

National Democratic Policy Committee



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*Open Letter to IMF Member-Nations*

**“Conditionalties” Are  
A “Nuremberg Crime”**

**With Foreword to NDPC Members**

**by Lyndon Hermyle LaRouche, Jr.**

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**\$5** *Suggested Contribution*

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**To NDPC Members:**

One of my particular responsibilities to the members of the NDPC, and the traditionalist constituencies of the Democratic Party more broadly, is to share with such citizens my own immediate experience in international affairs. Part of my duty on this account, is to aid you in developing a practical sense of the quality of individuals heading governments and so forth, to attempt to make such influential persons as real for you as your proverbial next-door-neighbor.

As most among you already suspect, it is an unhappy fact, that a large portion of the members of governments and so forth, are purely and simply scoundrels. Some are genuinely, satanically evil, in the same sense that Adolf Hitler and Bertrand Russell were satanically evil. Others are better described as gentlemen of marketable morality, many times sold. Others are loyal scoundrels, loyal to the command of whoever owns them.

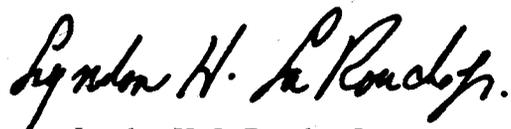
As you may also believe, or hope, there are people in governments, for example, who are not scoundrels. Personally, they are decent men and women, good neighbors by and large. Do not rely on great initiatives from these decent leading figures. The truly frightening fact about governments and other most-influential institutions today, is not the presence of scoundrels, but the inability of the decent leaders to face up to a serious issue. The decent ones, especially in the United States and Europe, are such pitifully "little people."

There are some heads of governments, and other outstanding influentials, who have earned my respect. I admire them as dedicated and able patriots in their own nations, even if we sometimes disagree on matters of strategy and tactics. Similarly, to illustrate this point, there are circles close to President Ronald Reagan for whom I have personal liking and respect—even at the times I curse bitterly because of their frighteningly limited grasp of the most important policy-issues.

All the pleasant things to be said noted, today, civilization is wretchedly governed. In the U.S.A. and Europe, we are governed by forces which are either scoundrels, or are decent persons of such littleness of comprehension, that evil policies usually succeed and good policies advance rarely, and then only in halting steps. Search the governments of the world, including that of the U.S.A., nowhere is there evident the needed combination of leaders with the combined comprehension and courage to halt the global disaster now erupting—the "Second 'Herbert Hoover' Depression."

In the following open letter to the governments of the IMF member-nations, you are looking over my shoulder, so to speak, as I address directly the whole of that collection of mixed scoundrels and decent personalities. See how I address them, and imagine the reactions on their faces as I address them. So, you shall come to know them better.

So, you see the point: You and I are better qualified to govern than they. Let us then take our rightful place in instructing governments what governments must be quickly compelled to do. It is past time that you and I joined forces to take charge of our nation's policy-making.



Lyndon H. LaRouche, Jr.

# I. The Crisis As Such

The representatives of the member-nations of the International Monetary Fund are meeting in Toronto, Canada, under the threat of the worst international financial collapse since the middle of the fourteenth century. Now, as during that fourteenth-century crisis, the usurious practices of the Lombards are accomplishing the common ruin of the debtors and creditors alike.

Now, as during that fourteenth-century collapse, the imposition of Lombard forms of creditor's "conditionalities" upon governments, is unleashing the Four Horsemen of the Apocalypse. Already, among the so-called Least Developed Countries (LDCs), famine, epidemics and homicidal strife over diminishing scraps of nourishment, are causing genocide. Now, more developed nations, and Italy, are being added to the list of targets for such Lombard's genocide.

To employ Lombard's austerity-measures, is to reduce investment in production and basic economic infrastructure. This is a reduction in the living-standards of populations, which, at a certain point, lowers the average conditions of life of many below the level at which individual life can probably survive. When the screws of Lombard's austerity are tightened to a certain degree, now as during the fourteenth century, a genocidal, savage reduction of the population—mass-murder, pure and simple—erupts.

The OECD nations are not, admittedly, the LDCs. Already, nonetheless, the first steps pushing OECD nations into the direction suffered by LDCs are clearly to be seen.

Take the case of food production in the U.S.A., for example. During early October 1979, President Jimmy Carter and Federal Reserve Chairman Paul A. Volcker deployed savage forms of usurious Lombard practices against the economy and people of the United States, practices which Volcker and the New York Council on Foreign Relations earlier proposed under the title of "controlled disintegration" of the economy. Since that time, into approximately the close of the present year, the United States will have lost an estimated one million of its farms, as much as one-third of its basic food-producing potential. Another year of this, and the people of the U.S.A. will be queuing for food rations.

If we permit such policies of practice to continue, we are insane to the point of being evil.

On the surface of events, the present world depression began to erupt visibly with the British devaluation of November 1967. Since that time, the evidence of the recent fifteen years is a record of consistent bungling by the dominant member-governments of the IMF, my own government included most emphatically in that indictment.

Under the increasing influence of neo-Malthusian cult-dogmas, governments and international institutions have forced the accelerating destruction of the world's capacity to produce new wealth, while at the same time pyramiding the debt-service obligations imposed upon production. "Ladies and Gentlemen, your performance has been worse than merely habituated, gross incompetence. Your behavior in economic and monetary matters has been insane."

Now, rather than permitting a correction in the foolish "free-market economy" delusions causing the present depression, the forces which have caused this depression have, up to the present moment of writing, proposed to destroy entire nations and peoples through austerity-measures, rather than compromise any part of their "free-market" fanaticism.

## The Echoes of Nuremberg

The aggravated degree of austerity being practiced, has reached the point that officials of governments and supranational institutions are placing themselves personally at jeopardy under provisions of the "Nuremberg Code." In Africa and elsewhere, Ladies and Gentlemen, you are already complicit in what *you know or should have known* to be mass-murder against entire nations.

To this point, the worst among you reply with words to the effect: "So, what?" Such fellows have argued, to the effect of these words: "Perhaps we are increasing the death-rates, even to as great a degree as you accuse us of doing. So, what? There are too many people living already, especially among the darker-skinned populations of the world. So, what, if many of them must die for the sake of our monetary policies? Show me anywhere today, a court which has the inclination and power to put me and my friends on trial because of these policies. We are running the world's monetary institutions, and we shall do as suits us. Good day! I have nothing more to say, wasting time arguing with you on this subject."

This is a fair description of arguments this writer has heard from financial officials and others repeatedly since late 1975 and early 1976: In Basel, Paris, the Federal Republic of Germany, London, the United States, and elsewhere.

The racist component of such arguments is no exception. Such racist motivations for the policies of the Club of Rome were volunteered by a former official of the OECD, recently, Dr. Alexander King. King identified himself as the creator of both the Club of Rome and of the present career of Aurelio Peccei. While an official of the Nixon administration, and close collaborator of Henry A. Kissinger on population-policy, present U.S. Senator Patrick Moynihan motivated population-control policies directed against dark-skinned sections of the U.S. population itself on grounds of alleged genetic inferiority of those targeted populations.

The center for promotion of such genocide against darker-skinned peoples inside the U.S.A. has been, notably, New York City's American Museum of Natural History. This institution shares with Dr. Alexander King the particular view that "Mediterranean peoples"—Turks, Arabs, Greeks, Italians, and Spaniards—are among the genetically undesirable threat to the purity of the ruling Anglo-Saxon biological stock. During a conference held by the directors of that institution during 1932, Adolf Hitler and Nazis were endorsed by members of the influential Harriman and Morgan families, on grounds of admiration for the Nazis' "racial hygiene" policies. W. Averell Harriman himself, as a public admirer of the fascist dictator Benito Mussolini from as early as 1927, as Winston Churchill continued to be in print into 1938. The Harriman family has been at the center of continued promotion of those Nazi-like racial policies from the 1920s into the present, most recent events.

Not only the policies of the Club of Rome, but the *Global 2000* and *Global Futures* reports issued by the outgoing Carter administration, are explicit policies for genocide against, especially, populations of the developing nations. The same policies are espoused by London's Chatham House in its "Year 2000" proposal. Although economic warfare against populations did not become generally a component of U.S. government policy until Henry A. Kissinger became National Security Adviser in 1969, the first law to this effect was enacted on the sponsorship of Senator William Fulbright as early as 1963.

These racist, neo-Malthusian policies are endemic among the policy-making public and private institutions of nations, and extend into Eastern European capitals through such institutions as the International Institute for Applied Systems Analysis (IIASA). It is the influence of such neo-Malthusian policies and their supporters which is chiefly responsible for widespread condoning of economic-monetary measures of genocide against targeted LDCs and other nations today.

To such political figures and their accomplices, a clear warning must be issued. Remember: the Nuremberg tribunal was created *after 1945*. "Where is the court which would try you for your support of genocidal policies today?" Perhaps there is none. Can you be certain one will not spring into being tomorrow?

Unless the recent fifteen-year direction in international monetary and economic policies is reversed immediately, we must divide the otherwise unforeseeable course of future developments into three categorical ranges of possibilities. If the worse among the sponsors of neo-Malthusian doctrines have their way, this new depression will lead through a "new dark age" into what is best described as one-world-government modeled on Malthusian world-federalist policies afoot

today: the end of civilization. Second, there is the likelihood of thermonuclear war erupting because of the extent of destabilization and maddened desperation the foreseeable collapse of institutions will produce. Third, peoples may arise to resist these two alternatives, and with such effectiveness that the perpetrators of genocidal policies are brought to justice, justice applied with more vigorous resolution than during the Nuremberg proceedings.

The long moribund Nuremberg Code of justice for crimes against humanity will be then revived. It will be revived, predictably, because the victors' sense for the importance of law will prompt them to revive previously existing law, where it is available from recent history, to order the indictments, trials and sentencings.

## **The General Alternative to Collapse**

There exists a clear and most urgent alternative:

1. Eliminate all "British" forms of central-banking practices, plus all unregulated forms of international finance. Eliminate the inflationary mechanism of the "Keynesian Multiplier."

2. Establish Hamiltonian national banking within nations. Restrict the power to create new volumes of credit, in excess of savings of currency and specie, to the treasuries of governments. These treasuries must issue volumes of currency-notes, to be used for loan-participation in approved categories of medium-term to long-term domestic and foreign lending. Such currency-note issues should be circulated through such lending, by means of discount-operations of national-banking institutions.

3. Use of new issues of currency-notes for such loan-participation should be categorically restricted to technologically-progressive, capital-intensity-vectored investments, in advancing the scale and productivity of agricultural and industrial production, and also in related development of the basic economic infrastructure for production and transport of goods. This lending should be at per-annum prime-lending-rates not in excess of four percent.

Other categories of lending should be served by private sources, principally loan of deposited savings of currency and specie/bullion, or extension of credit between sellers and purchasers in respect to required time of payment for purchases.

4. Establish a gold-reserve system among national banks of nations, and an international bank to handle multinational transactions among these nations. The fixed price of monetary gold used for reserves and reserve-transactions among national banks, should be a parity-price. Given the projectable amount of monetary-gold purchases required by the new system as a whole, and given the marginal yields of gold mines to supply such volumes, set a sustainable fair-market price for purchase of newly mined stocks of monetary gold. Five hundred dollars per troy ounce is probably a sound value today.

5. Reorganize the external indebtedness of nations. (A) Establish cut-off dates for existing debt-contracts, other than current purchases. As of that date, no interest shall accrue against those contracts. (B) Create series of bonds, to be issued by debtor-nations, carrying less than four percent per-annum interest. These medium-term to long-term bonds, shall stretch the payment of the principal amount owed, and shall include deferred first-payment provisions in the schedule as warranted. These bonds shall be exchanged for the terminated debt-contracts. (C) Establish these new bond-issues as conditionally discountable within the new gold-reserve system. They may be discounted with either national banks or an international banking institution of the gold-reserve system, as part of the value for new lending, on condition that that lending is medium-term to long-term lending in aid of the same categories of investments authorized for application of issues of currency-notes.

