EIR Feature

DEFICITS AS CAPITAL GAINS

How To Capitalize A Recovery

by Lyndon H. LaRouche, Jr.

Today, as then, the personable and the popular sway the public; today, as then, little men with little minds loom too large for the public good.
—Hanson Baldwin, 1960.[1]

December 19, 2005

Very often in life, not only individuals, but even entire nations, are ruined, because they, like the foolish King Croesus, had been content to ask the wrong question, and then interpret the answer in a way which caused the ruin which they brought upon themselves. For example, even leading governments, such as our own, have frequently, like ancient Croesus, accepted the answer they had received when they had asked the wrong question of an inherently unreliable source. Such sources are typified by Federal Reserve Chairman Alan Greenspan, or the sundry actually, or implicitly Synarchist representatives of the ever-Delphic, Mont Pelerin Society and American Enterprise Institute.

The source of our nation's principal difficulties, in facing the presently onrushing breakdown crisis of the world's present monetary-financial system, lies with those delusory habits of mind which have been carried to an extreme during about four recent decades of our nation's decadence, as our republic descended from the world's leading producer society, to today's looted state of post-industrial "services economy" wreckage. Lately, that stubbornly foolish, habituated state of mind has been often expressed among our citizens in an outburst of the type: "You can't put the toothpaste back in the tube."

Meanwhile, any comparison of the physical conditions of life and economy in the U.S.A. during the recent four decades, with the rate of improvement of physical

1. "Warfare and Civilization," Prefatory Essay for Thucydides' ***The Peloponnesian War*** (New York: Bantam Books, 1960).

Franklin D. Roosevelt Library

President Franklin D. Roosevelt's mobilization of U.S. industry for the war effort was not, contrary to some fantasy-ridden arguments, inherently inflationary. Indeed, his methods hold the key for what must be done today. Here: Production of bombers at the Douglas Aircraft plant at Long Beach, Calif. in 1942.

standard of living and productivity during the first two post-war decades, demonstrates that the post-1968 change to a "services economy," has been, consistently, a disaster for our nation's physical economy, the source of the ruin of our nation's credit, and the cause for the collapse of the conditions of life of the lower eighty-percentile of our family-household income-brackets. So, we must view the lessons to be learned from the spectacular ruin of the region which includes the physical economies of the western parts of the states of New York and Pennsylvania, together with the entire state economies of Michigan, Ohio, and Indiana (**Figure 1**). Across the nation as a whole, the situation has been usually a trend in a similar direction.

However, even despite the follies of President Truman and the terrible advice of Arthur Burns, the U.S. economy rebuilt by President Franklin Roosevelt's leadership, remained the most successful economy which had ever existed, until the aftermath of the assassination of President John F. Kennedy. It was not only the launching of the long U.S. war in Indo-China which ended that economic progress; the downward plunge was caused by the increasing influence, especially from about 1968-1972 onward, of a newborn, post-war generation of Ivy League-trained and kindred graduates who had been trained, like Pavlov's dogs, in the sophistry of delivering approved answers to the wrong questions.

Until that ruinous change begun during the late 1960s, we had officially believed, more or less explicitly, in measuring the performance of our economy by the standard of rates of improvement of physical performance for the nation as a whole. In saner times, we would accept measuring that in terms equivalent to per-capita, and per-square-kilometer terms. However, what was to become the leading aspect of the rising adult generation of the late 1960s and the 1970s, with its hostility to "blue collar" industrial operatives, farmers, and hard physical science, had turned, like Croesus, to Delphic oracles; so, with our descent into the ruinous effects of a shift toward a so-called "service economy," we ruined ourselves, and brought the present threat of a plunge into a planetary new dark age upon ourselves.

It is, of course, inevitable, that things will change, from generation to generation. It is not inevitable that they should have changed for the worse, as they have done during most of the recent forty years. Unfortunately, those habits of mental outlook and behavior which have been acquired through the experience of those recent four decades, cling, like a chronic disease, even when, as during the most recent decades, our hungry popular desire for reclaiming a long lost past prosperity may be strong. Only now, when the pain becomes seemingly unsufferable, when people awake, as if sitting up suddenly in bed during the night, to shout, "We just can't go on like this!" a certain quality of hesitant feeling of nostalgia for better times past, prompts more and more of our people to remember the way we did things in a better time, decades ago.

So, more and more among our people have a growing, more or less despairing sense that, "We have lost about every-

thing!" Despair does not breed optimism; but the perception of hopeful alternatives has a strong attraction, as now, when faith in recently fashionable illusions is being greatly weakened, as under five dismal years of the "Bush 43" Administration.

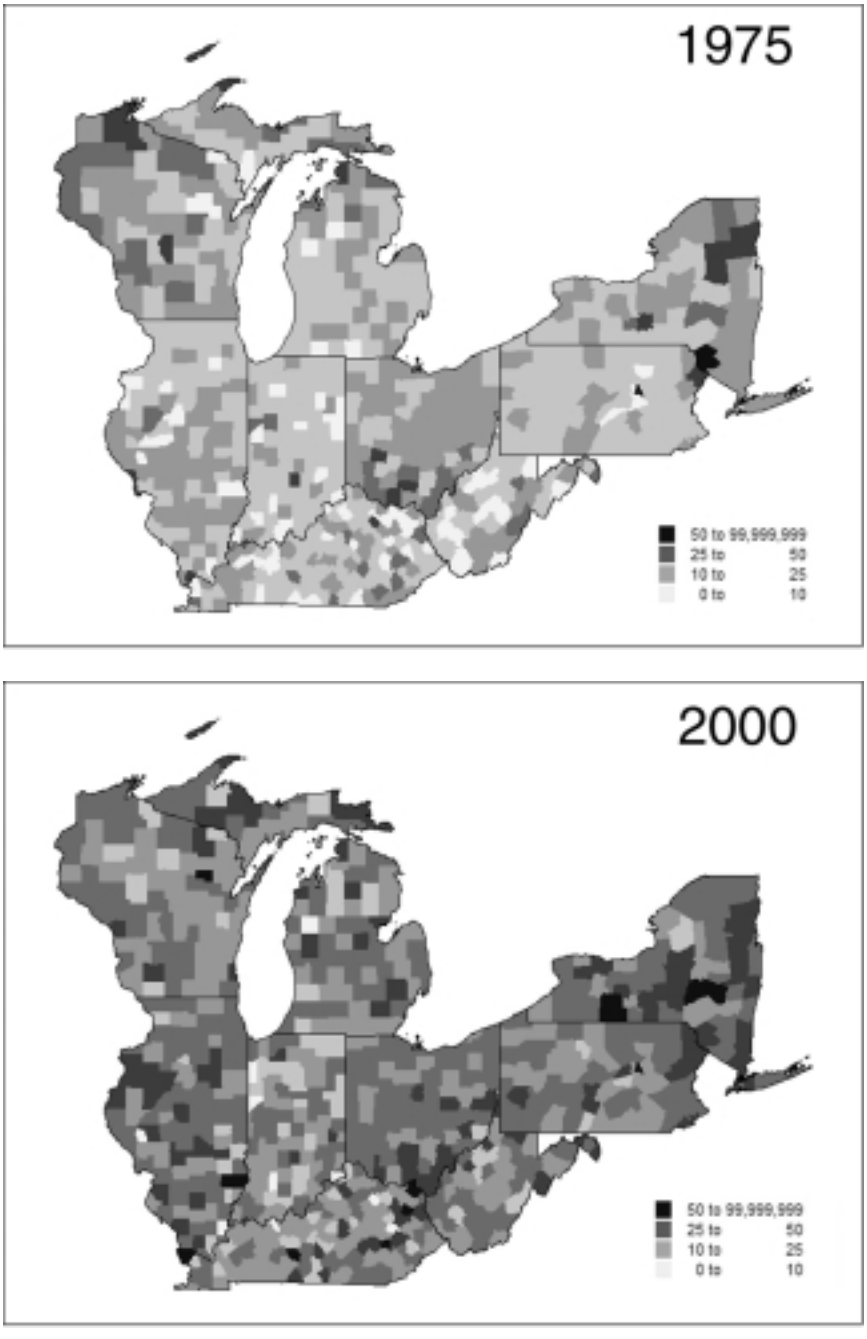
The Franklin Roosevelt Legacy

Those better times of about forty years ago, are typified, more immediately, by the long wave of economic recovery set into motion under President Franklin Roosevelt. "Better times," is typified by the fact, that despite everything else, the first two decades of the post-war period were, on balance, a period of physical improvement in the standard of living in the U.S. economy and western Europe, in particular. The fact is also clear, that the regulations of economy established under Roosevelt were continued through the Presidency of John F. Kennedy, and would have been continued by President Johnson, but for the Indo-China war.

Often, today's difficulty in discussing the 1933-1964 interval as a whole, has been a certain widespread confusion about the actual causes for the admittedly costly, inflationary burdens which the U.S.A. carried into the post-war period, as a leftover of the cost of defeating Adolf Hitler's warfare. The fact, that a vast effort was made, a vast debt accumulated, in funding a war in which the United States deployed the greatest military force in all history over (actually) more than four years, has been misused to argue that "big government" and FDR's capital-funding measures were inherently inflationary. The argument that Roosevelt's economic polices caused this inflation, is a fantasy of those minds which failed to take into account the sheer tonnage of wealth deployed in support of each soldier or sailor in service, and that this, for the most part, was blown up, or simply wasted in warfare, rather than invested as capital improvements in post-war economic life.

FIGURE 1

Upper Midwest—Rise in Services Workers as Percent of Workforce, 1975-2000



Source: Bureau of Labor Statistics. Map produced by Mapinfo.

Imagine that we had made capital investment on a comparable scale for capital productive improvements, rather than for the waste left behind by warfare. With our minds so refreshed by that proper view of the matter, turn our attention to what can, and must be done, to lift the level of useful output of the U.S. economy back above breakeven levels today.

For that purpose, consider the whole experience of the

period from Roosevelt's inauguration through foolish President Nixon's embrace of vice-promoter Bernard Mandeville's fanatical follower Milton Friedman. Honest people would have also considered that useful anomaly which should be considered in looking back to the interval following the inauguration of President John F. Kennedy and his commitment to the successful manned Moon landing.

What Kennedy did, with his ingenious commitment to a scheduled landing of man on the Moon, was to utilize the post-Sputnik science-driver revival under President Dwight Eisenhower, to unleash what proved, within less than a decade, to be the most effective science-driver contribution in modern times, to increase the productive powers of labor.

Those proposals by Presidents Eisenhower and Kennedy came in a time when we were committed to a "fair trade" policy, of promoting long-term investments in the progress afforded by development of basic economic infrastructure and science-driven entrepreneurship. Unfortunately, by the time that the Moon landing occurred, the post-1968 trend in U.S. opinion had been abruptly shifted toward a "free trade," rather than "fair trade" outlook. This cutback in the long-term development of the space program, had begun when the science-driver program had been cut back to a critical degree in the U.S. Federal budget of 1967-1968. The prompting of that cutting back of the budget for the most successful economic-growth-driver in modern history, the Kennedy space program, was the fruitless, ill-conceived U.S. war in Indo-China. Had the foolish plunge into an unnecessary, unjustified war not occurred, there would be none of that particular plunge into general misery, which has ruined the U.S. economy since the riots of the 68ers back then.

It was not actually that war itself which caused the presently worsening downward trend of our national economy since 1972. It was the launching of the Indo-China war, as a detonator, which unloosed the intended effects of that mass-brainwashing which had been already done among a crucial stratum from among a part of the population's generation of children and youth associated with influence of not only the "white collar" and "organization man" cults of the 1960s. There was also the deeper impact of the program of brainwashing, that of the Congress for Cultural Freedom, which had targetted the Baby Boomer generation born during approximately the 1945-1950 interval. It was as that segment of the Baby Boomer population, as echoed by similar effects on the corresponding generation in Europe, especially those typified by the U.S. Ivy League students, which cracked, like freshly hatched eggs, during the late 1960s, to produce the newly privileged layer of an adult generation whose increasing influence made possible both the election of President Nixon and the general cultural paradigm-shift responsible for the pattern of deliberate ruin of our economy during the recent term of nearly forty years.

Then, Monetarism Came Like a Wave of Treason!

Soon, by the time Zbigniew Brzezinski had left his post as National Security Advisor, the lingering continued benefits of the NASA program were being dwarfed by Brzezinski's Trilateral Commission program of a "controlled disintegration of the economy." We had looted the economy with the Indo-China war, and had then wrecked the foundations of our post-Hoover prosperity with the combination of the 1971-1972 shift to a ruinous, floating-exchange-rate monetary system, and the systemic, 1977-1981 destruction of the internal economy of the United States under Zbigniew Brzezinski's Trilateral Commission.

The Nixon Administration's effects on the economy were ruinous over the long-term; but this ruin was centered, most immediately, in the continuing effects of the policies of George Shultz and Henry Kissinger on the international financial-monetary order. Brzezinski's Trilateral Commission rampage was focussed upon a more conspicuous, direct, "deregulation"-driven destruction of the U.S. internal economy.

This brings us to the bellwether case of a notable agent of foreign influence, Felix Rohatyn. Rohatyn, a protégé of the infamous Lazard Frères/Banque Worms, Synarchist clique of Nazi-occupied Europe's Adolf Hitler years, suffers the misfortune of being a most conveniently relevant example of the way in which alien forces have succeeded as far as they have in prompting our United States to destroy itself.

Look at the relevant highlights of our national history. When the imperial forces of the Anglo-Dutch Liberal system established themselves as the leading imperial power in Europe, with the February 1763 Paris treaty establishing London's victory over the continental powers engaged in the so-called Seven Years War, the faction which thus took power in Britain, proceeded to attempt the destruction of the economy of the English colonies in North America. The 1776 propaganda-tract of Adam Smith, a lackey of Britain's Lord Shelburne, states the policy of "free trade" by which the destruction of the U.S. economy has been intended by Anglo-Dutch Liberal monetarist interests, from that 1763-1776 interval, to the present day.

With the defeat of London's Confederacy puppet, by President Lincoln's U.S.A., the United States then freed from the debilitating ruin of the London-controlled U.S. slavery-system, emerged rapidly, over the 1865-1876 interval, as the most powerful nation-state economy the world had ever known. We had become strong enough that no one could hope, as London had tried repeatedly, to destroy us by outside force; they could only destroy us through corruption. At the same time, especially from 1876-1878 onward, many nations, including leading nations of continental Eurasia, such as Germany, Russia, and Japan, had adopted key features of that American System of political-economy associated with the teachings and practice of Alexander Hamilton, Frederick List, and the Henry C. Carey who had steered the transformation

of the economy of Japan and had participated directly in the adoption of those policies of social welfare and agro-industrial development adopted by Chancellor Bismarck.

On this account, the European faction determined to destroy the growing global influence of our American System of political-economy, a faction rallied behind Victoria's son and heir Edward VII, prepared to plunge all of Eurasia into a continental war, later known as World War I, a war whose object, as had been intended by Britain's Edward VII, was to destroy continental Europe once again, as Britain had done with the Seven Years War and the Napoleonic wars. Two royal dupes, the nephews of Edward VII, played the role of chief fools, together with the virtually idiotic Austrian Emperor, in unleashing that war.

National Archives

The Vietnam War quagmire, 1966. That war was one of the events used to brainwash the Baby Boomer generation, into accepting the cultural paradigm-shift toward a "post-industrial society."

Similarly, the same London-centered forces which put Adolf Hitler into power in Germany, had intended to complete the ruin of Eurasia's political powers by Nazi Germany's attack on the Soviet Union, an attack initially intended to occur without participation of President Franklin Roosevelt's U.S.A. It was only when London discovered, reluctantly, that Hitler was going to strike westward, first, before attacking the Soviet Union, that Churchill and others turned in desperation to help from the U.S.A.

So, when the Soviet system began to disintegrate, in 1989-1990, the British and French heirs of Britain's Edward VII moved through Britain's Thatcher and France's Mitterrand, to either prevent the reunification of Germany, or to virtually destroy its economy, as has been done through the Maastricht agreements and the imposition of that step toward "globalization" which was the creation of the Euro.

