III. Lyndon LaRouche

JULY 18, 2000

On a Basket of Hard Commodities: Trade Without Currency

by Lyndon H. LaRouche, Jr.

Excepting the usual rogues and economics illiterates, influential circles around much of the world are reporting, with ever lessening hesitation, that the presently rotten-overripe, world monetary and financial system, is doomed to an early chain-reaction collapse. Increasingly, among relevant circles outside the U.S.A., world wide, the most notable questions include, how to replace the present global system, and with exactly what?

Consequently, increasingly bold steps in search for a replacement have been taken, in East and South Asia, trends in progress since Malaysia, under the leadership of Prime Minister Mahathir bin Mohamad, has persisted in the clearly successful use of capital and exchange controls. Recent weeks of persisting, desperate, and provocative actions, from U.S. Treasury Secretary Larry Summers and perennial Federal Reserve Chairman Alan Greenspan, have provoked similar discussions currently in progress outside of Asia. These steps point, increasingly, toward the emergence of regional systems of economic cooperation. Such regional efforts, if combined, could serve as building-blocks of the new world monetary and financial system, once the present International Monetary Fund (IMF) is either sent, mercifully, into bankruptcy-reorganization, or simply disintegrates, soon, of its own accord.

Among those studying the prospect of regional alternatives to the imminently bankrupt IMF, some leading economists have proposed that the precedent, of the former role of the 1945-1966 U.S. gold-reserve dollar in creating a system of fixed exchange rates, might be superseded now by revival of a new system of relatively fixed exchange-rates, which is based upon regional and other "baskets of currencies," instead of the former gold-reserve-based dollar. The presently most publicized proposals in that direction, are those which have come from among the "ASEAN Plus Three" group of nations in Asia, and, secondly, among important circles within continental western Europe. Similar discussions are in progress among the Organization of the Islamic Conference countries.

In some relevant, leading European circles, attention has been directed to both the IMF Special Drawing Rights (SDRs), and the European Monetary System (EMS) proposal launched jointly by France's President Giscard d'Estaing and Germany's Chancellor Helmut Schmidt, the latter during the late 1970s. It is useful to compare such, and kindred proposals with my own mid-1970s proposal for an International Development Bank (IDB), which attracted vigorously antagonistic attention from sometime U.S. Secretary of State Henry A. Kissinger, and related circles, at that time.

In today's relevant European circles, as elsewhere, it is generally agreed that what President Franklin Roosevelt's U.S.A. did, to organize a post-World War II monetary system, worked very well, most notably to the benefit of both the U.S. and western Europe. This system prospered until the aftermath of that fateful year, 1963, when Germany's Chancellor Konrad Adenauer was pushed into resigning, U.S.A. President Kennedy was assassinated, and France's President Charles de Gaulle continued to come under the corrosive pressure of assassination and other attacks, at-

Editor's Note: This essay was first published in *EIR*, Vol. 27, No. 30, Aug. 4, 2000, pp. 4–19.

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Julia Fassbender

The "ASEAN Plus Three" group of nations is discussing a "basket of currencies" as a basis for protecting themselves from the bankrupt global monetary system. Writes LaRouche: "I disagree, although sympathetically, with the suggestion that a basket of currencies could be a successful feature of the urgently needed reform." He proposes a two-phased alternative approach. Shown here are (left to right) Japanese Finance Minister Kiichi Miyazawa (Japan is one of the "Plus Three"), Malaysian Prime Minister Dr. Mahathir bin Mohamad, and Indonesian President Abdurrahman Wahid (both from ASEAN member countries).

tacks which persisted through the tumultuous cultural and economic paradigm-shift of 1967-1969.[1]

However, it is also emphasized among those who recognize the urgency of returning to the principles of the pre-1971 types of international monetary agreements of fixed exchange-rates, that the U.S. dollar of this year 2000, if compared to the prestigious U.S. dollar and economy which still existed while President Kennedy was alive, is a relatively shabby thing. In addition to that fact, the fear is, that under either a new U.S. Bush Administration, or a presently unlikely Gore alternative, the worth of the dollar would sink quickly to incalculable depths. In addition to those considerations, as relevant circles in Europe and Asia note, the most conspicuously stubborn current source of resistance to re-establishing a system of fixed exchange-rates, is coming from the U.S.A. itself. *For that latter and other reasons, it has been mooted that the needed, new monetary and trade system, should use a basket of currencies, as a replacement for the 1945-1965 role of the U.S. gold-reserve-denominated dollar.*

I agree that the model of SDRs could be a leading included feature of the required economic recovery measures; but, I disagree, although sympathetically, with the suggestion that a basket of currencies could be a successful feature of the urgently needed reform. Instead of the suggested basket of currencies, I propose the following two-phased approach to the establishment of the needed new, global, fixed exchange-rate monetary and trade system.

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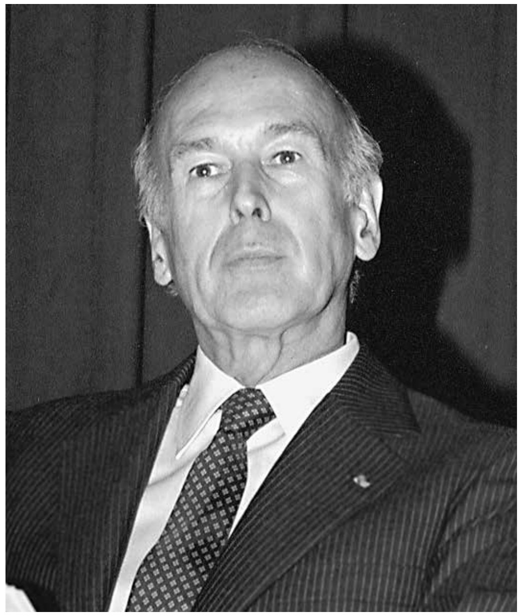
1. For those who may have forgotten, the following highlights of the period from the August 22, 1962 assassination attack on President Charles de Gaulle, through the October 18, 1964 rise of the disastrous Harold Wilson as Prime Minister of the United Kingdom, are notable: • On October 22, 1962, President John F. Kennedy declared the U.S.-Soviet missiles crisis. • The October 28, 1962 establishment of France's Fifth Republic under de Gaulle, is notable. • There is the historic January 14, 1963 meeting between de Gaulle and Chancellor Konrad Adenauer. • Then follows the February 14, 1963 election of Harold Wilson as successor to British Labor Party chief Hugh Gaitskell. • A new assassination attack upon President de Gaulle follows on February 15, 1963. • The July 1963 unleashing of that Profumo scandal in Britain follows, which led to the October 18, 1963 retirement of Prime Minister Harold Macmillan. • On April 23, 1963, Chancellor Konrad Adenauer announces his intention to retire in the coming October. • On November 22, 1963 President Kennedy is assassinated.

This interval, from mid-1962 through the election of Harold Wilson, is the location of one of the great turning-points in the course of modern history. The 1968 assassinations of Rev. Martin Luther King and of Democratic Presidential pre-candidate Robert Kennedy, less than six years after the Wilson election, and during the approximately half-year following Wilson's Autumn 1967 unleashing of the first of the series of monetary crises leading into Nixon's destroying the old Bretton Woods system, in mid-August 1971, are not to be regarded as the inevitable aftermath of the 1962-1964 interval, but as developments greatly encouraged by what occurred during that earlier interval.


Bundesbildstelle Bonn

During the late 1970s, German Chancellor Helmut Schmidt (left) and French President Valery Giscard d'Estaing initiated the European Monetary System proposal, which is usefully compared with LaRouche's 1975 call for an International Development Bank.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I propose, that we structure the discussion of these matters in the following terms. Let us agree, that, at the present moment, the agenda for proposed reforms, is organized implicitly around the notion, that the safe escape from the presently ongoing global financial and monetary disasters, is likely to occur only in two distinct, if overlapping, successive stages.

