: von Hayek and Friedman, like Venice's Volpi di Misurata, Norman, and Schacht before them, are consummately evil personalities. Similarly, W. Averell Hamman, Bishop Paul Moore, and that false

and degraded priest, Father Theodore Hesburgh of Notre Dame University, are consummately evil personalities. The problem is not that they err to wicked effects; they are not merely misguided, but rather essentially evil in their motivations. The British oligarchy is essentially evil in its motivations, not merely greedily misguided. We are confronted by a powerfully armed evil, an evil which must be not only defeated, but crushed, an evil, literally satanic force.

We face a brief interval of history, during which the monetary policies of the postwar world can be reversed. It is a period not entirely unlike the bankruptcy of the Lombards during the fourteenth century, earlier. These evil wretches have brought their own international monetary order into a state of general collapse; so, like the political heirs of Dante Alighieri before us, we must seize this moment of crisis in the enemy's ranks, his moment of gravest, most critical weakness and vulnerability, to destroy him before he is able to consolidate his institutions of world-power on a new basis. It is possible to win, if we can act quickly, and in concert.

One of our greatest assets in this undertaking is the deep-rooted goodness of about three-quarters of the adults of the United States itself. Despite all else, three-quarters of that adult population still adheres to belief in technological progress, and in what that belief implies. That belief has been profoundly shaken, but not yet uprooted. The economic crisis now descending upon them, discredits in their eyes all among those influential institutions to which they formerly gave adherence. They will seek, momentarily, a new alternative, an alternative which concurs with their deep-rooted belief in technological progress.

Just as all patriotic impulses of Ibero-America converge upon policies of practice coherent with principles of the American System, so it is among the moral strata of adults in the United States. If this alternative is presented, with sufficient political shock that it can not be overlooked, then, and only then, is it possible to awaken the U.S.A. back to the kinds of policy-outlooks of President Franklin D. Roosevelt's period.

The postwar history of the U.S.A. is to be broadly divided into two general periods, separated by the transition accomplished under the wicked President Johnson, during 1966-1968.

During that 1966-1968 interval, the London Tavistock Institute, the psychological-warfare division of the British Secret Intelligence Service, submitted a report on NASA, called the "Rapoport Report." This report complained, that the psychological impact of NASA research and development, and related programs, upon the general U.S.A. population, was to foster an admiration for science and rationality which the British found deplorable. The report proposed that NASA be scaled down, and that measures be taken to estrange the population from esteem for science and rationality. Johnson, being what he was, concurred. Malthusian values were embedded in pilot-project form in the U.S.A. Executive Branch, and brought to full-fledged policy-shaping roles under "acting President" and British agent-of-influence Henry Kissinger, beginning 1969.

During this same 1966-1968 period, Johnson and Federal Reserve Chairman William McChesney Martin began the process of destroying the U.S.A. dollar, with the agreements reached in Washington. D.C.'s international monetary conference of March, 1968. This was prelude to the more disastrous follies (of Nixon, Connally, Volcker, and Reuss) during and following August 15, 1971.

Henry Kissinger's key role in the 1973 Arab-Israeli war, organized the petroleum-price shock of 1973-1974, on behalf of the London petroleum-marketing cartel. This shock was used to launch an "energy conservative" lunacy, through which Malthusian policy-making was more deeply embedded, and a general process of accelerating drift into a "post-industrial society" firmly embedded in policy-making.

The present financial and economic situation is chiefly the combined result of post-1971 monetary disorder (e.g., the unregulated Eurodollar market's role) combined with a savaging of the economic basis for the monetary order in the form of Malthusian drives toward establishing a "post-industrial society," sometimes called an "information society."

The toleration of these drifts into "post-industrial society," aided by a rock-drug-sex counterculture's corruption of increasing portions of youth, has made it possible for genocidalists such as the Harriman circles, to bring the United States (in particular) to the point of tolerating a policy of "population and raw-materials wars" against the entirety of Ibero-America, Africa and most of Asia.

This post-1966 policy-structure inside the United States of America must be destroyed, virtually obliterated, using the force of the new depression's outbreak, as the momentary vulnerability of the Manhattan-centered anglophile oligarchical families' control over U.S.A. policy-making.

Let us consider, summarily, the kinds of measures which President Reagan and the Congress would be obliged to enact during the month of August 1982, to prevent a general financial crash from destroying the remains of the U.S.A. economy during September-October 1982. This outline has a double purpose. It indicates what must be negotiated with the U.S.A. and its banking-system. It also provides a model for necessary monetary reforms within and among the republics of Ibero-America.

Emergency U.S.A. Monetary Reform

The depression inside the U.S.A. could be halted almost immediately, and an accelerating upturn begun, if the President and the Congress had the combined intelligence and morality to implement the following measures during the month of August 1982: (1) The U.S.A. must be restored to a gold-reserve basis, pricing monetary gold at approximately $500 an ounce; (2) A general, comprehensive banking-reform must be enacted, centered upon "nationalizing" the Federal Reserve System, making it, in effect, the Third Bank of the United States; (3) The lending-power of the private banking system, domestic and foreigners doing business inside the United States, must be limited by rigorous enforcement of law, to two categories of lending: (a) loan of deposits of currency or bullion, (b) relending of issues of gold-reserve-denominated U.S.A. Treasury currency-notes for approved categories of medium-term to long-term domestic and foreign investments in technologically progressive agro-industrial production of goods or basic economic infrastructure.

These are the sovereign, constitutional powers of the United States of America, powers which the Congress holds, but may not alienate, under Article I, Section 8, of the Constitution. Whatever anyone may say, the intent of the Constitution of the United States of America is absolutely clear on this point: the Federal Reserve

System is existing and functioning in fundamental violation of the Law of the U.S.A.

We now examine these necessary, lawful reforms more closely, coming, only in the final phase of this review, to the issue of the gold-reserve system.

The costs and expenses of the production of goods of a national-economy taken as a whole, is the sum of (1) wage-goods consumed by households of the physical-goods producing and distributing portion of the total labor-force, (2) the capital-goods costs of producing and distributing physically newly-produced agro-industrial goods, (3) the costs and expenses of necessary forms of administration and services (the ' 'overhead burden" of a national-economy treated as if it were a consolidated agro-industrial enterprise).

If the consolidated agro-industrial enterprise (the national-economy) produces a net operating profit, the price of the total goods produced exceeds the combined costs and expenses of producing those goods (i.e., 1+2+3). So, the net operating profit of a national-economy is represented always by: (1) goods in excess of the costs and expenses of total production of goods; (2) idle capacity maintained out of those costs and expenses; (3) idled labor-force maintained out of those costs and expenses.

In the money-side of the economic process, costs and expenses designated "1+2+3" are the sum of the currency implicitly put into circulation by production and distribution of the totality of newly-produced goods of the consolidated agro-industrial enterprise. Therefore, production and distribution does not generate a money-circulation adequate to "buy back" the total wealth produced and maintained by production.

To fill that monetary deficit in circulation, there are only two sources of credit available in society: (1) credit extended by sellers to buyers; (2) currency-notes (properly) issued by the treasury of the government. Lending of deposited currency by banking institutions does not, in principle, solve the apparent "buy-back" problem.

Some imbeciles, such as the Solidarists, have proposed to lower prices to the level that the total prices of goods fall to the level of "1+2+3." In other words, that there be no "free energy" in the economic process. In practice, as the oligarchical "families' " creation of the Solidarist dogma might otherwise imply, the actual intent behind Solidarism is to eliminate profits of production, in favor of increasing payments to the accounts of ground-rent and usury.

The function of the state's issuance of currency-notes for lending is crucial. The essential thing is that private extension of credit to buyers from sellers can not be aggregately an adequate source of medium-term to long-term credit for investments. The state's loan of currency-notes, for long-term borrowing costs of between not more than between 2 percent and 4 percent prime lending-rate, is the proper foundation for a healthy economy.

The alternative to such a function by the state, is the oligarchical families' control of a privately-controlled central banking-system. In this case, the "Keynesian multiplier-factor," as in the case of the U.S.A. Federal Reserve System, generates fictitious "money" as financial bookkeeping "money" of the private banking system.

That is the crux of the British central-banking system, and of the international monetary-financier systems which have dominated international markets since the 1870s. It is the natural tendency of such privately-controlled central-banking-systems to generate long-term, as well as medium-term monetary inflation, and to generate business cycles.

The problem is not only that the system is privately controlled. That would be bad enough. The problem is that the private control is exerted by the family funds of oligarchical families, who use control of the central banking-systems as a weapon of political warfare on behalf of the oligarchical interest: fictitious appreciations of capitalized ground-rent, and usurious refinancing of public and private indebtedness, are the leading uses to which such central banking-systems put the fictitious, bookkeeping "money" generated by "Keynes multiplier"-like processes of monetary inflation.

The result is that credit flows increasingly, preferentially, toward non-goods-producing investments, and decreasingly into goods-producing investments. The fixed charges to capitalized ground-rent and usury, embedded in the income-earnings of non-goods-producing investments (e.g., real-estate rental-income of a speculative mode), refinanced as public debt, become increasingly large, relative to the profits generated by goods-producing activities. This is the cause for general monetary inflation, and for the collapse-phenomena of the business-cycle.

The remedy for these problems, is to outlaw the "Keynesian multiplier," the root of inflation and depressions. Except for credit issued by sellers of newly produced goods (or services) to buyers, the creation of credit within a national-economy must be strictly restricted to the state, and limited to the issuance of lawful currency-notes of the treasury of the republic.

Only three kinds of domestic credit are to be permitted by law: (1) issuance of private (non-monetary) credit by buyers to sellers; (2) lending of deposits of currency or bullion by private banking institutions; (3) lending of new issues of lawful currency-notes issued by the treasury of the republic.

There is an additional source of credit: borrowing of foreign currency-notes by the state-owned national bank of the republic, or private importers. In a developing economy today, it were prudent that the state-owned national bank exert a monopoly over borrowing of foreign currency-notes, and administer this in the same manner as its monopoly over the lending of new issues of state treasury-notes.

The lending of state currency-notes must be dirigistic.

(1) New issues of currency-notes may be loaned only for categories of investments approved either by law, or by powers granted to the Executive according to law.

(2) New issues of currency-notes are usually lent as a percentile of the total value of an individual loan-agreement negotiated between a borrower and a bank, which shall be either a private bank or the national bank acting directly in this matter. The range of percentile allowed for each category of loan should be established by law as public policy.

(3) New issues of currency-notes should be usually medium-term or long-term loans, for either technologically progressive production in agriculture or industry, or improvements of basic economic infrastructure of the nation.

(4) Increasing lending-power for other categories of lending will be generated through increase of regular deposits of currency in private banks or government-run thrift institutions. The amount of currency in circulation must be regulated by admitting currency into circulation only through investments in production of goods, such that money in circulation and goods in circulation are in balance.

The function of lending of issues of governmental currency-notes in this manner is to match the total of idle goods, idle productive capacity, and idled labor-force, with entrepreneurial employment of those portions of net operating profit of the economy-at-large by performance-worthy borrowers-investors. We design the credit-mechanisms, the banking-mechanisms of the economy, to direct the reinvestment of the goods-labor portion of national net operating profit (free energy) into expanding the scale and technological advancement of production of goods.

These measures of credit, currency and banking, must be supplemented by matching fiscal and tariff policies. We divide the review-discussion of fiscal policies between taxation-policies and governmental-expenditures policies. We divide the discussion of tariffs policies between domestic tariffs and foreign-trade tariffs.

Taxation policy has two general purposes: (1) to provide an adequate revenue for government, and (2) to loot attempted accumulations to the accounts of ground-rent and usury, to the effect of favoring investment in goods-production and improvements of basic infrastructure. That portion of rent determined to be ground-rent must be taxed into extinction, and similarly usury. Furthermore, we should shape taxation-policies according to priorities for maintaining household standards of living and giving a margin of preference to those investments most clearly in the national interest.