The point of continuing urgent relevance today, is, that once Hitler's forces had been defeated, those who had been our republic's traditional European enemies, the Anglo-Dutch Liberal financier establishment of Europe, were determined to destroy that U.S.A. of Franklin Roosevelt, which they now most hated and feared. This intention was set into motion, with complicity of the same relevant financier interests inside the U.S.A., which had initially joined the Bank of England's Montagu Norman in putting Adolf Hitler into the role of dictator in Germany, but which had turned against Hitler only when it was discovered that Hitler was not going to attack the Soviet Union first.

Typical of the forces behind Hitler before and during the period of World War II, were Paris-based Lazard Frères and its associated Banque Worms Cie. These were typical of the forces committed to the ruinous subversion of the U.S. achievements under President Franklin Roosevelt once the war had ended. These were the forces which used President Harry Truman, but hated Eisenhower, Kennedy, and also France's President Charles de Gaulle and Germany's Chancellor Adenauer, and their economic and related policies. That was what happened to us, especially during 1961-1964. This was what President Eisenhower had warned us against, which he identified then as "the military-industrial complex." Confirmations of Eisenhower's warning were the "Bay of Pigs," the attempted assassinations of President de Gaulle, the scandal orchestrated to make way for Britain's future Prime Minister Harold Wilson, the British orchestration of the ouster of Germany's Adenauer, the assassination of President Kennedy, and the launching of Robert McNamara's War in Indo-China. These were the events, prepared by the subversive work of the so-called Congress for Cultural Freedom, which brainwashed a generation born largely between 1945 and 1950, to play the role of the "68ers" at leading institutions of higher education in the U.S.A. and Europe.

So, from 1971 onward to the present day, the international Synarchist financier interests, represented typically by former backer of the Nazi veterans' Pinochet, Felix Rohatyn, have been moving to destroy the U.S. economy, as Adam Smith had intended the "free trade" policy designed to ruin the American colonies' economy, as presented in Smith's 1776 attack on the U.S. Declaration of Independence. So, we, beginning 1971-1981, moved to destroy the productive physical economy of the U.S.A. in favor of a proposed new world financier-run empire called "globalization."

How We, Like Athens, Decayed

In all European history, nothing is better seen as the typical precedent for the way in which subversion has destroyed our republic since the death of Franklin Roosevelt, as the way in which a campaign of sophistry in the tradition of the

Delphic Apollo cult, led the corrupted young adult generation of ancient Athens to lead Athens to its doom through the Peloponnesian War. The U.S. war in Indo-China, and, the Bush-Cheney war in Afghanistan and Iraq, are apt choices for historical comparisons with the Peloponnesian War. Now, as in the case of ancient Athens, it was popular, democratic opinion of the type praised by the Congress for Cultural Freedom, which has now nearly destroyed our republic, as ancient Athens was destroyed by that Sophist's faction known then as "the Democratic Party" of Athens, similarly, during the lifetimes of Socrates and Plato. It has been what we term "the Baby Boomer" generation, in key positions of power today, which had been the chosen instrument of forces such as those behind the neo-sophist Congress for Cultural Freedom, whose intended brainwashing of the upper family-income percentiles of the Baby Boomer generation, was to perpetuate our republic's virtual national suicide.

The changed ideas about economy, from the "fair trade" and "general welfare" principles of the nation's founders and Franklin Roosevelt alike, to the "free trade" route into the physical self-destruction of our economy today, is the crucial feature of the way a generation, especially of the influentials among the "Baby Boomer" generation, had been virtually brainwashed into misleading us, like legendary lemmings, into the mass-suicide of global civilization today. Newt Gingrich had at least the insight which he expressed, in a celebrated January 1995 meeting, to describe his ascent to power within the House of Representatives, as part of a Synarchist orgy modelled upon the treasonous Jacobin Terror which ruined France in that time.

The case of the unfortunate Felix Rohatyn is a useful illustration of the relevant connections behind the threat from the European Synarchist tradition to the continued existence of our republic today.

There was a time, when our 1776-1783 national victory in the war against the British Empire, established us as a beacon of hope and temple of liberty for all mankind. In essentials, no other nation of this planet has actually succeeded in matching that role so far. We did not achieve this because of some magical feature of our autochthonous development. We were a creation of the best intentions of the leading minds of European civilization as a whole, those Europeans who sought to establish a precedent here, for reforms in Europe yet to come.

For historical reasons which could not be rightly considered obscure in any degree, what we achieved, and have maintained thus far, despite both internal and external efforts to ruin us, has not yet been replicated in Europe, nor among the other republics of the Americas. Our mission for humanity, as a nation, is not to be an empire, but to be the pace-setter, as President Franklin Roosevelt had also intended, to foster the post-war emergence of the moral adulthood of humanity, a world of sovereign nation-state republics, committed to liberation from all forms of oligarchism (including that of poor Rohatyn), colonialism, and empire. We represented a nation committed to the general welfare of all humanity, through the mediation of promotion of the sovereign self-development of each national culture to its highest available level of potential. That global mission was always, implicitly, our national mission, our most essential national self-interest, as it is today.

Nothing could rescue us now, but our unflinching lurch into restoring the institution of those principles, that mission, upon which the greatest past achievements of our republic were founded. We have, embedded within our institutional traditions, the instruments of policy-shaping by which to prompt the establishment of a concert of principle among the presently troubled peoples of the world, a principle based upon that immortal quality of the human individual which survives passing by death, the immortal outcome of a mortal life which is intended to serve as the foundation upon which others achieve the greatness to come.

There are those, like that unfortunate victim of a moral delusion, Felix Rohatyn, who prefer their deluded choice of a predatory way of life, to the great commonwealth principle upon which our republic was founded. They have a seemingly unquenchable, invidious impulse to cause us to destroy ourselves. It is moral corruption of that sort which Rohatyn merely typifies in his European Synarchist style among us today, which is the internal corruption, the great danger to civilization today.

The essential evil typically expressed by the current proposals by Rohatyn, is the belief in money as anything more than merely paper money, as the people of the Seventeenth-Century Massachusetts Bay colony, among my ancestral family, knew of such matters back then.

1. The Basis for a Federal Capital Budget

In earlier publications, such as my "Vernadsky and Dirichlet's Principle" and "The Principle of 'Power,' " I have summarized the evidence, which shows that a competent economic science bases the functional notion of economic value on the physical principles of Gottfried Leibniz's science of physical economy, rather than money as such. This reliance, by me, on the principles of physical economy, rather than monetarist "free trade," expresses the principled point of difference between the superior American System of political-economy and those inferior, specifically European monetary systems, which are currently premised on the Eighteenth-Century, Anglo-Dutch Liberal tradition of regulation of the economic practices of governments by private central banking systems. The latter systems are typified by the Bank of England, or, much worse, the European Central Bank. The follies of the U.S. Federal Reserve System, especially since the ruinous changes introduced during the 1971-1981 inter-

val, are a reflection of the alien influence of the British system.

The monetary systems associated with contemporary European central banking, are outgrowths of the medieval form of European imperialism, which is to say: the *ultramontane* system of monetary imperialism which was jointly dominated by Venetian usury and the brute force of Norman chivalry. The modern version of that feudal system, the so-called "new Venetian" tradition set by Paolo Sarpi's faction, has served as the basis for that Anglo-Dutch Liberal system of financier imperialism which emerged during the Seventeenth Century, a system which became the leading imperial power on the planet with the 1763 Treaty of Paris, the treaty which established the British East India Company of Lord Shelburne et al. as such a power. The American Revolution was prompted as a defense, led by Benjamin Franklin, of the economic rights of the people of the English colonies in North America, against London's efforts to crush the economies and former liberties of the colonists. That essential point of difference persists in that principled fact to the present day.

FIGURE 2

Major Tomato-Producing Greenhouse Sites In North America, for U.S. Consumption, Under 'Free Trade'

Source: U.S. Department of Agriculture, *Amber Waves,* April 5, 2005.

As a result of the 1782-1814 orchestration of the French Revolution by the British East India Company's Lord Shelburne, et al., our freshly founded U.S. republic was isolated, from approximately Summer 1789 on, from what had been its principal continental European allies. The included effects of that relative isolation were such, that the economic role of the U.S.A. itself came to be, relatively, more or less dominated in the arenas of world trade and finance, until 1931, by the hegemonic influence of the imperial power centered, globally, in the Bank of England's gold standard. Over the 1763-1931 interval as a whole, this global power associated with the City of London came to be concentrated less in the power of Great Britain's United Kingdom itself, than the multinational syndicate of private bankers associated, as both partners and rivals, with the Bank of England. The principal continental rival and partner of the Bank of England on this account, came to be centered in Paris, in the Venetian-style, slime-mold-like gathering of private bankers which has come to be associated with the name of that Synarchist International which was the chief coordinator of the continental fascist regimes of the relevant 1922-1945 interval.

Later, with that counter-revolution against our American System, which was conducted, by Synarchist financier influences, during the terms of Presidents Nixon and Carter, the power over the U.S. economy was returned to an anti-American, European monetarist mode of international monetary system. It was this implicitly treasonous submission to European-style monetary and pro-fascist (e.g., Synarchist) institutions, which did not directly cause the present ruin of the U.S. economy and its financial system, but made that ruin possible.

For example, the "fair trade" system, which was still a standard of intelligent U.S. management practice during the 1950s and early 1960s, was an apt, if admittedly most imperfect reflection of the American System of political-economy. Our government's programmed, protectionist mode in economic relations in international trade, was an indispensable feature of the protection of a "fair trade" policy for farmers and other entrepreneurs, and for the Federal states and smaller communities of which these entrepreneurs and their employees were a part.

Under the terms of Presidents since Nixon, the shape of direction in our national and international practice, has been regulated, to the present date, by an increasingly radical, pro-Synarchist form of a traditionally usurious, and implicitly anti-U.S.A., Anglo-Dutch Liberal "free trade" system. (See **Figure 2.**) The effect of the Nixon Administration's intentional wrecking of the Bretton Woods system ruined the world economy. The 1977-1981 Brzezinski Administration set promptly into motion the destruction of the internal economy. The indispensable, physical capital investments of the farmer and closely held enterprises, were no longer protected from the effects of forced competition with slave labor, especially with virtual slave labor conditioned among the majority of populations of those nations with which we were engaged in foreign trade.

TABLE 1

Import Share of U.S. Food Consumption Is Rising, By Weight, 1981-2002

Food Groups	Average Percent				Percent in 2002
	1981-85	1986-90	1991-95	1996-2000	
Total Food Consumption	9.0%	9.7%	10.5%	12.0%	13.0%
Animal Products[1]	3.4	3.7	3.5	4.1	5.3
Red Meat	6.7	8.1	7.3	7.7	9.5
Dairy Products	1.9	1.8	1.9	2.5	3.5
Fish, Shellfish	50.9	56.0	56.0	64.4	78.6
Crops and Products[2]	14.0	14.9	16.1	18.2	19.1
Fruits, Juices, Nuts	21.0	26.6	27.3	28.6	31.0
Vegetables	4.9	6.0	5.5	8.0	9.6
Grains and Products	1.7	2.9	5.6	5.9	5.3
Vegetable Oils	15.5	17.6	17.4	18.0	15.5
Sweeteners, Candy	35.8	25.6	29.4	34.2	28.0

1. Includes poultry meat; animal fats.
2. Includes coffee, cocoa, and tea whose import shares are 100%; and beverages.
Sources: U.S. Department of Agriculture; U.S.Census Bureau.

Thus, as one of the world's leading economists of that time, Henry C. Carey, showed, it had been the free-trade policies of the post-1815 period, policies imposed by Britain, chiefly, through London's channels in New York City banks, which led to the British Empire's ability to promote chattel slavery, and the consequent Civil War, inside the U.S.A. The explosive economic growth of our economy under President Lincoln, was caused by the abolition of that system of slavery in the U.S.A. which had ruined our national economy's performance during the preceding decades. The abolition of slavery, in favor of protectionist policies characteristic of our original constitutional system, made possible a growth which led to the adoption of crucial features of our superior American System, in Japan, as in important nations of continental Europe.

Nonetheless, as our Federal Constitution provides its arrangement, under the American System of political-economy which we established in opposition to the European systems existing at that time, the only proper authority for uttering money in circulation within the U.S.A. is the sovereign authority of the U.S. Federal government. This specificity of monetary policy under our constitutional system of government, is traced, as a tradition of practice, from the pre-1689 Massachusetts Bay Colony and the prescriptions for establishment of a paper money by such leaders as Cotton Mather and his follower Benjamin Franklin.

Under our own constitutional system, when followed, money is a form of credit employed as a medium of circulation, as in trade, rather than as a presumed standard of value. Systems of regulation by government, such as tariffs and other regulation of trade, use of Federal credit, and taxation itself, provide a sound government under our Constitution, with the means and tools of regulation by which the value placed on goods in circulation is intended to be kept within a range of variations in price of money which is consistent with the relatively stable values in trade and long-term investment.

In our history, the best rates of growth, especially growth from temporary conditions of economic recession, have been due to the use of the power to create long-term credit, by the Federal government, as under President Franklin Roosevelt, for example. These means have fostered the formation of long-term productive capital of the combined governmental and private sector. This has depended chiefly on the monopoly of power of the Federal government, to convert its directed forms of long-term Federal deficit into the security afforded by the creation of corresponding productive, long-term assets of states and private entrepreneurs, which has enabled us to generate the needed surge of capital formation to overcome depressed economic conditions, such as those currently prevalent within the nation as a whole.

The essential distinction is, that under the American System, physical values are primary, while regulatory measures are properly used to regulate the thus derived value, the latter as associated with the use of money as a medium of circulation through trade. Despite all else to the contrary, the American System of political-economy is the only rational standard for establishing and managing a physically successful economy in existence over the long term: since then, up to the present day. The post-war revival in Europe, especially the exemplary success of the early two decades post-war Germany's recovery under the Bretton Woods system, is typical of this principle of the American System. Without a resumption of the tested principles of the American System of political-economy, there is presently no possibility of escape from the general, global economic breakdown-crisis threatening the planet at this moment.

Under this American System, the value of money is regulated to conform, in the functional effect of its circulation, with the realities of relative physical value, rather than nominal monetary value. Value so defined is to be measured as a physical value, per capita and per square kilometer, over the entire territory of a nation, or of the planet as a whole. To aid in accomplishing this, there must be a stable money-system, or set of such respectively sovereign money-systems among nations, under which the value attributable to money is stabilized in approximate conformity with long-term trend-requirements for *relative physical* values.

As I shall emphasize, at a later point in this report, by physical value, I do not mean in the crude, but currently popular opinions of reductionists. I mean that the only competent

standard of value is that measured as *the physical effect* produced by an improvement of the type represented by the realization of relatively, man-discovered higher principles of physical power over the conditions of human life and of human practice. This is an effect to be measured by estimation of *the increase of potential relative population-density of the economy as a whole,* a potential which must be measured as a dynamic whole, as Leibniz did, rather than in the scientifically incompetent, Cartesian mode.

Consider the challenge facing the virtually financially bankrupt U.S. and European economies today in that light. Focus upon the case of the U.S.A. itself. Ask, then: *What is a competent approach to establishing and maintaining a U.S. Federal Capital Budget—as distinct from a slop-jar package which lumps short-term and long-term balances together indifferently, in a single silly lump, as a common budget?* It must not be a budget like that of recent U.S. national practice, such as that of Bushes "41" and "43," one whose outcome suggests it might have been designed by unbalanced minds.