That is to emphasize the fact, that, since the tragic blunder adopted by the U.S. Government for the October 1998 Washington, D.C. monetary conference, that government has not only abandoned its earlier options for leading comprehensive monetary reform, but has entered into promoting, most stubbornly, a global financial hyperinflationary spiral, one which has become recently, analogous to that which led into the Weimar Germany commodity-price hyperinflation of March-November 1923.[2] The continued folly of the U.S. monetary and related policies, since the October 1998 Washington conference sessions, aggravated by the conduct and catastrophic outcome of the recent NATO war against Yugoslavia, has ruined much of the U.S.'s former, pre-October 1998 diplomatic potential for playing a constructive leading role in global monetary reform.

Thus, in light of the monstrous degree of degeneration in both U.S. credibility and policy-shaping since October 1998, a feasible reform, if it is to occur at all, were almost certain to come in two successive, regional and global phases.

The first stage, as typified by the ongoing discussion among representatives of the *ASEAN Plus Three* association, is typified by the revival of the 1997 proposal, by Japan's E. Sakakibara, for an *Asian Monetary Fund*. Such a facility is intended, not only as a measure of defense against financial-warfare attacks by hedge funds and similar speculators. It is also aimed to promote urgently needed measures of hard-commodity forms of combined trade and long-term capital improvements among those Asian nations. In this first stage, we might foresee regional, somewhat overlapping, groupings of similar outlook appearing, and cooperating among one another, in various regions of the planet.

The second stage, would be the re-establishment of

2. As my associate Richard Freeman has documented the available, pertinent evidence, about the close of July 1923 the German authorities' use of monetary inflation to continue to meet reparations-related payments, produced a phase-shift in the ratio of rates of monetary emission to outstanding financial debt. This unleashed the wild spiral of commodity-price inflation which completed the destruction of the currency itself three months later. The launching of "wall of money" policies adopted jointly by U.S. Federal Reserve Chairman Alan Greenspan and present U.S. Treasury Secretary Larry Summers during the interval October 1998-February 1999, has recently produced a phase-shift between monetary and financial appreciations of the same principled form as the July-August 1923 German case. The recent escalation of inflation in primary commodities, such as petroleum, food, and in real estate, reflects the recent and continuing onset of movement in the direction of a Weimar-style blow-out of both the U.S. dollar and the IMF system with it. [See **Figure 1**.]

FIGURE 1A

The Collapse Reaches a Critical Point of Instability

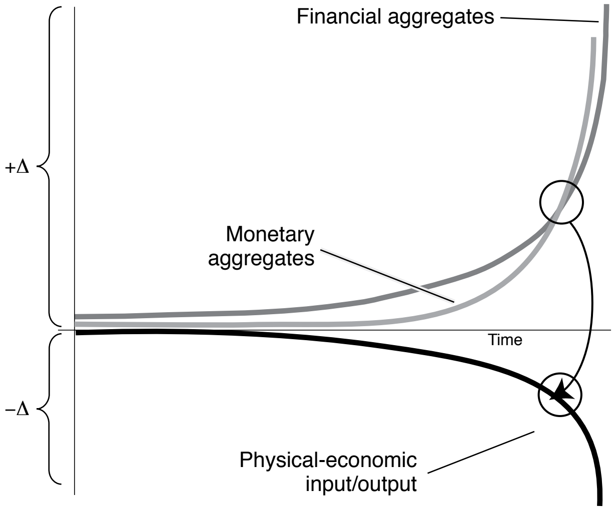
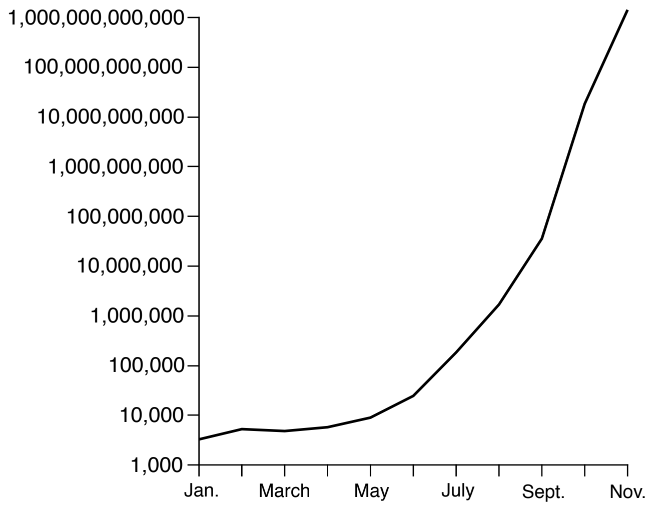


FIGURE 1B

Weimar Hyperinflation in 1923: Wholesale Prices (1913 = 1)

(logarithmic scale)



LaRouche's "Triple Curve" representation of an economy approaching collapse (A). With creation of money supply and of financial aggregates both growing at accelerating rates, the point at which the money-supply growth accelerates past even the growth of financial aggregates, is the boundary-point of entry into hyperinflation, as in 1923 Germany, or today's globalized economy. At that same point, the deterioration of the underlying physical economy (lower curve) also accelerates.

an effectively global monetary organization, featuring a return to fixed exchange-rates, to supersede the presently bankrupt IMF system. This second stage, would be a new monetary system, one assembled on the included initiative of participating regional groups of nations.

Therefore, examine the issue of "a basket of currencies" in light of the fact, that the two-phased approach to reform is, presently, the only visible prospect, if the world still has any favorable prospect of any kind, during the medium-term decades ahead.

The problem thus defined, is the following.

As long as the IMF system, and its related attributes exist in their present form, the attempt to use a "basket of currencies" as a substitute for the kind of role performed by the 1945-1963 U.S. dollar, is not a remedy, but a trap. Yet, the world can not wait until a general monetary reform occurs, to take certain urgent practical measures of defense against the worst effects of the presently onrushing global financial and monetary catastrophe. Therefore, at this stage, it has become essential to institute *preliminary measures which operate entirely outside the supervision, or other control by the presently doomed, "globalized" monetary system*.

Hence, today, we need to see monetary reform presently as a two-step process. The first stage, is the emergence of regional blocs which operate either outside, or in parallel to the existing IMF system. The second stage, will be the crucial role of such regional blocs in constituting a replacement for the now already hopelessly bankrupt IMF system. In the interim, measures taken by regional blocs must scrupulously avoid the ruinous effects which must result, were such measures to become entangled systemically in the already doomed IMF system. A prudent man does not remain within a cabin of an already sinking ***H.M.S. Titanic***. *The transition must be based upon economic values which exist independently of the present IMF system, and which can assuredly outlive that latter system.*

What Is in That Basket?

In assessing any selection of a basket of currencies, ask the question: "What are any among these currencies actually worth?" A scrupulously crafted answer would be: "Any combination of these currencies would be about as sound an investment as the German Reichsmark was at the beginning of July 1923." In short, the entirety of the present world monetary and financial system, is one gripped by an accelerating rate of financial and monetary hyperinflation in nominal financial assets; it is a system which is presently trapped in a critical boundary-state. We are presently at the verge of general disintegration of the present global system, including most leading currencies, excepting perhaps that of China and a few others, today.

All prudent policies must be designed to protect the credit of national governments from being dragged into the muck in which the present system will be surely buried. In short, the needed advice is: "Don't send good money down the sink-hole with the bad."

The crucial fact upon which all sound economic decisions are now premised, is the evidence which shows that the presently reigning financial and monetary institutions, are so hopelessly and profoundly bankrupt, that the world economy could not be saved without wiping several hundreds of trillions of current U.S.-dollar equivalent from the current, vastly hyperinflated, financial-asset-values account. In other words, outstanding financial claims must be brought implicitly into line with the world's present levels of an estimated hard-commodity valuation of the world's combined domestic product. Without such drastic reductions in nominal financial claims, no economic recovery from this onrushing, biggest and deepest world depression, were possible. As much as the equivalent to $400 trillions in presently extant nominal financial assets of the world at large, will have to be either wiped from the world's accounts, or reduced, by reorganization in bankruptcy, to a mere fraction of their current nominal hard-commodity valuation.