Domestic and foreign tariff policies share the included purpose of "protecting" essential agricultural and industrial categories of production of the national-economy. The essential function, on this account, is to ensure that competitive producers have a reasonable margin of reinvestable profit-income in excess of combined capital and operating costs of production. To that end, we regulate highly-competitive domestic markets with aid of fair-price standards, and act to prevent foreign dumping, and to prevent foreign sales of domestically-produced products at artifically-reduced prices.

Foreign-tariff policies are, for today's developing nation economies, an unavoidably indispensable complement to capital-flight controls. We must not permit excessive purchases of less-essential categories of foreign goods to reduce our means for importing needed foreign capital-goods, or threaten our ability to meet debt-service obligations. A system of export-licensing and import-licensing, maintained in cooperation with the republic's national bank, is indispensable to regulate this important area of activities.

GATT is an abomination. It is in fact an agency run by British interests, which has arrogated to itself the power to invade the sovereignty of republics in matters on which no republic ought to permit such intrusions. If GATT and its supporters argue, "But we insist on a 'free trade' policy," we reply: "Enjoy your foolish preference for a 'free trade' policy in your own nation, and be assured we will laugh at your foolishness, but will not interfere otherwise with your sovereign right to make asses of yourselves in that fashion."

However, as is desirable among Ibero-American nations (in particular) today, it is right and useful that republics enter into long-term agreements with one another on certain key matters of trade. These agreements have resemblance to multiple, long-term barter agreements. Colombia might wish to sell Brazil coal over a long-term period, against some vital capital-goods need from Brazil. Multiple, international division-of-labor agreements among nations, especially South-South agreements of that sort, can help to transform a collection of individually weak economies into a powerful partnership. The point is, that the sovereignty of none of the republics involved is invaded.

If the U.S.A. would come to its senses, these are the varieties of trade-agreements which should become the pattern in North-South relationships.

It is estimated that if the President and Congress of the U.S.A. were to enact such needed emergency reforms during August 1982, the issuance of at least $400 billion in gold-reserve-denominated U.S.A. Treasury currency-notes would be required. This would be rather quickly absorbed for loans directed to performance-worthy investments in domestic production and foreign trade. The depression would be halted, and the U.S.A.'s economy would begin recovering.

The Three Levels Each Defined

If the U.S.A. were to discover suddenly its lost wisdom, and to enact the reforms we have indicated, during August 1982, we could be reasonably confident the worldwide economic depression might be halted over the winter of 1982-1983. It would not be difficult, under such circum-stances, for the government of the U.S.A. to cooperate in the form of Ibero-American debt-reorganization proposed. We summarize the principal features of such cooperation, and then turn our attention to the two remaining alternatives, should the U.S.A. lack the wisdom to act as we have proposed.

The first concern of the U.S.A. must be, to reemploy within months approximately five million from among those left unemployed by the lunatic policies of Paul A. Volcker. This does not mean that the U.S.A. goals for reemployment should halt at that level. About five million reemployed would represent the required level of qualitative change in the situation to bring the U.S. A economy back to a viable, break-even level of production and fiscal stability. Once that level is reached, further increases in employment can be accomplished at a rather rapid, orderly pace, with a total of about ten million additional employment by some time during the-middle of the present decade.

It would not be the proper desire of the U.S.A. to emphasize restoring employment in labor-intensive services and administration. In services, the emphasis must be on reemployment of skilled professionals in a limited range of professions, such as physics, chemistry, medicine, science and pre-science educators, and other professionals vital to the mobilization of technological progress in the labor-force and economy. Apart from those essential categories of professionals, the U.S.A. government's emphasis should be upon employment of

high-technology farmers and skilled and semi-skilled industrial operatives, of manufacturing, mining, construction, transportation.

To accomplish the stimulation needed, the U.S.A. would have to reverse the liquidation of farms (by debt moratoria and new low-cost-credit injection, parity agricultural prices comparable to European CAP levels), and to undertake a few large-scale, basic infrastructural projects which provide a stimulating market for private industry. These infrastructural projects should include forcing-through over 100 nuclear-energy installations now stalled by the lunatic "environmentalists," investments in restoring ports, rails, and maritime infrastructure, and major water-management projects. Injection of low-cost governmental credit at 2 percent, for construction-phase investment in such projects, would probably be adequate domestic stimulation.

Such domestic-economy stimulants should be supplemented by foreign-trade stimulants. The United States should negotiate with developing-sector nations a collection of high-technology infrastructural projects most urgently needed by those nations, including nuclear-energy projects. The U.S.A. should agree to provide 2 percent per annum financing for medium-term to long-term construction and operation of such projects, covering some percentile of the total investment in each. This is translated into demand from U.S.A. capital-goods producers.

It would be sensible, and probable, that a number of exporting nations, such as Japan and the Federal Republic of Germany, would wish to join the United States as partners in multi-national division of labor in such undertakings. If we added to Ibero-America, India, the ASEAN nations, and merely a few more sections of the developing sector, we are identifying a reasonable potential for $200 billion annually or higher, of increased capital-goods imports per year from capital-goods exporting nations. Mexico alone, for example, fully justifies $20 billion a year or more of increased capital-goods purchases. An additional $40 billion a year increase in selected capital-goods imports by Brazil, $10 billion increase by Argentina, and up to between $50 and $100 billion by India, are illustrative of the general order of potentiality.

Although $100 billion annual increased capital-goods exports by the United States may appear to be a small percentile of U.S.A. reported GNP, remember that the goods-producing portion of the U.S.A. labor force today has fallen below 30 percent of the total, that this less than 30 percent of goods-producers is carrying an overhead burden of 70 percent of the labor-force, plus such parasitism as drug-usage, pornography industries, and a massive looting of the economy and people of the nation by ground-rent and usury. $100 billion increased annual exports from the U.S.A.'s capital-goods industry represents a qualitative improvement in the national economy as a whole. This means not only a significant increase in goods-producing employment, but a substantial rate of increase of capacity-utilization and rate of capital-turnover in machine-tool and related categories of industry.

The exporting-nation partners would find it very much in their interest, to ensure that the debt-service-payment levels of developing nations were kept sufficiently low, and at sufficiently low interest-rates, to permit most-desirable levels of capital-goods purchases by those nations.

What the U.S.A. government would do, were it sensible enough to do so, would be to agree to make the new bond-issues of debt-reorganization of Ibero-American republics discountable assets within the facilities of the reformed Federal Reserve System.

For example. Citibank, holding a portfolio of such debt-reorganization bonds, negotiates a loan-agreement to finance the construction of three General Electric Company fission-reactors in Brazil or Mexico, for example. Citibank wishes to cover 30 percent of that export-loan for the construction-phase, scheduled to be five years, and to convert its portion of the construction-loan into bonds of the importing nation's utility once the plants installed have been given operating certificates. Citibank is short of deposits.

Citibank presents the loan-agreement to the New York City branch office of the reformed Federal Reserve System, offering to discount a part of its holdings of debt-reorganization bonds, for loan of U.S.A. currency-notes to cover its part of the loan-agreement for export of U.S.A. capital-goods by prime-contractor General Electric.

The point illustrated here, is that the implicit value of the debt-reorganization bonds is greatly increased if they represent a discountable basis for increased lending-power by the banking-system. For example, if GE possessed a number of such export-contracts, it might issue bonds to cover capitalization of facilities, which Citibank and others might purchase, and so forth and so on.

If the debt-reorganization bonds lie in the bank's vaults, they have a certain value, a fair value. However, if the U.S.A. is engaged in increased volumes of capital-goods exports, and if those debt-reorganization bonds are discountable for hard-commodity classes of export-loans within a gold-reserve-based U.S.A. credit-and-banking system, those bonds are now functionally as good as gold.

If the officials of the government of the U.S.A. have anything worth reporting on above the levels of their shoulders, they would grab such a debt-reorganization arrangement in an instant.

Alas, this writer knows his government and his nation's leading bankers all to well. A nation which considers a David Rockefeller a political figure and leading banker shows that it does not desire to consider itself distinguished by geniuses among its bankers or government.

In that case, that the U.S.A. government is too stupid or cowardly to reorganize its affairs as proposed, we have the second option: the banks are rescued to the extent their debtors are able to assist them, with the alternative of debt-reorganization bonds. That is the second option.

In the worst case, in which the bankers proved themselves to be fanatically stupid, the Ibero-American debt would be temporarily suspended until such time as someone in a leading position in the U.S.A. brought that nation back to its senses. That is the third option, the worst case.

In the third case, the worst case, the Ibero-American republics cooperating exploit the potentials for South-South cooperation, in cooperation with such trading-partners as can be found from among North-South trading-partners. The benefits of either the second option or of this worst-case option are far less than would be the case if the U.S.A. acted as we have proposed. Modest or not, it probably represents the margin for potential survival of the economies and populations of Ibero-America.

Ibero-American Monetary Order

In any case, the cooperating republics of Ibero-America, must each and collectively effect reforms of their credit, currency and banking institutions identical in principle with what has been projected for the United States of America.

All that we have said respecting proper practices of the U.S.A. apply to each and every case in Ibero-America, including:

(1) In no republic must any other issues of credit be permitted, as a matter of a punishable violation of the law against immoral usury, excepting: (a) Deferred-payment credit between buyers and sellers of goods and services; (b) banking loans against combined lawful currency and bullion on deposit in a lawful manner; (c) loan of issues of credit created in the form of issues of national currency-notes of the treasury of the national government.

(2) Loan of government-created credit (currency-notes) must be directed to those forms of investment which promote technological progress in realizing the fullest potentials for applying otherwise idled capital-goods, otherwise idled goods-producing capacities, and otherwise idled productive labor, to produce goods or to develop the basic economic infrastructure needed for maintenance and development of production and physical distribution of goods. This is, at once, an anti-inflationary policy, and also a steering of limited national resources into those choices of governmental and private-entrepreneurial ventures most beneficial to the nation as a whole.

(3) In each republic, there must be a state-owned national bank, which rejects in its lawfully permitted functions those private-banking features of central banking associated with the Bank of England and the misguided practices of the U.S.A.'s Federal Reserve System over the period from the latter's establishment into the present date of writing.

(4) No lending institution shall exist within the nation except as they are subject to standard of practice and auditing by the treasury of the government and auditors of the national bank. No foreign financial institution shall be permitted to do business within the republic unless its international operations meet lawful requirements for standards of reserves and proper banking-practices under the laws of the republic, as this shall be periodically determined by proper audit ("transparency" of foreign lending institutions).

(5) The treasury and national bank, as a partnership, have continual authority to administer capital-controls and exchange-controls, and to assist this function by means of licensing of individual import-licenses and export-licenses, and to regulate negotiations of loans taken from foreign sources.

Admittedly, the great problem in administering governmental functions of auditing, export-import controls, capital controls, exchange controls, is corruption of governmental officials. Not astonishingly, the more elaborate the bureaucratic procedures employed in the intent to discourage corruption, the greater the incentive for corruption becomes. Sooner or later, a frustrated applicant will reflect on the point, that perhaps some official has a friend of a friend of a friend.

The effective control of such problems lies not in investigating each matter case by case, but, directly the opposite, by considering the pattern of decisions shown on the record, the pattern of choices of favorable administrative decisions in respect to the total population of cases for such decisions. The problem faced by this approach to anti-corruption enforcement is often the indignant official's retort, "Prove one case in which I have been corrupted, and naturally I shall resign immediately," and so forth and so on. The policy ought to be that an official in such areas is judged on performance by the pattern of his decision-making, not on the basis of a case-by-case examination of his decisions.

The problem becomes acute, if the government itself has no clear policy—no clear, dirigistic policy. Then, in such case, by what criteria as to pattern of decisions can an official be judged? If a function operates under clear, dirigistic economic objectives as to quantified priorities of national economic development, then the officials of that function are to be judged as they attempt to fulfill such objectives in their overall performance. They expedite what known national, dirigistic policies inform them must be expedited preferentially, and give lesser priority to those matters of decision which are low on national-economic dirigistic priorities. There is no greater root of corruption of governmental officials than a lack of dirigism in national-economic policy.

(6) The policies of taxation of the national government must be designed to expropriate ground-rent and usury income, to foster well-being of households, and to give preferential treatment to those classes of ventures which are established to be in the relatively greater national interest. Economic-development policies must inform taxation policies.