6. Establish agreements, under terms of which moribund accounts of financial institutions may be frozen, to the purpose of preventing chain-reaction collapse among financial institutions whose continued functioning is in the national interest of member-nations.

7. Put this financial reorganization on a sound economic basis. Treat nations as if they were consolidated agro-industrial enterprises, which can be viable economies, and meet reasonable payments on debt-obligations, on condition they are brought significantly above break-even points, and that their net growth in both scale of production and per capita output overtakes the amount of debt-service-carrying capacity they must achieve.

8. Eliminate supply-and-demand fluctuations in valuation of national currencies. The value of a national currency is essentially its purchasing-power respecting products produced for sale in that nation, as compared with the price of purchase of a comparable product in other nations (e.g., the Mexican peso today is undervalued by a factor of approximately three, because of depression of the peso by artificial, financial-warfare means). A system of gold-reserve-denominated, fixed values of national currencies must be reestablished.

9. Facilitate "heavy currency" reforms by governments, where governments elect to employ that option.

These are the basic measures of financial reforms needed to halt the depression. The accompanying economic measures are treated summarily as the concluding portion of this report.

## The Solution Viewed Historically

The successful development of modern industrial economies in Europe, the U.S.A., and Japan, during the eighteenth and nineteenth centuries, was, in all cases but Britain, the consequence of policies originating chiefly with Gottfried Leibniz (beginning with his 1671 *Society & Economy*), as exemplified in part by the practice of the Ecole Polytechnique under Lazare Carnot's leadership, and best known during the nineteenth century as Alexander Hamilton's American System of political-economy.

Over the period from 1763 through 1815, when France and the U.S.A. were the centers for such "mercantilist" policies, the British East India Company, especially after Lord Shelburne's placing of his protégé, William Pitt the Younger, in power, mobilized a massive counteroffensive against what became best-known as Hamilton's, the Careys' and Friedrich List's American System of "protectionist" fostering of agro-industrial development.

During the period of approximately 1866-1879, there was a qualitative shift. The City of London's gold-exchange system became the ruling power in international monetary affairs and world-trade, and the earlier, mercantilist policies, while kept in vestigial forms within some nations, were gradually swept from influence among the affairs of nations. The assassination of President Abraham Lincoln, leading into the 1876-1879 Specie Resumption Act, accounts for the U.S.A.'s loss of sovereignty in matters of public credit, currency-issuance and public debt. Similar developments, culminating in the Treaty of Berlin, correlate with these U.S.A. developments, in Europe.

Into that period of shift, from the aftermath of the 1653 defeat of the Spanish Hapsburgs, the long-term tendency in price-movements was downward. Since that period, the long-term tendency in price-movements has been upward, and at a generally accelerating rate.

Another manner for describing the post-1866 developments is to say that international monetary order based on the "Keynesian Multiplier" took command. This generation of fictitious money was not the cause of the problem, in and of itself. Rather, it has served as the means by which the role of ground-rent and usury has been increased relative to a diminishing role for reinvested profits of enterprise. This latter was already the characteristic internal feature of the British economy, as Henry C. Carey and others stressed the point: that the British system was not capitalist, but rather an economy in which capitalistic elements of enterprise were subordinated to what Carey and others described as a "feudalistic" monetary order, a feudalistic form of rentier-financier, or Lombard order.

The problem posed has been severely confused by the widespread, combined direct and indirect influence of Karl Marx's *Capital*. Marx's incompetence, in failing to comprehend economic science as established by Leibniz's work, in failing to comprehend the rudiments of the American System, is not the only devastating flaw of his *Capital*. This crippling flaw is interdependent with Marx's insistence that the British model of political-economy, the feudalistic parody of capitalist development, was the purest form of capitalist order.

The immediate, practical point is this. Insofar as Marx described (e.g., *Capital* III) periodic financial crises as intrinsic to the British system, Marx's description is empirically sound. His error on this point, is that because of his misguided insistence that British economy was the model for capitalist development, he perpetrated the fallacious argument, that general financial-economic ruin was necessarily intrinsic to the capitalist form of economy generally.

It is amusing, if tragedy amuses one, to observe the obsessive acceptance of Marx's radiated argument among dedicatedly anti-Marxist statesmen and others today. In brief, we can overcome new depressions at any point governments summon the political will to direct a return to the capitalist system of Leibniz, Carnot, Hamilton, et al., to what are sometimes described as "mercantilist" policies, the policies of the American System. What ruins us, repeatedly, since about 1866, is that anti-Communist statesmen cling obsessively to Marx's delusion, that the British "free-market economy" dogma, is the policy by which industrial capitalism, and its explosion in development of the productivity of agriculture, was accomplished.

If we meet the following requirements, no depression could occur in a capitalist economy.

1. Entrepreneurs must be assured competitively fair prices for their agricultural and industrial products, creating the necessary conditions for reinvestment of entrepreneurial profits in expanded and improved production.
2. The power of the state to regulate and to tax undesirable practices into extinction, must destroy capitalization of ground-rent valuations, and capital accumulations through self-reproducing usury. This economic principle is as old as Solon of Athens.
3. The state must create a regulated banking system, through which to channel savings and public issues of currency-notes into progressive investments in agriculture, industry, and basic economic infrastructure, ensuring adequate rates of borrowing-power and investment funds for performance-worthy entrepreneurs.
4. The state must assume economic responsibility for large-scale infrastructural undertakings, such as transportation, water-management systems, improved technologies of energy-production, as well as social infrastructure indispensable to urban and rural life.
5. The state must foster high rates of advancement in science and technology, as Leibniz proposed for his system of academies. This should be accomplished principally as an integral feature of higher educational institutions, as the case of Professor Felix Klein's annual meeting with leading industrialists and others of Germany, illustrates the natural interface between research institutions and private entrepreneurship.
6. In developing nations, frequently the state must be an initial partner of private entrepreneurs in creating capital-intensive key industries, which private capital alone lacks the resources to establish. At a later point, the state may sell its shares to the private entrepreneurs, to direct the proceeds of that sale into newly needed projects of the same general kind of importance.

7. Recognize that the basis for creation of new volumes of credit is not a stock of money, or financiers' bookkeeping forms of fictitious money. The basis for issuance of new volumes of created credit is otherwise idled capacity, produced goods, and labor. The function of creation of credit is to make those otherwise idled resources of production available to either private entrepreneurs or state infrastructural undertakings.
8. If it is required that an increasingly capital-intensive, technologically progressive pattern of investments in production of goods be the basis for lending of newly created volumes of medium-term to long-term credit-issuance, the rise in productivity consequent to such a lending policy, and restriction of lending to such forms, ensures a deflationary trend in price-movements, as well as an accelerating absolute prosperity of nations and their individual average members.

In brief, the remedy we have outlined for immediate action of general reform, is the best of tried-and-proven methods for achieving prosperity.

### **The Leading Political Difficulty**

From what might be described as a "technical" vantage-point, no competent banker would deny that such reforms would succeed. Nor can anyone competently deny that we shall plunge into financial catastrophe unless such reforms are effected immediately.

The problem today, as the late Jacques Rueff stressed exactly this point we have made, to this writer, during their private meeting during 1976, is the poor quality of political leaders and governments. "Interesting times," this writer proposed to M. Rueff on that occasion. "Too interesting," was that veteran statesman's reply; he then proceeded to detail the point that the international monetary problem was nothing but the inadequacy of the political figures heading governments.

Since 1976, that political problem has become generally worse, not better. *Only the shock now confronting nations in the present crisis, could conceivably impel the poorer quality of governments and political parties of today to accomplish what better governments and parties failed to attempt during earlier decades of this developing catastrophe.*

The political parties of the OECD nations have undergone generally, a severe degeneration in relative quality. The central feature of this moral decay is efficiently summed-up as the increasing emphasis upon Max Weber's (and William James's) evil dogmas of "pluralism."

Weber, it should be recalled, was a fanatical adversary of *Weltanschauung* parties, political parties characterized by a relative homogeneity of political-philosophical world-outlook. He opposed the notion, that there existed a rational sort of cause and effect arrangement in human affairs, such that one might and must rationally adduce which policies best serve to foster Judeo-Christian principles bearing upon the place and circumstances of the individual within society.

Weber was a radical, in the sense of British nineteenth-century philosophical radicalism, who denied the existence of any higher moral values, any higher body of natural law. Each group in society, he proposed, must adopt its own, arbitrary choice of defined self-interests and goals. No rational resolution of differences among groups on this account must be tolerated, he insisted. The self-interests and goals adopted by a group could not be subjected to rational criticism. Rationality, to the degree Weber permitted this, was to be limited to the question of realizing those arbitrary self-interests and goals: were they realizable in practice, and by what means could those be imposed upon the will of parties and governments?

Since the middle of the 1960s, most emphatically, most of the major political parties of the U.S.A. and Europe have been transformed from world-outlook parties, into pluralistic parties. Truth is no longer a criterion for policy-making; rather, the "sensitivity" of factions and gov-

ernments to the "sincerity" of particular factions' irrationally selected self-interests and goals, has become the basis for pragmatic approaches to policy-making.

In consequence of this moral degeneration of those political parties, the major political parties are no longer rationally deliberative bodies. No longer are political parties generally defined as a process of attempting to determine the rational consequences of policies, and to compare those consequences with common standards of philosophical world-outlook shared by the constituency-members of those parties. The parties have become armies for irrationalist affrays within Hobbesian alliances.

This diseased condition of the political parties spills into the legislative and executive functions of government. Broadly speaking, governments of the affected nations are no longer rational, no longer rationally deliberating bodies.

To the extent this diseased condition of parties and governments is tolerated, the governments of the world no longer command the moral fitness to survive, and, consequently, entire nations have, to that same degree, also lost the moral qualification indispensable for national survival. The governments, and therefore also the nations, no longer have the organic capacity to develop a rational policy-response to the monstrous crises now immediately confronting us.

There is a possible escape from this trap. That is the only visible aperture through which we can develop the political decisions which must be made immediately.

Can exceptional individuals, incumbent in commanding positions of government, act contrary to the tendencies now prevailing within governments and major political parties? Were they to do so, whence would they secure effective support? What force exists to protect such nobler statesmen from their own governments, their own political parties, and their nations' news media?

The needed aperture exists.

The pluralistic degeneration of parties and of governments has produced a form of so-called democracy, in which dominant news-media and small machines at the top of parties, function as a substitute for active participation by the majority of the population. This is the general condition in the U.S.A. and Europe. The major political parties are rotted-out with pluralism, and increasingly despised even by the majority of the constituents those parties count as their adherents.

This is a precarious moment in the political history of European civilization (in particular). Either good statesmen mobilize the masses disaffected from the parties for those statesmen's policies, or, in the vacuum created by lack of such initiatives, generations of "new Hitlers" will emerge to exploit the increasing desperation of masses disaffected from the corrupted political parties.

It is an illusion, to believe that pluralism has increased democracy within political parties. Precisely the opposite has occurred, as the case of the post-1968 Democratic Party in the U.S.A., the party of which this writer is a member, illustrates the point.

The "pluralists," typified by their neo-radical "storm-troopers," accomplished the 1968-1972 takeover of the Democratic Party, through what is now approximately a twenty-year process of destruction of constituency-machine organization in the party. There is no longer a systematic organization of accountability from the Democratic National Committee down to the precinct-level. No longer are Democratic members of the Federal legislature in any degree efficiently accountable to the electorate. There are virtually no local precinct, ward or similar kinds of functioning organization in the party. Big money and the news media control the party-machines and election-campaigns.

Effectively, the ordinary voter has been disenfranchised in the name of "radical democracy." He or she is variously either simply demoralized, or increasingly angered at what he or she views, quite correctly, as a swindle, a calculated disenfranchisement.

So, continuing with the illustrated U.S.A. case, it appears from the news-media, and from statements of Party leaderships and the AFL-CIO leadership, that the people of the U.S.A. are tolerantly supporting the Volcker policies, and so forth. That is all on the surface. Down at the

“grass roots,” there is a boiling upsurge of radicalism, centered upon hatred of Volcker and the ongoing depression. The resentment which appears to be bottled up by corrupted institutions, is in fact a radicalism proximate to the condition of boiling-over.