Long-Term Capital Investment

About half of the annual product of a healthy modern nation-state economy, should be tied up in capital and related expenditures for creation and maintenance of investments in long-term physical improvements of what should be viewed as the public sector of the total economy. Under our republic's original, and continuing American System of political-economy, this investment in the public sector is expressed as a division of labor among Federal, State, County, and Local government. Although some of this public expenditure passes through, or into forms of private ownership, such as bond-holdings in a regulated public utility, the responsibility for public infrastructure considered as an integral whole, lies with our system of constitutional government, as this intention for the development of the economy as a whole was described by our first Treasury Secretary, Alexander Hamilton: most notably in his 1791 Report to the U.S. Congress ***On the Subject of Manufactures.***

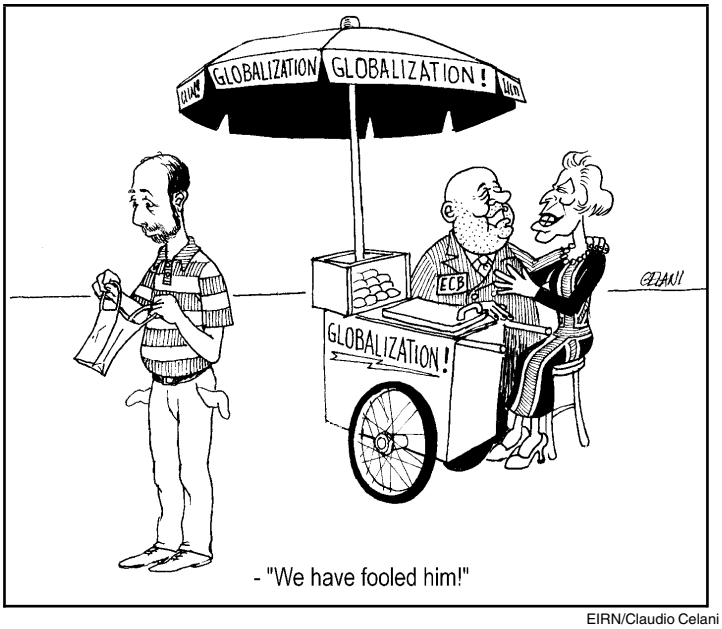
This aspect of the total economy can not be competently addressed in terms of a simply annual budget by governments. The most essential forms of investment in an economy are typified for today, by the idea of a quarter-century's lapse between the conception of a new individual and the age of maturity as a university graduate with specialist qualifications. A lapse of a quarter- to half-century of physical "life" (i.e., two such generations) of an investment in infrastructure, is typical of most major public investments of this indispensable, long-term type.

Thus, capital budgets of competent governments, like those of well-managed private entrepreneurships, are dominated by the crucial category of long-term expenditures for acquisition and maintenance of these essential physical investments.

Thus, our American System of political-economy, unlike those prevalent in Europe still today, is not lawfully based, constitutionally, on a so-called "independent central banking system," which is a mere monetary system; rather, our constitutional system requires a Federal monopoly over the utterance, and management of a system of national credit. When our constitutional system of national credit is effectively defended, the Federal government utters currency, as credit, for maintaining levels of useful employment, including the provision of essential capital, in the form of credit, for basic economic infrastructure. However, competent followers of our American System today, will also emphasize that a great part of the annual investment of Federal credit must be steered into useful development of long-term physical improvements in basic economic infrastructure and in promoting similar long-term investment among suitable private entrepreneurs.

Therefore, the most crucial economic element of the American System, is the role of Federal credit in promoting the investment in development and maintenance of essential public elements of the nation's basic economic infrastructure, while promoting long-term investment in private entrepreneurial ventures of a type which are to be desired in the general interest. This action is premised on the crucial, constitutional principle of our system, that the creation and issue of legal currency, is a monopoly of the Federal government. This is also the case in practice when, as under Franklin Roosevelt's Presidency, devices such as the Reconstruction Finance Corp. (RFC), were used as a vehicle for accomplishing this result. The Franklin Roosevelt Administration, and the combination of the Eisenhower "post-Sputnik" and Kennedy manned Moon-landing science-driver programs, are exemplary.

The greatest part of these various public and private forms of capital investment are long-term investments of up to a quarter-century, or longer. Thus, the creation of monetized national credit, represents a debt; much of this debt is, once again, long-term debt. As long as the financial debt itself is not postponed to a point beyond the useful physical life of the capital investment, that debt will probably continue to be useful and worthy. *Therefore, it would be, and is virtual idiocy, to treat long-term Federal credit created in this way as if it were the cause of an imbalance in current Federal accounts.* The current European monetary system presents us with a radical extreme of the foolish practice of treating long-term capital investment as if it were merely part of annual costs. Indeed, under conditions in which the level of nationally produced output is below the level of national requirements, treating long-term capital investments as short-term obligations, as we have tended to do under the misguided President George W. Bush, Jr., for example, would be rightly considered as recklessness verging on insanity, as the results of his administration, to date, have demonstrated this with most painful effects for the nation at large. The U.S.A. under Bush has gone to extremes in capitalizing unpaid current-account foreign obligations, as the long-term indebtedness of a current national account deficit, while aborting virtually all long-term forms of productive capital investment within the U.S.A. itself.



EIRN/Claudio Celani

Presently, every economy in North America and Europe is operating at physical-economic levels far below breakeven. Our private banking systems are generally deeply bankrupt. Nothing but the generation of appropriately applied long-term public *credit, could enable us to avert a great and global financial-economic catastrophe.* Otherwise, the conditions created since the October 1987 U.S. stock-market crash, through the accelerated escalation in various uses of the "John Law" tradition of sheer gambling debts known as so-called financial derivatives, when combined with the effects of increasing trends into globalization, have created a condition of ripeness for a global chain-reaction collapse comparable in effects to Europe's mid-Fourteenth-Century New Dark Age.

Thus, we must treat current notions of a "balanced Federal Budget" as either the work of unbalanced minds, or as a calculated measure taken by enemies who would wish to induce us to destroy ourselves by such means.

It is time to discontinue monetarist dogmas such as the cult-belief in so-called "free trade" and "globalization."

End the Cult of 'Flea Trade'

Mrs. Joan Robinson aptly ridiculed silly Professor Milton Friedman as an economist of a "post hoc, ergo propter hoc" cult-belief. The intellectually wretched Friedman has identified himself, variously, as a follower of a crude Eighteenth-Century plagiarist of Bernard Mandeville, Adam Smith, a Smith who, with most generous disregard for the impediments of honor, also plagiarized the Physiocrats Dr. François Quesnay and A.R.J. Turgot. The fact that Quesnay and Turgot were scoundrels on their own account does not improve the judgment to be passed on that swindling predator, the silly so-called Professor of Moral Philosophy, Smith. As noted, Friedman has also identified himself as a cult-follower of the notorious Bernard Mandeville, the resident figure of worship among the present-day devotees of the Mont Pelerin Society. So, Friedman has proposed that the general welfare depends upon the benefits of absolute freedom for the Mandevillian practice of such private vices as prostitution, pushing of illegal traffic in drugs, and gambling.

It might be beyond the development of Friedman's limited mental powers to recognize that the actual system he is following, is that of still another, truly satanic scoundrel of notably original capabilities of criminality, the one-time head of the "secret committee" of the British Foreign Office, Jeremy Bentham, the author of many evils, such as the defense of usury, including the utilitarian dogma which dominates the customary, corrupted and incompetent doctrines taught as economics, to the credulous, in university classrooms today,

For those able to think about these matters in a scientific way, the history of economy has demonstrated repeatedly, that there is no principle intrinsic to the free circulation of money which could assure an appropriate relative price of anything. As the leading British Haileybury School figures taught Karl Marx, cycles of "boom and bust," although not actually ten-year spans, are inherent in the fact that price and physical economic value do not coincide over the long term. The reliance on sundry forms of regulation of foreign and domestic commerce, by government, has always been shown necessary to prevent the relatively anarchic movement of prices and of credit from leading into a fresh outbreak of a cyclical form of economic catastrophe. Among the functions which regulation provides, is the protection of the formation of useful long-term capital and of investment in valid discoveries of physical principle, from the ravages of a speculative "free trade" market. In former times, we have referred to this policy of protectionism as a "fair trade," as opposed to an invariably ruinous "free trade" system, the latter better described as the "flea trade" system epitomized by today's customary traffic in the trash which is often identified, most outrageously, as "modern art."

The system of regulation set into motion under President Franklin Roosevelt, which was continued until 1971-1972, succeeded in controlling the crisis-movements, to the effect of preventing an actual depression, within the national economy during that time. The moment these regulations were lifted, under such among our foolish governments as those of 1969-1972, a succession of ominous crises has broken out, like the October 1987 crisis which was, in effect, an echo of the 1929 Hoover depression. New ways were added to the repertoire after October 1987, but these new ways have had the result of exchanging the 1987 threat of a Hoover-style boom-bust event, for the present threat of a dark-age-style general breakdown-crisis akin in type to that of Europe's mid-Fourteenth Century. Without the still available option of eliminating the free-trade/globalization system, global civilization would, in fact, soon be plunged into a global breakdown-crisis. How-

ever, even at this advanced stage of the present, appropriate regulatory measures, of the type intrinsic to the American System of political-economy, could afford the world an escape from the presently looming catastrophe.

When we refer to principles of government, we should be speaking of two distinct things in a single breath. On the one side, we are referring to principles which have the connotation of universal scientific principles; at the same time, we are also referring to principled policies of government, policies which are the kind of approximation of science-like principles which are politically feasible choices under reachable current conditions. President Franklin Roosevelt's reforms, which rescued us from the ruinous effects of the Coolidge and Hoover Administrations, were approximations, as the case of his use of the RFC attests. The danger in choosing unavoidable approximations, is that governments often lose sight of the true principles whose effects they are attempting to approximate. For example, the degeneration of Athens into Sophistry led to Athens' self-inflicted ruin in the Peloponnesian War; and, we experienced the similar effects of the unprincipled reign of a Congress of Cultural Freedom's style of existentialists' truth-hating sophistry: as in the U.S. plunge into the long war in Indo-China, and the wrecking of the U.S. economy under the radical sophistries of President Nixon's Administration and the 1977-1981 reign of Zbigniew Brzezinski's Trilateral Commission.

To emphasize a point already referenced above: one of the worst of the curses which the United States inflicted upon its economy over these recent decades, was the attempt to confine the U.S. government's power to create credit within the Procrustean bed of an annual "balanced Federal budget." This sophistry of a "balanced annual budget," combined with the effects of a floating-exchange-rate monetary order, had an effect on the economy of the U.S.A. comparable to an overrunning of crucial parts of Europe by Attila the Hun and Genghis Khan.

The world is presently in a condition in which the current international monetary system is worse than bankrupt, and under which the administration of "Bush 43" has pretended to be building an empire, when what it has actually doing for itself, is digging a deep pit. Like the imperial Belshazzar, the Bush Administration stupidity is measured in the units of its "Schmittlerian" arrogance.[2] That Bush's Administration has bankrupted the United States itself to such a degree, that our nation's economy would soon be plunged into what were not merely a deep depression, but a systemic collapse, if we did not reverse existing economic and monetary policies more or less immediately. The threat of a sudden collapse of the mortgage-based securities bubbles in the U.S.A., the United Kingdom, and elsewhere, is only typical of the "thermonuclear"-like quality of explosive potential presently permeating the entirety of the financial-derivatives-polluted, international monetary and financial systems.

The implicitly hyperinflationary wave expressed by the presently reigning global influence of financial-derivatives speculation, means that the present world monetary system squats now at the brink of extinction, unless we were to take prompt action to put our own U.S. system into a state of radical reorganization, back to the tradition of the Roosevelt, Eisenhower, and Kennedy Administrations' emphasis, in 1933, 1958, and 1961-1963, on the role of public credit in launching successful programs of economic prosperity during those times.

Unfortunately, only the U.S.A., among leading nations of the world, were presently capable of prompting what is presently the urgently needed reform of both its own and the international monetary systems. Our peculiar advantage on that account, is a heritage of the historically defined character of the 1787-1789 design of our unique quality of Federal constitutional system, notably our Constitution's explicit rejection of what is, unfortunately, the still prevalent European style in central banking and in related practices. Therefore, not only must we use the occasion of the currently implicit bankruptcy of our present Federal Reserve System to save ourselves from chaos here; we must also meet the need for tangential reforms, of the same type that we must prompt, among the leading powers of not only the Americas, but of Eurasia, too. Our ability to launch such an urgently needed global economic reform, is explicitly provided by our Constitution; but, the implicit feasibility of realizing those provisions of that Constitution, lies in the fact, that this constitutional principle is, if presently unconscious, nonetheless, a deeply embedded, volcanic potential lurking in what are, admittedly, now, the chiefly unconscious impulses of our national history.

My included mission here, is to make those special powers of our national legacy conscious among our citizens, once more.

2. The Price Is Never Right!

The trouble is that virtually no accountant living today, and only a few professed economists, know what an economy really is, in scientifically functional terms. Admittedly, disciplined financial accounting is necessary; but, it has virtually no independent competence within the domain of economics. In other words, contrary to present forms of modern European monetarist dogmas, money as such neither has, nor could have *intrinsic* bearing on determining the functional standard of economic value. To state the same point otherwise: "The price is never right!"

2. "Schmittlerian" signifies the doctrine of Nazi *Kronjurist* Carl Schmitt, the architect of the policy under which Hitler was awarded dictatorial powers following Hermann Göring's setting fire to the Reichstag. This same Nazi doctrine of "unitary" power, is the avowed policy of the Federalist Society and of both President Bush and Vice-President Cheney presently.

To speak of this distinction in technical terms: real economic processes are essentially physical processes, rather than the imputed monetary processes treated not only by the accountant, but, unfortunately, also so treated by most economists today. Such prevalent ignorance of the actually ontological nature of the subject-matter of economy, has been largely responsible for promoting the state of almost mass-suicidal, increasing foolishness which most of the major changes in U.S. economic policy-shaping, in particular, have represented, increasingly, during nearly four decades to date.

The essential problem, is that most of that recent practice of economic analysis, has proceeded, like contemporary statistical financial analysis, from the standpoint of a scientifically incompetent method, that of a Cartesian method of reductionist thinking; whereas, actual economic processes are both physical and dynamic in Leibniz's sense of those terms. Since they are, therefore, anti-Cartesian in outlook and method, any attempt to represent economic processes in the statistical terms of today's typical empiricist practice, is intrinsically incompetent from the outset.

For example: those who accept those prevalent, incompetent methods of statistical forecasting which are, unfortunately, widely preferred today, seek to predict a date of a certain event; whereas, in real life, free will and other complexities of economic and related processes usually prevent successful predictions of that simplistic type, the type associated with a Cartesian statistical method. *In real life, the most crucially important kinds of foreseeable changes, occur not as mechanically defined events, but as critical phase-shifts in the dynamic configuration of a process, as a qualitative change in choice of intended destination down the road ahead.*

So, accordingly, I have successfully demonstrated this point repeatedly in my own forecasts, which have been, when made, competitively the most accurate pattern of foresight made available to the public during more than four decades to date. In real-life, the copy-cat-like similarities among the mathematical methods of prediction used by hedge-funds currently, threaten to bring them all down simultaneously when they collapse, as they, as the related mortgage-based securities bubbles, must, soon.

Again: competent forecasting treats economic processes as dynamic, as I do, rather than statistically systematic. That is the principal reason that the recent performance of most of my putative rivals has been so consistently a failure. They have failed, because they approached the subject of economics mechanistically, in reductionist terms, and therefore failed to grasp the dynamic (rather than the Cartesian-like methods, whose influence has fostered the present threats to both the U.S. economy and that of the world at large).

In any case, the proper function, and useful mission of financial accounting, is that of a tool of a limited competence. Decent accounting is to be defined as merely a subsidiary feature of administrative functions, an accounting function which is to be rightly subordinated, categorically, under the broader heading of "regulatory measures." The fixed-exchange-rate monetary system established under the original Bretton Woods system, as defined under the direction of the U.S. President Franklin Roosevelt Administration, is an example of the indispensable regulatory measures which must supersede, and thus govern the practice of financial accounting. The way in which money is used within the day-to-day practice of the economy, must be regulated in this and related ways. *The proper principal function of financial accounting, is to assist in ensuring an indispensable type of temporally local conformity with regulatory measures.* These are regulatory measures which, in turn, are intended to steer the various categories of physical transactions within the economy, to conform to the effects specified as the intent of lawful economic, rather than financial-accounting terms of regulation of the economy process as a whole.

Thus, the practice of the function of financial accounting, must be regulated by not only outward conformity with the physical-economic intent of the government's regulatory policies; it must be steered by an understanding, and acceptance of the principle underlying that intent. The citizen may do as he or she will with the use of money, but only within the bounds of the condition, that the nation's currency is not used in a way contrary to the constitutional intent expressed by the government's lawful creation and issue of money into the processes of circulation. The current standards of regulation must not be violated.