(7) In a number of instances, it is simply desirable, or even indispensable, that a severe currency-reform be implemented immediately.

Tax-evasion and the related problems of "black economy" are endemic problems of nations today. The curse of Italy, for example, is that more than one-quarter of its national income is sequestered in a black economy. Ibero-America suffers infection with the same disease; the "black economy" of the U.S.A. is greater in size than the entire national income of numerous nations.

This problem was addressed in a book written by this writer during 1980, A Gaullist Solution for Italy's Monetary Crisis.[6] The proper execution of a currency-reform—the purchase of old lawful currency with new—can demolish a "black economy" in the process. The essential thing, is that the amount of currency presented for purchase by residents or foreigners must be not in excess of an amount they might have accumulated lawfully

without practices of tax-evasion or violation of capital-controls, exchange-controls, and import-export licensing. Often, the holder of "black economy" gains would prefer burning the old money, rather than having it largely confiscated, and himself sequestered in prison for offenses against law.

Such a currency-reform cleans up the condition of a currency,- and also provides the government and national bank with an indispensable audit of the republic's direct and implicit currency-related obligations, domestic and foreign. It provides, at the same time, an improved accounting of the roster of proper taxpayers, and better estimates of the amount of tax-liability those taxpayers represent.

A currency-reform is a necessary measure in the worst cases of inflation; it serves as one of the indispensable weapons needed to bring inflation under control.

(8) Sovereign valuation of the foreign exchange value of a nation's currency must be established for Ibero-American nations. The first approximation of the value of a nation's currency is the purchasing-power of that currency within the internal economy of that nation. What are the prices of domestically-produced goods and services, relative to the prices of the same quality of goods and services in other nations. The emphasis must be upon domestically produced categories, almost exclusively, at least for first-approximation.

By this standard, many Ibero-American currencies are presently monstrously undervalued. The result of artificially depressed valuations of national currency, is that the nation is being massively, savagely looted by foreigners, especially foreign debt-holders.

The determination of exchange-rates by the IMF, etc., has often represented, during recent years especially, nothing more nor less than pure and simple theft, on a massive scale, by foreign lending institutions and others.

This commonplace swindle of developing nations is premised on the fallacious argument, that the value of a currency in international markets must be determined by "supply and demand" for that currency, rather than the intrinsic value of that currency as a medium of purchase of domestically-produced goods and services in its country of origin. By manipulating international exchange-markets, to artificially rig "supply and demand" in a currency, a "case" for devaluation is presented as a demand upon the targeted victimnation.

How much less domestic purchasing power does the Mexican peso have today, at one-third its nominal exchange-rate valuation, than a short time ago, at 24 pesos to the U.S.A. dollar? The devaluation has been an outright swindle of the nation and people of Mexico, almost at the point of a gun.

A nation must fight financial and economic warfare against those institutions which attempt to loot it and its people by such improper forced devaluations of currencies. A nation can fight such necessary warfare to defend its currency better, if it has faithful allies sharing the same enemy and the same cause for themselves.

An Ibero-American "Common Market"

We propose that, within the Organization of American States, such republics as may choose to do so, should form an Ibero-American "common market." This "common market" would be based chiefly upon these institutional features:

(1) Bringing their respective, internal institutions of credit, currency and banking into order, as specified here, earlier.

(2) Establishing a common banking institution to facilitate exchange of credit, currency and trade among them, and as an institution of common defense of the financial and economic interests of the member-nations and the continent as a whole.

(3) To make more effective use of the limited resources at their common disposal, to the equitable advantage of each and all.

Taken as a whole, Ibero-America represents a spectrum of existing and potentially-existing capabilities of natural resources, agriculture, capital-goods industries, and other economic resources. What is not immediately at the disposal of the republics taken individually, is in large part at the disposal of those republics taken as a whole. Given the limited means for creating technologically advanced industries of each and all, the attempt of the republics to meet their needs in parallel represents a costly duplication of investment, by comparison with the better use of limited resources if a rational division of labor were to be developed among those republics.

What is required is: (1) Agreement to prefer to trade within the community, rather than trade without it; (2) Medium-term and long-term trading agreements, through which it will specialize for export to members of the community, thus assuring a medium-to long-term market for products produced by a corresponding investment. A nest of reciprocal, multi-national trading-agreements of this sort, are intended to foster the most efficient use of the limited capital and credit available to each and all. (3) Fair-pricing agreements, combined with cohering tariff agreements, which have the effect of establishing a customs union among the members of the agreement.

If a sufficient portion of the Ibero-American nations enter into such an agreement, the result is the assembly of one of the most powerful economies in the world from an array of individually weak powers.

Although the proposed customs union would develop quickly some of the same advantages as the European Common Market enjoyed prior to the electoral defeat of President Valery Giscard d'Estaing, the proposed customs union is not modeled on the principles of design which informed the European Market.

That Common Market was based upon British-style central banking of the member-nations, and was integrated with Switzerland's banking in a most highly significant manner. The included objective, although not the objective of President de Gaulle, was the dissolution of the sovereignties of the member-nations, by aid of such institutions as the European Parliament and

NATO. These features and included tendencies of the European Common Market are abhorrent.

The keystone institution of the proposed customs union is the inter-republic bank. This bank is established by treaty, to function as the common facility of the national banks of the participating sovereign republics. Its functions are, categorically, inclusively, these:

(1) Inter-Republic Banking Functions

(a) To serve as a central clearing-bank among the participating republics' national banks.

(b) To mediate exchange of credit and currency among the national banks.

(c) To act as a clearing institution for settlement of multi-national agreements among members respecting tariffs and trade.

(2) Monetary Functions More Generally

To facilitate maintenance of parity of exchange-values among the currencies of the member republics, and to defend those currencies as a bloc against external manipulations.

(3) A Development Bank (Investment Bank)

The bank serves as a coordinating agency for planning investments and trade-expansion among the member-republics. To aid in implementation of such agreements, the bank coordinates the mobilization of money-capital needed to ensure that all aspects of the agreed programs are adequately supplied with investment-development capital.

There are two principal sources of money-capital for expansion: intra-system, and foreign.

We have specified a monopoly for creation of money-credit by sovereign governments, denying this power (e.g., outlawing the "Keynesian multiplier") to any private agency. We have thus ensured that the otherwise idled, salable goods, goods-producing capacity, and labor of each and all nations shall be adequately employed, insofar as performance-worthy borrowers-entrepreneurs are willing to borrow at low interest-rates, to put those idle resources to work in a manner consistent with national priorities for categories of development.

The establishment of a customs union of the type proposed, means that the currency-notes of each republic can be issued as medium-term to long-term export-loans-capital to fund exports of its capital-goods production within the customs union. We have eliminated the need for a third-party lender among those republics. We have established a greatly enlarged autarkical development-potential among the members of the customs union.

This system of intra-bloc medium-term to long-term capital-goods-export lending will operate soundly, on condition that the payments for such loans are predefined in terms of the importing nations' repayment through earnings from its own capital-goods or other exports within the bloc. There is, therefore, an underlying, medium-term to long-term barter basis for these agreements.

Furthermore, for this and related reasons, it is desirable that the member-republics should prefer to purchase their imports from within the bloc, rather than from without it. A sharp and growing reduction in relative volumes of imports from outside the bloc should occur relative to existing categories of imports. The extra-bloc purchasing and borrowing potential of the bloc's member-republics should be concentrated for purchases of high-technology capital goods.

This is not a dilution of the sovereignty of the member-republics. In negotiations for lines of medium-term to long-term credit, to implement multi-member-republic projects, the representatives of each republic will negotiate sovereignly, but with backing from the common banking institution, and, thus, implicit backing from other member-republics of the bloc.

However, respecting financial relations with nations outside the bloc, the sovereign member-republics seek to negotiate loans for capital-goods through the facilities of the common bank, and to clear payments against such loans through that same common bank. This strengthens the bank's power to maintain a common defense of the currencies and credit of the member-republics. Not only are the members better defended, but the creditworthiness of each nation is increased; the creditworthiness of each and every nation of the customs union is greater than it could be outside that customs union.

To aid this, a common currency of account should be established for the customs union. Loans negotiated through the common bank will be denominated for payment in this common currency of account.

However, the bank will not be responsible for the debt of sovereign republics. Rather, the sovereign republic will settle its debt through its account with that common bank, and will settle in denominations of the common currency of account.

This bank will soon become one of the most powerful financial institutions in the world, especially in the opinion of capital-goods exporting nations.

3. A "Common Market" Economic Policy

All competent economic policy begins with reference to the development of agriculture: the first measure of productivity of a nation is, what percentile of its total labor-force must be employed in agriculture, merely to produce the food and fiber required by the national economy as a whole? This percentile determines, negatively, the percentile of the urban population, and, thus, of other forms of production.

This percentile depends chiefly upon two parameters: (1) Agricultural yield per hectare; (2) Number of such hectares per man-year of labor in agriculture. This is affected by the number of hectares brought into cultivation at such levels of technology and output-ratios.

During the eighteenth century, the percentile of the population required for agriculture was approximately ninety percent. Today, in the U.S.A., it is less than 4 percent, and in all industrially developed nations, under 10 percent, to the extent they are adequately developed to modem, competitive levels. It is study of the requirements for replicating such a shift—from about 90 percent to less than 10 percent—which is the point of departure for competent forms of devel-opmental policy-making.

Agricultural development in that direction can not occur except through urban production.

The first requirement of such agricultural development is modem transportation, linking farms to urban markets and centers of industrial production. In terms of costs per ton-mile, the preferred modes of transportation are, in order of desirability, water-borne, railways, and trucks. However, water is slower, and railway systems have not only failed to be improved adequately, but have been looted and encouraged to rot. Economic factors in transportation include not only costs per ton-mile, but inventory-costs to the economy of goods-in-transit, and perishability of product as a function of time, or, alternatively, costs of refrigeration over time to control perishability.

Transportation permits market-specialization of agricultural production, and provides agriculture with the flow of urban goods needed as capital-goods of improved agricultural production.

To inhibit perishability of agricultural product, we have pesticides and other chemical treatments for application in the field and to the product in storage or transit. Irradiation is perhaps a better method than chemical treatment for much agricultural product in storage and in transit.

What we require, and not only for agricultural products, is a modernization of transportation of goods. Water, rail, and truck transport must be more efficiently integrated, with strong emphasis upon more efficient classification-yards for rails and for transporting freight from rail to truck, truck to rail, and both to water-borne and air transport. This would be greatly assisted by emphasis upon improved standards for containerization. Containers, which can be used for storage as well as transit, will reduce costs and investments in storage facilities, and handling transit to and from storage.

For example, a farmer's grain could be (should be) put directly into a container in the field (with hygienic treatment at that point, against pests, disease, and so forth). The grain can be kept in storage in such containers, until the containers are to be moved. Containers can be moved by putting highway wheels under a container or package of containers. Containers can be transferred from truck to rail or water-borne transport for longer hauls, and so forth and so on.

Design of highway, water-borne, rail vehicles, and ware-housing and inter-system transfer technologies should be matched to the optimal design for standardized containers.

For ocean transport, the world requires fleets of high-speed, nuclear-powered freighters. For land, .in addition to optimal use of coastal and inland water-systems for transportation, we require high-speed rail networks, interfaced efficiently with truck-feeding and truck-distribution at both ends of high-speed rail runs.

We require an efficient grid of computer-systems assisted coordination of movement of freight under the entire, multi-mode system.

The principal manufactured materials required for agricultural development are fresh-water management and energy-supplies.

Energy-supplies are in the form of chemical fertilizers, trace-element treatment of soils, and energy to power water-management, mechanization of farming, and transportation to and from farms. Pesticides, and other essential auxiliary products for similar purposes, are also properly included under sub-categories of energy-supplies. A significant amount of the energy supplied to agriculture must be in the form of electrical energy.

Solar-collections and biomass programs are to be strongly discouraged, except as supplementary modes for restricted types of exceptional cases for local applications. Solar energy in the form of biomass for human and animal consumption is energy organized in a relatively negentropic form. Used for electricity or combustion, those sources are highly wasteful and inefficient. The energy pay-back to society, comparing the energy to produce such systems with the energy contributed, is broadly negative. Such systems cost society more energy than they produce.