If a statesman addresses such strata—and they exist in all our nations—by saying, “We are in a world depression. The policies we have been following for the past fifteen years have been absurd. We must now change these policies, with direct action to stop this depression here and now,” that statesman’s voice will be heard. If he says something contrary to what we have outlined, he will be heard with contempt. If he tells the simple truth which the people are waiting to hear from “someone in authority,” the statesman’s potential immediate support from the population parallels the enthusiasm for President Franklin D. Roosevelt in earlier times.

Today, as then, our choice is between “Roosevelts” and “Hitlers.” Unless such more courageous statesmen exist, the world has no immediate chance.

It is also to be stressed that *we have entered a period of shock-effect politics*. Under such conditions of political and social stress, the ordinary rule-books of political life are to be discarded. People no longer behave as they did over former decades, or, in some cases, even a week earlier.

Fundamental values come closer to the surface. Our resource among the people generally is that majority which adheres to traditional values of Judeo-Christian republicanism. These are, principally, the injunction of the Book of Genesis, that man must “Be fruitful and multiply, and fill the earth and subdue it,” and the principle of the potential divinity within individual human life, *Imago Dei* (St. Augustine) or, better, *Imago Viva Dei* (Cusa). Society must progress through advancement in the productive powers of labor, and that work must be directed to fostering, protecting and realizing, the divine potential for rationality in the individual members of society.

These are not only Judeo-Christian republican values. They are ecumenical principles, shared by all men and women of good will and reason throughout this planet. Ecumenically, all men and women of good will will agree to a new world economic order, consistent with the 1967 encyclical, *Populorum Progressio*, of Pope Paul VI.

The statesmen must evoke the mobilization of that force of good will from among populations now largely disenfranchised by “pluralistic” parties, or, failing to do so, populations maddened by desperation will turn their attention to the mushrooming proliferation of “new Hitlers.”

## The Immediate Situation

Despite dubious attempts recently made, to “paper over” the financial crisis into 1983, it is probable that such measures can not succeed. A general collapse could still erupt during September. Such an initial collapse could be a sudden, chain-reaction collapse of the entirety of the international financial system, or could lead toward the same general result through a ratchet-like sequence of downward developments.

Many among you know the general outline of the following exemplary case. Its review here serves to confront you with a mirror of either your own state of mind on monetary policy, or at least that of some relevant person, perhaps seated next to you at the Toronto conference.

During the recent spring and summer, some influential gentlemen, in London, Switzerland, and such locations, worked themselves up to a point of euphoric gloating, anticipating a great increase in their own relative importance and power, out of a coming collapse in much of the world’s financial structures.

Such gentlemen, in concert with accomplices from bankers among their intended victims, enjoyed themselves immensely in rigging an artificial collapse of the Mexican peso. By means of this playful recreation, they swindled Mexico into a condition of virtual default on more than eighty billions dollars’ valuation of external debt.

At the peak of ecstasy, in this ennobled state of mind, those honorable, one could say almost

“pompous” gentlemen, inspected more closely the wonderful hole they had blasted in the condition of Mexico’s finances. When they reflected on the wonderful work they had accomplished, they flinched: their faces paled, and their fingers trembled. “That hole is much too big!” was the gist of their abruptly altered opinion. This “hole” was big enough to sink the entire international financial system all at once.

Quickly, they resolved to attempt to paper-over this financial hole. They had peered into the opened, fourteenth-century graves of the Lombard banking-houses of Bardi and Peruzzi. They saw bubonic-infected rats sitting upon the skeletons of those dead Lombards, the rats’ red eyes beadily beckoning a satanic invitation. They moved quickly away from that gruesome spectacle, the one muttering, “Perhaps after the IMF conference adopts the new agreements,” and the other countering, “Personally, I prefer a world dictatorship by the Bank for International Settlements.”

Can the avalanche of general financial collapse be papered-over for as long as ninety days? Unless measures such as those we have put forward are adopted, almost certainly not. Thirty days, then? The Swiss banker says nothing in reply to that latter query; he stares at the questioner silently, fixed gaze in a grayened face.

There are two general qualities of interacting rottenness in the world economy at present: the one more emphatically financial rottenness, the other economic.

It would be unfair, and counterproductive, to blame the U.S.A. government entirely for the present mess. The U.S. did not (chiefly) formulate the policies which have led to this disaster; it merely acted as the most powerful nation-state spokesman for such lunatic policies. Moreover, the specific weight of the U.S. economy in international markets, and the historic position of the dollar mean that even a small mistake by the U.S.A. has a more damaging effect on the world’s financial and economic situation, than even a large mistake by almost any other nation.

The policies have been principally Anglo-American, and to a significant degree also the product of Swiss-centered Alpine rentier-financier families’ influence. The U.S.A. has been the principal conduit through which those policies have been imposed upon the world, and in that lies most fairly described the principal significance of the U.S.A.’s role.

With that not-unimportant qualification registered, the following may now be said, in summary description of the immediate state of affairs.

The Johnson-Martin decisions of 1968, and the Nixon-Connally-Reuss-Volcker-Shultz actions of 1971-1972, set into motion the cancer of the so-called Eurodollar market. This market has become a chain-letter of fictitious monetary assets, literally a financial “bubble,” in the early eighteenth century’s usages of that term.

The worst phase of development of that bubble began with the successive effects of the 1973-1974 petroleum-price shock, and the collective lunacy resolved at the 1975 Rambouillet monetary conference.

At that latter point in time, the debt-crisis of developing nations generally had already reached the point that a fundamental monetary reform, and comprehensive debt-reorganization were imperative. Kissinger and Shultz (according to Shultz’s 1978 publication, speaking on the matter) rammed through the Rambouillet agreements. Kissinger personally initiated his continuing personal vendetta against this writer over precisely that issue of 1975 monetary reform, just as he later victimized governments for adoption of the August 1976 Non-Aligned nations’ resolution, at the Colombo conference.

In the effort to implement the 1975 Rambouillet agreements of OECD nations against developing nations, developing-nations’ indebtedness was pyramided, through usurious refinancing, employing the fictitious monetary assets of the offshore, unregulated (and, in part, almost reserve-free) Eurodollar market.

The data, comparing 1975 and 1982 indebtedness of developing-sector nations, tells part of the story of the lunatic follies of the 1975 Rambouillet decisions. Compare per capita debts of these nations to per capita output. Compare total debt-service to total foreign earnings. Compare

interest-payments as a percentile of total debt-service payments. Project growth of debt, through usurious refinancing, relative to trends in national output and export-earnings for debtor-nations.

Seven years of monetary lunacy, to pyramid the worst financial bubble in history! This corruption has penetrated the domestic financial systems of numerous OECD nations, as well as developing nations. The U.S. banking-system is among the worst cases of this corruption.

To appreciate the danger of financial collapse more adequately, one must examine the economic decay. Again, we stress the exemplary case of the U.S. economy.

During 1946, the U.S.A. employed 62 percent of its total labor-force either in production of goods, or in transportation. Today, less than 30 percent of the total labor-force is so employed; while, during 1982 to date, the goods-output of the U.S.A. has been contracting at approximately 9 percent per annum.

The picture is much worse than official U.S. statistics show at first glance. Since 1966, the U.S. government has been falsifying statistics—for politically comestic reasons—at an accelerating rate. The recent, utterly fraudulent report, purporting to indicate a “bottoming out” of a recession, is merely illustrative of this practice. In fact, using 1950s statistical standards, unemployment in the U.S.A. today has reached approximately 25 percent of the labor force; half of this amount is hidden from superficial study of reports, by the ruse of dropping large numbers from the labor-force totals; youth unemployment is grossly understated, the full-time equivalent of reduced hours of employment is understated, and there is a large accumulation of adult, unemployed persons “dropped from the labor-force” once unemployment compensation is exhausted.

Focus attention, first, upon this indicated shift in percentile of the labor-force employed as either goods-producing operatives, or transportation operatives.

Although administrative and service employment (and related costs and expenses) do include necessary forms of activities for society, this employment, plus unemployment, and associated costs and expenses represents “overhead expense” to the economy, not direct or indirect operating costs of production and transportation. Scientists, engineers, medical professionals, teachers, and so forth, are categories of employment which must increase as a percentile of the total labor-force with technological progress; otherwise, technological progress can not be sustained. However, these services yield no product directly. Their contribution, like that of useful administration, is made either as an increase of the productive powers of labor or of the efficiency of organization of production and distribution of goods. So, all useful administrative and service labor, and functions are dissolved into the production-process, and are fully measured inclusively, in measuring the amount and productivity of tangible-goods output.

In general, therefore, the most optimistic estimate of the change in structure of employment over the past thirty-five years, is that the overhead-expense ratio of the U.S.A. has increased from 28/62nds to 62/28ths.

This is offset by increases in productivity in goods-production and efficiency of transportation. The high-point of advances in productivity was reached under the impetus of the aerospace capital-goods boom of the early 1960s, when an estimated 7 percent annual improvement in productivity of goods-production was the high attained, translating, at that time, to an effective 3 percent for the economy (including non-goods employment) as a whole. The rate of growth of productivity has been marginal relative to the indicated shift in composition of the labor force.

This is the principal cause for economic inflation in the U.S. economy. That is to emphasize, that the inflationary effect of increasing the ratio of overhead-expense to production inflates prices not merely at a linear rate, but at a second-order rate: not only must the added ratio-cost be considered, but the increased social cost of producing the goods consumed by both the numerator and denominator of the ratio.

Since the middle of the 1960s, since the Johnson administration’s submission to the dictates of the Tavistock Institute’s Rapoport Report, investment in basic economic infrastructure has

plummeted, while research and development has contracted. The comparison of steel-industry investments, as to amounts and results, for the U.S.A. and Japan, tell part of the story: the U.S.A. dollar has bought less technology than the Japan comparable amount.

As to effects of declining infrastructure investment, one of the most remarkable correlations in economies is that between rates of infrastructural investment and rates of growth of productivity. In the post-war U.S. economy, the two curves are almost identical, with a lag factor between them of between six months to one year. The correlation between investment in new kilowatt-hours of electrical-generating capacity and productivity is even tighter.

Infrastructure—transportation, water-management systems, energy production, and so forth—defines the boundary-conditions for successful investment in goods-production, as well as providing a significant part of the total market for goods-production. By curtailing rates of investment in infrastructure—and, in fact, allowing railways, now highways, and generating-capacity, to rot away, the boundaries of profit-earning potential for agriculture and industry are constricted.

The demographics of Europe and Japan are admittedly better than for the U.S.A., and basic infrastructure is generally in better condition in those nations than in the U.S.A. Nonetheless, the same trends have been in motion in those nations, especially since the middle 1960s.

The Federal Republic of Germany, for example, virtually ceased reinvesting export-earnings into capital-goods production about the time of the Brandt government's inauguration. There was a significant economic recovery from the Brandt recession under the Schmidt government, but export-composition has shifted to emphasize consumer-goods categories of exports: such a trend spells disaster in the longer term.

What has been hailed, since the early 1960s, as a desirable shift toward a "post-industrial society," represents, in fact, a collapse toward a parody of a pre-industrial society.

The impact of such economic ratios is more clearly seen once one takes the proper approach, treating economies as consolidated agro-industrial enterprises. Whatever the overhead-expense ratio of a particular firm in that economy, that firm's costs and prices are determined by the ratios prevailing in the economy as a whole. Every effort to invest in particular enterprises of production suffers the impact of those cost-price structures determined by the social ratios of employment (and unemployment) in the economy as a whole, as well as matters of infrastructure, and so forth.

If these present conditions of economies are compared with comparable facts and ratios for the 1928-1931 period, we are obliged to recognize at once that the economies then had a depth of capital accumulation and other resources and resiliencies entirely lacking in today's economies.