Those claims denoted in such forms as financial derivatives, especially over-the-counter (OTC) derivatives, must simply be wiped from the books, categorically. Claims rooted in so-called "junk bonds" and kindred speculative fancies, must be treated similarly. Much of the international debt created, not by actual purchases, but by synthetic bookkeeping constructions, by administrative mechanisms of a floating-exchange-rate monetary system, must be simply cancelled. Large-scale write-downs in inflated financial value of real estate and other matters must occur. Even much honorable debt, including that actually incurred by sovereign governments, must be reorganized or rescheduled. In general, the total mass of financial claims must be pared down to those rates of aggregated debt-service payments which are consistent with a return to the economic-growth policies prevailing in western Europe and the Americas during the interval 1945-1965.

The principal concerns governing such financial and monetary reorganization, must be to resume and maintain levels of employment, consumption, and production, especially in hard-commodity categories of production and consumption, and to maintain rates of net growth, per capita, and per square kilometer, in hard commodity and related infrastructural qualities, which are consistent with what had been the converging policy-objectives of the governments of the U.S.A., France, and Germany, during the incumbencies of President John F. Kennedy, Charles de Gaulle, and Konrad Adenauer. In other words, the needed reorganization of the presently bankrupt international financial and monetary systems, must amount to a structural reform in composition of categories of employment, investment, and credit-flows, to return to goals and standards which are not inconsistent with the then-current operating objectives of those governments from that time.

Such seemingly drastic and sudden measures are not merely policy options. Such measures are now a precondition for the possibility for continuing anything deserving of the name "modern civilized life."

To those who have not yet thought through the relevant facts, it may seem extravagant to warn, that without such seemingly drastic measures of financial and monetary reorganization, without the kind of reversal of hard-commodity investment and production trends increasingly prevalent today, this planet will soon be plunged into a global dark age, into a downward spiral into sub-Saharan-Africa-like conditions, under which it were likely that world population levels would sink during coming decades, to well below a billion individuals. The alarming, but not exaggerated report of the new level of danger to all nations from global and regional infectious diseases, is to be read by all intelligent governments, and other relevant agencies, as a "marker" reflecting the presently diseased state of the world's economy at large.

This warning will not be considered an extravagant one, by any among those qualified specialists who have studied the physical and immediately related causes for the changes in the potential relative population-density (and life-expectancy levels) of Europe and the Americas since about A.D. 1500. If we consider the cumulative development of infrastructure and productive technology since the mid-Fourteenth-Century New Dark Age, we must recognize that the trends in policy-making under the IMF system since the mid-1960s, have

The 1963-68 Historical Turning Point

The postwar monetary system prospered, writes LaRouche, "until the aftermath of that fateful year, 1963, when Germany's Chancellor Konrad Adenauer was pushed into resigning, U.S. President Kennedy was assassinated, and France's President Charles de Gaulle continued to come under the corrosive pressure of assassination and other attacks, attacks which persisted through the tumultuous cultural and economic paradigm-shift of 1967-1969."

Ludwig Wegmann

German Chancellor Konrad Adenauer (right) with French President Charles de Gaulle, in Paris in 1963

John F. Kennedy Library

Dr. Martin Luther King, Jr. (left) with Robert F. Kennedy.

Library of Congress Prints and Photographs Division

President John F. Kennedy (right) and his brother Robert, the Attorney General.

UN photo

British Prime Minister Harold Wilson.

reversed the long-term, net upward demographic trends in the direction of population-levels which had been reached, prior to 1966-1971, which had dominated long swings in European civilization during several preceding centuries. Without reversing sharply the accelerating down-shift in demographically relevant technology of investment and related practice, which has predominated under the IMF system since the mid-1960s, we have recently reached the brink of a global demographic catastrophe.

Such a catastrophe could be averted, even at this late stage, if leading nations of the world were to agree on measures which, in effect, bring the world's economic relations into forms of cooperation comparable to that shared between the U.S.A. and western Europe during the 1945-1965 post-war interval. It were sufficient to return to policies of practice comparable to what we in the U.S.A. and western continental Europe did rather well, if with some ups and downs, during those post-war years. Today, we must add the warning, that such cooperation be based upon a true, essentially global partnership with those nations which have been, until now, the continued victims of the legacy of colonialism, including the neo-colonial practices presently inhering in the common practice of the presently bankrupt IMF system.

The participation of a leading technology-exporting nation, Japan, in the ASEAN Plus Three process, if extended, in fact, into a more general cooperation throughout Eurasia, represents, at least approximately, a "full-set economy" base for high rates of gain in physically defined, per capita, productive powers of labor among all of the partners in such an arrangement. My hope is, that, despite the admittedly lamentable qualities of certain currently predominant preferences for U.S. Presidential pre-candidates, a sane government could emerge in 2001 out of the present, turbulent and mostly disgusting political process ongoing there at this moment, a government which will be a willing, cooperating partner in a global arrangement of the type which the aspirations of the ASEAN Plus Three group imply.

To reach that point in a timely fashion, certain preliminary steps are indispensable. To locate the required measures, we must take into account certain leading lessons from the period preceding the drift into the ruinous, presently bankrupt IMF "floating-exchange-rate" system. We must depart the disastrous changes in policy of the recent thirty-odd years, in preference for lessons to be learned from the successful experience of the 1945-1966 interval.

We are thus, in a condition, in which even many among the world's leading currencies will have to be either simply wiped from the accounts, or put through bankruptcy-reorganization under the authority of a new world system. In this transition, many presently leading currencies are to be, either, systemically reorganized, or, replaced by newly defined currencies and related credit-mechanisms. These currencies can be reorganized or created, so, only by reversing recent trends toward "globalization," by invoking the credit-creating authority of the perfectly sovereign nation-state.

It must be understood, that such reorganization is not the unthinkably radical proposal which some wild-eyed, pro-monetarist hysterics insist it is. As I have said: Either we do this rationally, by will, or the presently onrushing shock-fronts of global financial, economic, political, and social chaos will soon do it for us, whether we choose that outcome, or not.

We have been in similar conditions during the course of the just-concluded Twentieth Century; the present world financial and monetary crisis is deeper, wider, and bigger than anything seen during the Twentieth Century. Also, as in some relevant Twentieth-Century precedents, we shall be obliged to cancel bankrupt currencies from the accounts, replacing those by creating new currencies, new currencies to be established by the sovereign power of nation-state governments.

Admittedly, there is presently, hysterical resistance to any such reform. This is to be seen among politically powerful circles of financier-oligarchical interest, which represent today the same point of view on this matter as those Anglo-Americans, and others, who responded to the outbreak of the 1930s Great Depression, by joining forces to install and consolidate Adolf Hitler in power, during 1933-1934. The relevance of this point is made clear, by contrasting the proposed reform resolved upon by Germany's Friedrich List Gesellschaft in 1931, to the policies of the circles of such representatives of financier-oligarchical interest, as Britain's Montagu Norman, Norman's asset Hjalmar Schacht, New York's Brown Brothers, Harriman, and von Papen.

Today, the policies of the latter class of monetarist opponents of presently needed reforms, today's equivalents of the 1920s and 1930s Normans and Schachts, are represented chiefly, and exactly, by the circles of the Mont Pelerin Society, and such Mont Pelerin Society accomplices as Britain's former Prime Minister Margaret Thatcher, the U.S. Heritage Foundation, and the radical "free trade" fanatics in the U.S. Congress. If these latter, pro-financier-oligarchical forces prevail, as typified, in the U.S.A., by Larry Summers, Alan Greenspan, and the followers of pollster "Dick" Morris today, the world would soon see regimes and conditions worse than those which Europe experienced under Adolf Hitler's reign. *Here, on this point, lies, precisely, the immediate danger to all civilization, as typified by the U.S. Presidential pre-candidacies of Governor George W. Bush and Vice-President Al Gore.*

In this set of circumstances, policy-shapers should study more carefully the more deeply underlying principle behind the approximately twenty-year, 1945-1965, success of the post-World War II, Bretton Woods fixed-exchange-rate system, especially as that system operated in relations among the U.S.A., western Europe, and Japan. In this account, include attention to the fact that the way in which the system was implemented, after President Roosevelt's most untimely death, was vastly inferior to what the result would have been, both morally and economically, had Roosevelt's intentions not been significantly overturned by the successor, Truman Administration. As much of Roosevelt's intentions which were actually adopted, worked to great benefit for both the U.S.A. and western Europe, at least up through the middle of the 1960s. The question now to be addressed, against that background, is: *What are the crucially successful features of that fixed-exchange-rate system, which are fully applicable, as a matter of principle, to the vastly different world conditions of today?*

On the surface, the answer to that challenge for today, is rather elementary, and therefore readily adopted and supported by rational leading political bodies. However, as I shall indicate here, the success of such remedies requires leading roles by experts who also understand certain deeper subtleties of the matter. I explain the distinctions and their implications here.