We must concentrate upon (1) Improved combustion of fossil fuels, (2) High-head hydroelectric power, and (3) Nuclear energy.

This requires delivery of two complementary capabilities to the local agricultural area: (1) Heavy engineering, and (2) Agronomical science-technology-marketing-assistance stations. Heavy engineering has exemplary applications in developing water-management systems and in "crash programs" for development of the fertility of the land. Universities and governmental institutions specializing in agronomical science, in teaching and otherwise assisting farmers' mastery of sundry kinds of equipment and technologies, and in planning crops against known market-requirements, are the proper principal steering-agencies for assisting the rapid and effective assimilation of agricultural improvements.

Water management in conjunction with agriculture and forestry is also weather management. Agriculture and forestry define ranges of functions, in which biomass-produced, oxygen-produced, and water-vapor-produced-by-plants, are key parameters. The absorption of sunlight by biomass (crops, pastures, shrubbery, forests) moderates the climate. Water-vapor emitted by plants, as distinct from surface-evaporation of water from lakes, ponds, streams, etc., is a controller of weather-systems —as the catastrophic effects of Amazon deforestation proved most dramatically. So, if irrigation of agriculture is conducted properly, on a sufficiently broad basis, a secondary improvement in rainfall patterns results, just as underlying production in agriculture tends to produce dust-bowls and droughts.

The surplus agricultural product (in excess of farm-community needs) is sold for urban products, providing the base-line of impetus for urban industrial development.

The supplying of energy and water to the soil, together with improvements in seed-stocks and livestocks by agronomical science, increases the per-hectare yields of agriculture and forestry. It is the heat-powered machine which increases the number of such hectares per man-year of agricultural labor. Agricultural machinery and electrical power and other manufactured energy-supplies, are key.

So far, what we have said on the matter of agricultural development only repeats, in modem terms of technological reference, what Treasury Secretary Alexander Hamilton wrote to Congress in his 1791 On the Subject of Manufactures. We must focus attention upon the way in which agriculture is developed through urban manufactures and through development of modem forms of transportation. In this matter, we must focus upon the shifting ratio of urban goods-producing labor-force upon the shifting ratio of urban goods-producing labor-force to rural labor-force; it is the increase of that ratio which gives first

approximation of economic growth. It is the increase of that ratio, which defines the upper limit of a national economy's productivity, and true value of that nation's currency vis-a-vis other currencies.

Granted, the U.S.A. itself has departed frequently from the American System which brought that republic to greatness. Corrupted Presidents, including Jefferson, Madison, Jackson, Van Buren, Polk, Pierce, Buchanan, Coolidge, Hoover, Johnson, Nixon, Ford, Carter, and so forth, have explicitly repudiated the economic policies responsible for the U.S.A.'s rise to power, and most emphatically on the issue of agricultural policies. The rise of U.S.A. agriculture (and sections of Germany's) to world-leadership has been based on periods during which correct principles, those of Hamilton and President Abraham Lincoln, have been followed.

Agricultural development depends principally upon two elements of policy of the government of a republic. First, there is the principle we have underlined thus far: emphasis upon modem development of transportation, plus improved ratios of urban-produced capital-goods of agricultural production. This raises both per-hectare yields (as well as increasing the number of hectares available), and increases the number of hectares per man-year of agricultural labor. Second, the successful implementation of the first policy of government, demands firm adherence to a second set of policies: what is called a "parity price" tariff policy for both domestic and export-import markets.

Modem agricultural technology requires a certain quality of agricultural labor-force. This means a labor-force with the demographic characteristics of a European standard of living, as to longevity, hygienic conditions, and the cultural conditions associated with a school-leaving age of between sixteen and twenty-five years for a modem, science-and-classics-oriented educational standard. If the equivalent of wages of the agricultural household are depressed below such levels, at least with respect to critical features of those demographics, the quality of the rural labor-force is depressed, and the achievable level of per-hectare and hectares per man-year is depressed.

To understand the costs of production, in agriculture or anything else, one must always keep the accountants locked up in some comfortable place of imprisonment, until the industrial engineers have done their work of compiling bills of materials and process-sheets. To assess the content of costs of production, we must ignore prices of labor and capital goods in the first phase, and concentrate entirely on the physical quality and quantity of the materials, labor and so forth which represent well-defined elements of cost: capital costs and operating costs.

We must, in effect, define a kind of mathematical function, which correlates levels of productivity of a kind of production of goods, with the necessary elements of cost and expense required to reach and to maintain that level of productivity. We measure productivity properly in terms of conceptions such as energy pay-back, as we have treated that and its broader implications in the first chapter of this report. Our concern is to discover in what instance, the increase of a certain item of capital cost or operating costs or expenses, will improve the energy pay-back function of that section of production as a while. We are concerned also to note how reductions in such items of cost and expense, as to quantity and quality of such items, will depress productivity-levels.

If the accountants insist on babbling, "But, I have here standard-cost statistics which prove that . . .," send that dangerous fanatic off to the appropriate mental institution. Capital and operating costs of production are not prices of things; they are the things to which prices are attached. A manufacturer can not make clothing out of the price of cloth, but only cloth itself. It is the cloth itself which determines the potential functions of physical economy.

Once we have rigorously defined, as by appropriate industrial-engineering methods, the potential functions for that section of physical economy, then we correlate production's input and output so defined with prices of items of cost and sold product. That approach enables any sane fanner or governmental administrator, to see immediately the dangerous absurdity of such wicked, heathen religious dogmas as "free trade" and "supply and demand."

First, the designers build the required machine. First, we require a design of machine which performs its assigned function with excellence. In rush the cost-accountants. Lo and Behold! This initial design is a very costly machine; it performs its assigned function beautifully, but its energy pay-back performance is atrocious. We must reexamine the costs which went into the machine, not merely in terms of the prices, but of the physical-economic measures of cost. We examine the bills of materials and operating process-sheets for construction of this excellent machine. Can a substitution of materials, a change in the process of construction, or a qualitative improvement in the process of production of such a machine, bring its energy pay-back closer to requirements? We are not cheating on quality by such inquiries; we are, rather, engaged in the Socratic method of reexamining our assumptions. What, in fact, represents a necessary physical item of cost of design and production of the machine, and what was not essential? Or, can we, and must we, adopt a new approach to the design of the function as a whole? (Amusingly, the correct approach to design modification was elaborated as to all principles by Leonardo da Vinci approximately five centuries ago.)

It is the same in designing the progressive evolution of the national economy. What is truly essential to the needed result? On this, we must constantly return to the fundamentals of physical economy: the cultural (and demographic-characteristics) development of the labor-force (and population), and the correlation between energy-flux-density and technological progress, all relative to potential relative population-density.

Although the first British attempt at parodying economic science came with the work of Adam Smith and Thomas Malthus, beginning the 1770s, approximately a century after economic science was developed on the continent of Europe, the root-method of British political-economy was earlier established by Sir William Petty's cabalistic doctrine of reducing everything to "statistics," statistics a posteriori. This lunatic view of the world, of Petty's, became the basis for practice of British chartered accountants, and was spread into the U.S.A. beginning President Woodrow Wilson's administration, with the introduction of the income-tax. There is nothing evil in the notion of a progressive taxation on incomes, provided the right set of standards and priorities informs this. However, what occurred as a by-product of this measure, as income-taxation and so forth became more deeply-rooted during later decades, was that British doctrines of accounting became the dominant measure of economic

performance in government, business, and private affairs. The importance of tax-accounting, as a practical matter of life of government, business and individual households, dominated the population's thinking about everything pertaining to economy.

In the "Inferno" of Dante Alighieri's Commedia, there are progressive degrees of irrationalistic, hedonistic depravity, all the way into the Pit. At the base of the Pit, if one places one's ear to the ground, one can hear some mole-like creature, the most depraved hedonist of them all, scratching. If one probes, to discover the nature of this burrowing species, one uncovers, the statisticians, and their strange, illegitimate offspring, the British accountants and economists.

The British argue, that the proper level of prices of agricultural (and other) products, must be set by the action of "supply and demand," and this accomplished in a market-place as anarchic as the tradition of London's Billingsgate market might require. On behalf of their cause, the British rally a Jacobin mob called "consumers." The argument is made, that if the depression of prices is hindered, then the "consumer" must pay the difference; it is argued that every failure to bring down a price-level by anarchic competition, or simply "dumping," is "gouging the all-suffering consumer."

Looking at this matter from the production-side, and here we concentrate upon production of food, we inquire, what advantage is there to the consumer's children if the prices of agricultural produce fall below their true costs of production? The farmer must, sooner or later, close down the farm. If this continues, clearly, the "free traders" will have transformed us all into nothing but very, very hungry consumers.

We interview one of the noble species of consumers. We catch him in a moment when the mob is resting from its clamorous mass-protest against "greedy farmers."

"You are a consumer, sir?" we ask.

"Yes sir, I know where my self-interests lie," he replies proudly, slightly militantly.

"I take it, then, that you purchase your family's food-requirements more or less daily?"

He smiles, "My wife does most of the shopping. She'd be here with me now, but she was tied up shopping and taking care of our children today, so I came to represent our family."

"How interesting. She must have a difficult time, price-inflation being what it is today?"

"Awful! We can barely stretch out my unemployment check."

"I can see why you would be opposed to rising food-prices. By the way, what determines how much you are paid? Obviously, from what the speakers have been saying this afternoon, your check can't seem to keep up with the appetites of these farmers."

"I used to be an auto-assembly worker."

"Used to be? How do you live now?"

"Savings and unemployment compensation. We can't make it much longer this way."

"Oh, yes, it was your unemployment-check, wasn't it. How did you happen to become unemployed?"

"It was those foreign cars. They kept dumping those foreign cars. Our companies couldn't compete with those prices. So, now I'm unemployed."

"But, if we had protected our markets against foreign imports, wouldn't that have meant higher prices for our consumers?"

The demonstrator frowned. "I guess so. All I know is that I'm unemployed."

"So, now, you want to do the same thing to the farmers?"

The demonstrator now scowls, almost menacingly. "Look, buddy, I've got a family to feed. ..."

We, being daring folk, confront him now head-on. "If you put the farmers out of business, how will you find food for your family at any price?"

So, those "free-trade" and "supply and demand" opponents of parity-prices for agriculture are rightly called murderers and criminals. Many of them do not intend to be murderers and criminals; they are merely brainwashed dupes of British "free trade" ideology. They are like the automobile driver, who keeps killing children in the streets, because it is a matter of religious conviction with him, not to wash the layer of mud from his windshield. He does not intend to be a mass-murderer, but he refuses to consider any facts which threaten the "principles" he has adopted.

Of course, our militant demonstrator's argument against foreign-car imports is essentially false. What killed Detroit was, first, the impact of General Motors' pushing annual style-changes and a wide spectrum of different automobile styles each year, moving much too far away from the excellent principle of the Ford Model-T production and marketing policies. Second, by investing too much on annual styling, and thus relatively less on technology, Detroit preferred "sexy" automobiles to better automobiles. Third, the post-industrial-society lunacy hit Detroit's investment-policies. Then, came the obscene "energy conservation" policies. Every scrap of investment remaining to Detroit tended to be sucked into various, wasteful "environmental" investments.

Since Japan has refused to become as stupid as the U.S.A. had become, Japan's production improved technologically. Japan did not prevail by dumping, but rather, as a West Germany study showed, by means of cost-advantages of better production-methods and correlated modifications of product-design.

What killed the U.S.A.'s economy was not "greedy" manufacturers or "greedy" farmers. What ruined the U.S.A. economy was the same foolish consumers out demonstrating in support of "deregulation" and "free trade": so-called "free enterprise." They allowed the drift into a "post-industrial society": in 1946, 62 percent of the total U.S.A. labor-force was employed either in agro-industrial production of goods or infrastructure, or in physical transport of produced goods; today, less than 30 percent of the total labor-force is so employed. It is the increase of the overhead-ratio of expense (administration and services) to labor—from 38/62nds to 72/28ths (approximately)—which is the chief structural cause for postwar U.S.A. inflation. This structural inflation has been aggravated, especially during the 1971-1982 period, by acceleration of such parasitical costs added to all products, as ground-rent appreciations and usury.