We should recognize, in a similar way, that we must correlate pyramided debt per capita, with the productive-output and earnings of the goods-producing component of the labor force, not the nation as a raw whole. It is in production that we generate, in the final analysis, the means to pay debt-service. It is upon that productive potential that the mass of financial paper descends in a collapse.

It should also be clear, from the same kind of comparative reflections, that the economic reorganization which a financial reorganization requires is not to be limited to the case of developing nations. Rather, in the OECD nations, every policy-innovation in the direction of a "post-industrial" or "technetronic" society, must be immediately, and dramatically reversed. We must mobilize and direct limited investment-resources, and governmental budgetary resources, to effect a rapid shift in the composition of employment of the labor-force in OECD nations (in particular), back to a policy of technological progress, and increasing capital-intensity in expanded agro-industrial output and employment, with strong priority on capital-goods investments, and infrastructural improvements.

We must strip down much of the structure of existing educational institutions, focusing entirely upon classics and science, in both specialist education, and in primary and secondary

education. We must develop a labor-force with a high degree or orientation toward rationality, and with a high degree of capacity for producing and assimilating rapidly-paced successive advances in technologies.

The chief leading opposition to such a corrective course will come from two sources. The first, simply identified, are those fanatics obsessed with their goal of a Malthusian world-federalist utopia, a "technetronic" society. The second, partly overlapping category of opposition, is the "free-market economy" fanatics, including the not-insignificant element of this faction from among leading circles in the U.S.A.

You must understand the post-war U.S. bureaucrat's mind, to understand the roots of such opposition. One U.S. corporate executive does not say openly that the policies of a brother-executive have been a "flap-doodle of a catastrophe." Rather, he says, "The worthwhile accomplishments of my colleague have paved the way for now considering some advantageous improvements." President Reagan's "eleventh commandment," against publicly attacking a fellow-Republican Party figure, is exemplary of the prevalence of that curious tribal practice.

Since the premature death of President Franklin D. Roosevelt, the economic and monetary policies of the U.S.A. have been, chiefly, a succession of catastrophes. Instead of launching an "American Century" variety of post-war order, converting U.S. war-economy to produce capital-goods exports to eliminate the vestiges of colonialism, the U.S.A. adopted British monetary policies and related criteria.

In 1954, the foolish U.S. launched a consumer-credit expansion—instead of a capital-goods-export drive, and landed quickly in the middle of the 1957 recession as a direct result of such idiocy. During the early 1960s, the drift toward a "post-industrial society" was launched, offsetting significantly the beneficial effects of NASA and related research and development. Since 1966, every economic and monetary policy actually adopted by governments of the U.S.A. has been a "flapdoodle of a catastrophe."

The errors of monetary policy were never "honest mistakes." All the available evidence, rationally assessed, forewarned against the course the U.S. government has taken since 1966-1967. To illustrate that point, consider the writer's own long-range forecast-scenario, first adopted in 1958-1959. A different scenario, but referencing the same general set of facts, was promulgated by Robert A. Triffin, approximately a year to a year-and-a-half later than this writer's projection. There is nothing miraculous in the projection this writer made, as part of his activities as a management consultant during 1958-1959.

This writer stipulated, that on the assumption prevailing trends in international monetary policy continued without significant change:

1. There would be a general, partial recovery from the effects of the 1957 recession, energized chiefly by economic growth in Europe and Japan.
2. This growth would reach a point of crisis during the middle 1960s, after which the first in a series of general monetary crises would proceed to wreck the Bretton Woods system.
3. Unless the impact of these crises forced a fundamental change in monetary policy, they would lead toward a new general economic depression far worse than that suffered under the Versailles monetary order.
4. Under existing monetary-policy impulses, the reaction to emerging crises would be to introduce forms of austerity parodying those which Montagu Norman and his protégé Hjalmar Schacht imposed successively upon Weimar and Hitler Germany. These austerity policies would probably lead toward fascist forms of totalitarian regimes: "new Hitlers."

Over the 1971-1975 period, as this writer became increasingly the subject of controversy among leading circles of many nations, because of this writer's monetary and economic policy proposals, this writer's then-present and earlier work was studied intensively in many leading circles. This cited, four-point forecast-scenario has been well known among responsible circles. Since that forecast, and its updated versions, do correspond exactly to the unfolding disaster over these intervening decades, there is no excuse for officials of the U.S. government and others to have followed the kinds of policies adopted at the 1975 Rambouillet monetary conference: no rational excuse.

Instead of rationality, the U.S. government since 1968, has done the following.

1. It led in destroying the gold-reserve system, and set the Eurodollar financial bubble into motion.
2. It permitted the emerging role of a largely-unregulated, sometimes reserve-free system of "offshore banking," the mechanism by which the worst features of the presently menacing financial bubble were created.
3. It accepted the anti-science policy of the Tavistock Institute's Rapoport Report, during 1966-1967, and with Kissinger's advent to the National Security Council, in 1969; institutionalized these economy-destroying "technetronic" policies within not only the U.S. government, but also NATO.
4. It prevented a gold-reserve solution to the monetary crisis in 1972, and deployed ferocious political muscle, not only to ram through the 1975 Rambouillet agreements, but also to "punish" governments leading support for the August 1976 Colombo resolution of the Non-Aligned group. The serious debt-crisis of 1975 was miraculously solved, by exchanging that for the explosive debt-crisis of 1982.
5. Now, at the Toronto IMF conference, the same circles which concocted the follies of 1972 and 1975, propose to repeat the same sort of lunatic exercise, clinging to the old IMF-BIS policy-framework, no matter how many nations are destroyed, as a result of monetarist-austerity policies.

Concretely, this means Kissinger, Shultz, Volcker, et al. The same Nixon-Ford administration grouping which brought the world 1971, 1972, and 1975-1976, is the leading faction of the Reagan administration at the moment. Is Secretary of State George Shultz prepared to consider the fact that his 1972 policies were a "flap-doodle of a catastrophe" for both the U.S.A. and the world? His 1978 book implies that he is not. His recent praise for Henry Kissinger says he is not. As a representative of the tribe of U.S. bureaucrats, Shultz will probably propose to "improve upon" the "worthwhile accomplishments" of 1972 and 1975.

We are not singling out Mr. Shultz, who we hope proves more sensible in face of crisis, than earlier signs would suggest to be the case. The problem is much more widespread, and by no means limited to the ranks of U.S. notables.

The general phenomenon is summarily this. There are certain monetary "experts" whose behavior must be likened to the fellow who attempted to bail out a sailboat by chopping a hole through the bilges. He so much admired his accomplishment in creating that hole, that he would rather drown the whole world, than admit his conception had been a mistake.

## II. Economic Reorganization

Fifteen to twenty years ago, what we have said so far on economic reorganization of the bankrupt Bretton Woods system would have been generally understood. Leading circles of most member-nations of the IMF were habituated to capital-intensive modes of technological progress in agriculture and industry; the organic infrastructure of exporting nations was positioned to react appropriately to something echoing Franklin D. Roosevelt's American Century policy.

Today, especially since the massive "march through the institutions" by the radicals of 1968, leading institutions of nations have, in large part, lost qualities of policy-making competence generally prevailing fifteen to twenty years earlier. Not only are governments and related institutions saturated with senior and junior officials in their thirties and forties who have yet no competent knowledge on these matters, but older, more senior strata have been so long inundated with neo-Malthusian and related buncombe, through news media, think-tanks, and other channels of influence, that they have been conditioned to accept absurd notions they themselves would have viewed as absurd fifteen years or more ago.

For these kinds of reasons, it is indispensable to reference a rigorous economic-scientific basis for the proposed policies of economic reorganization. Here, on this point, the writer has very specialized competencies and corresponding special reporting responsibilities.

If performance in economic forecasting is a measure of competence in economic science, then this writer is the world's leading living economist. Beginning the final quarter of 1979, this writer and his associates have published a quarterly economic forecast for the U.S. economy, the LaRouche-Riemann forecast published quarterly in the international political-intelligence newsweekly, *Executive Intelligence Review*. During this period, to the present date, not only has that quarterly forecast been consistently the most accurate ever published by any institution, but it has been during this period, the only accurate forecast published by any governmental or private institution.

The vast superiority of this LaRouche-Riemann forecast, over the work of any government agency or private group of economists otherwise, rests on three principal points. First, the prevailing economic accounting-methods, exemplified by the Gross Domestic Product system of accounting, are based on intrinsic absurdities. Second, all econometrics practice today is based on absurd assumptions proposed by the late John von Neumann, to the effect that no econometric forecast can detect significant changes in trends in economies. Third, although the substrate of the writer's work in economics is the economic science of Leibniz, Hamilton, Chaptal, Dupin, the Careys, and List, he and his associates have added an important contribution, the discovery that the quantifiable relationships among energy, technological progress and economic growth in economies can be comprehended mathematically with aid of the apparatus broadly defined by Bernhard Riemann's 1854 dissertation "On The Hypotheses Which Underlie Geometry," and that the mathematics of non-linear transformations in economic processes is implicit in Riemann's 1859 paper, "On the Propagation of Plane Waves of Finite Amplitude." Hence, *LaRouche-Riemann* methods.

With aid of proof of the validity of Riemannian methods for economic analysis, it is now feasible to present rigorous, refined, conclusive statements on energy-policies and related matters, in a manner not otherwise possible. Our findings are usually not exceptional in direction; most qualified scientists and engineers have already reached similar conclusions, or conclusions in the same general direction. We are advantaged to provide a more refined and rigorous proof of those matters.

## Economic Science Generally

Modern economic science developed in two general phases. The first, preliminary work, was accomplished by the influence of George Gemisthos (Plethon), Cardinal Nicholas of Cusa, and Leonardo da Vinci, during the fifteenth-century Golden Renaissance of Italy. Leonardo developed, among other accomplishments, the rudiments of the geometric ordering of a multiply-connected manifold, the principles of hydrodynamics, and the principles of design of machinery. This continued through the Anglo-French commonwealth faction of Bodin et al., and of the Naples school around Campanella, into the late sixteenth century and beginning of the seventeenth.

Based on the establishment of mathematical physics by Johannes Kepler, at the beginning of the seventeenth century, economic science proper emerged in France, during the post-1653 period of economic reconstruction following the devastation of the 1618-1648 Thirty Years War in central Europe. Economic science proper was founded by Gottfried Leibniz, beginning with the 1671 publication of his *Society & Economy*.

Leibniz established the science of *physical economy* as a branch of thermodynamics. The center of reference was the heat-powered machine, by means of which one man could accomplish the work of "a hundred." From this point of reference, Leibniz established the conceptions of *work* and *power*, as they exist in even schoolboy physics instruction today, and also coined the conception of *technology*, or, in French, *polytechnique*. From study of the thermodynamics of the heat-powered machine's power to do work, a more generalized approach emerged, to the effect that even pre-machine-age economy is subsumed under the same thermodynamical mode of analysis.

It was under the direct influence of Leibniz that the industrial revolution, based upon the heat-powered machine, was set into motion during the eighteenth century.

This economic science was taught in Germany during the eighteenth century, into the nineteenth century, by the title of "physical economy," under the more general, inclusive heading of "kameralistic," the study of statecraft. In France, and in northern Italy, it was mediated (after the fall of Jean-Baptiste Colbert) through the Italo-French Oratorian teaching-order, and through French military-engineering and bridges and roads programs. Out of this order's work came Lazare Carnot, and Carnot's teacher and collaborator, Gaspard Monge. This produced the Ecole Polytechnique, on performance, the greatest economy-building and science-driver institution yet developed in any nation (1794-1814). Through Franklin's close (1766-1783) collaboration with Colbertiste and Leibnizian republican networks throughout Europe, Leibniz's economic science was made the centerpiece of the economic policy of the American Revolution. Treasury Secretary Alexander Hamilton incorporated this economic science as the policy of the George Washington administration, adding to Leibniz's design the principles of credit and national banking, whose combined result was what was known as the American System of political-economy.