A Basket of Commodities

In fact, the strength of the 1945-1965 Bretton Woods System, lay in the fact that the standard of value was, *in effect*, a basket of *hard commodities*. The U.S. dollar's strength as a reserve currency, was based upon the assurance that the current obligations against the U.S. dollar would be matched by the combination of an export-surplus plus gold bullion at a standard, fixed price for monetary-reserve gold. The gold-reserve system worked, because it was defended by protectionist and related regulatory measures, both internationally, and within the relevant nations themselves. It was the *physical* strength of the U.S. economy, as measurable per capita, *a strength measured in terms of rates of growth of physical productivity per capita and per square kilometer*, a strength expressed as *periods of high rate of increase in hard-commodity forms of capital formation*, which was crucial for the way in which the U.S. economy performed during the initial two decades of the post-war monetary system. This physical strength, matched with war-torn Europe's needs for both expanded volumes of U.S. agricultural products and machine-tool categories, enabled U.S. credit to stimulate a rate of growth of physical productivity, per capita, in western Europe, a growth from which Europe obtained the means to meet its obligations to the U.S.A.

In effect, in President Franklin Roosevelt's recovery policies of the 1930s, and in the 1945-1965 Bretton Woods System, the U.S.A. was carrying out the same type of economic-growth policies proposed by Dr. Lautenbach at the 1931 meeting of the Friedrich List Gesellschaft, extending credit to build up the productive powers of its customers, and thus, during 1945-1965, enriching a growing U.S. economy by providing Europe the power to repay the credit extended to it. Thus, Dr. Lautenbach's proposal had been not only congruent with the measures actually taken in the U.S.A. under President Franklin Roosevelt, a Roosevelt legacy which informed the 1945-1965 post-war economic relations between the U.S.A. and western Europe. The point to be stressed, is that the policies of both FDR and Lautenbach, were premised explicitly upon what U.S. Treasury Secretary Alexander Hamilton had defined for the U.S. Congress as the anti-Adam Smith *American System of political-economy*, the same policy represented by the leading Nineteenth-Century economists Friedrich List and Henry C. Carey, and the policies which the Friedrich List Gesellschaft represented in Germany at the time of Dr. Lautenbach's presentation of the proposed policy.

This is essentially the same view expressed by Japan and other current proponents of an ASEAN Plus Three system of cooperation in Asia. Those sectors of the international economy which have the ability to supply nations with the means to increase the latter's productive powers of labor, are to be repaid, according to appropriate medium- to long-term capital funding agreements, out of those gains in per-capita productive powers of labor, which result from the use of the relevant imported technologies.

This had been President Franklin Roosevelt's intention for post-war U.S. aid to nations and peoples he intended should be liberated from the colonialist systems and legacies of Portugal, the Netherlands, the British monarchy, and France. Roosevelt detailed infrastructure-development for Africa as an example of this policy. That policy, as it had been intended by Roosevelt, should become the basis for new forms of cooperation between those sections of the world's economy which have the ability to provide advanced technologies, and less developed regions. This policy-orientation provides the mission-orientation which a new, fixed-exchange-rate, world monetary system must adopt.

A point concerning a fixed-exchange-rate requirement, is to be emphasized, at this juncture. If the discount rate on medium- to long-term extension of international credit exceeds the levels of 1-2% per year *simple interest*, high average rates of hard-commodity capital formation are not possible generally, and, most emphatically, not possible for developing nations as entireties. If the values of relevant currencies are allowed to fluctuate under pressures from financier-oligarchical centers such as London, the general, open-market rate of borrowing-costs must rise accordingly, and must tend to be reflected, even axiomatically, in compounded interest-payment requirements, rather than merely simple interest. In effect, the very existence of a gold-standard system, such as that which London maintained world-wide, until 1931, or, a floating-exchange-rate system, such as that set into motion by President Richard Nixon's decree of August 1971, spells relatively immediate catastrophe for so-called developing nations, and ultimate ruin for the others.[3]

In the present situation, where the valuation to be placed on each and every currency of Europe and the Americas, among others, is increasingly in doubt, what constitutes the quality of durable value upon which medium- to long-term, hard-commodity capital formation could be rationally premised? In the celebrated words of Shakespeare's Hamlet: "To be, or not to be: that is the question." When it is, thus, most forcefully demonstrated, that durable forms of economic values, can not be adduced from a quantity of money, where does a measurable valuation of economic activity lie?

Enter, once again, the matter of "a basket of commodities." I mean a "basket of commodities" as that notion implicitly underlies the relative success of the 1945-1965 fixed-exchange-rate monetary system. I mean a "basket of commodities" as U.S. Treasury Secretary Alexander Hamilton's 1791 Report to the U.S. Congress ***On The Subject of Manufactures*** defined what became known world-wide as *The American System of political-economy*. Just as the success of the 1945-1965 trans-Atlantic system was premised upon coordinate physical-economic growth in the combined national economies of the U.S.A. and western Europe, so Hamilton, basing himself, via Vattel, on the work of Gottfried Leibniz, based the economic policies of the U.S.A. on the mutual growth of the urban industries and the rural countryside.[4] In short, sound economics premises its measurements of performance upon growth-rates, measured in physical units per capita and per square kilometer, not upon nominal (e.g., financial) prices attached to a list of produced goods.

So, in a situation in which the hard-commodity content among currencies is fluctuating, one still has the option of constructing a synthetic unit of account which is based upon an agreed basket of hard commodities. Thereafter, as currencies fluctuate, it is the currencies, not the commodities, which are given implicitly adjusted values, as based upon the basket of commodities used to define the unit. Such a synthetic unit could serve as the accounting-system of an international credit facility, as, in that sense, the basis for creating a kind of successor to SDRs.

Thus, in the matter of medium- to long-term capital

3. Typical of the evils fostered by a floating-exchange-rate system, is the swindle by means of which the IMF system looted so-called Latin America. The London market, which is the center of most of the world's financial speculation, would orchestrate a run against the currency of a nation of South or Central America. Then, the international monetary authorities, would intervene to require a reduction in the value of the targetted currency. Worse, they would then increase the foreign debt of the targetted nation, to compensate the international lenders for the loss in expected debt-service revenues which might otherwise be caused by the forced devaluation. *Thus, since 1971, the nations of South and Central America have, aggregately, paid vastly more debt-payment than they ever actually incurred!*

4. Today, it must be emphasized often, that the U.S. political-economy, and Constitution, echoed the influence of Gottfried Leibniz, and rejected the contrary dogma of John Locke. For example, the use of Leibniz's rebuttal of Locke: "life, liberty, and the pursuit of happiness," in the 1776 Declaration of Independence reflects this, as does Benjamin Franklin's connections to followers of Leibniz in Germany itself, such as Göttingen University's Abraham Kästner. Vattel's influence, on Hamilton and others in the Americas, is reflective of this. (See Robert Trout, "Life, Liberty, and The Pursuit of Happiness," ***Fidelio***, Spring 1997.)

loans for hard-commodity investments, the relevant currencies are priced according to the basket of commodities as a standard. The loan is made in these units, not currency-prices; however, the exporter is credited with that number of synthetic units at the time the product is delivered, and repayments of the loan are determined by the price of the relevant currency, in those units, at the time that specific payment is due.

Thus, in effect, a barter-like system of medium- to long-term lending of hard commodity product, is used to approximate the "gold-reserve plus basket of commodities exported" system which operated in relevant trans-Atlantic relations during the 1945-1965 interval of a fixed-exchange-rate system.

That is the gist of the matter.