By and large, the typical American consumer has responded to the ruin of the U.S.A. economy in the manner of the wage-earner who meets the rental-payments to his thieving landlord by going out nightly to rob his neighbors. It is the neighbors' resistance to being robbed (to resisting "free trade"), which the unfortunate thief blames as the cause of his troubles. Bring down

the rents? Our moralizing consumer is shocked: "That would be against 'free enterprise.' " So, whom the gods would destroy, they first make mad.

A republic which has not been driven insane by British heathen dogmas of statistics, will defend its production by domestic regulation of fair prices and by protection of tariffs. It will economize, in defense of its national credit and currency, by reducing expenditures for non-essential imports, to save every possible centavo for those foreign purchases (and domestic purchases) which are essential to increasing national employment and productivity, so that material conditions of life can be made better over the years ahead.

We properly employ industrial-engineering approaches to defining necessary capital-costs and operating-costs of, in this instance, agriculture. We correlate those costs, as physical costs, not price-costs, with a corresponding level of per-hectare yields and numbers of such hectares per man-year. We correlate these levels of performance with energy pay-back approximations (e.g., as partial-differential expressions of a potential function) with potential relative population-density for the society as a whole. We determine, thus, the standard price for agricultural product: a parity price. The European Common Market's CAP prices are a good comparative standard of reference for Ibero-America today. We set prices corresponding to both the physical items of capital and operating costs, and set prices providing a competitive margin of operating-profit above those costs.

That, and nothing different, is the cost to a national-economy for maintaining and improving gradually the productivity and scale of food-production. The rate of improvement effected in agricultural development is a limiting condition imposed upon the potential rate of development of the economy as a whole.

Agriculture produces the food-supply for the entire population. The smallness of the percentile of the total labor-force required to produce this food-supply, determines the limits for the urban labor-force.

The improvement of these agricultural production and demographic ratios, is accomplished through modem transportation and production of urban-produced capital-goods (principally) of agricultural production. The urban-production costs of that transportation and urban-produced capital-goods of agricultural production defines the base-line for national economic policy-making.

Leibniz's approach to the industrialization of eighteenth-century Russia, on behalf of his client Peter I, and the approach defined by Friedrich List for the industrial development of nineteenth-century Germany, are the historical models of reference, combined with the Hamiltonian model for the U.S.A., which broadly inform the more general approach to economy by a nation's policy-makers.

Starting from the rural-urban interdependency, as we have broadly outlined it here, we must next determine which kinds of capital-goods-producing industries have the most general usefulness for the national-economy, treating agricultural and infrastructural urban-goods requirements and the costs of that urban production itself, as the first list of products on the tables of total output-requirements constituting the internal market for capital-goods industries. This determination is influenced by the natural-resources and other national-local conditions indicating one kind of capital-goods industry to be immediately a more feasible proposition than another.

It is on this point that the importance of an Ibero-American "Common Market" becomes clearer at once. If we consider the spectrum of raw-materials potentials throughout the region below the Rio Grande, and also define all of the cooperating republics as a potential market for the output of the capital-goods industries of each part of this continent, a rational division of labor in capital-goods production among these republics becomes a most desirable arrangement. Although some categories of capital-goods industries are required in each of, at least, the principal republics of this region, as a matter of emphasis, there ought to be specialization by some nations in each leading category. Each republic, by agreement with its partners, should draw up a list of relatively advanced modes of capital-goods technology in which it will concentrate its available resources. This is an approach not unlike that list of priorities for advanced industries which Charles de Gaulle drew up as his perspective for the technological revitalization of the French economy.

This specialization requires the agreement to development of a modem transportation complex linking the cooperating republics as well as meeting their internal needs. A modem, Ibero-American "flag" fleet, and so forth is required; a standard, modem railway development is required; and, so forth and so on.

Transportation and other considerations indicate, for example, that the continent below the Rio Grande, must be broadly divided into three centers-of-gravity: (1) A Mexico-Colombia-Venezuela-pivoted Caribbean region of development; (2) A Rio de la Plata-pivoted region of development; and, (3) A South Pacific region of development.

For example, given the limitations of the Panama Canal relative to the scale of development implied, and also the cost-factors even of good rail transport, we must link the Pacific side (including Japan, Asean and India traffic) to the Caribbean side of the system by very efficient, high-speed movement, by rail-systems, unloading containers from, for example, the Pacific port-side, to shift them into ships waiting on the Caribbean port-side. For the distances involved, north-south and otherwise trans-Pacific and trans-Atlantic, we require high-speed, preferably nuclear-powered freighters designed to meet the specific requirements of this transportation-system. The inventory-cost of goods in transit, plus the need to shorten the vendor-customer queue of flow of goods in time and quantity for purposes of response-time in the total production input-output cycle, demand high-speed freighters beyond the performance of any presently in use.

One of the most-important customers for Ibero-American food-production is Japan's growing needs over the coming decades. Not that Japan could not secure food-supplies from other regions of the world, but Ibero-America is potentially one of the best customers for Japan's capital-goods output, and Japan will desire to secure raw-materials and food-imports needs from those economies to which it exports. Japan is well-suited, for example, to develop (as are Sweden and West Germany also) fleets of nuclear-powered freighters of the variety required for the Ibero-American trade. Increase realization of the agricultural component of the potentially immensely rich agro-industrial output of the Rio de la Plata region, and untap the food-production potential of such regions of Mexico as a fully-irrigated Sonora, and the barter-based trade-agreements function.

Initially, especially in the Caribbean region, agricultural development plus raw materials must be bartered for capital goods (in effect). This does not mean keeping those nations (Mexico, Colombia, Venezuela, et al.) forever raw-materials exporters. It means trading off immediate production-potentials for the technologies of the future.

Sacrifices or Austerity

Through the combination of forcing Ibero-American nations to accept fraudulent, looting forms of currency devaluations, and imposing, as "creditors' conditionalities," forms of austerity which ruin the productive-recovery potentials of economies, the continent is being ruined by what is called "austerity."

Certain categories of expenditures, especially imported consumer-goods luxury expenditures, must be curtailed and rather sharply, under present conditions. The republics must review this matter, and set a set of standards for each and all, to the purpose that cut-backs in imports are not counterproductive choices in economic priorities.

A people which is well-nourished, decently clothed, decently housed, well-educated, is not an impoverished people, however simple in style the satisfation of its essential material wants may be. A people needs fewer automobiles, if a well-developed, clean and reliable mass-transport system exists. A people does not need gambling casinos, houses of prostitution, a pornography industry, or a mass of so-called luxury goods. A people does not need consumer-goods industries which depend upon large, fixed amounts of purchases from outside a customs-union such as the proposed Ibero-American community.

In a house, a wise visitor looks for the size and content of the library, the musical library, that the members of the family have places for privacy for uninterrupted study, and physical arrangements which simplify the labor in the kitchen, in cleaning the family laundry, and in affording the family the pleasure and cultural development of receiving guests to share music and other beautiful things enriching the soul together. One looks for those qualities which ease the burden of repetitive household labor, and which promote a happy leisure of the family and household within the community.

One looks for durable values, and for those conditions of life which enable the household and community to pursue the development and employment of durable values.

In the community, one notes of course, sanitary-hygienic conditions of community and household life. Where is the medical clinic or hospital; how is it equipped and staffed? Where is the school? Where is the public library? Where are concerts and public lectures held? Where are the parks and playgrounds? What accomplished persons came from this place, and how are they remembered here? What exciting, good things have occurred recently, to become a subject of frequent and happy conversation among the adults and children of the community? What important and good things are intended to be developed in this locality, and what is the participation of the people of the community in this undertaking?

One looks for those things which suggest to the visitor, "I could be happy living here," however simple life may appear by comparison with the "jet-set" Sodom and Gomorrahs of the world. The conditions exist, or are being developed, such that a person could live here and accomplish something of durable value for the nation and its posterity. One could be proud to be from this place, not because other places are inferior, but because this place, and its people, have a useful function in the nation and in civilization as a whole. Not "competitively better" in the "competitive-sports" sense of "superior," but to do something useful to society with distinctive accomplishment.

A nation of such communities, a nation undergoing progress in its potential relative population-density, a collection of communities developing the creative powers of mind of the individual, to be fruitful and multiply, and fill the earth and subdue it, is a happy nation. We think of this, and pick up our old friend, the writings of St. Augustine.

This defines the material needs of a people, and defines a sense of happy life which a nation's leadership must help to embed in the confidence of the people and the communities generally .Such are the people of a true republic.

"Everything we need is here, when we need it. We insist on the best, but we prefer to live as simply as possible otherwise." When some tourists debark from automobile, all glistening with jewelry, and festooned with the costuming of clothing, posturing, and philistine opinions, which makes this writer's skin crawl in embarrassment at seeing another citizen of his U.S.A. abroad, the local resident of a happy community watches this spectacle sadly, and things: "These poor people, who do not know yet what is important in life."

That must be the viewpoint from which necessary sacrifices in expenditures are selected.

This aspect of policy-making is traditional to the American System of political-economy, and to the colonies planted in North America by the Commonwealth Party of Britain, the republican, anti-monarchist part of Britain. There has been much searching to find pretext for ridicule of the Puritans and so forth. Some of the criticisms are justified in isolation, and, unfortunately, the eighteenth and nineteenth centuries descendents of the Massachusetts settlers underwent a marked degeneration, as their business interests attached them politically to the British East India Company. Yet, the image of the U.S.A. farmer into the beginning (and beyond) of the nineteenth century, was what various Europeans described as the "Latin farmer." The American colonist of the late eighteenth century had a literacy-rate in excess of 90 percent of the population, more than twice the 40-percent literacy-rate in Britain, and the U.S.A. citizen had twice the income and was twice as productive as the average Briton. One has but to compare the political writings which swayed majorities of voters at the close of the eighteenth century, to the political addresses and literature which sway voters in the U.S.A. today, to note how much the culture of the U.S.A. population has degenerated. The writings of Benjamin Franklin are relevant to understanding the thriftiness which the revolutionary generation of U.S.A. citizens associated with a good life.

In practice, prior to the recent developments in mathematical economics by this writer and his associates, it was not practicable to consider a comprehensive consideration of everything in the economy all in one act of thought. So, a method of approximations sufficed. Each aspect of policy-makaing was considered separately, in first-approximation, and then all the pieces of such separate first-approximations were fitted together, and overall adjustments made accordingly.

This method of approximations is still a useful method. Since few citizens will master the new mathematical-economics methods and conceptions all at once, we are obliged to use the method of first-approximations in most public discourse on the subject of economic policy, in any case.

We include as one such first-approximation, a studied conception of the requirements of standard of living for the population, enriching that study by reference to the matters of demo-graphics outline here earlier, and adding the considerations we have just now referenced. We see, in short, where we must not tolerate austerity-cuts, and where we must, in fact, make some improvements, to develop a population well-suited for the work we shall require of the labor-force as a whole.

We analyze the economy as a whole, in first-approximation, as we have done here. We begin with per-hectare and hectares-per-man-year determinations of the percentile of the total labor-force required for agricultural production. We correlate that with the urban development needed to improve agricultural performance. We define what portion of the total urban-economic investment must be allotted to meet the combined requirements of agriculture and basic economic infrastructure.

By continuing such methods of first-approximation, we account for required allocations of national-economic resources for production and investment. We then see what is essential, which we have not provided in such approximations. We make adjustments. What might be desired, but can not be provided within such a set of limitations, must be sacrificed.

We then take the array of data corresponding to these first approximations to the next step of refinements. We employ the LaRouche-Riemann method of analytical forecasting for a refined projection and review of the first-approximation policies.