Although there were mercantilist forces at work in Tudor England, the developments of 1589-1603 and the 1660 Restoration cut off Britain from republican forms of statecraft policies. Apart from some emphasis on statistical methods during the late seventeenth century, no systematic treatment of political-economy emerged in Britain until more than a hundred years after Leibniz's *Society & Economy*.

The first published work of any note in Britain, was Adam Smith's polemic against the Americans, his *Wealth of Nations*, which he published as an employee of the British East India Company, as apologetics for the colonialist policies of that Company (and Baring's bank). The first chair in political-economy was established in Britain long after economic science was regularly taught on the continent, the British East India Company's creation of the chair for Thomas Malthus. Ricardo was a Company official, as were Jeremy Bentham, author of the "hedonistic calculus," James Mill, and John Stuart Mill.

The British variety of political-economy, against which the American Revolution was fought,

against the so-called "free-market economy" dogma, was not originally British, but Venetian. This was hardly accidentally; the British, Dutch and Danish East India companies were outgrowths of the Genoese-Venetian financier interests' colonization of northern European trade and finance. Since this is the root of the monetary policies dominating the world presently, it is of some importance that the most characteristic features of this system be understood—as distinct from the slogans dispensed to the credulous on behalf of this system.

The system is sometimes called "feudalistic," as Henry C. Carey described it, because it centers on a policy of placing the control of money in society in the hands of what are called in the Italian version *fondi*. These are accumulations of wealth held by aristocratic rentier-financier families, funds based chiefly upon accumulations of feudalistic ground-rent revenues (plus, historically speaking, a considerable portion of outright gangsterist theft), which are loaned at usury. Hence, the demand that central-banking be under private management by circles selected by the *fondi* or equivalent forms of rentier-financier "family" interests.

This Venetian system, which is the historical origin of and model for oligarchical rentier-financier institutions of Western Europe and the United States today, was in turn a form of practice transmitted via the Roman Empire and Byzantium, from the more ancient tax-farming practices of a Middle Eastern group of priests and rentier-financiers variously known as the Chaldeans, Phoenicians (Tyre) during classical-Greek periods, Magicians, or Mobeds (the latter in Persia-Iran). This was what was known during the fourth century B.C., as the "Oligarchical Model," in surviving documents from the correspondence of Philip of Macedon's Chaldean sponsors of that period.

What is at issue between the two, opposing currents of economy, the American System versus the British system, is not a technical difference over economic theory. It is a reflection of a deeper conflict between two broader currents in European civilization (in particular). These two currents are broadly defined as the *republican*, based, as a matter of emphasis, upon the classical Greek, republican model, opposed to the *oligarchical* current, the latter centered historically (for modern Europe) in the Venetian "families," and referenced to the policy, ethics and cults of the Roman Empire. These are fundamental differences in practical conception of man, society and universal creation. The differences between the American System of Hamilton and the "free-market" dogmatics of the British are essentially that the first is a consistent reflection of Judeo-Christian republicanism, whereas the usury-centered British doctrine is an expression of anti-Judeo-Christian pagan, oligarchical cult-beliefs.

Although these and related divisions in policy have sometimes led to wars between nations, terms such as "American System" or "British system" must not be interpreted with too much literalness. These divisions, between republicanism and oligarchism, have cut across national and language boundaries for thousands of years.

The posture of military aggression against the U.S.A., which the British government continued from 1775 through 1863, was at root a continuation of the seventeenth-century Civil War in England, a continued war between the republican followers of John Milton and the oligarchical forces of the British monarchy's cause. Speaking of the U.S.A., U.S. citizens who honor their republican forerunners in England, Scotland, and Ireland, honor not only John Milton's faction of the Commonwealth Party, the party which developed the future United States; they should know that Milton et al. fought to recapture England from the grip of the Genoese-owned Cecils, et al., to revive the England of Sir Thomas More, Robert Dudley, William Shakespeare, from the brutish grip of the Bruce and Cecil families. Moreover, it was not only Joseph Priestley (England), John Paul Jones (Scotland), and Mathew Carey (Ireland), who aided the victory of the young United States; it was the entire republican network of Europe, Colbertistes and the networks of Leibniz most emphatically.

The issue of economic policy, from a European standpoint, is older than the combat of St. Augustine against the Roman tradition of policy and immorality. It transcends the ordinary

geographic and other accidental features of divisions within mankind as a whole. The 1967 Encyclical of Pope Paul VI, *Populorum Progressio*, expresses the essential points of the republican cause, as a law of nations and peoples. It is between the supporters and opponents of that Encyclical, between the republicans and the oligarchists, respectively, that the present and past issues of economic and monetary policy are defined.

So, any assembly of representatives of nations must view this matter. On which side, respecting the future of mankind, do we stand? Is the power of reason in the individual, the individual's divine potentiality, the center of our policy, as it is for all republicans? Do we proceed, rationally, from the fact that the development and perpetuation of this divine potentiality in the sacred lives of human individuals, can be fostered only by developing the productive powers of labor, as the Book of Genesis commands Jews and Christians, as Alexander Hamilton, and Leibniz before him, made this the center of national-economic policy? If we are not the spokesmen for the nightmare of some feudalistic parody, some hideous new dark age, it is only the tradition of Leibniz and Hamilton's American System, which is acceptable to us as a reference-basis for economic policy today.

*There is no competent, morally defensible basis for preferring the British, or "free-market," oligarchical form of political-economy to the American System. There is only the practical, scientific issue: Have we understood and developed the American System competently, with scientific competence?*

We now summarize the rudiments of economic science, to thus establish the basis of scientific reference for addressing leading issues of the needed general economic reorganization among the nations of the Bretton Woods system.

## Basic Measurements of Economic Science

There are two devastating fallacies dominating the entirety of the Gross Domestic Production mode of national-income accounting. First, that system treats a parasitical increase in "overhead expense"—even legalized crime, such as proceeds of legalized prostitution and gambling—as a source of "economic growth." Second, it measures performance according to the specifications of Jeremy Bentham's "hedonistic calculus," as Bentham's hedonistic dogma was made explicitly the basis for modern monetarist dogmas by J. S. Mill, William Jevons, Alfred Marshall, J. M. Keynes, and the Viennese radical positivists (e.g., John von Neumann, von Mises, et al.).

With aid of such incompetent modes of national-income accounting Reagan administration statisticians recently mis-reported a continued nine-percent per-annum collapse in the U.S. economy, as a slight up-turn, predicting "recovery begun" on the very brink of the worst financial collapse since the fourteenth century.

Generalizing Leibniz's putting physical economy on a thermodynamical basis, the proper basic measurements of economic performance are adduced by the following steps of successive refinement.

Since economy is fulfillment of the cited injunction of the Book of Genesis—that man must "Be fruitful and multiply, and fill the earth and subdue it"—we measure economic performance as man's potential to produce the material conditions for improved human existence. So economic science is rooted in the fundamental principles of Judeo-Christian policy.

The mathematical function we require centers around measurement of a magnitude best named *potential relative population-density*: Using the labor of a society, how many persons, per average square kilometer of habitable land, can be sustained through the existing level of technological development of that productive labor? Since habitable land varies in improved (and depleted) quality, this population-density measurement must be *relative*, relative to improvements in nature (basic economic infrastructure).

The potential for a hunting-and-gathering mode of existence is in the general order of one

living person for each ten to fifteen square kilometers of habitable land, signifying a maximum population of this planet in the order of ten or more millions of human individuals. The increase in population, to the vicinity of an estimated four and a half billions human individuals on this planet today, is entirely the consequence of willful modifications in human productive and related behavior, modifications summarily described as "technological progress." The greatest increase has occurred since the middle of the eighteenth century, made possible by (chiefly) Leibniz's design for an industrial revolution (and agricultural revolution) based on that development of heat-powered capital-equipment ("artificial labor," according to Campanella, Leibniz, and Hamilton, et al.), by which, in the words of Leibniz, one man can accomplish the work of a hundred others.

With a combination of existing technologies, and advances in plasma-physics technologies clearly feasible, with dedicated effort, during the coming two decades, we shall be situated to develop a system of production worldwide, requiring such a division of labor, that a world population of approximately ten billions persons will be needed to provide such a labor-force. Such a level of technology will establish a global potential for sustaining tens of billions of persons at a higher average standard of living than existed in the U.S.A. prior to 1971.

These same advances in technology, within the reach of approximately two decades' scientific progress, are the basis for beginning the immediate human colonization of nearby solar-space regions. It is clear, projecting merely the levels of energy-flux-density and related effects of such advances in plasma-physics technology, that by approximately the middle of the coming century, mankind could sustain an individual in a functionally earth-equivalent quality of artificial environment in the nearby solar-system, at an average social cost to mankind possibly even below that for maintaining an individual in the U.S.A. during the period of the early 1970s.

Moreover, upward-looking mankind will colonize space, first for scientific-technological reasons, to generate benefits for earth-bounded populations which can not be foreseeably accomplished without aid of scientific expeditions into space. Beyond that, if we bring affairs on earth into better order, space will become the intellectual-moral challenge attracting the dedication of the most gifted youth.

Our species will expand its population in space, not to relieve supposed "overcrowding" on the surface of our home planet, but, in the words of Hilary, "Because it is there." As we discover, more generally, that petty, Hobbesian squabbling among peoples is not the ultimate purpose of individual human existence, mankind will resituate its existence morally in a more appropriate way, as man in universal creation. We shall migrate into space not simply as tourists, but to discover what meaningful duties creation has awaiting our special talents there.

The realization of increased potential relative population-density through technological progress correlates, both theoretically and historically, with increases in the consumption of energy per square kilometer of habitable land. We measure this, broadly, as increased *energy-flux-density*, in kilowatts per square meter, or per square kilometer. Since we measure potential relative population-density in persons per square kilometer, we measure energy-flux-density for economic-science uses in kilowatts per square kilometer.

The rate at which kilowatts per square kilometer must be increased is determined by a required increase in per-capita kilowatt-hours per-annum consumption by combined production and personal existence.

The required mathematical function correlates *rates of change in the rate of change* of potential relative population-density, with second-order rates of change in kilowatts per square kilometer of energy-flux-density.

The performance of economies is measured as increase in this potential. The increase of potential, from a lower to higher potential-function, is the definition of the *net work* accomplished by society. The potential of the lower relative level is measured as the *power* to accomplish the net work of transforming that potential to a higher level of potential.

This notion of potential is uniquely congruent with the standpoint of Riemannian physics. Progressive, or devolutionary changes in economic processes, have the mathematical form of discontinuities ("non-linearities," "anomalies"). The 1859 paper of Riemann, "On The Propagation of Plane Waves of Finite Amplitude," is paradigmatic for the description of the generation of such non-linearities within economic processes. The mathematical solution of such "anomalies" is adduced by treating such discontinuities as topological singularities, in the sense Riemann identifies what he terms "Dirichlet's Principle," which means integration of non-linear functions in this mode, as the physical significance of "Riemann Surfaces" is properly understood.

To situate Riemannian physics' present significance for mathematical analysis of economic processes, it is more or less sufficient to identify Riemann's fundamental contributions, relative to the earlier fundamental accomplishments of Kepler and Leibniz respectively (not ignoring the essential work leading into the possibility of Riemann's accomplishments).

Kepler defined the rigorous basis for needed development of a differential calculus, as a subsumed feature of proving conclusively that the universe is ordered as the "five platonic solids" imply, not in terms of "action at a distance" among bodies, but in an harmonic distribution of action within a discrete manifold which is but an embedded mirror-image (specially, geometrically distorted) of a subsuming continuous manifold. Riemann, beginning his 1854 habilitation dissertation, "On The Hypotheses Which Underlie Geometry," adduced the necessary geometrical bounding of the continuous manifold, complementing Kepler's proof for the geometrical bounding of the discrete manifold of "Euclidean space-time."

The practical significance of this for mathematical analysis of economic processes, is that the subsumed feature of Riemann's discovery, reported in the 1854 dissertation, is the principle of "unique experiment," for which the 1859 paper on "shock-wave" generation is a prime illustration. Only such unique experiments have any authority respecting the fundamental features of lawful ordering of processes, including economic processes.