Now, examine the interim use of such a synthetic

The Lautenbach Plan for Economic Recovery

In a speech on Feb. 22, 1998, Helga Zepp-LaRouche, founder of the Schiller Institute, discussed Dr. Wilhelm Lautenbach's economic program for getting Germany out of the Depression of the 1930s. Here are excerpts.

I want to refer to the economic policy debate in Germany at the beginning of the 1930s. I do not make a comparison to the 1930s because I say that this crisis is like that of the 30s; it is quite different. But, I raise it, because it is connected to the question of what to do under conditions of a depression and a financial crisis.

Recently, in 1991, the transcript of a secret conference of the Friedrich List Society of 1931, was published. The issue was how to boost the economy under conditions of a world economic crisis. Among the participants in this conference was the president of the Reichsbank, Dr. Luther, and 30 leading economists and bankers.

And, a person who is not very well known, but deserves to be better known, Dr. Wilhelm Lautenbach, wrote a memorandum for this conference, the title of which was, "The Possibilities of Boosting Economic Activities by Means of Investment and Expansion of Credit," in which he said, "The natural course for overcoming an economic and financial emergency is not to limit economic activity, but to increase it."

He pointed out that there are two different kinds of emergency situations. One, is war, earthquakes, other national catastrophes. And then there's a second type of crisis, which is economic and international, emergencies with international dimensions.

In such situations, it would be clear that more should be produced. But, if you only follow the laws of the market, this is not possible, because, in the second case, of a collapse of the financial system, you have a paradoxical situation, where, despite the fact that production already is collapsing, the demand is less than the supply. And this then leads to a tendency to decrease production even more.

If the government then adopts a program of deflation, it will tend to cut the deficit by cutting the state's expenditures, cutting prices and wages, restricting credit, and so forth and so on.

Lautenbach says that it is impossible to reduce taxes under these conditions, because the tax base is already reduced. And all such deflationary measures produce new and large losses of capital for the individual entrepreneur in commerce and industry. It makes them uncompetitive and insolvent, and it causes a reduction of production, and layoffs. It also leads to a deterioration of the banks.

Now, it is exactly this wrong approach which is presently taken by Maastricht, by the European Union, by the IMF, by the whole effort to package and solve this crisis, and not only in Southeast Asia, but in Russia, everywhere. This wrong idea.

The reduction of public expenditures is doubly counterproductive, since the public contracts and mass purchasing powers are further reduced. It leads to a collapse of production, and an increase of unemployment. And it is a downward spiral, which becomes worse and worse, and there is no bottom.

Therefore, Lautenbach says that the deflationary policy will inevitably lead to a complete economic and political catastrophe. But there is a paradox, because in a depression, you have unused productive capacities and unemployed labor. And therefore, the problem is very simple to solve: The state must inter vene, and create new national economic demand. The

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unit of trading account more closely. Examine the way in which such a unit is to be designed and managed.

It will be obvious to the reader that what is to be said on this account, involves a set of nested approximations of the exact values desired; but, that should not be considered cause for reasonable objections. The fact of the matter is, that, contrary to the *Laputa*-like superstitions which certain academic mystics spread to their credulous students at Harvard and Chicago Universities and elsewhere, all prices and related set values in day-to-day economic practice, are never closer to reality, than serving as reasonable approximations; the mythical "right price" exists only in the minds of deluded persons. Contrary to utilitarians such as Jeremy Bentham, there is no asymptotic price-value upon which commodities must tend to converge in a state of "free fall." There are no random numbers in real economic processes, but only the customary charlatans who teach a dogma of random numbers.

The margin of error which may be incurred in adopting an estimated value, such as a standard basket of commodities, should be understood as a reasonable choice made, in effect, by relying upon intelligent management of the relationships by such a qualified agency, and upon an understanding rooted in good faith among the parties to the arrangement.

The Practice and the Theory

The key to establishing a reasonably determined standard unit of account for a basket of commodities, is to reject, from the outset, the reductionist input-output presumption of Britain's Piero Sraffa, for example, that consumption might be represented as a process of production of commodities by commodities. We must examine the way in which combined market-baskets of economic infrastructure (such as public works), combined with household consumption and with technologically progressive, hard-commodity forms of increasingly capital-intensive investments in capital goods of production and physical distribution, increases the relative productive powers of labor, as this is to be measured, in physical product, per capita and per square kilometer. *It is that factor of rate of growth, as expressed in hard-commodity terms, which defines the appropriate notion of assignable economic value.*

So far, so good; but, there is a catch. In some respects, such measurements of growth-rates are relatively obvious; but, therein lies an often overlooked subtlety, to ignore which may have dreadful results. Consider the more obvious kinds of measurements, and then what might appear to some to be the awfully clever subtleties.

The essential calculation to be attempted, in any rational scheme of economic studies, is what is best identified as *the potential relative population-density of the population of the national economy as a whole. The measurement to be derived from this standard, is a*

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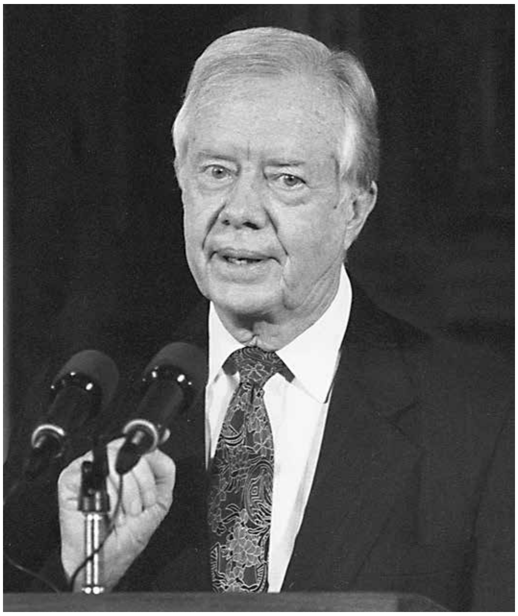
only precondition is that it must be something necessary to the economy, which represents a value increase, and it must be something which would have been done anyway, if the crisis had not existed.

Now, Lautenbach says that since the long-term capital is available neither from foreign markets nor from the domestic market, how can you finance it, if the capital markets simply do not give you the ability to do this?

Well, then it has to occur through a national bank, because liquidity is just a technical question. It's just an organizational issue: Liquidity immediately exists, if it is backed up by the authority of the state. And again, these projects are not inflationary, because they represent real economic capital formation. They create real economic value. And, because they have a productive multiplier effect, the rate of production is growing at a faster rate than the rate of credit expansion.

So basically, by means of such an investment in credit policy, the disposition of supply and demand on the domestic market will be increased, and the total production, once again, has a direction and a goal. Lautenbach says, "If we neglect to undertake such a policy, we will inevitably be heading in the direction of continuing economic disintegration, and a complete disruption of our national economy, and come into a condition where, in order to avoid a catastrophe, one will be compelled to undertake a strong increase of new, short-term public debt, but that will then only be for consumptive purposes, while today we have the instruments, the means for utilizing this credit for productive tasks."

So, obviously, had the Lautenbach Plan been implemented, the economic conditions which enabled the Nazis to come to power two years later, would have been eliminated. . . .



The boundary conditions that had protected the U.S. economy were obliterated by fiscal-austerity fanatic President Jimmy Carter (left) and President Richard Nixon, the ill-fated dupe of the Mont Pelerin Society.

measurement of the rate of increase, or decrease of that potential. That measurement defines what should be understood as expressing an underlying notion of economic growth. The following steps are featured.

Competent study of economic processes begins, not with the production of commodities, but, rather, the production of people. That is to say, with the development of children into becoming, decades later, functioning adult members of the economy as a whole. Indeed, here lies the natural root of the formation of capital.