Nuclear Energy Or Die:

The issue which must be fought through, and resolved immediately, is the fact that without a crash program for proliferation of nuclear energy production, there is no chance for the survival of civilization generally, or the Ibero-American republics in particular. There are only totally incompetent arguments against this policy, a policy which no Ibero-American government would have tolerated for any reason, except a desire to reconcile itself to nasty demands from those U.S.A. and international agencies insisting upon an "appropriate technologies" policy.

We are presently in a situation, in which the London petroleum-marketing cartel is determined to destroy the Republic of Mexico immediately. There are numerous contributing motives for this targeting of Mexico—with complicity of Texas petroleum families associated with the Mexican insurgency party, the PAN. The most essential reason is that Mexico is the nation which could potentially break the monopolistic power of the London petroleum-marketing cartel, both because of its own Pemex development, and also as a coordinator of a counter-thrust among several petroleum-exporting nations against the London monopoly.

We are on the verge of an abrupt shut-down of Gulf petroleum exports, combined with a dissolution of OPEC. This will drive the world-market price of petroleum to over $100 a barrel. Does anyone imagine that London, or Manhattan and Texas, intend to permit Mexico to reap the benefits of such a leap in petroleum-prices? They are determined that Mexico shall be destroyed immediately, with the PAN and its internal-Mexican allies the key "fifth column" to accomplish this destruction.

However, petroleum is not viable as a source of substantially increased energy-production world-wide. Relative to nuclear energy, petroleum-combustion costs are exorbitantly high, and, barring MHD modes of petroleum combustion (as, also, for coal), the factors of pollution and of low energy-flux-density are major limitations on this source. The problem is to maintain supplies of fossil fuels (petroleum, natural gas, coal) at approximately present or slightly increased levels, and to improve the methods of combustion of those fuels technologically. The world could not presently endure a substantial contraction in levels of fossil-fuel supplies; the world lacks substitutes, and has a large infrastructure of energy-production committed to fossil-fuel combustion.

The so-called "soft" or "alternative" energies—solar, biomass, alcohol, and so forth—are all hoaxes from the vantage-point of both energy-flux-density and energy pay-back. Those nations who invest in such hoaxes on a significant scale are simply committing economic suicide.

The only sources of significantly increased levels of energy-production—above 1979 levels— are high-head hydroelectric power, improved (e.g., MHD) utilization of fossil-fuel combustion, and nuclear energy production (fission-fusion hybrid, and thermonuclear-fusion). Anyone who preaches otherwise is either simply an incompetent or a liar.

"Pure hydroelectric" energy-generation is not generally a viable investment, if the total energy pay-back equation is taken into account. The large-scale sources of hydroelectric energy available for development are, typified by the Himalayan-system potential for India, Pakistan and Bangladesh, subsumed features of large-scale water-management projects, in which the chief economic pay-back is in the form of irrigation and related water-management applications. The case of the proposed NAWAPA development for Alaska, Canada, the Western United States, and Mexico, is another example of this. There are major potentialities in Africa of the same general mixed-benefit character. Generally, this adds up to a few gigawatts of capacity globally in terms of significant such projects.

To bring any nation up to the level of productivity and potential relative population-density of Western Europe, Japan, and the United States of the mid-1970s, we require reaching a level of about 50,000 kilowatt-hours per-capita annually, among developing nations which have presently as low as 1,000 kilowatt-hours or less. This must be projected for over six billion persons by approximately the close of this century, and ten billion into the middle decades of the next century, by which time something in the order of 100,000 kilowatts per-capita or higher will be required. Without nuclear energy production on a vast scale, most nations and most of the world's population will be dying during the course of the twenty to thirty years immediately ahead. Those who oppose nuclear energy development should be treated exactly as a gang of Hitler's SS officers attempting to put most of the world's population through the gas-ovens. That, in hard and irrefutable fact, is the inevitable consequence of an anti-nuclear policy.

"How can anyone say such things about such concerned and sincere people?" Some of the SS murderers were also very

concerned and sincere people, just like the Nazi-supporting Harriman family of New York City. They were concerned that the "inferior races" were going to outbreed the "Anglo-Saxon master-race." We judge people properly not by their postures of sincere sentiment, but by the consequences of their policies for practice, and by the methods of thinking they employ to reach adoption of policies which are genocidal in practice. These Malthusian "environmentalists" are a force to be crushed, for the sake of humanity. No compromise with their policy is to be tolerated; otherwise one is tolerating a policy of genocide.

There are several layers of importance to nuclear energy.

First, there are the two, interrelated issues, of cost and energy-flux-density. Nuclear energy production ranges close to ten times, an order of magnitude greater in energy-flux-density than fossil-fuel combustion. Our greatest problem with fission energy today is the use of neutron-fluxes to boil water, to run turbines. However, in general, it is to be observed, as Sadi Carnot and others discovered more than a century and a half ago, that efficiency (e.g., cost-potential) of heat-sources, is a function of energy-flux-density.

Our most important technical problems in dealing with fission energy production today are the interrelated matters of breeding fissionable fuel in adequate amounts and reprocessing of spent fuel from reactors. The breeder-reactor (such as France's Super-Pheonix) is one approach to both problems; the proposed fission-fusion hybrid reactor is another, better approach. Accelerated-beam-plasma technologies are another feature of the same general problem.

However, there are inherent design-limitations for fission and fission-based programs. With a full-scale fission-development program, aiming at about 10,000 new gigawatts of capacity over the next quarter-century or longer in construction-starts, we might struggle comfortably into 2020-2030 A.D., but we would be approaching limits to the benefits of fission energy and related programs.

Fission energy programs are properly viewed as merely an indispensable bridge to a fusion energy economy world-wide.

There are no good reasons that the world should not be installing "commercial" thermonuclear-fusion energy-production systems by approximately the year 2000 A.D. What has been projected so far, in most proposals for such technologies, is a thermonuclear fusion neutron-production which, at the beginning of "commercial" models, would be equivalent to best fission energy reactors, but would become more or less rapidly superior in performance to any possible fission reactor system. Additionally, it is noted, that the fuel-supplies for thermonuclear fusion are relatively unlimited, compared to all other energy sources.

There are more profound, more fundamental considerations.

We must view thermonuclear fusion not merely as a source of electrical energy production, but as a source of process-heat of a qualitatively higher order than can be provided by high-temperature fission reactors. These reactors are not only sources of neutron-fluxes and heat, but must also be directed to production of discharges of charged particles, suggesting, among other applications, the replacement of boiling-water electrical generation by MHD-type generation.

In addition, in addition to reaching energy-flux-densities orders of magnitude higher than possible for fission-reactor generation of process-heat, thermonuclear fusion applications mean a revolution in industrial technologies. Controlled fluxes of neutrons and charged particles, at ultra-higher energy-flux-densities, mean that every conception of industrial technology we now know is made obsolete. Under such new technologies, there are no limits to natural resources for mankind in this universe, or upon this planet itself.

Most recently, the writer's associates have been involved in promoting a fresh approach to the potentialities of what is called "spin-polarization" as a method for effecting controlled thermonuclear reactions. At the most conservative estimate, success in developing such an approach should improve fusion by a factor of 2.5, and lowers the critical limits for fusion-reaction with decisive implications for the quality of result which can be achieved.

This is much more than a slight improvement in engineering approach. The question of "spin-polarization" interests some of the most fundamental questions of the physics of the universe. These questions have been implicitly solved by the work of Riemann—hence, the special role of the writer and his associates in treating this alternative approach to effecting controlled fusion.

More important, that example from current work merely illustrates the importance of fusion technologies as more than merely a heat-source of higher energy-flux-densities, but as the basis for a new physics of production, and a new conception of what the term "natural resources" signifies for industrial practice.

The general analysis of Ibero-American economic development must take this matter into account, within the following general context.

The basic analytical forecasting required includes these categorical elements of development: (1) Social infrastructure/demographic-characteristics development. This includes education, hygiene, medicine, nutrition, cultural development according to classical (Golden Renaissance) principles. This deals with developing the creative-productive potentialities of the population and its labor-force. (2) Agricultural development, as we have summarized this here already. (3) Basic infrastructural development, with emphasis upon water-management, transportation-complex development, and energy-production-and-distribution development. (4) Capital-goods industries development, within the republics and in the division of labor/trade within the community. (5) Capital-goods imports programs. (6) Consumer-goods production-development.

These elements return our attention to the coordinating point of reference defined earlier in this report. We start with, and constantly return to, the continuous function of development, in which potential relative population-density subsumes both increases in energy-flux-density and the cohering shifts in demographic characteristics of the population. These "objective" functions cohere with the development of the creative potentials of the individual within society, a creative development which is the means and goal of economic development, through innovations in science-technology, and which economic development makes possible.

The most critical economic factor—apart from human development as such—is the development of energy technologies. The possibility of future development of economies, even the ultimate existence of those nations, depends upon maintaining advances along the frontiers of energy technology.

An Ibero-American plasma-physics institute should be established as the central economic-planning and educational agency of the community. This institute should be modeled broadly upon the Ecole Polytechnique of Lazare Camot and Gaspard Monge during the 1790s. Its central task must be mastering the frontiers of thermonuclear fusion and related plasma-physics (and astrophysics) questions, projecting the kind of society, economy and technologies implicit in successful progress along that scientific frontier. The central point of task-oriented reference for the institute will equip the institute, in outlook and training, to master more effectively the lesser problems of energy and technology development posed to it for study and proposals. The education of generations of new scientists and engineers by the institute will provide the republics with the personnel needed to implement the new technologies.

The time must end, in which developing nations condemn themselves to wait for bequest of the second-hand garments of their older brothers and sisters of the so-called industrialized nations. Greatness of republics is achieved by leapfrogging the nations which have been decadent, leaping ahead of them in fundamental scientific and related work. The time must end, in which developing nations say, "We are poor, humble, developing nations. Who are we to imagine ourselves qualified to advance beyond our Anglo-Saxon betters in matters of science and technology?"

Yet, if we coordinate the potentials of leading Ibero-American nations, engaging in South-South cooperation with nations such as India, and in such cooperation as can be found among the industrialized nations of Japan, Europe, and North America, such leapfrogging is within the means of those Ibero-American republics. It is precisely such breakthroughs which will finally free those republics from subordinate status in the world. The Ibero-American continent could rapidly emerge as a leading economic power of the world, an economic super-power. That will happen only if the potential to accomplish that result is adopted as policy, as the guiding purpose of shaping policies of economic development.

4. The Enemy To Be Defeated

The nature, beliefs, motivations, and characteristic behaviors and strategies of the enemy forces, have been adequately examined in the book-length policy-study. The Toynbee Factor In British Grand Strategy. Therefore, we limit ourselves here, to some leading practical points of combat-policy, against that supranational force of oligarchical "families," after a few paragraphs identifying summarily the identity, interests and present strategic policies of the enemy forces.

For convenience, it is adequate to report that the enemy is a collection of oligarchical, pro-monarchical (generally), rentier-financier "families," typified in outlook by the Pan European Union of Otto von Hapsburg, and by the lunatic writings of the British Pre-Raphaelite Brotherhood and Friedrich Nietzsche. These, allied "families" control aggregately the largest concentration of real-estate holdings in the world, and also control the largest portion of international rentier-financier financial power, including institutions such as the Bank for International Settlements, the International Monetary Fund, the World Bank, and GATT, as well as large chunks of organizations of the UNO (e.g., UNESCO, WHO, WFMH, UNITAR, UNISOC).

This concert of families is approximately divided into a northern-European tier, the Anglo-Dutch, "Anglo-Saxon" group, including northern German families, Scandinavian oligarchists, and most of the junior oligarchical families (such as Morgan, Moore, Harriman) of the U.S.A., and a southern tier, typified by the Italian ' 'black nobility" and its Switzerland, Austro-Hungarian, Orleanist, Braganza, et al., components, including the oligarchical families of Bavaria and Baden-Wurttemberg in Germany.

These two sets of oligarchical families often operate on somewhat different shadings of policy-tracks. Presently, they are essentially allied to a common general purpose. That purpose is to use economic depression worldwide ("controlled disintegration") plus regional wars, insurrections, separatist insurrections, and international terrorism, to destroy both the institution of the sovereign nation-state and the institutions of rationalism and technological progress.