Secondly, Riemann's discoveries respecting the geometrical boundedness of the continuous manifold enable us to adduce a corrected conception of the phenomena we associate with energy. We no longer view energy properly in terms of the arbitrary fiction of "Conservation of Energy," not as a scalar magnitude, but as an expression of potential, a self-developing form of potentiality. Since Riemann proved that the characteristic bounding condition, geometrical bounding, of the universal continuous manifold is what we today call negentropic, we discard, as false assumptions, those arguments which situate negentropic life within an entropic universe as a whole, within a universe which is "running down."

This conception of "energy," already implicit in Leibniz's work, enables us to leap ahead of what Leibniz explicitly accomplished in first putting physical economy on a thermodynamical basis.

These two contributions of Riemann are central to the reason the LaRouche-Riemann forecasts have been consistently accurate in performance, whereas all competing governmental and private forecasts published have been consistently absurd. The sharpness of that distinction between the LaRouche-Riemann and econometrical forecasting, is immediately an outcome of the effects of the continuation of the October 1979 "Volcker measures," which sent the world's economy plummeting through a succession of entropic phase-changes. Since the LaRouche-Riemann method is focused principally upon the analysis of the kinds of "non-linearities" associated with both entropic and negentropic phase-changes, the vast superiority of the LaRouche-Riemann method showed more conspicuously even during the short-term than would have been probably evident under "more normal" conditions.

We define the thermodynamics of economic measurements, summarily, as follows.

In ordinary thermodynamics, we divide the total usable (efficient) energy-throughput characterizing a process, into two major sub-categories. The first is the amount of energy-throughput the process must consume to avoid "running down." This we usually identify as the "energy

of the system.” The remainder of the energy throughput we usually identify as the “free energy.” This free energy represents the power of the process to accomplish net work on either another process or upon itself. All thermodynamical analysis of processes is properly based on developing mathematical functions describing changes in the ratio of free energy to energy of the system within processes.

If the energy of the system, best measured in terms of energy-flux-density, is running down, we describe the process as entropic. If the ratio of the free energy to energy of the system is declining, relative to a more or less fixed level of energy of the system, we also describe the process as entropic. If the energy of the system is being increased by application of free energy of the same process to that process itself, the system is viewed as at least *relatively negentropic*. If the ratio increases or remains constant under the condition that the energy-flux-density of the energy of the system is increased, we view the process as *absolutely negentropic*.

In competent economic science, we treat the planet and society’s economic processes as a whole as a closed thermodynamical system. Improvements in nature, measured in terms of increase of energy-flux-density, are treated as equivalent to investment in capital goods or productive and transportation capacities, as Hamilton did in his 1791 Report to the U.S. Congress, “On The Subject of Manufactures.” Our object is to adduce policies through which society describes an absolutely negentropic process.

Therefore, for purposes of mathematical analysis, we elaborate a function satisfying the conditions of absolute negentropy, and measure actual performance as meeting or failing to meet that requirement.

The special distinction of economic processes, relative to what are generally understood today as inorganic cases of thermodynamic processes, is embedded in the subsumed demographic functions of thermodynamically defined physical-economic processes.

Karl Marx’s actual, if qualified contribution to economics, is located within his emphasis upon the demographic features of development of physical economy. Marx’s social-productive categories— $V$  = Variable Capital,  $C$  = Constant Capital,  $S$  = Surplus Capital (or,  $M$  = Mehrwert)—are somewhat misdefined, unfortunately, since he attempts to reconcile his definitions with his misguided appreciation of the British model. Otherwise, the general intention is correct, and nothing better than an *appropriately corrected* definition of these social-productive categories presently exists as the basis for treating the demographic aspects of the economic process.

Let, then:

$V$  = The social cost of producing the family households of goods-producing and transportation operatives.

$C$  = The social cost of capital improvements and their maintenance-replacement, at a preexisting level of potential for the society as a whole, including capital costs of basic economic infrastructure, including water-management systems, transportation, energy-production and distribution infrastructure, and urban physical infrastructure, including the physical plant of educational and health institutions.

$S$  = The gross profit of society treated as a consolidated agro-industrial enterprise—after deducting  $C + V$  from total output of useful, tangible goods.

$d$  = Overhead Expense: administration, services, and waste.

$S'$  = Net Operating Profit of society treated as a consolidated agro-industrial enterprise.

$C + V + d$  then represent the approximate equivalent of energy of the system, and  $S'$  represents the free energy of the system.

Since  $d$  includes income of ground-rent, usury and other forms of parasitism and waste, as

well as necessary, useful forms of administration and services, the key social-productive ratios for an economy become:

$S/(C+V)$  = Productivity of the economy treated as a consolidated agro-industrial enterprise.

$C/V$  *up* = The required constraint of economic progress (and economic policy).

$V_2/V_1$  *up* = The requirement for increased productive potential of labor.

$S'/(C+V)$  = Rate of Profit, and correlative of the free energy to energy of the system ratio.

$d/(C+V)$  = Expense-ratio.

For example, without reduced average value of  $V$ , per capita, for operatives' households, we must sharply reduce the expense-ratio [ $d/(C+V)$ ], and so increase  $S'/(C+V)$ , the rate of reinvestable profit (free energy).

This system succeeds, as an expression of economic policy, only if the following conditions are satisfied.

The total output per capita of the population must be increased, as measured in tangible goods. Yet, while the average net-income of households of operatives must be increased, as measured in quantity and quality of tangible goods consumed, the average cost of this improved market-basket must be reduced, to the effect that the average social cost of producing an operative is less than during the preceding period. Moreover, this must occur under the previously indicated condition of restraint, that the ratio  $C/V$  increases, and that  $S'/(C+V)$  also increases.

This improvement can be effected in a combination of ways. One way, which must be part of our general economic-reorganization program, is to increase the percentile of the total labor-force of nations employed as goods-producing operatives, but without lowering the average level of technology of production. We must reverse sharply two decades of drift into a partly "consumerist," partly "post-industrial" society, back toward a goods-producing society.

Second, we must increase the scale of application of the relatively more-advanced technologies of production in existence today, increasing thus per-capita rates of output of goods.

Third, we must emphasize those transformations in infrastructure which represent the bounding conditions for rising productivity: transportation improvements, water-management systems, advanced energy-producing systems, improvements in hygiene, and use of fertilizers, soil treatment, irrigation, disease and pest control, employing industrial agronomical technologies to improve the fertility of land.

Fourth, we must break through the mental barrier of "national egoism" in economic thinking. There is a greater increase in total wealth to be obtained from capital-goods production for developing-sector development than from any other source. This emphasis will increase capital turnover in the capital-goods-producing sectors of industrialized nations, increasing productivity in the exporting nations, while developing expanding markets among increasingly prosperous purchasers among the developing nations. Large sections of the underutilized labor force of nations such as India, Egypt, Ibero-America, etc., has as great a productive potential in terms of modern technologies of goods-production as among the underutilized, and much smaller labor-forces of the industrialized OECD nations. Globally, investing in putting these people to work in terms of modern goods-producing technology is relatively the best investment available anywhere in the world today, the most efficient means for multiplying most rapidly the total amount of wealth produced per capita by humanity.

Fifth, to support advanced technologies of urban-industrial production, we must effect rapid increases in both the number of hectares of cultivatable agricultural (and forest, brush) land, the

per-hectare yields of agricultural production, and reduction in numbers of man-years per hectare cultivated. Even the relatively most primitive forms of agricultural production, employing illiterate or semi-literate farmers, can be most significantly and rapidly improved through water-management projects on a large-scale, by injecting large amounts of electrical and other industrially-produced energy into agricultural production and infrastructure, and by modern agronomical technologies at levels readily assimilable by agricultural labor now. Exactly as Hamilton emphasized in his 1791 "Report on the Subject of Manufactures."

Finally, over the longer term, new advances in technology spring from the fountain of fundamental scientific progress, and proliferate not only through investment, but through improvement in the cultural-mental potentials of a population to generate and assimilate technological innovations.

It is in this last point that the crucial feature—the human factor—of economic processes is situated. It is the development of the cultural-mental powers of people, the creative, rational potentialities of the individual in society, that humanity is able to improve its productive powers of labor, that man is morally fit to exist.

Formal, mathematical analysis of economic processes, isolates that human factor, and so isolating it, identifies it as the central feature of the science of statecraft, and of public morality.

## General Features of Demography

The prevailing currents, in direction of policy concerning "population" and "raw materials" postures, are not only morally abominations, but are wretchedly incompetent, even from the vantage-point of the most immorally motivated pure and simple greed.

First, as to "raw materials." "Raw materials," or "natural resources," is a relative, not an absolute distinction, to the point that there is no inherent wealth in natural resources as such.

What society's practice defines as natural resources is a function of the level of technology practiced by that society. There are two interrelated conditions which define both what we mean by natural resources, and how conditions of production and life are affected by depletion of such relatively fixed spectra of natural resources.

By "natural resources" we mean principally certain aspects of nature from which human labor can extract what we term "raw materials," including food and fiber of agricultural and related production. Some of these produced raw materials are consumed in that form, as are many foodstuffs, or are used as intermediate commodities of production, for production of other, needed forms of tangible goods. The ratio of cost of producing such raw materials, measured as a percentile of the total labor-force of a society, is our first focus of analytical attention to such matters.

Given a required standard of living for the society generally, what percentile of the total labor-force must be employed in producing the raw-materials' component of that standard of living? If that ratio increases, the potential relative population-density of the society is lowered accordingly.

What a society may treat as natural resources in its practice is delimited by absolute limits of technology then in use, and is otherwise *relatively* limited by considerations of social costs of producing raw materials from such resources. This intersects the matter of the social costs of improving nature, as the case of agriculture is best illustrative of this general point. The mere fact that a certain beneficial improvement is technologically feasible does not ensure that society can afford the social costs of effecting and maintaining such improvements.

Technological progress affects this problem in a twofold way. Increases in productivity resulting from technological progress offset cost-pressures, compensating, at least in part, for society's shift toward resources of relatively marginal quality as to cost of exploitation. More

profoundly, technological revolutions redefine in fundamental ways the spectrum of what society calls "natural resources," often relegating the prized natural resources of an earlier technological phase to a relatively contemptible status.

Technological revolutions are exemplified by a maritime-fishing-based culture long ago, followed by an agriculture revolution, perhaps 12,000 years or so ago, by hydraulic riparian systems of urban-centered agricultural development, and so on, into the eighteenth century's industrial revolution, the development centered around a revolution in mining made possible by Leibniz's specifications of steam-powered pumping of mines as the foundation for such a generalized industrial revolution.

We are presently, in scientific research, at the verge of the greatest technological revolution of all. Our present work in mastering controlled thermonuclear plasmas and related technologies signifies a foreseeable development of prime energy-production sources one or two orders of magnitude greater in energy-flux-density than the most efficient, environmentally desirable, and least costly method of energy-production presently in existence: fission-energy generation. At these new, higher levels of energy-flux-density, and with use of controlled plasma-beams associated with the same areas of research, most of our present definitions of "natural resources" will begin to become almost silly preoccupations. We are approaching the point of scientific-technological breakthroughs that mining will become scooping up masses of mixed sand, rock and refuse, and processing it to produce whatever mineral raw material we require, as well as scrapping everything we presently associate with our notions of production processes.

The fellows who connive at stealing some poorly-defended developing nation's "raw materials," are not only indictable Nuremberg criminals, they are also thick-witted fools.

The same applies to those unfortunate folk obsessed with the desire to impose Hitler's "living space" and "settlements" policies upon regions of the world presently inhabited by dark-skinned, Hispanic, Greek, Italian, Turkish and Arabic peoples, what some evil ideologues (usually self-defined champions of the "Anglo-Saxon" cause) classify as "inferior genetic stocks."