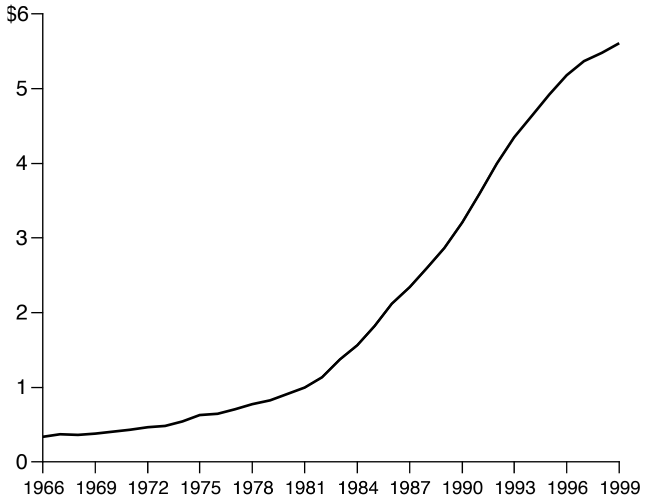
To structure calculations to this effect, we must define a minimal size of a typical family household, and its included birth and mortality rates. We do this, in order to estimate what is necessary to meet the standard for growth and self-sustained well-being of that population as a whole. One defines the level of technology—e.g., a set of technologies—which allows that population to generate a corresponding net rate of physical-economic growth. We define the relationship between the adult work-force and the total population, as organized in households—that is to say, organized in the way in which viable forms of households produce the emotional and intellectual development which is to be desired in the functioning adult member of society. This establishes a rough standard for purposes of comparison.

One then defines the corresponding structural characteristics of the division of labor in the society as a whole. The first objective, is to estimate the market-baskets of household consumption, infrastructural development (e.g., public works), industrial output, and agricultural output, and to measure these, also, both per capita and per square kilometer of the total territory of the national economy. This defines sets of "market baskets" of the commodities, including professional economic services (e.g., health, education, science) required by each of these broad categories of market-baskets. These categories of consumption, plus waste, are compared with total output of the economy, as measured in the same terms. The obvious comparisons, of *better*, *less*, or *stagnant*, in rates of increase, follow.

Thus, by applying *a synthetically chosen price* to a household income measured in terms of per capita of labor-force, and also per unit of area, we have a convenient and reasonably reliable method for estimating monetary values. By adding the actual relative free energy generated by production, in addition to costs so determined, we are able to estimate both total output of the economy, and a corresponding, estimated rate of growth. *Insofar as this estimated rate of growth coincides with a corresponding rate of increase of the potential relative population-density, the estimate for rate of growth is sufficiently sound for purposes of accounting and other administrative functions respecting the economy at large.*

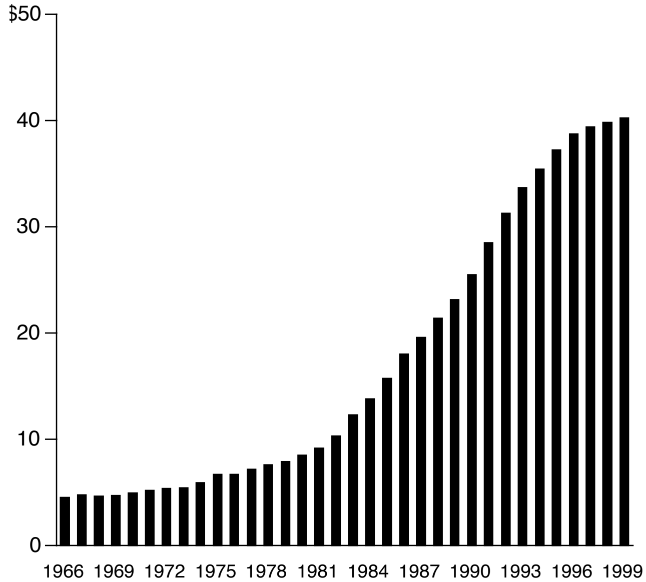
Notably, in a rational economy, prices are not set by anarchic free trade, but by human boundary conditions imposed upon the economic process as a whole. These

FIGURE 2A
U.S. Government Federal Debt Outstanding
(trillions $)



Source: U.S. Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2001, Historical Tables.*

FIGURE 2B
U.S. Government Federal Debt Outstanding, Per Capita of Adult Labor Force
(thousands $)



Sources: U.S. Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2001, Historical Tables;* U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings,* June 2000.

boundaries, by their nature, must be set chiefly by governments.

Typical of such boundary conditions, are so-called "protectionist" measures, such as those former regulations of the economy which have been removed under the influence of the Mont Pelerin Society or kindred fanatics, especially since the January 1969 inauguration of the ill-fated dupe of the Mont Pelerin Society, President Richard Nixon. These protective boundaries were then assaulted, even more savagely, under the 1977-1981 reign of that free-trade and fiscal-austerity fanatic President Jimmy Carter who, with suitable historical irony, launched the chronic indebtedness of the U.S. Government which has plagued the nation since (**Figure 2**). Similarly, the decline in the percentile of national-income of the lower eighty percentile of family-income brackets, since the 1977 inauguration of President Jimmy Carter, shows a decline in the U.S. popular conditions of life, which corresponds to both the cannibalistic looting of previous improvements in productive potential, and a corresponding general lowering of the per-capita physical productivity of the labor-force as a whole.

Protectionist measures do tend to increase prices, if only in the short to medium term, as the rabid monetarists never cease in whimpering about this effect. (In the medium to long term, the higher rates of increase of productivity made possible by higher rates of hard-commodity capital formation, result in a secular decline in prices of particular products, while generally improving the quality of those products.) Thus, that increase of prices may be viewed as a rise above a so-called "free trade" level, to a "fair trade" level.

These protectionist, regulatory measures have two indispensable benefits for any economy whose government is sane enough to impose them. First, they provide direct or indirect protection to the income-levels, and therefore to the potential productivity expressed by households of operatives; this, combined with rational taxation policies, ensures that the incurred price, by government and the private sector, of maintaining the desired level of potential relative population-density, is secured. Second, in so acting, governments create the market for those medium- to long-term public and private capital investments, on which improvement in the potential relative population-density depends.

Promotion of the general welfare, which is an integral part of the fundamental constitutional law of the U.S.A.—if recently a flagrantly violated obligation—

demands that those measures which are needed to ensure the improvement of the potential relative population-density of the nation, per capita, and per square kilometer, are taken. This includes public works which no private entrepreneur could undertake as a business proposition; clear, on this account, is the responsibility of the sovereign government for the conditions of life and work of *all of the people* and of *all of the territory of the nation*.

Thus, public policy, so shaped, creates what wild-eyed dupes of the Mont Pelerin Society denounce as a willful, arbitrary intervention by the state, into the affairs of trade. Without those measures which that Society abhors, no modern economy could survive for long. Indeed, three decades-odd of that Society's ideological influence on leading governments, have created a wasteland of the once-successful economies which had grown up in the U.S. and western Europe during the 1945-1965 interval.[5] In this process, the physical-economic values which have been destroyed, since the mid-1960s, include much of the entire net development of modern infrastructure, agriculture, and industry, in Europe and the Americas, during the preceding hundred years, since the middle of the 1860s. Even two World Wars of the Twentieth Century did less net damage to Europe and the Americas than has been done by the "globalizers" and "free trade" ideologues during the recent thirty-odd years, since the ruinous first Harold Wilson Labour government came to power in the United Kingdom.

The same question may be posed in a different way. During the recent thirty-odd years, a hitherto successful form of trans-Atlantic monetary system devolved into the present stage of bankruptcy. What were the measurements which were used by policy-shapers to bring about thirty-odd years of such folly? What was so fatally wrong in the assumptions of the institutions which have been most successful, since the mid-1960s, in bringing about this magnificent, global catastrophe?

Those institutions are well-known, readily identified: they are the Mont Pelerin Society and its co-thinkers. The result which that influence has produced, does not reflect merely the accidental result of a sometimes erroneous reading of the dials by the policy-makers and managers; the catastrophe which their influence has brought about, is *systemic* in nature. It is the very design of the instruments which have been used to misguide the preponderance of the world's most influential policy-makers and managers, which has brought this epochal calamity upon the planet. It is, thus, the financial accountants and the preponderance of the economists, whose systemically aberrant standards of practice have brought this catastrophe upon us: systemically.

Granted, that the statistics lately reported and interpreted by the U.S. government and others, are, like the insane chatter about "information society" and an actually mythical "New Economy," deliberately, and increasingly falsified, that with the same intensity of desperation otherwise found commonly among those attempting, through fraudulent lures to investors and creditors, to conceal a thoroughly ripened corporate bankruptcy. However, such currently popularized frauds by governments, central bankers, and relevant others, are a symptom of the underlying problem, not the root-cause.