They are presently engaged in destroying the so-called "West," relying on the expectation that the Comecon and Warsaw Pact will soon be destroyed internally, by a wave of separatist and other insurrections, spreading from Eastern Europe, into the Ukraine and the Caucasus, and into the "Islamic Fundamentalists" of Soviet Central Asia.

To a certain degree, these families have pre-discounted the risks of the chaos they are unleashing. Over the recent decades, and at an accelerating rate since 1971, they have been distributing their wealth in the form of purchases of vast tracts of real-estate and other holdings in North America, Ibero-America, Australia, and elsewhere. This "hedging" of their investments among the nations and continents is based on the presumption that if part of the world is destroyed, they will have a dominant interest in whatever portions of the world survive, as well as nominal title to reclaim ultimate / whatever they lose temporarily in destroyed regions of the world.

They view the present depression with delight. Through the multiplier-effect of unregulated, "offshore" banking systems, they are able to exploit the distress of farmers and others, to buy up assets with fictitious money in the afflicted regions and nations of the world. The prospect of a vast, depression-caused devaluation of the nominal holdings acquired in this way does not concern them. They are concerned not with the nominal, bookkeeping value of their holdings. They are concerned only with what percential of the world's real-estate and rentier-financier assets they control.

Who are these oligarchical "families"?

Historically, they are relics of the ruling oligarchies of the Roman and Byzantine Empire, who penetrated Western Europe, against the Grand Design of Charlemagne, chiefly through the Byzantine colony of Venice. The inner, leading core of these families maintain, consciously, the millennia-old traditions of the Roman and Byzantine empires, taught by father-to-son, and maintained as a tradition by pseudo-Christian orders created and maintained by these oligarchies as a private apparatus, as well as such institutions as the British public schools and Oxbridge types of universities.

In recorded history of Europe, they are traceable in detail back into the classical-Greek period, especially from the time of Plato and Alexander the Great, during the fourth century B.C.

They stem, in unbroken continuity as a social phenomenon, from that time.

During that time and subsequently, they were known variously as the Phoenicians, the Philistines, the Magicians, the Chaldeans, and the Mobeds. They were then a force of combined pagan priesthoods and rentier-financier tax-farmers, who controlled the Persian Empire of the Achaemenids from the inside, and controlled such cult-networks as those of Thebes (Egypt and Greece) and the cult of Apollo (Delphi, Rome, etc.).

In classical-Greek times, the conflict within civilization was typified by republicans versus oligarchs. Aeschylos and Plato, as well as Solon, typify the republicans. Hesiod, the priests and tax-farmers of Tyre, and the Apollo cult's Peripatetics and Athens School of Rhetoric, typify the oligarchs.

During the time of Plato, and the center of all of Plato's activity, this conflict between republicans and oligarchs centered in the conflict which came to a head with Alexander the Great's destruction of the Persian Empire. On the one side, the republicans, the leadership was constituted by an alliance between Plato's Academy at Athens and the Cyrenaic Temple of Ammon, the latter the sponsor of the rise of Greek civilization from the "dark age" of illiteracy earlier. On the opposing side were, chiefly, the forces of Tyre and their assets, the cults of Apollo and Thebes.

The case of Alexander the Great bears repetition here, to make the issue of the present day clearer.

As Xenophon's account of the march of the ten thousand through the heart of the Persian Empire illustrates, the central strategic problem preoccupying the Phoenicians was the fact that there existed no force capable of defeating the Greek military system and its Macedonian variant. The Phoenicians (Chaldeans controlling Tyre) adopted Philip of Macedon as their witting instrument, for a project which the surviving correspondence of that time describes as "The Western Division of the Persian Empire."

With help from the cult of Apollo and its Peripatetic agents-spies, including the Athens School of Rhetoric, Philip was to conquer Greece, state by state, securing the traditional Greek right of hegemony over them. With Greek forces under his control, he was to march through Western Asia Minor, to fight a battle with Persian forces up to the point of a truce. During that truce, the Persian emperor was to more or less adopt Philip as one of his heirs, and bequeath to Philip rule over an empire including Western Anatolia, to the West of the Euphrates river. The conditions included the requirement that the internal social order of this Mediterranean empire be what the conspirators' correspondence describes, alternately, as the "Persian Model," or "Oligarchical Model." The rigorous significance of the term oligarchical is obtained from those specifications of social-political-economic order.

In a last, desperate effort to stop this project, the combined forces of the Academy at Athens and the Temple of Ammon struck back. Philip was assassinated, virtually on the eve of his departure to take command of his troops in Anatolia. With a bitter succession-struggle, one of Philip's sons, and a bitter enemy of Aristotle, Alexander, succeeded to the Macedonian throne. Alexander's mother was a protege of the branch of the temple of Ammon in mainland Greece. After a series of brief wars to consolidate his rule, Alexander launched a campaign to exterminate the institutions of the Persian social-economic-political order in Asia, and to establish a new order of society based on the republican model. In this, Alexander was directed immediately by advisers from the Academy of Athens (Plato had died fourteen years earlier), and aided massively by the temple of Ammon. Ammon aided Alexander in conquering Tyre, organized a revolt against the Persians in Egypt, and contributed the final designs for the republican world-order Alexander was assigned to establish.

The second, successful attempt of Aristotle et al. to assassinate Alexander, made possible a revolt of the pro-Persian-model faction within the Macedonian generals. However, Alexander had so devastated the institutions of the Persian order that the "Oligarchical Model" could not be set into operation until the heirs of Ptolemy Soter and the cult of Apollo-Thebes established the Roman Empire under Augustus.

The principal, internal flaw in the design of Socrates-Plato was the issue of the trial of Socrates, the issue of the "traditional" heathen deities. This is dealt with appropriately in the Toynbee Factor. It is sufficient to note that the "great mother" (Cybele-Isis) and her incestuous sons (Apollo-Dionysos/Osiris-Horus/ and so forth), defines the basic structure of the cults of "blood and soil" which were the typical Phoenician cult-form of that period (e.g., Cadmus-Thebes). Failing to provide for the destruction of these religious cults, the effort was doomed more or less to fail.

Civilization was saved by Jesus Christ and his Apostles. In terms of systematic theology, Christianity elaborates itself in the Hellenic terms employed by St. John and St. Paul, as did the Jewish contemporary of the Apostles (and collaborator of St. Peter at Rome), Philo of Alexandria. As St. Augustine accounts for this and related matters, Christianity adopted Plato's science as to scientific method and statecraft, but subordinated that Platonic science to Judeo-Christian principles. Hence, Judeo-Christian Neoplatonism, or Judeo-Christian republicanism.

The successful rise of the apostolic Christian church, despite massive persecutions by the Roman oligarchical families, pushed the Roman oligarchy into a delphic countermeasure. Constantine moved the capital of the empire to the center of Roman-empire population at that time, Greece. It was there that the Christian church was in strongest force at the time. Constantine attempted to destroy the church by coopting it, giving it the episcopal form of the Roman imperial mystery-religions. This was exemplified by his appointment of Arms bishop. Arius's attempts to outlaw the doctrine of consubstantiality (later called the Filioque doctrine in the Western Christian, Augustinian liturgy) led to the calling of the Council of Nicea. The apostolic faction was technically victorious, but the Eastern episcopal hierarchy persisted in the Arian doctrine, prefiguring the long division between the later Western church and the pagan-influenced Eastern Rite, leading to the formal schism centuries later.

The division within Christendom was twofold. As the Eastern Rite hierarchy became consolidated around the Arian principle, to that degree did the Eastern church become a mediator of the oligarchical model in social practice, in sharp contrast to the republican grand design (e.g., Charlemagne, Alcuin) of the Western, Augustinian church. However, the struggle persisted in the East, where the defining issue of the conflict was between the forces rallied behind the classical-Greek language and literature (e.g., Aeschylos, Plato, Homer) and the forces attempting to eradicate the teaching and use of classical Greek. The republican

current asserted power, under the Paleologues (1261-1453 A.D.). The Paleologues were overthrown by the Arian faction in 1453, through a conspiracy by Venice, Genoa and a leading faction of the Greek Church, which entered into agreement with the Ottoman ruler, Muhammed the Conqueror, by which Constantinople was turned over to Muhammed, in exchange for considerations given principally to the Venetians and the Greek Orthodox hierarchy.

So, the fight for civilization was centered within Western Christendom. Against the Augustinian forces, were arrayed the Eastern Empire's oligarchical families, penetrating westward chiefly through Venice and Genoa, and allied with elements of the old Roman oligarchical families (e.g., the Colonnas) still based in Italy itself.

The greatest general advance of oligarchism came in the wake of the crusades, in the form of the spread of the anti-Augustinian movement in the guise of the Inquisition (circa 1230 A.D. onwards), a Venetian-directed force which was, actually, the principal force behind the creation of Adolf Hitler's Nazis.

Since the late thirteenth century, the generic name for this aristocratic, rentier-financier oligarchy has been "Black Guelph" (Black Welf), or simply "black nobility."

Following the fourteenth century, the next greatest insurgency of the oligarchical families until the present time, was during the period 1525-1527 to 1653, the so-called "Counterreformation." The true target of this Hapsburg-dominated Counterreformation-period was not protestantism, but the Neoplatonic papacy of the fifteenth century, and the sweeping institutional reforms in Church and state set into motion by the Golden Renaissance. As noted, the greatest challenges to the oligarchical families after 1653 were the combined impact of the accession of Caries III of Spain and the American Revolution. With the events of 1866-1879, the oligarchical families' system of international finance had taken control of most of world finance and financing of world-trade.

A series of economic depressions, beginning the 1870s, and two World Wars organized by the oligarchy, savagely destroyed most of the institutions of republican nation-state culture. The depletion of Western Europe and takeover of the monetary and foreign policies of the U.S.A., following the premature death of F.D.R., situated the oligarchical families to conduct the preparations for final, consolidated takeover currently in progress.

The principal problem of republican statecraft today, is that most pro-republican statesmen are ignorant of the ABCs of this 2,500 year span of European history, in sharp contrast to the state of knowledge among republican statesmen prior to 1870. Statesmen and parties are deluded to believe that the leading political issues of our time are something quite different than this final battle between insurgent oligarchism and the last remnants of republicanism.

Exemplary of the problem: It is generally believed, today, that the political divisions within society are assorted into gradations of right, center and left. This belief leads to the degrading, farcical spectacle, in which individuals join political parties which define themselves as parties, in terms of such gradations of right-to-left. These parties then imagine the competition among them to be the burning practical question of the period; so, the political life of governments and parties is made a kind of Nero's arena, of foolish gladiators fighting out to the death false issues, while the oligarchical families, ensconced in the spectator's galleries, amuse themselves to observe the dupes ruining themselves in acting out this sports-arena delusion, called contemporary political issues.

It is very childish, this contemporary politics. It is like children's sports. One entire school mobilizes its passions over the issue of its school's team beating the other school's team. In reality, which team wins means precisely nothing. Yet, when loyal admirers of one school's team enter into an argument over the merits of the respective teams with the loyal admirers of an opposing school's team, what a ferocious battle of opinions, and sometimes even physical brawls, erupt!

In the passion of such right-center-left, sports-like squabbles, forgotten is the life-and-death issue of twenty-five centuries, the battle to the death between Judeo-Christian republicanism and the "oligarchical model" of the wicked families. The families, delighted with this general self-delusion of political parties and governments, amuse themselves playing all contending parties simultaneously, preparing to rise to power out of the mutual destruction of the political contenders.

The most fundamental reflection of the battle between republicanism and oligarchism is precisely the contest for power between the forces of technological progress (profit of productive enterprise) and Malthusian-Hesiodic parasitism (ground-rent and usury). By attempting to solve the problem of economic growth, within the terms of an international monetary order based upon the promotion of ground-rent and usury, the harder the nations fight for economic progress, the more they place themselves at the mercy of the forces of ground-rent and usury.

"We must remain creditworthy in the opinion of the international usurers," cries out the last republic, as it, too, places its head dutifully on the chopping-block of the oligarch's executioner.