Even if we cleanse existing educational programs of identifiable refuse and waste, the development of new adults adequate for needs of modern industrial society requires a minimum school-leaving age of between sixteen and eighteen years, and four to eight additional years for specialist education above secondary-school levels. This means that, below a mean age of about twenty to twenty-one years, the adult population of the labor-force age-group, must sustain the entire youth population, meeting not only its household-consumption needs, but also the cultural and educational costs of the process of maturation.

This immediately points to the importance of increasing longevity.

This brings us to what some view as another problem. If we maintain high rates of life-expectancy and functional capacity into the prevailing retirement-age of between sixty and seventy years, we have embedded in that population a range of life-expectancies extending into the eighties. Without population-growth, the costs of maintaining a retired-age population at an acceptable standard of living become burdensome, as some folk ungratefully view their parents' and grandparents' continued existence. Without a scale of active labor-force adequate to "carry" both the costs of the under twenty-one and above-seventy segments of the total population, certain difficulties afflict the economy.

Currently, it is becoming increasingly the policy of the neo-Malthusian policy-influencers, to impose policies for which Nazi officials were rightly sentenced to death at Nuremberg, such as euthanasia, or as it is renamed today, "death with dignity." This is not only criminally immoral, it is also the production of small, stupid minds.

The problem of longevity and of functional capabilities of older segments of populations are interrelated, with emphasis upon the problems of so-called degenerative diseases. All of these diseases pertain to degeneration of the reproductive characteristics of tissue, and to the energy-transport characteristics of cells, etc., with the much-cited potassium-ATP versus sodium, etc.,

factors in heart-disease and cancer currently most the subject of specialist attention. The object of social policy, in medicine and other, related matters, must be to extend the functional capabilities of persons above the fifty to fifty-five years age-level, principally by mastering degenerative diseases.

No matter how much the treatment of an individual case costs society, we must judge the average of such costs to society as a whole against the gains realized by waging an aggressive, ruthless fight to master these diseases, a fight which can be conducted, in the final analysis, only within the living bodies of patients fighting those diseases: since it is the whole person's biological and mental apparatus which is the determinant of what succeeds and what fails.

The benefit is the extended functioning of persons in which society has "invested" maturation and skills. If we could extend the life-span modally to more than one hundred years of age, and extend the productive years in some fashion by an average of twenty or more, the gains to society would be beyond any ordinary calculation, even merely the gains to economy.

Otherwise, there are two principal points to be considered in general economic policy bearing directly upon demography.

The first is the maturation of the new member of society, the quality of individual developed by the age of between sixteen and eighteen years. On this point, over the past two decades, there has been a dangerous regression in quality of education and youth-populations among industrialized nations. This has already become a dangerous barrier to even maintaining existing levels of capital-goods production, and is reflected in a secular and accelerating general decline in scientific aptitudes since World War I in categories bearing upon fundamental research, and over the recent two decades, especially the recent decade, in all categories of scientific work.

Even among influential circles which recognize that we are no longer producing adequately needed skills-potentials for basic industry's perpetuation, there is a regrettable, ignorant, narrow-minded opinion as to how this trend might be corrected. Unfortunately, the general opinion among policy-influentials demanding a return to rational educational policies and curricula, is that this must be governed by narrowly-defined "cost-benefit" standards. They propose to focus narrowly upon adequate skills-education for those forms of specific employment the student is presumably destined to find available.

Three examples from history situate the point to be stressed. The characteristics of the Golden Renaissance, with the emphasis upon classical education, especially classical-Greek. The case of the superiority of the eighteenth-century Americans—in literacy, incomes, and productivity—over the British population. The success of the Humboldt educational reforms in nineteenth-century Germany.

We must remember that from the Hapsburg sack of Rome, in 1527, until the defeat of the Hapsburgs by forces led by Mazarin and Cromwell in 1653, Europe underwent a "little dark age," less devastating than that of the century following 1268 A.D., but a monstrous general regression, called the "Counterreformation," nonetheless.

It must also be remembered that the principal target of the "Counterreformation" was not Protestant dissidence. Rather, just as the ranks of the Catholic Church were divided between irreconcilable forces—on social policy and theology, so the Protestant eruption was a highly variable quality, with Cranmer's Book of Prayer illustrating the point that leading Anglican currents at one point were theologically Augustinian in emphasis. The Counterreformation was not a Catholic reaction against Protestantism, but a Venetian reaction, directed chiefly against the legacy of the fifteenth-century Papacy and against the influence of that great fifteenth-century canon Cardinal Nicholas of Cusa.

On these real issues, the Genoese-backed Cecil family of Britain, and its agents such as Francis Bacon and his personal secretary Thomas Hobbes, were very much Venetian in policy, typified by Bacon's purporting to base a scientific revolution upon his scurrilous, incompetent assault against the great William Gilbert, the discoverer of the electromagnetic plasma!

The Counterreformation was a revival of the Inquisition, an Inquisition which has always been, to the present day of its continued existence in such forms as the Blue Army's backers, a Venetian-led Gnostic (anti-Christian), oligarchical movement, whose social-political policy has been the attempted crushing of scientific progress and republicanism.

Although the post-1653 period led into a great movement of republican resurgence during the eighteenth century, centered in the establishment of the U.S.A., the damage accomplished by the Counterreformation, and the continued, if temporarily reduced power of the Venetian-Hapsburg forces, has meant that later advances—since the Golden Renaissance—have never quite reached the level of vitality typified by the influence of Plethon, Cusa, and da Vinci during the period into 1527. Each advance in civilization since 1525-1527 A.D. has occurred as a kind of lesser "renaissance," in each case a looking back toward and partial revival of the principled features of the Golden Renaissance.

The processes leading into the American Revolution, the establishment of the Ecole Polytechnique, and the influence of Friedrich Schiller's Weimar-Classic circle (Humboldt, et al.) in the republican-led scientific, cultural revolution of nineteenth-century Germany, are the best examples of this renaissance impulse since 1527.

The common feature shared by the Golden Renaissance and its later echoes, was the emphasis upon classical Greek-centered development of culture: Homer, Aeschylus, Solon, Plato, and Archimedes, most emphatically. What was adduced, from approximately eighteen hundred years earlier, from before the moral catastrophe which was Rome, were certain principles of development of the powers of literate language and of creative mental potentials of the individual. These were not taken as Platonic knowledge per se, but as Greek classics were adopted within the authority of Judeo-Christian principles: Golden Renaissance *neoplatonism*, as exemplified by Cusa and da Vinci.

Wilhelm von Humboldt captured the principle in his proposed educational reforms. Up to the age of between sixteen and eighteen years, we must forget any specific goals of specialist education for future employment. We must imbue the student with those forms of classical literature, painting, sculpture, architecture, music and classical methods of scientific thought, which had the specific effect and task of bringing forth the broadest potentialities of the future citizen. By bringing the maturation of divine potentials for reason to the highest relative point of general development, we produce the best quality of general citizenry for republics, and also bring forth a clear indication of the student's various potentials for superior accomplishment in some several specialist fields.

From an economic-science standpoint, this is what we require of a young labor-force, under conditions that technological progress supersedes, successively, entire categories of previously established forms of "learned skills." We must have a population which is fruitful in generation of scientific and technological innovations, and a population which is generally able and disposed to assimilate efficiently new technologies at a rapid rate.

We must move free of ignorant prejudices, which presume a student should be drilled, habituated to a specific set of procedures associated with a "learned skill." We must rather have a labor-force which can approach any mere skill from a higher vantage-point of overview, and so learn the needed new skill very quickly, and, over a reasonable period, far more effectively than the person who acquires skills through "drill and grill" modes of instruction and apprenticeship.

The economic-science standpoint is more fully appreciated if we take into account the role of education in developing the new individual as a citizen of a republic.

We are born into an infantile condition chiefly resembling the irrationalist hedonism of mere beasts, which Christian theology appropriately identifies as a condition of "original sin," of relative bestiality. Rightly do we view all pathological states of mental processes and personal character as "infantile regressions" toward a Hobbesian sort of social philosophy.

Yet, we are fundamentally distinct from beasts, in the divine potentiality, the power of reason, in that same, outwardly bestial newborn infant.

We develop individuals by moving them away from the "oedipal" shelter of maternal skirts, by cultivating within youth that divine potentiality, reason, through which they comprehend creation as lawfully ordered, and adopt a purpose for their mortal existence consistent with that lawful ordering of creation. They become adult, as they no longer prize hedonistic pleasures and pain in and of themselves, are thus no longer infantile, depraved. They rather view the material conditions of mortal life as necessary means for cultivating and employing the individual's powers to do a good, which reaches beyond him and which outlives him to the benefit of generations to be born.

This true adulthood, to be a mortal existence furthering the larger purpose of human existence as a whole, is achieved only by methods modeled upon the ironical dramatic methods of an Aeschylus or the related methods of the Socratic dialogue.

As an audience may watch a great tragedy of a Shakespeare or Schiller, and become conscious that it is its own, flawed every-day consciousness upon that stage, so these methods of classical culture, present to the student the power to view himself, his thoughts, his practices, in terms of historically situated consequences of belief and action, and also to adduce the lawful composition of creation and history within which the individual lives and acts in society. The highest qualities of self-consciousness (of one's own and other's consciousness) adduced by a great drama of Schiller's, for example, are exactly the same mental powers actively expressed in what we recognize as the most important, and fundamental contributions of great scientists, such as a Cusa, da Vinci, Kepler, or Leibniz.

It has become, increasingly, since the empiricist-materialist Enlightenment of the seventeenth and eighteenth centuries (Bacon, Descartes, et al.), our tendency in mistaken prejudice, to accept John Ruskin's absurd and evil proposal, that art is purely a matter of arbitrary taste, and that no rigorous coherence exists between liberal arts and science. Contrary to such prejudice, the development of the moral potentials of the youth, and the fostering of creative-scientific potentials, represent the same quality of exercise of one and the same powers of the human mind. As was demonstrated at the Humboldt University, under the leadership of Alexander von Humboldt, a great classical philologist, grounded in classical Greek knowledge, is already (if often unsuspected) potentially a great mathematical physicist.

The effect, and policy of those educational reforms variously attributed to John Dewey, Ivan Illich, and others, has been an insistence upon not "repressing" the impulses of the child. In practice, this means adapting to the uncorrected infantilism of the child, fostering an infantile adult in the child. By such educational reforms, and complementary trends toward psychosexual, Dionysiac infantilism in entertainment, we have transformed much of the population now forty years of age or less, in Europe and in the United States, into fanatically infantile irrationalists, breeding in this way the potential mass-storm-troops of a new fascist eruption.

This is also a leading affliction imposed upon numerous developing nations. Two general problems of the indicated variety confront us.

First, in a nation suffering low life-expectancies, and in which labor-intensive rural employment dominates, the maturation of the individual tends to be aborted at the equivalent of a fairly early age-level. Child-labor is one aspect of this problem's causes. Lack of educational development is another. By keeping the LDCs economically oppressed, we impose upon them a dangerous prevailing culture, condemning large portions of the populations to dangerous forms of infantilism, as well as politically unstable economic-social conditions.

Then, having committed this offense against that nation, we demand that the government of that nation discipline the people of that nation in what we choose to label as "rational, responsible behavior." At the same time, we complain that the peoples of that nation are virtually unemployable, incapable of efficiently assimilating modern forms of technology, or, in some cases of

Anglo-Saxon racialist fanatics, some explain the problems in terms of alleged "genetic inferiority" of darker-skinned peoples.

In other cases, in developing nations which have a relatively well-developed sector of their economies, underdevelopment is expressed most acutely, socially, by relatively large portions of the population condemned to extreme conditions of both rural and urban poverty. Infantile irrationalism mixed with ferocious despair, becomes the complement to hedonistically-focused passivity among these victimized strata. By imposing underdevelopment and austerity upon these nations, we foster within their peoples a potentially explosive force of infantile insanity, and then we self-righteously complain either against authoritarian rule or argue from failed "experiments in democracy," that these peoples are unfit to govern themselves. We add, "Don't you see, those poor strata are unemployable, anyway."