Under a modern nation-state economy which is free of the inherently poisonous, Venetian customs of usury, money can exist legitimately under natural law, only as a creation, a property, and a responsibility of the sovereign nation-state republic. However, that function of government is, itself, accountable to the people as a whole, through the agency of a system of representative government which is committed to submit its deliberations to the supreme constitutional principle of the promotion of the general welfare of all present generations and their posterity.

The people must therefore control that money, politically, a money which is the property not of the individual possessor, but of the government by the people as a whole. Competent judgment by the will of the people on this account, is to be defined by the supreme constitutional principle of any modern European form of sovereign state, the *commonwealth* form of sovereign nation-state: a state and its population committed to the principle of the general welfare of present and future generations. *Otherwise, money has no legitimate, natural-lawful existence in a modern form of actual civilization, except its role as a governmental instrument created to promote the general welfare of present and future generations.*

This is not some arbitrary feature of positive law; regulation, insofar as it conforms to the fundamental constitutional principle of the modern sovereign form of nation-state, *the commonwealth society's supreme principle,* that of *the gen-*

eral welfare of the living and their posterity, is the characteristic restriction which defines a civilized form of modern nation-state *anywhere,* in any choice among national cultures past or present.[3]

Ontologically, as physical processes, real economic processes are to be mapped as Gottfried Leibniz prescribed the *dynamic character* of the founding principles of a modern *science of physical economy,* rather than as the British system and Karl Marx defined an anti-dynamic, mechanistic system of a Cartesian type. *Dynamic* is also to be understood as the term is employed by V.I. Vernadsky, as in 1935-1936, to define the characteristic of living processes generally.[4] These ontological distinctions have a character which parallels Carl F. Gauss's exposure, in the 1799 publication of his doctoral dissertation, on the subject of what he later named "The Fundamental Theorem of Algebra," on the crucial point of scientific incompetence on that subject in the work of Euler and Lagrange.[5]

A Fresh Approach Is Needed

However, unlike earlier centuries of modern history, now, in a modern form of a world economy of the Twenty-First Century and beyond, with now over six billions living individuals on this planet, and with the rate at which we must rely increasingly on relatively poor raw materials as starting-points for production, we must look at economy as Vernadsky defined the Biosphere and Noösphere. That means that we must now include among the costs of all production, the physical cost of maintaining *a global equipotential of the relative cost of human effort* in reliance on so-called "raw materials," and respecting the development of the basic economic infrastructure used to support the habitation and production by the peoples of the nations.

What has not changed much on that account, is that the potential for the continuing existence of society has always depended, for as long as the human species has existed on our planet, on the raising of the *qualitative* level of productivity of the total human species, per capita and per square kilometer of total territory. *This performance has always required the expression of the powers of the human mind which do not exist in lower forms of life, which do not exist in such lower forms of life as the higher apes: the power to make and employ a discovery of a universal physical principle, either as a physical principle as such, or as a comparable principle of Classical artistic composition.* Thus, what is often identified as a "traditional" mode in society, is a self-doomed form of culture, by definition; only a society which is committed to raising *the level of the per-capita productive power of the whole population to a higher order of principle,* through the use of discoveries of universal physical principles by individuals, can prosper for long. Mankind can survive as a species, only through those advances in practice of discovered universal scientific principles, by means of which the level of the net productivity of labor per capita is maintained against the attritional forces of marginal depletion of the relatively richest natural resources.

This consideration, when applied to the present and implied future state of world society, obliges us to look at the economic function of sovereign nation-states from a qualitatively more rigorous standpoint than was a tolerable standard during earlier portions of modern times.

Looking at the patterns of population and standard of living in Asia, for example, we are confronted, in the bellwether cases of India and China, with situations in which the superficially apparent, simple competitiveness of those economies within the present global, and "globalized" scheme of trade, currently depends upon keeping about seventy percent of the population, and of corresponding portions of the national territory, in actually or potentially desperate states of poverty. To lift the standard of living in Asia to those which stable economies and systems of government will require for the two generations immediately ahead, and beyond, there must be a radical upshift in the prevalent standards of living and of physical productivity, both per capita and per square kilometer. This means, among other considerations, a relatively large increase in per-capita rate of consumption of so-called raw materials, and, also, the related need for both extensive and intensive improvements in the quality of the general and immediate environments.

Those immediately foreseeable requirements mean a large increase, globally, in what is, currently, the *relative* cost of raw materials, as cost of raw materials would be defined in terms of currently prevailing levels of physical productivity measured, relatively, in terms of per-capita and per-square-kilometer rates today. That increase in cost would be unbearable, unless the per-capita social cost were pushed down by successive leaps in employed scientific technologies. That is to say: unless those per-capita costs were reduced to percentile levels significantly below present physical costs as measured per capita and per square kilometer.

This requirement means heavy emphasis on economic planning; but, that does not mean "Marxist planned economy." For example, in the Marxist system, which, as Marx and the Marxists generally have always insisted, is a derivative of the British system of political-economy. Among the Marxists generally, as in the British system itself, there is no comprehension of a kind of required, physical, profit-rate

---

3. The modern sovereign form of nation-state, as implied in Plato's ***Republic*** and in the work of Dante Alighieri, was first realized under the impetus supplied by the European Fifteenth-Century Renaissance, as typified by Nicholas of Cusa's ***Concordantia Catholica*** and the impetus of his ***De Docta Ignorantia,*** and in the establishment of the first true, modern nation-states, the *commonwealth societies* of France's Louis XI and England's Henry VII.

4. Cf. Lyndon H. LaRouche, Jr. "Vernadsky and Dirichlet's Principle," ***EIR,*** June 3, 2005. See also "LaRouche Dialogue With Youth: The Principle of 'Power,' " ***EIR,*** Dec. 23, 2005.

5. *Ibid.*

Clipart.com

The superficially apparent competitiveness of the Chinese economy, in a globalized world, depends upon keeping about 70% of the population in poverty. Reversing this will require a huge increase in per-capita consumption of raw materials, for one thing.

which the present condition of the world's population implies.[6] There is no comprehension of the fact that it is the *intellectual* progress contributed *subjectively* by solitary individual, creative intellects, which generates the increased rates of productivity, as by scientific and technological progress, on which an actual margin of gain in output depends. We must therefore return, now, to that science of physical economy, as defined by the scientist Gottfried Leibniz, which informed the development of the American System of political-economy of U.S. Treasury Secretary Alexander Hamilton, et al.[7]

Freedom and Necessity Presently

The human individual and his, or her society, are bounded in two qualitatively distinct, but interdependent ways. The individual is bounded by the conditions which are characteristic of the society at a certain time and phase in the latter's development; but, the society depends, for its continued existence, upon the development which is derived solely from those perfectly sovereign creative powers of the individual mind. The latter are the powers whose existence was denied absolutely by such errant modern mathematicians as the empiricists Euler, Lagrange, and their followers, and also the radical empiricists of today. So, the society as a whole and the creative mental powers which exist not in the society as such, but, *ontologically,* only in the individual person, not the society as a whole, combine as distinct, but interdependent, interacting forces, to produce a combined result known as history.

The successful continuation of the existence of any culture depends upon revolutionary changes in the culture which are generated only by the creative powers of relevant individual persons. It is the transmission of those creative discoveries, to other individual persons, as by the science-driven, indispensable machine-tool-design function embedded in our aerospace and automotive industries, from their discoverers to others, through which economic progress occurs. This depends absolutely upon discoveries such as the universal physical principles, and also strictly Classical artistic culture based upon Classical intentions and principles of composition, as both of these types are associated with, and typified by the ancient Pythagoreans of Greek culture, which transform society, by raising it to a higher quality of existence.

Only the suitably developed cognitive powers of the human individual, can produce, or reproduce the act of discovery of an experimentally demonstrable type of universal physical principle: a principle of the universe. It is the application of those discoveries, which, alone, demonstrates the difference between the human individual and the beasts; it is only through the discovery and use of those principles that man rises culturally, or, if you prefer, economically, above the level of pigs, monkeys, and apes.

Mankind, as expressed by the membership of a society, depends upon raising the relative level of use of existing discoveries of universal physical principles; but, society can not exist in a civilized form, except through adopting the benefits of those additional discoveries of universal physical and Classical artistic principle which can be produced solely by the sovereign powers unique to the individual human mind.[8]

---

6. Karl Marx was aware of the American System of political-economy, notably the work of Frederick List and Henry C. Carey, but was pushed back, repeatedly, by Friedrich Engels, into attacking the American System in rather strong terms, while defending the British system as the virtually only "scientific" basis for thinking about political-economy.

7. For example, in Vol. I of his ***Capital,*** Karl Marx points out that he is excluding the implications of "the technological composition of capital." The doctrines of price and value derived from Marx's being duped by erroneous British Haileybury School presumptions on that account, are key for understanding the long-wave tendencies for collapse of a Soviet System which adapted itself, especially from Khrushchev on, to ideological trends radiated from locations such as the Cambridge School of the followers of Bertrand Russell et al. It was only in the military and related realm of physical science, that the Soviet system "violated" that naive view in which the contemptibly ridiculous Adam Smith was considered a scientific mind.

8. For music, the combined Classical tradition of Pythagoras, the Florentine *bel canto* definitions, training, and use of the human singing voice, as the legacy of J.S. Bach's method of counterpoint, and of Haydn, Mozart, Beethoven, Schubert, Mendelssohn, Schuman, Verdi, and Brahms typify the anti-Romantic and modernist schools of composition and performance, is typical of the standard of distinction for artistic composition in the plastic and non-plastic media as a whole. The distinction lies in those ideas which, like universal physical principles, are not directly subjects of sense-perception,

The truthful scientific and Classical-artistic modes of such discovery of original principle typify, and govern the principle of leadership by individuals, the same principle of creativity demonstrated by the ancient Greek Pythagoreans, Plato, and other anti-reductionists, on which the progress of humanity continues to depend, and, as a matter of universal principle, will always depend.[9]

The notion of a sovereign national body of constitutional law derived from natural law, depends absolutely upon that universal set of natural distinctions embodying, thus, the body of universal natural law. This notion of that relationship is therefore summarized as the notion which the Classical Greek of Plato's ***Republic*** names *agapē,* the principle of *agapē* of the Christian Apostle Paul's ***I Corinthians*** 13, which is known in modern European natural law as that principle of the general welfare on which the existence of the modern sovereign nation-states has depended since Nicholas of Cusa's ***Concordantia Catholica*** and ***De Docta Ignorantia.*** This is the principle upon which the first modern nation-states, the *commonwealth* societies of France's Louis XI and England's Henry VII, were premised, the principle of universal natural law upon which the entirety of the U.S. Federal Constitution is premised, a Constitution subsumed by the Preamble's principle of *the general welfare.*

Although that principle is ancient, there are certain universal, but nonetheless presently little-known principles of science involved, in what must now become the present, modern application of this set of functional relationships defined by the general welfare principle of natural law. I have summarized, and discussed these in locations published earlier. To leave no intelligent reader behind, I summarize the essential conceptions here.

The discoveries presented by V.I. Vernadsky divide what we Earthlings know as a physical universe among three respectively independent, but interactive principles. These are represented, in ascending order of rank, by: first, the experimental domain of non-living processes; second, the domain of non-human living processes, the *Biosphere;* and, third, the domain of higher living processes, which he named the *Noösphere.* The Biosphere uses materials it selects from what experimental method recognizes as the non-living domain, but produces an ostensibly non-living fossil residue which is qualitatively distinct from that generated by non-living processes. The Noösphere—human cognitive activity—uses materials of the Biosphere and pre-biotic residues, but also generates its own specific fossil residue, a residue which is functionally, qualitatively distinct from the residue of the Biosphere. In the relationship among the three domains, the Biosphere increases as a percentile of the mass of our planet, and the Noösphere increases relative to both the abiotic domain and Biosphere.

So, the Biosphere reflects the action of a principle which does not exist in those processes associated with the abiotic domain. *Only life can produce life.* The Noösphere reflects the action of a principle which does not exist otherwise within the Biosphere, the principle of individual human cognitive action. This principle of individual human action, as typified by the individual's discovery of an experimentally demonstrable universal physical principle, is the characteristic feature which distinguishes the human species absolutely from lower forms of life. *As only life can produce life, so, only cognition, a principle distinct from life otherwise, can generate cognitive processes.* Implicitly, a single instance of pairwise action of each of these two types of principles, were sufficient to set the corresponding process of development into motion.

These three principles are dynamically interactive, but nonetheless respectively distinct, and independent in respect to the nature of their existence.

These three discovered universal physical principles, as typified by Kepler's uniquely original discovery of universal gravitation, are demonstrated to be efficient in the universe. Therefore. we know, as Albert Einstein did, that *the universe, since it embodies the principle of creativity, is mathematically finite and without bounds external to it.* To recast Einstein's argument as I have done for the science of physical economy: it is finite and self-bounded, as by the personality of a universal Creator whose willful creation of the universe bounds it. It is a willful creation which the human individual may imitate.[10] Hence, we have, once again, the notion of man and woman as made equally in the image of the Creator.

Thus, we have the principle of the continuing efficiency of the creative powers of the Creator, as Philo of Alexandria rebuked the Aristoteleans of his time. As a knowledgeable rabbi might say, as Philo of Alexandria might have said: God will send the Messiah when He decides to do so, not according to the opinion some poor ignorant fellow, running about waving a piece of paper, saying, "I have a contract with God!" So much for that poor fellow's notion of a pre-set timetable of history. To which it should be added, most of the chores which ignorant people demand of the Creator, are now mostly chores which the Creator has assigned to us to perform.

As for the poor fellows racing about, wild-eyed, "I have a guarantee that Jesus is going to pay my mortgage!" They would be wiser to consider what God expects of them, if they wish to enjoy His good graces. It is time for the whiners and whimperers to grow up and accept their responsibilities for

but which, like the principle of gravitation discovered by Johannes Kepler, order that which is observable as a transcendental ordering of effect, as in the role of the Bach method of counterpoint in choral works.

9. Lyndon H. LaRouche, Jr., "The Principle of 'Power,' " ***EIR,*** Dec. 23, 2005, *passim.*

10. This notion of a self-bounded universe, self-bounded by a principle of creativity, can be understood in physical science terms, but only from the standpoint of Riemann's notion of Dirichlet's Principle. See LaRouche, "The Principle of 'Power,' " *passim.*

care of the conditions of mankind and our planet. As the Gospel prescribes, it is time for these cry-babies to present the proceeds of their assigned talent on this account!

This ontologically certain existence of such a manifest relationship between the creative powers and responsibilities of mankind and the Creator, therefore constitutes what may be termed, ontologically, a "Fourth Domain," above the abiotic, the Biosphere, and the Noösphere, in that order. That much said, the remainder of that line of argument on that "Fourth Domain," is now left to the theologians (including the great theologian Plato), as we focus our attention here on the relevant, subsumed, physical principles of economy.

The considerations, so outlined, define a congruence between the notions of human freedom and truth. Truth exists, typically, only in its expression as experimental physical science defines an experimentally validatable universal physical principle as the paradigmatic expression of truthfulness. This is encountered in Classical modes of artistic composition as it is in physical science. The act of discovery of a universally valid universal physical principle, is the paradigmatic expression of what the word "truth" must be intended to express.

In other words, the experimental discovery of an efficient, universal physical principle, is the paradigmatic definition of truth. The claim of sincerity is no excuse for lying, even for very popular lies. The application of validated discoveries of principle, as in the science-driven development of the productive powers of labor, is the exemplification of the practice of truth. Any rejection, or evasion of that principle of truthfulness, as the existentialists Theodor Adorno and Hannah Arendt did, is the work of a liar.

Any competent science of economy must, therefore, place the emphasis upon revolutionary improvements in the principles being employed, while treating other actions taken in that context as secondary and derived, rather than the determining characteristics of the economy being considered. Otherwise, economics would be merely one more study in the subject of animal ecologies. Indeed, the problem is, that the prevailing scientific illiteracy of our times, even in the U.S.A. itself, assumes, at least implicitly, as a typical accountant might do today, that economy is merely a variety of behavior specific to the domain of animal ecology.