From this standpoint, what has failed is the empiricist system of bookkeeping, often taught under the misleading name of "economics," the system of bookkeeping which came to be associated with such names as Adam Smith, Jeremy Bentham, et al. Here, we go beyond the practical superficialities of a design of a basket of commodities, into the underlying principles, the theory, of the same matter.

The relevant theory is, in summary, as follows. I have stated these points at length, repeatedly, during the five decades since my first consolidation of my original discoveries in the field of physical economy. These need to be said again, until the students have mastered these concepts to the point of knowing the ideas, rather than merely learning the words of the description.

1. In the science of physical economy, as first defined by the relevant 1671-1716 work of Gottfried Leibniz, the specific distinction of the human species from all others, is the fact that only mankind is able to increase its species' potential relative population-density—its power—by an act of will.

   In mankind's increasing power within, and over the universe, the relevant act of will is ex-

5. Typical of charlatans, those U.S. and other influentials who have made a wasteland of once powerful agro-industrial economies, say that this has occurred only because the "old economy" was doomed, anyway. Like the typical charlatan, they point to the vast speculative bubble in physically worthless "New Economy" fluff, as proof that the economy which can no longer afford to pay its social welfare and infrastructural bills, is "really" a much bigger and better "new suit of clothes" for our Emperor.

pressed as the discovery of what is proven to be a universal physical principle. It is through man's accumulation of that knowledge, and man's development of the forms of cooperation through which that knowledge may be applied, that our species is permitted to choose willful changes in our species' behavior, through which our species' power in and over the universe is increased in clearly measurable forms. This measurement is expressed essentially in terms of man's increased ability to exist, per capita and per square kilometer of the territory under control of a society.

2. Insofar as the term "physical science" is used to indicate what today's classrooms accept as a notion of modern mathematical physics, both the existence of living processes and of human beings, are to be regarded as *systemically impossible mathematically*. Since the work of Clausius, Grassmann, Kelvin, Helmholtz, Maxwell, Rayleigh, and Boltzmann, among others, during the course of the Nineteenth Century, it had become conventional to say, that from the standpoint of mathematical physics so defined, the physical universe is governed by a universal law of entropy. The cause for perpetual embarrassment of the advocates of that statistical dogma was, that neither living processes, nor those processes which set mankind apart from other living processes, obey such a rule of universal entropy. Since living processes and persons are a highly efficient part of the universe, certain doubts respecting the honesty and sanity of the advocates of universal entropy had to be mentioned, even at the risk of seeming impolite, of even triggering the expectable explosion of freakishness from the pompous ass teaching the dogma to the class.

In economics, real profit of an economy as a whole, is expressed as a marginal increase of the potential relative population-density. This marginal gain corresponds to what is usefully termed the *free energy* of the system. Thus, like the living, upward evolving biosphere, the process is characteristically *anti-entropic*. In real economies, the question whether a taken profit is actually a profit to that economy as a whole, finds its answer in comparing nominal profit-rates with the actual free-energy ratio expressed in terms of correlatives of increases of the potential relative population-density. Indeed, most of the profit attributed to the U.S. economy since August 1971, especially since January 1977, has been, in net effect, in the form of pseudo-growth: the burning-up, so to speak, of past investments in basic economic infrastructure, productive capital, and so on, as merely nominal, financial-accounting profit taken out of the real economy, rather than actual free energy added to it.

3. Therefore, chiefly in response to the popularization of the Kelvin-Clausius dogma of statistical thermodynamics, apologists for what is still considered today a conventional view of mathematical physics, adopted the term *negative entropy*, a term sometimes abbreviated as *negentropy*. According to the popularized, statistical approach to such subject-matters, the prevailing assumption is, that: a) universal negentropy does not exist; b) processes which appear, statistically, to exhibit negentropic behavior, are able to do so only by increasing the rate of entropy in the environment in which they operate. Ludwig Boltzmann's development of ideas in that direction, and the impact of Boltzmann's influence upon his students, notably Erwin Schrödinger's pathetic views on the principles of living organisms, are a notable illustration of the point.
4. Since the 1948-1952 interval, I have rejected these generally accepted mathematics classroom views on entropy and negative entropy, defining them as reflecting the influence of what is to be recognized, specifically, as the social disease of neo-Kantian Romanticism: the denial of the existence of those consciously apprehensible forms of cognitive synthesis, upon which discoveries of universal principles depend absolutely.[6] The paradoxes which show prevailing

6. My initial focus, from early 1948, was against the use of the term "negentropy" by Norbert Wiener. That same year, my attention broadened to include the problematical systemic features of Professor Nicholas Rashevsky's mathematical biophysics, and also that of Oparin. My views respecting the relevant systemic characteristics of living processes were, and remain in the vein of Louis Pasteur and Vladimir Vernadsky. My preference for Vernadsky's views on biogeochemistry, over the contrary view of Oparin, Rashevsky, Schrödinger, et al., does not represent the last word on Vernadsky's own development of this subject; my associate, Dr. Jonathan Tennenbaum, has been digging out, translating, and assessing some important later writings by Vernadsky on the principles of both living and cognitive processes. Notable is a September 1938 paper, whose title Tennenbaum has translated as ***On the Fundamental Material-Energetic Difference Between Living and Nonliv-***

dogma on entropy/negentropy to be pathological, compel us to recognize that *the principle of life is a universal physical principle in and of itself*, in the sense that the revolutionary work of Carl Gauss's student and follower Bernhard Riemann defines the notion of a multiply-connected manifold. I have added my own original contribution to the science of physical economy, that *the principle of cognition is also a universal physical principle*. Since, as Vernadsky has presented the case for the biosphere, the anti-entropic principle of living processes, is categorically superior to non-living, statistically entropic processes, and since, as the economic history of scientific discovery shows, characteristically anti-entropic cognitive processes are superior to otherwise merely living processes, these two, respectively distinct universal physical principles, of *life* and *cognition*, must be located in their corresponding place in the body of physical science as a whole.[7]

5. At first glance, the changes in behavior which enable society to increase its potential relative population-density, are a matter of observable changes in the relationship between the demographically defined individual person and nature. Thus, we measure matters in terms of changes in physical values per capita and per square kilometer of surface-area. From this vantage-point, we can estimate the increase in productive powers of labor, as having the form of a change in the characteristic curvature of that Riemannian physical-space-time geometry which represents the current state of scientific and technological development of practice. In this view, the addition of a valid new universal physical principle, changes the characteristic curvature of the physical-economic domain of action. The synthesis of a validated universal physical principle, which occurs only through the sovereign, hypothesis-generating processes of individual cognition, thus becomes the form of human action, by means of which mankind's power in and over the universe is increased.
6. However, closer examination of the matter shows, that we can not limit this function of cognition to the matter of validatable discoveries of universal physical principle. Since notions of universal principle can not be transmitted solely by means of sense-perception, *the ability of society to cooperate in the selection and use of discovered physical principles, depends upon replication of the cognitive act of discovery of a principle by one mind in the mind of another*. This replication, as it occurs in circumstances such as those of Classical humanist forms of education, is known to us as a body of experimentally validated universal principles of Classical artistic forms of composition. Through those forms of art which reference the cognitive processes of mind, rather than mere sense-perception (e.g., sensual forms of pleasure and pain), we foster the forms of insight needed for effective collaboration in producing and promoting the universal physical principles upon which the anti-entropic increase of mankind's potential relative population-density depends. These Classical forms include not only what are customarily regarded as the combined plastic and non-plastic art forms, but also the development of literate forms of language, the study of history, and of other matters of statecraft, as well.
7. Thus, the manifold of such universal physical

ing Natural Bodies in the Biosphere. So far, the principal defect in these later writings by Vernadsky, is an inadequate appreciation of the relevant implications of those discoveries of Bernhard Riemann which latter contributed greatly to all of my own work on related issues of the science of physical economy. All of my relevant work of the 1948-1953 interval, was principally a reflection of my earlier refutation of I. Kant's attacks on the work of Gottfried Leibniz; hence, my recognition of the popularized notion of universal entropy as the fruit of neo-Kantian Romanticism.