When we have learned, and one hopes we all learn very quickly, before it is too late, that it is the development of the divine potentialities of each and every individual in society which is the proper central goal of statecraft, we shall know better than we have shown in practice so far, and we shall discover that every morally developed individual is also an eminently employable, productive person.

The second aspect of demography to be measured, as distinct from the age-defined demographic profile, is the division of labor within the labor-force.

We have already referenced the significance of reducing the percentile of the total labor-force required for production of necessary raw materials. In the same way, we must recognize that the required increase of the ratio C/V means that the portion of the labor-force employed in capital-goods (and basic infrastructure) production must increase relative to the number employed in consumer-goods production.

This process of progressive shifts in the composition of the goods-producing labor-force is reflected within the overhead-expense categories of occupations. The growth of finished-goods production, relative to raw-materials production, and of capital-goods employments relative to consumer-goods employment, places a premium upon medicine, science generally, engineering, and teachers qualified in classics and pre-science education, as well as specialist-instructors-researchers of advanced specialist education.

There must be, clearly, a devastatingly sharp reduction in employment in clerical and related lower-skilled qualities of administrative employment, and in all forms of labor-intensive unskilled and semi-skilled services, except as these are indisputably necessary auxiliaries to skilled administration, medicine, science, engineering, and teaching.

There must be a reevaluation of the market-basket of consumption-goods. Seasonal stylistic changes are not acceptable factors of increased costs and inventories in the present international crisis-period, and of doubtful merit, at best, under any circumstances. Cosmetic features of consumption's market-basket should be among the first items to be slashed from import-licensing and credit-allotments, together with related categories of "conspicuous consumption" consumer-goods. Good nutrition, good housing, good clothing, good medical care, and leisure opportunities and resources for classical cultural life of the household and individual are basics, together with electrical-powered and related labor-saving devices in households and other locations. These should be of good quality and low-cost, but at fair prices to producers.

A major saving in expenditures and in human costs can be effected by a crushing suppression of the international traffic in what are called "recreational substances." Heavy criminal penalties must be applied. The United States could save more than 100 billions dollars a year, alone, by crushing the drug-traffic, even in terms of direct payments, and much more in savings of costs and expenses incurred by effects of the drug-traffic upon the population. Investments in gambling, prostitution, pornography, "rock-concerts," and "cheap entertainments," represent aggregately major expense-savings to be effected by thoughtful approaches to austerity, together with energetic discouraging of marginal forms of employment in labor-intensive services.

Taxation policies must be directed to exterminating capital-gains from ground-rent appreciations, and usury, producing a substantial benefit in terms of financial accounts for nations, and forcing money-investments and purchases into more productive channels.

Those persons to be judged as misemployed according to the considerations listed, are to be viewed as part of the labor-pool to be directed, preferably, into employment as industrial operatives. Short-term targets such as an increase of the total labor-force of between five or ten percent in industrial-operatives' occupations, should be designed for each nation as an economic-budgetary policy.

In developing nations, beyond meeting the needs for good nutrition, good clothing, adequate housing, medical care and education, the emphasis in investment and employment must be development of agriculture, infrastructure and capital-goods industries. It would be prudent to estimate the half-life of long-term capital investments at about seven or eight years, and to project presently three such periods—twenty-one to twenty-five years—of developmental goals in terms of the criteria listed to this point.

This does not signify curtailing expenditures for culture, but rather an emphasis on those forms of classical culture which complement the objectives we have stipulated for education.

Architecture and urban planning are two of the most important topics to be considered under that sub-heading. We have lost connection, in prevailing practice of architecture and urban planning, to the notion of the "happy city," to the City of God, and to the attempt to realize these principles by the cathedral-builders of Chartres. The unity of harmonic principles with functional design, typified by Chartres, must define the visual space-time experience of the individual within a newly constructed home, office-building, industrial work-place, church, and so forth. General urban planning must reflect these same notions of harmonic principles of connection among living-place, work-place and the central role of science, education and classical culture in the life of the happy city.

We need no mile-high "corn-flakes boxes." In the U.S.A. we are too much overbuilt with those silly temples of parasitical overhead expense, and not enough with modern mass-transport, modern conceptions of city-building, and so forth.

Let us become prosperous puritans in our changed habits of consumption, limiting luxury to household labor-saving and, more important, the rich life of classical culture which household labor-saving improvements help to make accessible for more of the potential leisure hours of life. Let us produce food, that we may feast together, to share music, poetry, drama, and may admire the public works composed for the eye and for use, according to the harmonic principles of the happy city.

Let us cease to be self-destroying, infantile hedonists, and become such puritans, such giants.

## Energy Policy

Implicitly, all the tangible features of economic processes are reducible to thermodynamic form. In this form, economic decisions are stated as determinations of *energy pay-back*. Given, the amount of energy incorporated in all of the actions leading into the creation and maintaining of some energy-producing device, for example, at what rate does this device yield free energy, relative to its energy of the system, and how long a time must pass before the energy invested is paid back to society?

By this standard, that of energy pay-back, existing solar-energy designs are a fraud. Over the entire useful life of these devices, they can not yield as much net energy to society as society spends in producing and maintaining the device. If we take into account the ecological impact of "biomass" programs, the same judgment is made for these so-called "alternative energy" packages. The same is true of "low-head hydroelectric" systems.

Standard forms of fossil-fuel consumption are becoming increasingly less acceptable, both

in terms of relative costs and in environmental impact. Technologically improved "closed systems," and MHD modes of utilization of fossil-fuel combustion are urgent in this quarter. We should not expand the scale of conventional fossil-fuel systems, and should replace those in existence with more advanced systems as the old plants are run down.

Large-scale hydroelectric systems are desirable supplements, especially since these are associated with large-scale water-management systems, which latter aspect is the principal economic contribution. Hundreds of gigawatts or more of such potential exist globally, within the terms of competitive energy pay-back criteria for the overall investment.

Over the next twenty or more years, the world will require about 10,000 gigawatts of added generation of electrical energy and process-heat, at a minimum, most of which must be derived from nuclear-energy sources. Already, nuclear-energy technology provides the cheapest and environmentally most desirable form of large-scale energy-production, at a level of thermodynamic efficiency-potential about ten times that of conventional fossil-fuel alternatives. Removing ill-conceived blockages to fission-plant construction and operation could bring costs of nuclear-generated electricity to about half that of fossil-fuel-generated electricity.

The major breakthrough will occur with development of a commercial production-form of controlled thermonuclear fusion, a development aided by intermediate technologies between fission and fusion. Although it has been projected for some time, that initial forms of commercial-fusion plants will be slightly more costly than fission plants, and will operate at about the same level of efficiency, the further improvements in such modes of energy-production are relatively unlimited, both in respect to energy-supplies and improvements.

This deployment of needed energy-supplies will require a great increase in steel-producing and other relevant capital-goods capacities, worldwide, especially, obviously, in those grades of steel and steel-making and other capacity relevant to nuclear-installation needs.

The proliferation of cheaper energy-supplies means a lowering, on that account of costs of production and elements of associated expenses of society, as well as making possible substantial increases in scale and productivity of output. These uses of energy supplies will pay for the investment, and will also provide the needed market for large-scale new investments in capital-goods industries and engineering firms such constructions imply.

Generally, three categories of large-scale development of infrastructure worldwide are the central feature of a general economic recovery. Energy investments, led by unleashing of nuclear-energy installations. Large scale fresh-water-management programs, with included hydroelectric generation features, with improvements of agriculture, forestation, and related environmental benefits primary. Large-scale improvements in rail, inland-waterways, and ocean transportation, centered around a standardization of containerization and included improvements in inter-system classification and handling procedures, aided by computer monitoring. A mobilization of otherwise idled production capacity, and development of expanded and technologically improved capacities, through aid of these three major markets for infrastructural development, will trigger the economic boom in world trade required to set general economic recovery into motion.

Energy-policy generally is based on the energy pay-back calculation, and is otherwise addressed to increasing the energy-flux-density per square kilometer, per person, and in respect of "point-sources" of energy produced for society's use. This policy must be adopted, and the wasteful "alternative energy" and "energy-conservation" lunacies ruled out of practice.

## **Economics & Monetary Systems**

Simplified, but without introducing any fundamental errors through simplification, the function of credit is this.

The money put into circulation through production by a consolidated agro-industrial enterprise (e.g., a national economy) is a function of the sum of  $C + V + d$ , as measured in terms of

current tangible-goods output. Sales and purchases among services are merely intermediate to that net result.

If, therefore, a net operating profit,  $S'$ , exists, the rate of generation of money-circulation by production and its overhead-expense is less than the total price of produced goods by a margin determined as a function of  $S'$ . This is sometimes referred to by shallow-minded critics of capitalist economy as the "buy-back problem."

In a republican ordering of society, it is the function of the treasury of the nation to print an issuance of gold-reserve-denominated currency-notes, to be loaned through the national-banking system, as we have indicated earlier. This credit is used to purchase  $S'$  (represented by otherwise idled goods and productive capacities), to employ otherwise idled productive labor in the expanded production of wealth.

The government and national bank direct the development of a national economy, properly, by assigning priorities for the participation of this issued credit in investment-loans, and by the state's function of using some of this credit for public works in development of basic economic infrastructure. It is this economic-monetary function of the government and national-banking institution, apart from the operating budget of government, which properly shapes national-economic development.

The national bank contributes to this by regulating the private financial institutions of the nation to the effect of establishing a proper national-banking system, fostering relatively high rates of investment by member-banks in private goods-producing and public infrastructural investments, and using the lending-activity of the banking system as the mediation of this process of medium-term to long-term investments.

The government contributes to this benefit by its tariffs and commerce-regulating power, to protect farms and industries from anarchic, destructive forms of foreign and domestic competition, creating fair-price conditions for products produced and sold at competitive standards of quality and cost. This "fair-market" protection is a precondition for fostering of long-term investment on a scale adequate to national-economic needs.

The costs of the notes issued for lending by government are nominal, barring inflation. Only an actuarial cost (risk-factor) plus administrative costs need be reflected in interest-rates. Therefore, a basic 2 percent prime-rate is feasible, and necessary in domestic and foreign lending using such notes.

Inflation is combatted chiefly through credit policies. By preventing any creation of credit (above sellers' credit to purchasers and lending of deposited savings), except by the regulated channels of state lending through the national bank, and by regulating the banking system, monetary inflation is ruthlessly outlawed at the source—but without injuring investment in goods-production or infrastructure, or employment. By directing state-generated credit to counter-inflationary investments in goods-production and infrastructure, the required economic ratios are maintained, such that economic inflation is curbed.

This twofold regulation of inflationary impulses at their source enables the state and national bank to maintain a low interest-rate on medium-term to long-term lending of currency-notes.

To bring this happy arrangement of affairs into being, the concerted power of governments must effect a coordinated collapse in interest-rates internationally, ordering the writing-down of interests on debts in coordinated fashion in all banking and private contracts, by aid of emergency enactment of comprehensive anti-usury laws, and supplementary emergency legislation against capital gains from ground-rent appreciation. Principal amounts remain as before, although re-scheduled in many cases, but interest-rates are collapsed throughout the system internationally and within nations.

Otherwise, as stipulated earlier, the forceful shutdown of "Keynesian multipliers" must be offset by issuance of governmental currency-notes for lending through discount-functions of national banks. Lending of the notes, as loan-participation, must be delimited to technology-

vectored, capital-intensity-vectored, medium-term to long-term investments in agriculture, industry and infrastructure. This will permit overhead-expense categories of activities of national-economies to collapse where they should without damaging the basic financial or economic infrastructure of the nations. This will be helped by governments' actions to unleash pending infrastructural-investment projects, especially in nuclear-energy, major transportation, and large-scale water-management systems.

Some nations may prefer to exercise their sovereign right to disagree with this program. National bankruptcy will teach them to change their opinion. If most nations concur, then a few bankruptcies here and there will not seriously damage the overall recovery, and bankrupted nations' economies can be quickly restored, as soon as their governments improve their wisdom on the relevant issues.

This may be almost our last chance. Is there the political will among sufficient few leaders to prevent the worst catastrophe in modern history?