On this account, my own original discoveries in the field of a Leibnizian science of physical economy, were premised on a rejection of both Euclidean geometry and of the related doctrines of Cartesian mathematics for physics. I based my work on recognizing that my own discoveries in this field coincided, within the body of taught physical scientific practice, with the work of Bernhard Riemann.

The human species is a willfully self-developed species, or, what might be described as a species undergoing upward *qualitative* evolutionary development by force of cognitive will, by discovering and applying new universal physical principles, principles through which mankind's potential power to exist according to its own nature, is based on becoming, so, in effect, a higher species by act of will.

In the history of European civilization, that view of mankind's potential for willfully upward evolution as a species, is traced for us today from the ancient Greece of Thales, the Pythagoreans, Solon of Athens, Socrates, and Plato. However, the mode of physical scientific investigation on which the permanent contributions to knowledge of those forebears is premised, is what is known as *Sphaerics,* as in opposition to the relatively degenerate form of what is known as Euclidean Geometry.

This method of *Sphaerics,* which addresses the principle of creative discovery of universal principles directly, is traced from the ancient Egyptian predecessors of those Greeks, who developed this method from a basis in the exploration of the astrophysical domain. The principle expressed by *Sphaerics,* the uniquely sovereign individual's principle of creativity, or what the Pythagoreans and Plato defined as *dynamis* (powers), has always been that nature of the human species which distinguishes man from beasts; the conscious recognition of that principle and its practice, is a later discovery of our species, a discovery embedded in some ancient time before our present reckoning.

It is mankind's relationship to the universe, as I have referenced the notions of the abiotic, Biosphere, and Noösphere here, which is the essence of a science of physical economy, a notion of that science which is presently indispensable in shaping the practice of nations and peoples during the generations immediately ahead of us now.

'Infrastructure'

For mankind to come into existence on our planet, certain preconditions must have been satisfied. The Solar System and its planets must have undergone a certain development, including the system of development of plant and animal life to a state in which man's existence as cognitive man might find the planet suitable for the existence of our cognitive form of species. For example: until living processes had generated the oceans and atmosphere of an oxidation phase of our planet's surface, and until mammalian life had appeared, the preconditions for man's autochthonous emergence and development of the human species from "primitive conditions" had not been satisfied.

As a practical matter, our attention is focussed, most immediately, on the known conditions, and preconditions of systems of human activity since the melting of what had been the hundred of thousands of years' accumulation of glaciation in the Northern Hemisphere, since approximately 20,000 years ago, especially since the emergence of known history more than approximately 10,000 years ago. A general insight into the adducible principles of physical economy, should impel us to consider the effects of the rising of the levels of the oceans, the long wave of desertification in northern Africa, Asia Minor, and so forth, and changes in modes of social organization and activity which correlate with sustainable

Clipart.com

Education of the young for competence related to technological progress, was crucial in the achievement by Europe and the Americas of the degrees of progress which they enjoyed prior to the downturn that began in 1971-1972.

increases in level and standard of living of various populations in various regions. So, mankind's reciprocal relationship to its environment is to be emphasized.

The most notable feature of this prehistory/history of these developments, is the fact that the relatively most developed cultures we encounter in these ancient times, were maritime cultures whose primary offshoots appear as transoceanic or kindred riparian cultures, later as up-river cultures, and, only with the appearance of the railroads during the Nineteenth Century, lead toward the still ongoing general development of the inland territories away from the principal waterways.

Compare the general pattern of the recent 10,000-odd years with the case of the development of the U.S.A. into the world's first transcontinental nation, between Atlantic and Pacific oceans, and its Canadian and Mexican borders. The functional integration of the nation was accomplished through waterways, and then railroads, and then with electrical power networks. Similar patterns are found within Europe.

It is through the raising of the physical and cultural standard of living and education of the young, that Europe and the Americas achieved the relevant degrees of progress which they enjoyed prior to the general decadence and downturn which has gripped those territories at accelerating rates since approximately 1971-1972, and, most emphatically, since 1977-1982. Since then, the collapse of the U.S. economy itself, like parallel degeneration of the organization and culture of Europe, has been associated prominently with the combination of attrition, through neglect, of basic economic infrastructure, of standards of the general welfare, and a cessation of technological-progress-driven development of the physical production of those types of goods and of education related to technological progress in such production. Indicative is the withering-away of the former prevalence of an efficiently productive development of the state of mental potential of populations of Europe and the Americas during the recent period of approximately four decades, as the 1963 report on education by the Paris office of the OECD typifies the trend of moral degeneration in European development of the minds of the young.

This recent four decades of decadence in the post-1945 societies of the Americas and Europe, the period, dating more conspicuously, from the aftermath of the assassination of U.S. President John F. Kennedy and the launching of the U.S. war in Indo-China, illustrates the significance of the development and maintenance of what is termed "basic economic infrastructure" in both the standard of living of the population and in its productive powers as measurable per capita and per square kilometer of total territory.

Look at the physical degeneration of the economy of the U.S.A., the Americas as a whole, and Europe, since the 1971-1981 downshift of the economies into the combination of an intrinsically inflationary floating-exchange-rate monetary system and a shift of the internal economies to a "post-industrial, services-economy" mode [see *Appendix*, p. 41]. This shift occurred under the influence of a long wave of movement away from a modern nation-state economy, toward a form of "globalization" which is now reaching the point of becoming a parody of the form of European society during the medieval period from about 1000 A.D. through the Fourteenth-Century plunge of Europe into a "New Dark Age."

Until recently, some of the worst effects of the "post-industrial" and "pro-globalization" policy-trends of the 1971-2004 interval, have been masked temporarily by the fact that the major capital investments of a well-developed modern economy are in the relatively long-lived, major capital of agriculture, industry, and basic economic infrastructure. These physical capital investments have a physical-economic life of from approximately one to two, or more generations of a quarter-century each. Typical of the long-term capital which has been withering away from disuse, degeneration, or lack of replacement over the recent period of nearly four decades, have been mass transport, power generation and distribution, health-care systems, educational institutions, water-management systems, independent agriculture, urban infrastructure, and quality of methods and content of education generally. Nearly forty years of habituated, reckless, and malicious abuse, negligence, and simple waste, have now overtaken the nations of the Americas and Europe, in particular.

For decades, a foolish people of the U.S.A. has been deluding itself with the conceit that the change from a productive economy to a so-called "services economy" was permissible, even desirable. Now, the waste and ruin of nearly forty years overtakes us, as over-aged or collapsed former physical capital confronts us with the fruit of nearly two generations of national folly. If we wish to survive, we must ready ourselves to pay the price of survival; we must go back to being a science-driven, technologically aggressive producer of essential infrastructure, progressive independent farming, and sci-

EIRNS/Stuart Lewis

The neglect of America's urban centers over nearly forty years has turned them into wastelands. Left: An abandoned slum property next to Baltimore's world-class hospital complex, Johns Hopkins Medical Center. Inset: A blighted street in Baltimore.

ence-driven manufacturing. We must draw down the ranks of the unemployed through their entry into the mainstream labor-force, rebuild the essential basic economic infrastructure which we have either destroyed or permitted to wither away, and adopt national missions in development of production which are suited both to our own needs at home, and to what the specific kinds of needs of a growing and developing world will require us to proffer to those abroad.

What is essentially new, is, as I have already emphasized above, the need to go beyond the best U.S. physical-economic practice of the pre-1968 decades of U.S. history, to take into account the need to extend the notion of basic economic infrastructure to include the long-term capital formation of "Earth-Forming," as the indicated work of Vernadsky implies that we can no longer draw down the assets of the Biosphere and Noösphere as natural resources to be exhausted; we must take more and more of the responsibility for not only restoring the planet to the potential of earlier stocks of so-called natural resources; we must not merely replenish resources; we must improve upon what nature had given mankind earlier.

A Lesson From President Kennedy

The program of investment tax-credits launched under President John F. Kennedy, serves as an example of the long-term characteristic of the way in which the American System of political-economy differs from those European models based on the Anglo-Dutch Liberal system of rule over nations by central bankers.

The principle of a "generic" investment tax-credit program is, that the entrepreneur who reinvests profits in capital improvements in the quality of products and addition of fresh physical capital, deserves kinder treatment from the Internal Revenue Service, than the investor who either wastes the profit in frivolous "conspicuous consumption," or whose stockholders take their profits and run into either frivolous expenditures or some form of financial speculation. In our American System, from Benjamin Franklin through Alexander Hamilton, we encourage our citizens and entrepreneurs to save in ways which increase the amount and raise the quality of capital investment in the physical improvement and productivity of our economy as a whole.

So, under the American System, we have, in all of our best moments, used the power of law, including that of taxation, to regulate the relative advantage of doing that which will be an advantage to the present and future of the society as a whole.

The contrary opinion, associated with the wild-eyed folly of Lockean and similar notions of "shareholder value," says that good health belongs to those who can pay for it: a policy which is a terrible folly in the matter of infectious diseases and public sanitation otherwise. So, generally, when our lawmakers and public administrators are not behaving stupidly in that Lockean way, our system of government divides the economy as a whole between public infrastructure and general welfare, as a matter of public administration by government, and the private initiative which operates within the larger domain defined by public administration.

Take the case of the Loudoun County, Virginia real-estate bubble. Loudoun County is a "ground zero" target for the greatest real-estate-speculative bubble in modern world history. Over a broader area, this same bubble, centered in the mortgage-based securities' markets, permeates the national and global network of finance associated with Fannie Mae and Freddie Mac. It is concentrated most intensely in a few nations, not only the U.S.A., England, and Spain; but the weakest, most overstretched part of the global bubble is Loudoun County. *It will blow soon, unless regulatory measures are taken to bring the increasing explosive potential of the bubble under Federal control.*

However, at this moment, rather than looking at the "mega-tonnage" of explosive financial potential embodied in that bubble itself, focus on the way in which this bubble came into being. Compare the approximately thirty-five-year build-up of the bubble around Washington, D.C.'s extended suburbia, with shrinking of the population in the formerly leading industrial area comprised of both the western regions of New York State and Pennsylvania, and Michigan, Ohio, and Indiana.

EIRNS/Stuart Lewis

Loudoun County, a Northern Virginia suburb of Washington, D.C., is a "ground zero" target for the greatest real-estate-speculation bubble in modern world history. Housing prices have doubled or tripled in just a few years—although there are signs that the bubble is beginning to deflate.

It started under National Security Advisors Zbigniew Brzezinski's Trilateral Commission program for "controlled disintegration" of the U.S. economy. The rampage of deregulation launched under Brzezinski's guidance, then set into motion the pattern of national decay which led into the presently explosive mega-tonnage of the real-estate bubbles of locations of population growth such as Loudoun County.

For example, deregulation of railway and highway freight, and air transport, led to the crashing of airlines and the railway system, and to carnage of super-competition in highway transport of freight. The areas of farming and manufacture outside the principal economic centers, as in Michigan, New York State, Pennsylvania, Ohio, and so on, were cut off from equitable access to freight service. Similarly, in most aspects of the economy, the previous dispersal of the population and its economic activities into the areas of each state or region as a whole, was undermined. Virtual ghost towns, which Detroit itself is now threatened with becoming, reflect the migration of the population away from these areas into the congestion and speculation of the type of lunatic suburban sprawl seen around the nation's capital itself.

In fact, as a result of the collapse of the nation's railway system (**Figure 3**), and virtual loss of a continental air-transport system, we are losing the nation, in the sense that no longer, under present trends, can a citizen board a train or plane in one part of the nation, and be delivered reliably to a relevant community in any other part of the national territory. It were as if we had been systematically destroyed by a conquering invader!

The concomitant feature of that same general pattern of the recent nearly thirty years since 1977, is the shift from a producer society to a "services economy." This shift in employment patterns has meant a characteristic collapse of family real-income levels throughout the nation, and an accompanying collapse of the tax-revenue base—per capita and per square kilometer—of that region of the nation and its local communities and regions.

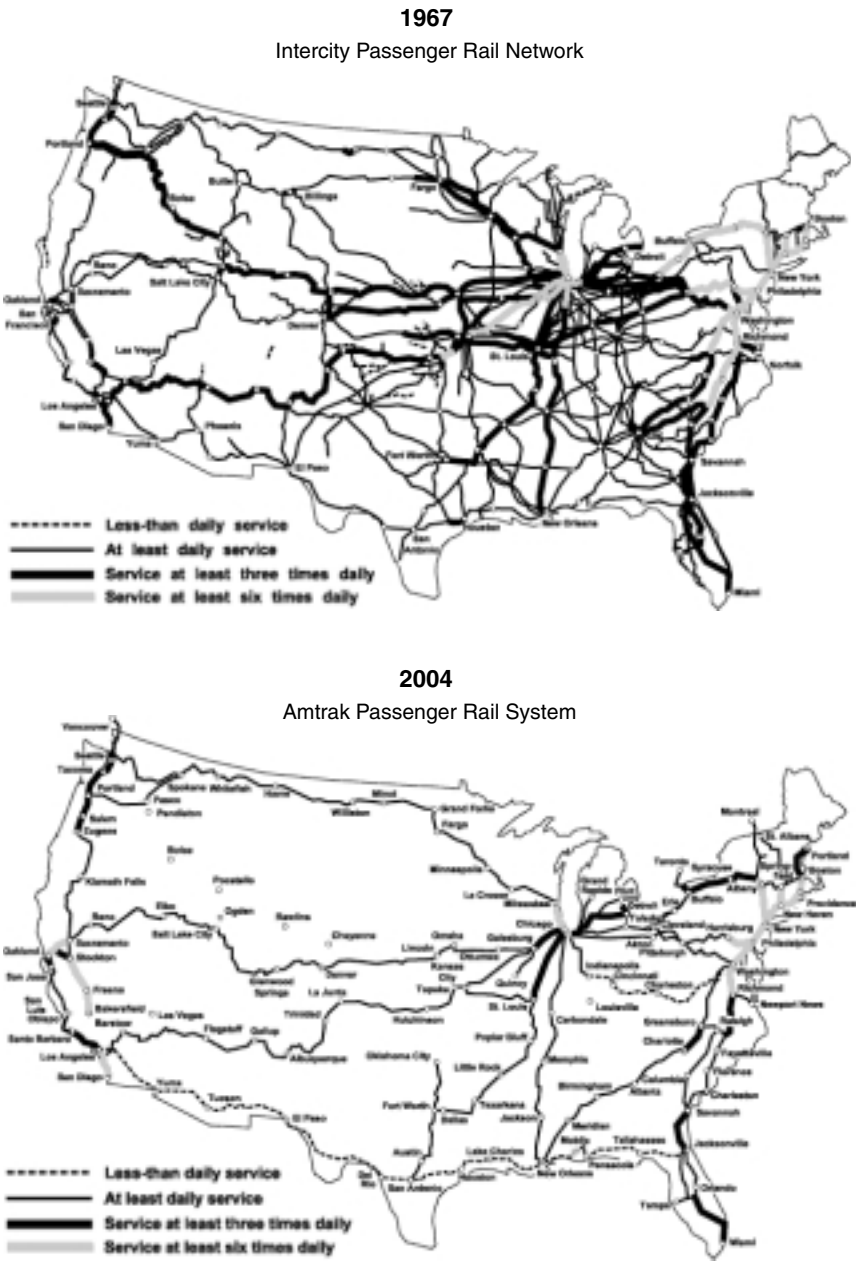
More damage was set into motion within the U.S. by two 1969-1981 administrations, that of Nixon and Trilateral Brzezinski's Carter, most notably, than anything previously experienced since the Hoover Administration. Most notable is the fact that the Kennedy manned Moon-landing program had unleashed the greatest rate of increase in potential productivity of the post-war period, with an estimated ten cents' return to the economy for each penny spent. But for the Vietnam War, and, more significantly, the programs of Nixon and the Trilateral Commission, the Kennedy space program had just launched what could have become the greatest leap in productivity and well-being the world had ever seen.