This battle over financial institutions' policies is the center of the struggle for material power of the opposing forces. That is not to argue that it is, in itself, the fundamental issue. The issue, more fundamentally, is that of culture: the classical culture of Judeo-Christian Neoplatonism, against the hedonistic superstitions of the oligarchical cults.

Unless the Ibero-American republics have the perception and courage to act together to destroy the international monetary order of ground-rent and usury, and to demand and to impose the American System of political-economy as the basis for relations among nations, this civilization, this Judeo-Christian republican civilization is now in the last days of its existence. Not to fight at all costs on this issue, is to will to die. There is no choice but that: fight united, or die.

However, in the process of establishing the hegemony of the American System, we must not forget that we merely secure the indispenable basis in political-economic institutions for the promotion of classical culture, for the development of the individual in society. Moreover, it is not a matter of the one following upon the accomplishment of the other. Only if leaders adopt the standpoint of that classical culture for themselves, for the shaping of their policy, will those leaders find within themselves the power to lead nations effectively.

We have before us the battle for the soul of the United States of America. If the U.S.A. continues to adhere to the oligarchical, wickedly anti-Christian dogma of "free enterprise," the catastrophes about to befall that nation and its people may well

transform the U.S.A. into an evil thing, more monstrous, more deadly than Hitler's Germany. There is goodness among the majority of the people of the U.S.A., but that goodness will not be awakened by anything less than a moral shock, a shock which can be administered by nothing less disturbing and bold, than a resolute concert among leading Ibero-American nations.

"What if Ibero-American republics do not choose to follow your advice?" Then, certainly, and very soon, all those nations will cease to exist. I know what W. Averell Harriman and his evil kind represent, and what they are determined to unleash.

Notes for Chapters

Chapter 1

1. See, Executive Intelligence Review, Vol. 9, No. 27, July 20, 1982.

2. "Economics Becomes a Science: Lyndon LaRouche's Riemannian Economic Model," in Executive Intelligence Review, Vol. VI, No. 17, May 1-7, 1979; Fusion, Vol. 2, No. 9, July 1979.

3. The authorship of the American System of political-economy is attributed to three Reports to the U.S.A. Congress which Treasury Secretary Alexander Hamilton composed during the 1789-1791 period. "On Public Credit" (January 1790), "On a National Bank" (December 1790), and, "On The Subject of Manufactures" (December 1791). The last of these three reports is a devastating refutation of both the French Physiocrats and of Adam Smith's Wealth of Nations, using the evidence of U.S.A. agricultural experience up to that point to disprove the British (and later Ricardo's and Marx's theories of rent). It was in the latter of these three reports, that the term "American System" was first published.

4. Matthew Carey, a leading Irish republican leader, fled the British hand, to join Benjamin Franklin in Paris during the U.S.A. 1775-1783 War of Independence. Carey became a close collaborator of Alexander Hamilton as well as of Franklin, and a prominent Philadelphia publisher, as well as a key figure of the U.S.A.'s secret-intelligence service. Carey's lectures of 1819 to the Philadelphia Society for the Promotion of National Industry, March 27, 1819, to July 5, 1819, rallied the depression-ridden United States against what Carey proved to have been the cause for that depression, Jefferson's and Madison's adoption of Adam Smith's British East India Company dogma of "free trade." After Matthew Carey's death, his work was continued by his son, Henry C. Carey, later President Abraham Lincoln's chief economic adviser.

5. Friedrich List was a protege of the republican conspiratorial circles of Schiller, Humboldt, et al., in Germany, closely associated with Friedrich Schiller's publisher, von Cotta. In Paris, during the early 1820s, List studied not only the American System of political-economy, but the work of the Ecole Polytechnique, including the brilliant Claude Chaptal and Charles A. Dupin. In Paris, List, like Heinrich Heine a few years later, came under the sponsorship of the head of the U.S.A. 's secret intelligence service in Europe, Gilbert Marquis de LaFayette, George Washington's successor as head of the Society of Cincinnatus. LaFayette brought List to the United States, and placed him under the patronage of Matthew Carey. List served U.S.A. counterintelligence in the Reading, Penn-sylvania area, while collaborating with Cary in Philadelphia. List concentrated on the German-American population, editing the Reading Adier, predecessor to the present-day Reading Eagle. After receiving U.S.A. citizenship. List returned to Germany under difficult days for the U.S.A. secret-intelligence service: the treasonous Andrew Jackson had become President. In Germany, List led in establishing the "customs union" (Zollverein) for which von Cotta had done much political groundwork earlier. In that sense. List was the author of the successful nineteenth-century industrialization of Germany, despite his premature, and suspicious death, following his return to Germany after visiting his British adversaries in London. "Hamilton, Carey, and List" was the slogan standing for American System of political-economy during the nineteenth century.

6. The most famous usage of such phrases to describe the young United States, was that of Gilbert Marquis de LaFayette.

7. Since it is negentropy which represents the basic law of the universe, it is jarring that the simpler term, entropy, refers to the abnormal condition, and the more complicated term,' 'negative entropy," signifies the normal condition. For that, blame Vienna's Ludwig Boltzmann and his circle. The usage crept into the dictionary of science, and it would be more labor than it is worth to clean up this curious bit of terminology.

8. For such miserably unscientific, even outrightly dishonest productions as his purported psychoanalysis of Leonardo da Vinci, Sigmund Freud's name ought to be changed to Sigmoid Fraud. Freud resorted to the flimsiest gossip about Leonardo, with no effort to conduct an in-depth analysis of the way Leonardo thought. Leonardo's notebooks prove him to have been not only the most important scientist of modem centuries before Johannes Kepler, but a rigorous discoverer of principles of hydrodynamics not rediscovered until the 1970s by modem physicists. Leonardo's work was chiefly a result of the direct influence of the writings on scientific method by Cardinal Nicholas of Cusa. Any attempt to explain the internal history of modem science, without tracing the very direct origins of the main lines of scientific work of Kepler, Gilbert, Pascal, Leibniz, et al., directly back to Cusa and Leonardo, is a fraudulent account of that history.

9. Mysterium Cosmographicum, The New Astronomy, The Harmony of the Worlds, are Kepler's principal books. Curiously, but not mysteriously, these three books, which founded mathematical physics, have never been published in an English translation; moreover, the usual representation of the work accomplished in these books, in English language textbooks, is sweepingly fraudulent, wild falsification.

10. The Harmony of the Worlds.

11. This writer prescribed the importance of working out such a rigorous construction, by purely synthetic-geometric methods, during a 1981 seminar in West Germany. The work was completed shortly thereafter by the writer's collaborator. Dr. Jonathan Tennenbaum. Tennenbaum's constructions now settle this matter conclusively.

12. Dr. Uwe Parpart has worked through current astronomical tables, proving that Kepler's harmonic values are the most accurate determinations for all the planets and also the moons of the planets. The proof is shown to be coherent even for bodies which have acquired orbits after entering the system as "wanderers." The failure intrinsic to any "action-at-a-distance" approach is illustrated adequately by the fact that the "three-body problem" is intrinsic to the Newtonian system, whereas no such problem confronts the Keplerian system.

13. Cf. G. Leibniz, "The Origin and History of the Calculus." Leibniz's development of the differential calculus was given to his Paris publisher in 1675, a dozen years before Newton published his own unusable parody of Leibniz's work. The Leibniz archive for 1671-1675 shows in detail how Leibniz developed the differential calculus, by 1673 already far more advanced than what he submitted for publication as finished work in 1675. Leibniz's marginal notes in Kepler's work show Leibniz's basing himself on Kepler's specifications for a differential calculus. Leibniz solved the problem, working not only with the published writings of B. Pascal, but through special access given to him to work through Pascal's unpublished working-papers. There is no evidence in the Newton archive that Newton actually did any serious research into the differential calculus.

14. This characterication of Cauchy's work is quite literally accurate. Cauchy was a protege of the Jesuit, Abbot Moigno, whose published writings constitute a thorough recipe for everything done against science by Moigno's evil protege. The influence of Cauchy's fraudulent notion of limits has done severe brain-damage to generations of credulous students of the calculus. What was done by Cauchy in France, under Orleans patronage, was quite literally an inquisition against the leading figures of French science.

15. This is based chiefly on research into archives in France and Germany. Lazare Camot was exiled from France by the Treaty of Vienna. Nominally resident in Marburg, he spent the bulk of the remaining years of his life (1815-1823) at Berlin, collaborating with the Humboldt circles there. Humboldt, meanwhile, divided his years (up to 1827) between Paris and Berlin, moving the kernel of French science from France into Germany.

16. From here onwards, in the remainder of this section of the chapter, we are describing the crucial features of Riemann's 1854 habilitation dissertation, in the main. The language employed here is based upon Riemann.

17. Cf. Note 4, supra. From this vantage-point, it is quickly demonstrated that the cult of "free enterprise" in the United States of America today is a complete fraud, insofar as the cultists assert that the economic development of the U.S.A. was the result of that "free trade" doctrine against which the 1775-1783 War of Independence was chiefly fought.

Chapter 2

1. "Asharism" is the name for the form of "Islamic Fundamentalism" which eroded the Arab Renaissance from within, so named for al-Ashari. "Asharism" is most prominently associated with the eleventh-century A.D. book-burning fanatic al-Ghazali, a religious agent of the Seljuk Turkish mercenaries who subjugated and largely destroyed the civilization of the Baghdad Caliphate, and prepared the ground for the later conquest and destruction of Arab and Iranian civilization by the Mongols. The British recreated "Asharite" cults, beginning with early manipulation of Islamic groups through British East India Company concentration upon this project in Calcutta. This was extended as the practice of SIS's India Office, and was continued in the British SIS Arab Bureau, spun off from the India
Office during the 1920s. The "Muslim Brotherhood" was a creation of SIS's Arab Bureau, whereas the pedigree of Shi'ite versions of the same Asharite projects of SIS belong to the India Office tradition proper.

2. A summary of the documentation of the Anglo-American bringing of Khomeini to power in Iran is given in Robert
Dreyfuss, Hostage to Khomeini (New York: The New Benjamin Franklin House, 1981), which has been widely circulated internationally in various English, Arabic,

and Farsi editions. Briefly, an official of British SIS's Arab Bureau, Bernard Lewis, was seconded to Princeton under the sponsorship of Henry A. Kissinger. Under co-sponsorship of a British intelligence asset, the Aspen Institute, Lewis produced a plan for destroying the Middle East (and adjoining) nations, through aid of separatist movements, to split the existing nations into semi-autonomous micro-entities. This was incorporated into U.S.A. policy under Henry A. Kissinger, and continued by the Carter Administration under the alternative titles of "Arc of Crisis" and "Islamic Fundamentalism Card."

3. These policy-studies were compiled for CFR under the direction of (later Secretary of State) Cyrus Vance, (later National Security Adviser) Zbigniew Brzezinski, (later Secretary of the Treasury) Wemer M. Blumenthal, and so forth and so on. These were compiled during 1975-1976, and completed during the 1976 "transition period," just in time for the inauguration of the Trilateral Commission puppet-President Jimmy Carter. They were subsequently published as a series of texts by McGraw-Hill.

4. Documentation of the MacArthur story to this effect was accomplished by Webster Tarpley. Few references bring a quicker, more violent reaction—for and against—among senior U.S.A. serving and retired military ranks, than reference to the fact that the Korean War was largely surrogate warfare between Britain and General MacArthur, with W. Averell Harriman the chief British snake inside the U.S.A. side of the operation. The facts to this effect are conclusive. Truman's firing of MacArthur broke the last major bastion of U.S.A. resistence to becoming the "unofficial colony" of Britain.

5. This was developed by scholars working in Mexico, chiefly. However, the facts of the alliance between Benito Juarez and the Whigs is also massively documented from the U.S.A. side of that alliance. Reyes Heroics' version reflects the popularization of Cambridge University mythologies during the century, as exemplified by the frauds of Frederick Jackson Turner, Charles A. Beard, Walter Lippmann and numerous others of that treasonous inclination among U.S.A. "historians." There has been a concerted effort to wipe from Mexico's memory all knowledge of the essential facts of its pre-1870s history.

6. This was published in both Italian and English editions during 1980-1981.