7. I use anti-entropic in the same sense as I define the physical geometry of Riemann as anti-Euclidean, rather than the customary and epistemologically clumsy "non-Euclidean." Such distinctions in terminology are not merely more precise choices than the conventional ones. The lunatic effort to replace living man by devices allegedly exhibiting "artificial intelligence," has no different basis than stubborn, blind faith in defining the physical universe as fully explainable in terms of the hereditary, aprioristic, axiomatic assumptions associated with today's generally accepted, reductionist-deductive schemes of classroom mathematics. It was the Leibnizian legacy of anti-Euclidean physical geometry, as transmitted from Kästner to his student Gauss, to Riemann, which permits us to recognize that it is physics which must govern mathematics, rather than the other way around. The banning, by Riemann, of all *a priori* notions, such as those of space and time, from geometry, and the replacement of such notions by experimentally validated discoveries of universal physical principles, such as life and cognition, has been the breakthrough which opened the door to a saner understanding of the meaning of "physical universe," one in which the existence of those living cognitive beings called people, need no longer be held in doubt.

and Classical-artistic principles represents the principled medium through which mankind acquires both the physical principles and principles of cooperation on which the increase of our species' potential relative population-density depends.

8. Three crucial points of economic policy are to be derived from the foregoing considerations. A) That the principal human source of economic growth is the education of the young, a span of development which, for the case of the most advanced economies of the mid-1960s, occupies approximately the first quarter-century of the life of increasing portions of the total population of new-born individuals. This means not only a Classical humanist form of scientific and artistic education in schools and universities, but conditions of family and community life which are emotionally and otherwise suited to the promotion of the self-development of the cognitive powers of the young individual. B) Thus, the student's reliving the re-enactment of validated original discoveries of universal physical principle, and the related role of university-centered fundamental research programs as the principal driving force for proliferation of further scientific and technological progress of the economy as a whole. C) The crucial role of the individual private entrepreneur (as distinct from the often *Golem*-like, publicly held stock corporation and holding company), especially those occupied with the kinds of machine-tool practice related to design of proof-of-principle experiments, like the comparable case of the progressive individual farmer, in pushing forward *the suitably impassioned process of technological progress*. A sane form of modern economy demands that the state create the regulated environment and basic economic infrastructure in which the function of the sovereign cognitive powers of the individual, serves as the cutting edge of technology-driven, increasingly capital-intensive forms of economic progress at large.

Thus, this form of science-technology-education-driven economic growth, is, by its nature, Riemannian in form. The addition of validated new discoveries of universal physical principles, expands the multiply-connected manifold of universal physical principles being applied. That shift in the manifold is expressed, characteristically, by a change in the implied physical-space-time curvature of action within that economy. This shift, in turn, is reflected in the anti-entropic form of increase of the potential relative population-density. It is the rate of change, the rate of increase of productivity so defined, which is the substance of the anti-entropic "free energy" ratio upon which the continued generation of true, rather than fictitious profit depends.

Those eight points summarily identify the setting within which the discussion of real rates of economic growth is to be situated.

The Global Division of Labor

As the cases of China and India underscore the point, most of the world today is imperilled by a shortage of currently usable land-area relative to large concentrations of the world's existing population. The obvious present barriers to improvement of the condition of life of the majority of the world's population, are to increase the ratio of usable to total land-area, to increase the potential population-density of those land areas, and to accelerate the effective rate of scientific and technological progress in the modes of production and household and community life.

To this end, we require the adoption of several rule-of-thumb policy agreements among nations. 1) That the number, scale, and intensity of "volcanoes" from which scientific and technological progress is erupting, must be greatly increased, and the fertility of those sites increased. 2) That, to make possible the assimilation of such scientific and technological progress, the required basic economic infrastructure (e.g., water management, power, transportation, education, health care) must be provided in all of the areas targetted for high rates of gain in productivity and living standard. 3) That the creation of long-term credit for relevant purchases of scientific and technological progress and build-up of needed infrastructure, must be greatly expanded, to enable flows from those places in which the relatively highest rates of technological progress are being generated, into the areas of greatest need and opportunity for such development of land-areas, populations, and productive economy.

This means that related policies must be crafted from the standpoint of looking approximately a quarter-century ahead. This forward span will come to be expressed in the terms of long-term credit advanced for relevant categories of capital improvements. This will represent a desperately needed new chance at life, for a shabby relic of a civilization now at the verge of destroying itself.

Such a program of global reconstruction, will echo the best features of economic cooperation between the U.S.A. and western Europe during the 1945-1965 interval. It must also represent an improved way of thinking about economy, including a sweeping, contemptuous rejection of everything associated with, or resembling the axiomatically irrationalist, *Conservative Revolution* dogma of existentialists such as Schopenhauer, Nietzsche, Martin Heidegger, Friedrich von Hayek, Ludwig von Mises, Norbert Wiener, John von Neumann, Maurice Strong, and the Mont Pelerin Society's ideologues generally. That is to say, we must think of economy in terms of physical economy, rather than placing the emphasis on nominal financial assets, and must view economy as expressing mankind's increasing power within and over the universe we inhabit. It must also express a recognition of the role of the forms of cooperation based upon the cultural principles of cognition, rather than the perverted notion of man as Hobbesian-like, of man as self-degraded into being a mere beast-like creature ruled by pleasure and pain.

There must be a new, deeper, richer conception of the notions of strategy, military and otherwise. The actual cause for warfare in the history of modern European civilization, has been nothing other than the struggle of modern oligarchies to subjugate either one another, or, more generally, to either keep populations in the condition of virtual human cattle, or, as today's Mont Pelerin ideologues do, to return mankind to such a human-cattle-like political and social condition. The insurgency of that treasonous asset of the British monarchy, the Confederacy, to destroy the U.S.A., and to ensure the perpetuation of chattel slavery, is typical of the causes for just wars, such as that led by President Abraham Lincoln, just as Europe's belated agreement to the conditions of the 1648 Treaty of Westphalia, defined the premises in international law for as much civilized life as has actually existed within extended European civilization since that time.

Today, the principal danger to civilization is from that London-centered, global financier oligarchy, which has adopted the proliferating dupes of the Mont Pelerin Society's "free trade" dogma as the instrument for destroying the existence of the sovereign nation-state, reducing the scale and life-expectancies of the majority of the human population, and degrading the survivors chiefly to the status of human cattle, of virtual Nintendo-addicted Yahoos. Those dupes, are in fact fascists, just as much as Adolf Hitler before them. If that oligarchy and its right-wing dupes, were to succeed in imposing their globalization, "free trade," and shareholder-interest ideologies, civilization would soon cease to exist on this planet for a generation or more to come. To defeat that oligarchy in that, its evil, neo-imperial enterprise, would be the only just cause for warfare among nations at this historical juncture. Otherwise, the world has no further, justifiable need of warfare, except in necessary defense of a peaceful order among sovereign nation-states.

The time has come to bring forth on this planet, the rule of man's affairs by a partnership among a community of perfectly sovereign nation-state republics, republics committed to that promotion of the general welfare which is outlined in the opening paragraphs of our 1776 Declaration of Independence, and the Preamble of our Federal Constitution. Among nations so united in a community of principle among perfectly sovereign nation-states, no justified war could occur. The principle, the general welfare of all of the people, and their posterity, of each nation, and the general welfare of each member of the community of such nations, is the only visible means by which a planet-wide state of affairs suitable for human beings can be brought into existence.

In such a community, the jewel of all civilization, is the development of the perfectly sovereign cognitive powers of the individual person. The promotion of the development of that individual, those powers, and the realization of the benefit each might contribute to present and future humanity, must be the conception which motivates all our shaping of economic policies. That must be the case in fact; that must be a shared understanding among the parties.

A basket of commodities, as I have outlined that case here, is thus to be understood as a shared commitment to do good. *The issue of economy is, therefore, not the exact price to be placed on any commodity, but the good will expressed in the way a reasonable estimate of a fair price is adopted.* On that basis, a reasonable price for a unit basket of commodities, will be the right price in practice.