What ruined us, to the present day, was, principally, the impact of the wrecking-policies of the Nixon and Trilateral Commission administrations. The policies of advisors, the Arthur Burnses, George Shultzes, and Henry Kissingers, which wrecked the international monetary system in 1971-1972, were the measure of deregulation which led to the physical collapse of the economies of Europe and the Americas. It was the deregulation launched as "controlled disintegration of the economy" during Brzezinski's tenure as National Security Advisor, which wrecked the nation's domestic economy.

As a result of these combined radical changes installed as policy-directions, during 1969-1981, as this has been aggravated by the rabid global role of financial derivatives traffic since Alan Greenspan became Federal Reserve Chairman, the banking systems of the Americas, Europe, and beyond, are hopelessly bankrupt in their present pattern of operations today. There is absolutely no solution for the present financial crisis without measures such as the U.S. government taking the Federal Reserve System itself into receivership for reorga-

FIGURE 3

Passenger Rail Grid Shrinks Drastically Over 40 Years, 1967 to 2004



Source: National Association of Railroad Passengers.

Nationwide passenger rail miles fell from 65,842 in 1967, to 22,453 by 2004, a 66% loss. A map sequence of this decline is available from the National Rail Passengers Association, on www.narprail.org. An animated sequence is posted on www.larouchepub.com/animations.

nization in bankruptcy.

We could not tolerate a chain-reaction collapse within the banking system. The doors of the banks must be kept open and the ordinary functions performed with a minimum of inconvenience to depositors and other clientele. A significant period of government-supervised reorganization will be required, during which the Federal Reserve System must function as if it were, in effect, a national bank designed according to the principles of Alexander Hamilton. An efficient system of regulation must be installed; on that basis, a vast amount of long-term investment in basic economic infrastructure must be unleashed, to bring the economy as a whole above breakeven levels.

This could succeed, provided that we return to a reasonable facsimile of the system of regulation set up under the provisions of the great recovery launched during the administration of President Franklin Roosevelt. We must undo the systemic destruction done during 1969-1981; the reversal of the systemic policy-chances launched under Nixon, George Shultz, Henry Kissinger, and Zbigniew Brzezinski's Trilateral Commission, would be a beginning, to which necessary other measures can be added.

The challenge is made clearer by looking at the position of the U.S.A. in the world economy.

Presently, provided the United States now comes quickly back to its senses, the U.S.A. is the only nation of the world which is potentially capable of leading the world as a whole to an escape from the immediately looming threat of something far worse than a mere global economic depression. Without certain changes, a general breakdown crisis of the world system would be inevitable. With appropriate changes in international economic and other relations, essentially modelled on the FDR precedents, a general escape from chaos would occur, and a durable recovery set under way.

This global recovery would be modelled in conception on the Franklin Roosevelt definition of an International Monetary Fund, not the central-banking model of John Maynard Keynes. This recovery would feature long-term treaty agreements of between a quarter- and half-century maturities, thus creating international credit for approved physical projects at simple-interest-rates in the order of 1-2% per annum. Such agreements among sovereign states, would require a return to a fixed-exchange-rate monetary system. The greater weight of such agreements would be focussed upon the development

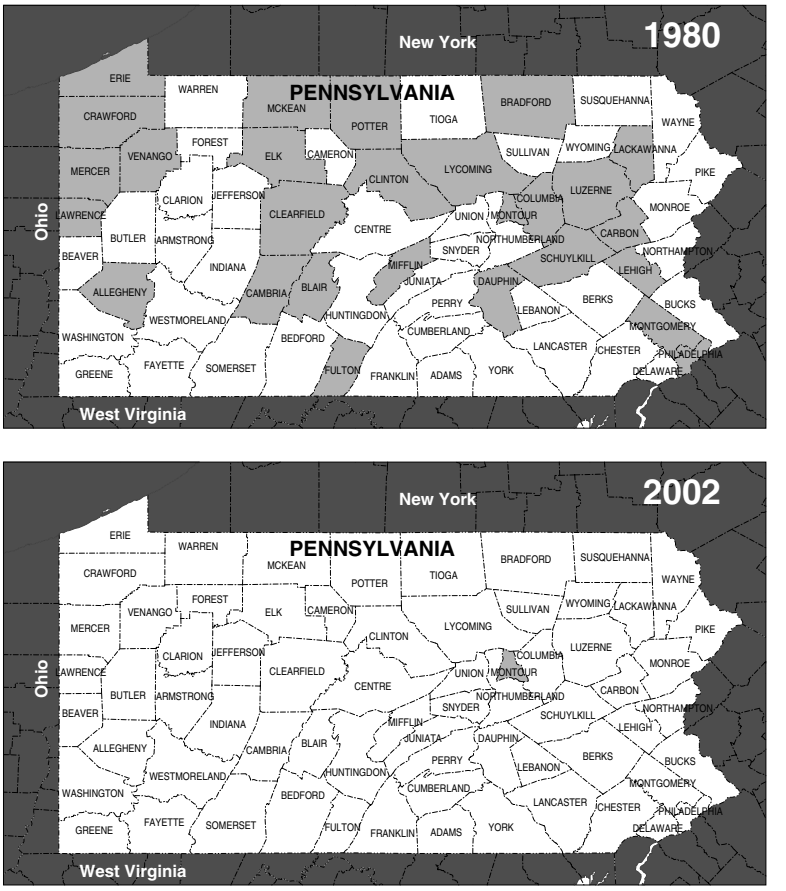
of Eurasia, using the abilities of Europe and the U.S.A. to assist in this technologically, with similar north-south arrangements within the Americas. On the condition that these investments are oriented chiefly to high-technological-gain projects of infrastructural, agricultural, and industrial progress, the new long-term debt created for this purpose would be sound, as the U.S. orientation for rebuilding war-ruined Europe proved sound over the two decades of the immediate post-war interval.

This would mean the virtual end of the present, ruinous global power of the world's Synarchist financier cabals. The world would return to the practice of regulated ordinary banking; the systems of central banking would be ended, and replaced by national banking systems of a type to which Treasury Secretary Alexander Hamilton would not have objected.[11]

The system of economy thus implied is nothing other than the application of the original American System of political-economy to the circumstances of present-day realities: the partnership of the sovereign nation-state's government with the initiative of the private entrepreneur, each partner to that relationship contributing its own specific ability to transmit scientific and related discoveries to practice, each in its own relevant fashion. To that end, we must supply the systems of regulation under which freedom for human creativity in the Classical Pythagorean tradition, the most essential expression of political freedom known in the history of man, rather than speculation, shapes the destinies of nations and their people.

FIGURE 4

Pennsylvania: Counties Meeting Hill-Burton Standard of Hospital Beds per 1,000 Persons



Animation As a Tool

During the recent years, I have prescribed the development of methods of computer-assisted data-animation as a timely tool for understanding, and correcting the way in which the U.S. economy has been self-destroyed over the course of the recent four decades, since the launching of the U.S. war in Indo-China. We have taken the period prior to those decades into account in the comparisons, to show clearly the qualitative phase-shifts which occurred around the radical changes in U.S. official policy under the Presidencies of the 1969-1981 interval.

To establish a baseline for these studies, we began with each of all of the counties of which the territories of the states of the Union are comprised. Primary data available from official or comparable records for each of those years, were taken into account, data which would be sufficient to show a year-by-year pattern of change in physical parameters for all counties. Although financial data were sometimes used to illustrate the often-contradictory relationship between financial trends and real-life physical changes, the argument was always based essentially on physical-economic and related physical considerations, rather than financial statistics. (See **Figure 4.**)

For this purpose, we have followed the precedent of using lapsed-time photography for animations, as used in studies of living processes.

With modern computer speeds and functional digital memory, even with current lap-top models, much of importance can be done which is indispensable in exposing the,

11. Notably, President Andrew Jackson entered that office as a property of the successor, Martin van Buren, of Wall Street banker (and British asset of the British Foreign Office operative Jeremy Bentham) Aaron Burr. Jackson ran on van Buren's policy of appealing to the populists, on behalf of wrecking the second National Bank of the U.S.A., in favor of van Buren's land-bank scam as a proposed replacement. The result was the collapse of the U.S. economy in what is notorious among historians as a kind of "John Law" bubble, as the land-bank Panic of 1837. The opposition to U.S. national banking has always been an operation, directed from European financial circles, aimed at checking, even destroying the economic development of the U.S.A., as the Presidency of Nixon and Brzezinski's Trilateral influence over President Carter's policies were intended to do, during the 1970s.

commonly accepted, but actually radically false opinion about what has happened to the economy during the recent forty years, as compared with the first two decades of the immediate post-war interval. However, we also brought something to this kind of study which avoids the sometimes catastrophic error made in attempts to construct computer models of economy from aprioristic sorts of mathematical models. In prescribing this program of computer animations of physical-economic processes, I avoided the usual error of economic modelling, by taking Johannes Kepler's approach to the discovery of the principle of universal gravitation, as a precedent.

The most significant mapping of sets of actual data in this way, is that which, like Johannes Kepler's mapping of his meticulously corrected version of the data-array left by Tycho Brahe, showed a transcendental-functional pattern in, in that case, the Earth-Mars orbitting of the Sun. Such patterns in relationship among historical data, when the evidence warrants this, have special significance. They betray the presence of a transcendental principle of action. Notable are patterns which show changes for the better, or for worse in the set of principles operating to determine the actual economic trajectory. It is such "non-linear" patterns, if and when they actually occur, which represent the most significant cases to be considered.

I explain the crucial issue involved in this choice of method for crafting computer animations. Kepler's method, like that which I have employed, coincided with the objectives of Bernhard Riemann's approach to developing a mathematical physics of hypergeometries, in which no *a priori* assumptions, such as those of Euclidean geometry or Cartesian mathematics, are permitted. In this approach, we allow nature to teach us the relevant principles of the universe, rather than seeking, as Euclid did, to impose a set of arbitrary definitions, axioms, and postulates in advance.

In competent lapsed-time photography in biology, we allow the living process to reveal the characteristic expression of its behavior, as Kepler permitted the Solar System to reveal the universal physical principle we call universal gravitation. So, in real-life economic processes, if we take an adequate number of apparent factors properly into account, as Kepler used the periodic alignments of Mars, Earth, and Sun, the animated data, so represented, will show us how this complex process behaves, and, hopefully will assist us in recognizing the principled characteristics of the interaction among many of the relevant combination of non-living, living, and human mental processes which are interacting within the bounds of a social process of physical-economic characteristics.

Since, as I have emphasized earlier here, the dominant feature of a modern economy is the role of physical-capital cycles counted in the span of generations, meaningful images of the manner in which economic processes have been operating, require animations spanning twenty-five to fifty years: two modern generations. As I have already emphasized, the "life span" of long-term, essential capital investments, such as those required as governmental investments in basic economic infrastructure, is in the order of not less than one to two generations' span, for a modern economy. Otherwise, a study of the span 1925-2005, covering the run-up to the Hoover Depression, the Roosevelt recovery, the two decades of post-war U.S. continued growth in per-capita wealth, and the long decline since approximately the beginning of the U.S. Indo-China war, should provide the basis for any competent university program in economics. This would emphasize results measured in physical terms, but compared with relevant policy-decisions made under the usually contrary influence of monetary-financial thinking.

Similarly, if we consider the emergence of the evidence of the distinction of Biosphere and Noösphere, from roots of this study in the work of Louis Pasteur, we come to the point, as Vernadsky showed systemically from 1935 on, that the behavior of non-living, living, and cognitive processes are mutually distinct. Vernadsky and his co-workers essentially allowed the material evidence to reveal the characteristic behavior of the kind of process considered, as compared with a different pattern of behavior in different quality process. So, non-living, merely living, and cognitive processes have respectively distinct forms of characteristic behavior.

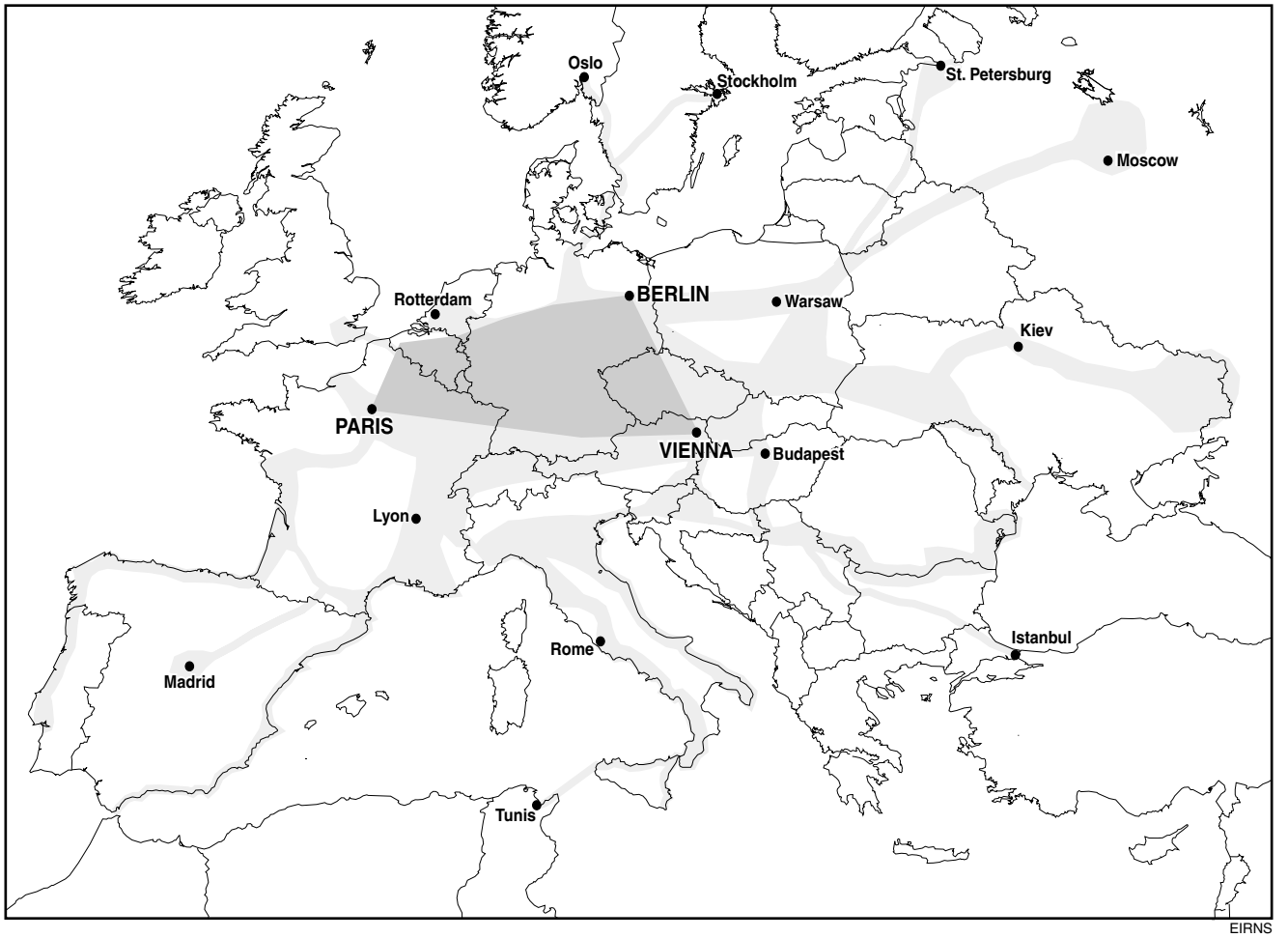
The evidence which shows us the presence of such distinctions, does not simply reveal the relevant principles from the animation of the data. Only the human mind's cognitive processes have ever discovered and mastered the universal physical principle responsible for the relevant, manifest distinction in behavior. That is precisely the merit of the approach we have adopted to statistical animations in the domain of physical economy: to force the evidence so mustered as animation to challenge the sovereign individual minds of the relevant human individuals to discover the principle which accounts for the qualitative distinction of one kind of process from another,

For example: How, from a pattern of footprints, would one discover that the trail was made by an animal, or a human being? What kind of an experiment would have to be accepted as a pattern which could have been left only by a human mind? How, for example, could a certain kind of spoor show us that the relevant evidence pointed to the behavior of a cognitive being, a human, rather than a non-cognitive species, a higher ape? In the latter case, the type of anomalies which would be sought are relatively obvious in many cases.

Studies of different types of social orders, different cul-

FIGURE 5

The Paris-Berlin-Vienna Productive Triangle



When the East German Communist system collapsed, Helga Zepp-LaRouche, in collaboration with her husband, Lyndon, advanced the concept of the European "Productive Triangle," to create a core of high-technology development which would revive the economy of Europe, and then radiate through "spiral arms" into Asia, Africa, and the Mideast.

tural states of development, and so forth, are crucial in a deeper understanding of society and its development.

This provides a simple way of thinking about the shaping of a civilization's policy of physical-economic practice, the shaping of the characteristics of its culture. Computer animations, when used to assist in uncovering the anomalies which are reflected in data so processed, must replace ordinary statistics, especially mere financial statistics, in showing how the policies of the present shape the fate of the future.

The key to all that so implied, is the distinction of the human cognitive function, as typified by original discovery of a universal physical principle. It is the contrast between the transformation of a society, over a generation or longer, under the influence of zero-technological-growth beliefs, and one based, earlier, on the state of mind expressed by the Kennedy manned Moon-landing imperative. The possibility of U.S. recovery, in particular, from the presently onrushing, global economic catastrophe, depends upon recognizing the difference between economic-decision-making behavior of one type, or the other. It also depends, upon being able to show leading circles in society, and the general population as well, what habituated patterns of decision-making behavior have caused the imminently fatal decline of the U.S. economy during the recent four decades, as distinct from the patterns of decision-making behavior which led to recovery and needed degrees of progress. The function of such animations-based studies, is to provide a new quality of educational tool for the shaping of our nation's, and the world's policies.

3. The Immediate Program Required

The equivalent of the 1929 U.S. stock-market crash happened during early October 1987, precisely as I had forecast during the preceding Spring. What was probably the worst possible set of long-range perspectives, was chosen in response to that crash, under the incoming administrations of both Federal Reserve Chairman Alan Greenspan and U.S. President George H.W. Bush. What happened in this connection during the 1990s, was not only the worst possible choice for the U.S.A. itself, but also for Europe and for the world at large.

The most relevant feature of the history of this matter, is, in its essentials, as follows.

In February 1983, I had forewarned the Soviet government's representative, with whom I had been in "back-channel" discussions on behalf of the prospect of what President Reagan was to name the "Strategic Defense Initiative (SDI)," that were the President himself to present the initiative which I had outlined to the Soviet government, and were the Soviet government to reject the President's offer, the Soviet system would collapse economically within "about five years." The President had made that public proffer, as he did on March 23, 1983, and the Soviet Andropov government had soon clearly rejected this, in a peremptory, foolish, and very nasty way. A few weeks after those developments, I repeated my warning, this time publicly; that was the first of my repeated public forecasts of a Soviet economic catastrophe likely to occur by about 1988.

About five years later, in a televised statement delivered, on October 12, 1988, from Berlin's Bristol-Kempinski Hotel, I warned of the imminent chain-reaction disintegration of the Soviet system, beginning, probably, with Poland. I warned of an ensuing, imminent breakup of the Comecon system, with the likely reunification of Germany, and the designation of Berlin to become, once again, that nation's capital. The statement which I delivered orally, from my prepared script, at the Berlin press conference, was recorded for television, and featured, in full detail, in a U.S. TV network broadcast later that same month. During the course of the following year, the chain-reaction collapse of the Soviet alliance began, starting in Poland, spreading into East Germany. By the time the Berlin Wall was opened to the West, President George H.W. Bush had been in office for the greater part of the year 1989.

At this point, my wife, Helga, and I, together with a small circle of collaborators, crafted a proposed program for the reorganization of the economy of Europe, which she named the "European Productive Triangle." We agreed to name this "The Paris-Vienna-Berlin Triangle" (**Figure 5**), because, this was one of the world's greatest concentrations of existing productive potential, then centered within that region of the existing railway and canal connections. A short time later, this perspective for development was expanded by the proposal for what she and others named as "A Eurasian Land-Bridge," featuring the included intention of magnetic levitation transportation of freight and passengers from the region of the European Productive Triangle to the principal coastal cities of China. She later made trips, as a guest of China, to conferences treating this proposal.

Unfortunately, the optimistic possibilities of this sort were sabotaged, chiefly on the initiative of Germany-hating factions controlling the governments of Great Britain and France at that time. Much of the economic potential existing in central Europe at that time, no longer exists, a potential which has been since destroyed in significant degree, under predatory policies set into motion on the initiatives of London's Prime Minister Margaret Thatcher and France's President François Mitterrand. Those predatory policies against Germany have been continued under the enforcement of the now infamous Maastricht agreements.

Amid these developments, the U.S. government of President George H.W. Bush had intervened to temper the predatory madness of Thatcher and Mitterrand, but Bush did not go as far as he should, in slapping down Thatcher and Mitterrand.

Schiller Institute

Helga Zepp-LaRouche lectures in Beijing, in 1996. Her work on behalf of the Eurasian Land-Bridge was enthusiastically endorsed by the Chinese government. Although progress has been made on the project, the grand scale on which it was envisioned was sabotaged, chiefly by the governments of Britain and France.

FIGURE 6
LaRouche's Typical Collapse Function

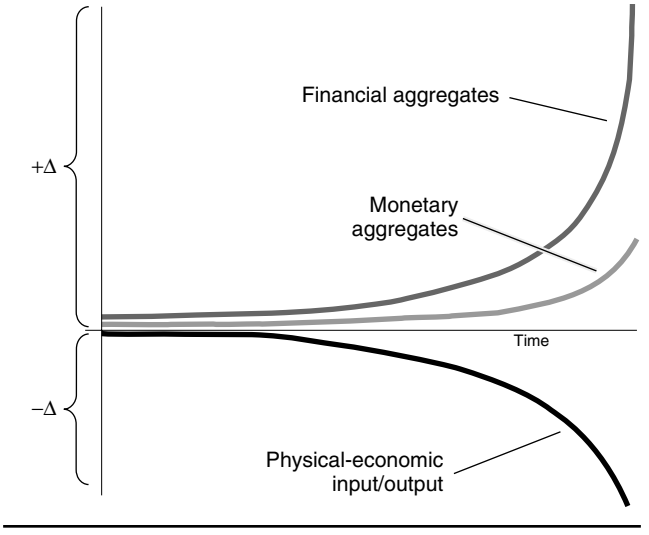
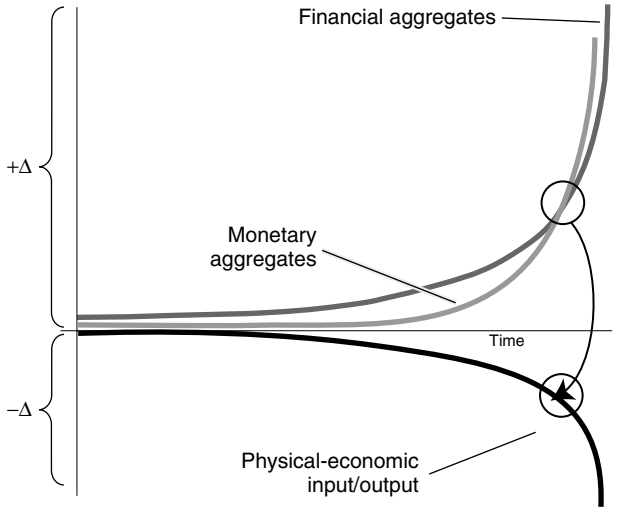


FIGURE 7
The Collapse Reaches a Critical Point of Instability



LaRouche's "triple curve" heuristic diagrams illustrate the tendency for hyperinflationary expansion, once an economy's physical productive output is cut to the bone. The second figure shows the point at which monetary aggregates overtake the growth of financial aggregates generally: a hyperinflationary blowout.

Had the U.S. acted appropriately, to push for France's cooperation in the direction of the de Gaulle-Adenauer perspective of "A Europe From the Atlantic to the Urals," the worst of the economic problems which have developed since would have been prevented.

Even worse, rather than coopting the physical productive potential of the former Soviet bloc into the European economy, the interval 1990-1998 and beyond was devoted to looting of the states which had been part of the Soviet Union, and the savage looting, and related destruction, to the present day, of the people of Poland, Slovakia, Hungary, the Balkan states, and so on. Economically, virtually the entirety of the former member-states of the Comecon are in a looted condition, far, far below the economic standard of 1988.

The mistakes to which the United States was party during that 1989-1992 interval, are an integral part of the global financial, monetary, and economic crises of today.

We of the U.S.A., and also of what had been western Europe then, are suffering monstrously today, from the effects now of the unjustifiable ruin our governments inflicted, in the fashion of "carpet-baggers," on these economies of the former Comecon system, and others, then. So, in the former region of the German Democratic Republic, "the land of Mielke und Honi," the Germany government did this to Germans on what were, chiefly, British and French orders.

However, to assess this matter properly, we must recognize that the malice to which Thatcher and Mitterrand were party, was not merely an expression of their personalities. These and related decisions of the period from then till now, were a reflection of the characteristics of the form of international monetary-financial system since the breakup of the original Bretton Woods system, in 1971-1972, a breakup conducted in the interest of a Europe-centered, global syndicate of private financier interests which still, presently, dominates the present world monetary-financial system. That syndicate represents the same, so-called Synarchist International, which had given the world the Hitler and other fascist tyrannies of the interval 1922-1945.

What has been done to those victim-nations, under the terms imposed during the 1990s, is, of course, not strictly comparable to the Nazi exploitation of occupied territories, but the stench of the same Synarchist International which created the European fascist regimes of 1922-1945 is there, nonetheless. The ironical point is, that we of the U.S.A. and western Europe have now done to ourselves much of that which we did to the former Comecon bloc since 1989!

The Present Collapse

Under the conditions of 1987-1990, financial effects paralleling those of the aftermath of the Hoover stock-market crisis, would have come earlier than has been the actual case, but for the combined looting of areas of the Comecon system and the delay of the day of reckoning, for more than a decade, by the version of "John Law"-style financial bubbles known as "financial derivatives."

The two sets of "Triple Curve" diagrams which I have used since 1995, illustrate the point (**Figures 6-7**). The ratio of financial and monetary expansion, per capita and per square kilometer, relative to physical productive output, portrays the actuality of the hyperinflationary expansion. The process set

into motion, if continued, must reach a point at which the economic system itself collapses: collapses in either a deflationary collapse of prices, or a hyperinflationary blowout similar to that which struck Weimar Germany in 1923. We have now entered that phase of developments.

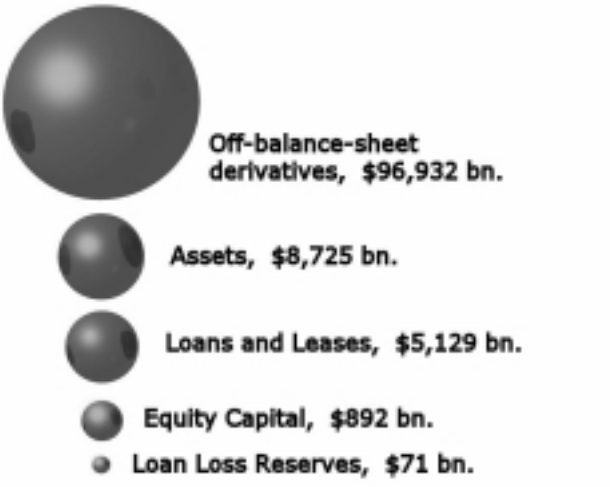
As a matter of generalities, no one could predict, mechanically, the day on which a collapse of this type would occur. However, that does not mean that an accurate forecast of such developments can not be made. I have made a notable number of such successful economic forecasts. While we may be only very rarely able to predict a specific event occurring on a specific day, what we can and must forecast with a sense of scientific certainty, is the entry into what is fairly described as a boundary condition, as the two "Triple Curve" figures presented here, again, illustrate the point. Typical of such boundary conditions, is a marked change into a state of affairs, after which a principled correction needed at that time can be postponed only by actions making the situation *qualitatively* worse.

After the point of entry into a boundary condition, "free will" may continue to postpone the proverbial "day of reckoning"; in such cases; however, the postponement comes at a price; the narrowing set of choices of developments, is foreseeable, but as recent decades demonstrate, with each delay the situation only becomes *qualitatively worse,* each time the needed change in direction is postponed. As a generality, the rule is that the more successfully the collapse is temporarily postponed, the more deadly the collapse will be when it hits. The virtual wipe-out of entire pension-systems on which relevant large sections of the population had long depended, illustrates the point. The spiralling real-estate bubbles of the United States, the United Kingdom, Spain, and other locations are lurid illustrations of that point. Already, the way matters have been postponed since October 1987, means that the danger of a depression like that of the early 1930s, has now been replaced with the peril of a general, global breakdown crisis like that which erupted as Europe's Fourteenth-Century "New Dark Age."

The presently onrushing crisis could be prevented from becoming such a "general breakdown-crisis," provided we are willing to scrap the present world monetary-financial system, and return, through government-directed reorganization in bankruptcy, to an echo of the original Bretton Woods system. That means not only scrapping the present, post-1971-1972 floating-exchange-rate system, the present form of the so-called IMF system. It means scrapping entirely the pro-monetarist conceptions on which that present IMF system is premised. Escape from onrushing global breakdown-crisis of the present world economic system, means, essentially, returning to those principles of the American System of political-economy upon which President Franklin Roosevelt premised the U.S. recovery from the disastrous heritage of the Administrations of Presidents Calvin Coolidge and Herbert Hoover.

However, the present financial obligations of the system could never be repaid in what would be presently considered as a "timely fashion." As of the time of the October 1987 stock-market crash, the reorganization of the system could have been arranged in a more orderly fashion. The problem today, is the accumulation of a vast amount of gamblers' side-bets, called "financial derivatives" (**Figure 8**); these must be cancelled in an orderly fashion. The debt due to financial derivatives must be either simply scrapped, or frozen in suspension, and held so until the matter can be cleaned up in the course of time.

FIGURE 8
U.S. Commercial Banks, June 30, 2005



Derivatives dwarf banks' other assets: This is a snapshot from an animation which is posted at www.larouchepub.com/animations.

Some would protest loudly and wildly that such measures against relevant extant financier interests would be "immoral," "violations of contracts," "violations of shareholder value," and kindred whimpers. The fact is, that we are presently in possession of the evidence which shows, beyond doubt, that the entire arrangement, since 1971 in particular, has been a giant swindle. The moral principle at issue, is that we must now make right what has been shown to us to have been not only wrongly done, but done with the malicious intention of the principal authors of the present international monetary-financial system. The relevant law of the matter, is to make right what was done wrong.

The objections to that action will be strong, even vicious; but, if those objections are upheld, civilization as we have defined it heretofore will disappear, and that globally.

The included problem is that the representatives of the international, predatory interests of global finance today, are, predominantly, incredibly stupid in matters of economy, when they are compared to their predecessors of the post-Versailles 1920s. They themselves have been deeply infected by the "post-industrial," "services economy" ideology which has become characteristic of that segment of management

from, largely, the 55-65 age-interval, which is typical of corporate management today. Their predecessors of the 1920s through 1950s and beyond, still believed in the reality of society's dependency on development and maintenance of basic economic infrastructure and increase of the productive power of agro-industrial enterprise. Since 1987-1992, the coincidence of the rise of the "Baby Boomer" generation to top-ranking, or nearly top-ranking power in financial and governmental institutions, with the concurrent collapse of the Soviet system as a rival system, imbued something akin to the mentality of the early Eighteenth-Century "John Law" bubbles in them. The ruling stratum which took over during the course of the 1990s, are generally hysterical in their attempted denial of the need to fear the loss of the power of national agro-industrial technological progress. The effect of this turn has been something akin to a mass psychosis in the leading social strata of many parts of the world, most notably the U.S.A. and western Europe today.

A growing segment of the population in leading positions of government in the Americas and Europe, has only recently returned to at least an approximation of the recognition of the determining significance of the physical realities of infrastructure, agriculture, and industry, which had been characteristic of the economic and political management of the United States, until the cultural paradigm downshift of the late 1960s and 1970s. That crucial segment of our nation's leadership is typified by the growing opposition, from within the U.S. Congress, among relevant other locations, against the present utter lunacy of the Bush-Cheney Presidency.

Presently, our system of constitutional government is greatly endangered. The danger is typified by the fact that we have entered a period of an acute existential crisis of both our nation and the world about us, this under the nominal leadership of a U.S. President, a pathetic, mentally crippled weakling who, in his malicious capriciousness, exhibits a tendency, under the influence of the Vice-President who largely controls him, toward some among the traits (and their consequences) of the Roman Emperor Nero. This situation demonstrates not only the mental and moral defects of both that President and his Presidency, but also the effects expressed in the degree to which the U.S. population and institutions have come to share the decadence of a form of sophistry like that of the self-doomed Athens of the Peloponnesian War, a quality of sophistry which has sent our institutions of governing careening through nearly four decades.

The function of leadership which we should require of our system of government, especially our chief executive, is the kind of capability of command which is otherwise typical of intellects associated with creative scientific and artistic discovery of relevant and efficient universal principles. Either the chief executive must own those qualities of judgment and character in himself, or herself, or he must acquire the habit of adopting, and using close advisors who do.

Government, when practiced competently, is based on decisions which, whatever their short-term effects, have long-term implications for the whole society, over a span of decades or more to come. Leadership, such as that we require of a competently chosen President of the republic, is not, contrary to the Federalist Society predators, a matter of arbitrary "iron will" in the imitation of Carl Schmitt's Adolf Hitler—"as hard as Krupp-steel," but, rather, expresses the sense of humility of a person who recognizes that he, or she, is choosing a decision which will haunt the general welfare, perhaps even the continued existence, of the republic, for decades or more to come.

So, the office of President must often represent the same quality of uniquely individual decision-making which we should expect of the discoverer of a fundamental principle of science. This is especially so in times of crisis, as President George Washington faced the lonely responsibilities he shared with Treasury Secretary Hamilton, at the time a significant number of leading founders of the republic among members of his government, such as Jefferson and Adams, went awry in mad reaction to the French Revolution of July 1789 and the subsequent Terror. Such were the later challenges to Presidents Monroe, John Quincy Adams, Lincoln, and Franklin Roosevelt. The quality of leadership which requires a Presidential system of government, rather than an always fallible parliamentary system, is the same quality rightly expected of a scientist or a great Classical artist. Or, one capable of recognizing such qualities of discovery in others on whom he, or she relies. We require a man, or woman of principle, not a pragmatist, and certainly not a terribly weak-minded creature such as the current President.

3.1 The Need for National Regeneration

A national railway system is not an event; it is a principle, a principle which a foolish people of the U.S.A. has abandoned, and thus virtually destroyed. By principle, I mean physical principles in the sense of Johannes Kepler's uniquely original discovery of universal gravitation, as a principle of the physical universe. Water systems, power systems, electronic communication systems, and so on, are not merely things; they are expressions of a relatively universal principle of organization of the territory and social relations within societies. They are as characteristic, as principles, of specific kinds of societies, as gravitation is a principle of the universe as a whole.

Thus, in the past three decades' destruction of the kind of agro-industrial economy, with its essential infrastructure, as existed prior to 1968-1972, we have not merely destroyed things; we have destroyed the principles on which the existence of our nation, its social and physical processes, had formerly depended. The result, as we should recognize clearly today, is that our society has been ruined, by the loss of essential principles on which its earlier, higher state of development as a species of society had depended. To recover from the catastrophe which has overtaken our society under the rubric of "a services economy," we must regenerate our nation at the higher level of quality of organization, from which we

"A nation without a functioning machine-tool principle as characteristic of its productive processes, is physically and morally of a lower species of modern existence than one commanding such a principled system." Shown here is a research lab in the metallurgy industry.

have retreated to the state of increasing ruin we experience today.

Similarly, not only must we restore systems of principle of basic economic infrastructure. We must recognize the machine-tool principle lodged within those aerospace and automobile industries which we are currently destroying, also as principles. A nation without a functioning machine-tool principle as characteristic of its productive processes, is physically and morally of a lower species of modern existence than one commanding such a principled system.

These principles of, respectively, basic economic infrastructure and production of discrete goods, are all of a relatively long-term character. Their typical expression is of the order of one or more generations of a quarter-century each. The principle itself, usually, has a life-span of centuries.

This obliges us to reexamine the assumptions which led our nation to abandon those principles on which our earlier relative prosperity, per capita and per square kilometer, had depended. These malefactors, the assumptions which led much of our population to join in destroying our nation's ability to sustain and improve our prosperity, are typified by the sophistry of existentialism and, more narrowly, the Congress for Cultural Freedom. Just as the cult known as sophistry led ancient Athens to destroy itself in the Peloponnesian War, the cult of sophistry which has persisted, and is worsening, since it was unleashed during the post-FDR times, generated the slide into the depravity of a passionate lurch into what became known since the mid-1960s, variously, by such rubrics as "post-industrial society," "environmentalism," and "services economy."

Individuals and social strata adopt assumptions which they treat, correctly, or falsely, as principles. These actual or counterfeit principles then function as if they were sets of definitions and axioms of a classroom geometry, in predetermining the reaction of either the population as a whole, or some part of that population, to relevant stimuli.

It should be obvious, therefore, that we can not account for the behavior of an entire society on the basis of individual reactions to the stimulus represented by particular objects. We must uncover the principled influences which govern the typical individual's response to the idea of a particular object, influences which assume the form of actual or presumed universal principles, like presumed definitions and axioms of a long-ranging system acting, as a system, upon the behavior of many individuals or the span even of successive generations.

The notion of "freedom of individual choices" is more than merely greatly exaggerated. The notion is expressed in the guise of various true or false beliefs, beliefs which have the assumed character of principles, like universal physical principles. Such incompetent beliefs then actually shape the mass behavior of a large number of persons over a significant lapse of time, and over a significantly wide area.

In other words, to understand the crises which grip the world today, it must be emphasized that the notion of "free choice" is usually greatly exaggerated. Only people who make conscious changes in the principles which control their patterns of behavior, are actually exhibiting free will. The moment someone says, "But, it is our tradition that. . ." you are listening to someone who prides himself greatly on a quantity of "free will" which virtually does not exist as an expression of true freedom in the normal course of his, or her behavior. Rather, such folk become the slaves of fetish-like compulsions, which they often call "traditions," which occupy the place where the rule of reason should be found instead.

Nonetheless, if we make ourselves conscious of the tragic element in prevalent popular behavior in the United States today, we can proceed toward making ourselves truly free. This means, that we must conceive of our national economy's needed development as something expressed by a set of principles, principles each defined, as a notion, as Kepler's uniquely original discovery of the principle of universal gravitation typifies the notion of principle.

The problem to be understood, and then mastered, to shift the control over our impulsive behavior, from fetishes to true principles, is that the victims of fetishism are controlled by the smallness and brevity of their outlook on the meaning of individual human life. They are dominated by the narrowness and brevity of their view of what they have chosen to regard as their immediate interest, or the immediate interest of some relatively smaller group or caste of people within society at large. They are gripped, therefore, by that same fetishistic fascination with objects which we should recognize as the essential gullibility to which most public commercial adver-

tising appeals.

Styles in objects, brand names, even entire categories of objects pass, like the buggy-whip and the defunct Jordan, Packard, and Pierce-Arrow, even "hallowed" Coca-Cola, in the course of time. The principles which mere objects serve, objects which come and pass within the limited frame of time they occupy, are more durable. Inasmuch as they are more durable, they reach beyond the span of the individual mortal life, and reach beyond the marks of separation of one group within society from another. Truth lies in the principle associated with the necessary objects which will come into existence after we are dead, and beyond the borders of our own national experience thus far.

The problem is posed most plainly by the kinds of so-called "fundamentalist" fetishism which are today's silly, populist substitutes for a genuine religious belief. These poor, misguided fellows are seeking a sense of immediate gratification within the bounds of their usually miserable personal and family lives, instead of seeing an efficient intention in their living which reaches efficiently beyond the spatial and temporal bounds of their brief mortal existence. They are shut off from distant and future places, where the proper fruit of their passing mortal existence will be harvested. They have no sense of the role for today and tomorrow of discoveries of universal physical and Classical-artistic principles introduced by forerunners centuries ago. Lacking an efficient functional sense of the role of the present in the past and future, they seek consoling delusions, by which to obscure the reality of the adopted meaninglessness they have implicitly chosen for their brief mortal lives.

We represent a distinct species within our universe. We are a self-developing species, which is able to increase its power, and its consequence within and for the universe we inhabit. We, as a species, have changed the universe we inhabit by means of the quality of sovereign creative will which is naturally available within the powers of the living individual. We are what we have inherited as the knowledge and benefits of discoveries of universal physical and cultural principle from thousands or more preceding generations, and what we shall pass on, as contributions, to the shaping of the future of this universe we presently inhabit.

As Cotton Mather once complained of the moral decadence which had seized the Massachusetts Bay Colony in the wake of William of Orange, we, today, have, once again, become shrunken, intellectually and morally, almost to nothing.[12]

Take the following illustration as a case in point. Consider Representative Nancy Pelosi's recent address at Harvard University. What she expressed, in principle, was a commitment from within the Democratic Party and also among some notable industrialists, to launch a rebuilding of the U.S. economy. This was intended to be the prompting for further refinement of that general perspective during the early portion of 2006.

Principles vs. Things

We of the U.S.A. are now presented with what current fashion would wish to name "a window of opportunity," a momentary opportunity to decide not to enter a virtual Hell. Representative Nancy Pelosi's Harvard address expressed the shared intention of a large portion of the leadership of the Democratic Party in the U.S. Congress, an intention to join with economic forces such as progressive industrialists, to step back from a plunge into the quicksand into which the world's so-called hedge funds have been working to sink the U.S. and other leading economies.

This resolution represents, in fact, a commitment to undo the prevailing economic and related habits of our institutions during the recent thirty-odd years. We prefer to say, "progress," which is a less abrasive way of describing the needed change than accusing the majority of the population of having been "damned fools" for more than thirty years. The proper approach is, as much as possible, to rely on inspiring support for needed actions by bold, but realizable reversals of the downward trends of recent decades. The essential cure of the deep problems of morale permeating the U.S. population, in particular, today, is to develop a credible future orientation toward, successively, the medium term, and then the longer-term benefits of the needed actions taken as urgent course corrections.

The mission can be described that simply, but the implementation is not so simple. There are complications to be recognized as dangerous potential impediments to actually doing what is being implicitly proposed.

Matters have reached the point that, should we refuse to reverse, sharply, what have been treated as among the most hallowed assumptions of cultural policy generally, and economic policy in particular axiomatic assumptions, there is no possibility for saving the United States, and global civilization, from what is now currently onrushing doom of the existing civilization generally. A society which refuses to make those reversals in widely accepted opinion and policy of economic practice, is doomed to disappear, and that rapidly, and in the ugliest way.

That is the lesson of the cult of sophistry which impelled ancient Greece to destroy itself in the Peloponnesian War. That is the lesson of the fall of the Roman Empire in the west, and then the east. That is the lesson of the collapse of the medieval *ultramontane* system of the Venetian financier oligarchy and its Norman chivalry partners. The turn which the U.S.A. made during the middle through late 1960s, and the

12. Cotton Mather, ***Essays To Do Good*** (1710). Cf. H. Graham Lowry, ***How the Nation Was Won: America's Untold Story 1620-1754*** (Washington, D.C.: Executive Intelligence Review, 1988), pp. 112-115. Cf. Cotton Mather (1696): "There seems to be a shameful *Shrink,* in all sorts of men among us, from that *Greatness,* and *Goodness,* which adorned our ancestors: We grow *Little* every way; *Little* in our Civil Matters, *Little* in our Military Matters, *Little* in our Ecclesiastical Matters; we dwindle away, to *Nothing.*" Lowry, *op cit.,* p. 50.

worse turn in general shaping of decisions made during the 1970s and beyond, are the continuing cause of the bankruptcy and general decadence of the United States today. If we do not sharply reverse the relevant changes in direct of social and economic policy-making during the recent forty years, and make that reversal, rather suddenly now, there is absolutely no chance that the U.S.A., among other nations, will continue to exist over the span of a generation or so to come.

In other words, attempts at reform which seek to avoid clashes with popularized assumptions respecting economic policy and culture, would be the reforms of fools. It is time to recognize that the cultural paradigm-shift which erupted during the middle to late 1960s, is not only the cause of all of the principal catastrophes we have endured during the recent decades; if we do not reverse those specific trends in opinion, our nations were virtually doomed today. The same applies throughout the Americas, Europe, Japan, and so on today.

Therefore, the only general policy worth having is a matter of saying: *We were wrong; we are now going to return to do what is right, to return to those cultural, agricultural, and industrial policies which had made the U.S.A. the greatest economic power for growth which the world had ever known, through the time of the death of President Franklin Roosevelt, and also through the two decades since his death.* If we do not make that specific decision, our nation's situation is already a virtually hopeless one.

It is indispensable that would-be leaders make the needed, tough changes in policy-direction which those remarks imply.

The general principle which must now be adopted as the foundation of all policy-shaping, is that the only forms of action which define a successful form of modern economy are, as I have already stated, here and earlier, expressions of the generation, and regeneration of a combination of valid universal physical principles, as typified by the discoveries, in the domain of Sphaerics, by the Pythagoreans, Plato, et al., and the related class of discoveries associated with a Classical European notion of strictly Classical artistic composition.

The fruits of the appropriate application of these discoveries are expressed as technological improvements in the product and methods of production of agriculture and manufacturing. The ability to apply those improvements to that effect depends upon the development of basic economic infrastructure, as U.S. Treasury Secretary Alexander Hamilton outlined the interrelations in his 1791 Report to the U.S. Congress ***On the Subject of Manufactures.*** As I have stressed earlier here, and in earlier reports, the ability to continue that American System of political-economy developed by Benjamin Franklin, presented by Hamilton, Mathew Carey, Frederick List, and Henry C. Carey, and deployed with such great benefit under President Franklin Roosevelt, now depends upon adding a new dimension of policy-commitment, the development of the Biosphere in ways implicit in the work of Vernadsky. This development of the Biosphere, which is now situated, practically, in the proper conception of a general aerospace orientation, is now the indispensable foundation for the resurrection of an effective integration of the needed policy-initiatives and programs for basic economic infrastructure, agriculture, and manufacturing.

We must propose specific choices for actions; but, we must also recognize that the problems of this nation will not be fixed by "things"; what is needed are things which express deep-going changes in principles of policy-shaping. It is those changes in principles, essentially changes from a "post-industrial, services economy"-orientation, back to an infrastructure-based, agro-industrial economy, changes which get the labor-force out of low-paid services employment, in skilled, productive and related employment in capital-intensive modes of agricultural and industrial output, or in development and maintenance of the basic economic infrastructure which should represent about half of the typical total annual output of the economy for generations yet to come.

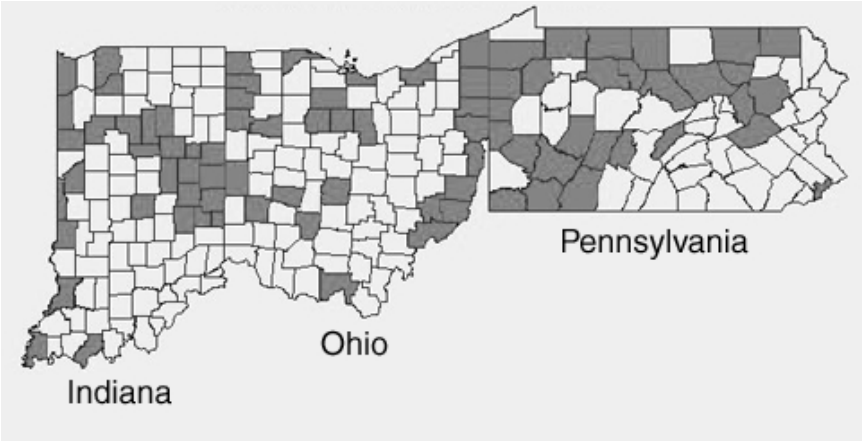
It must be emphasized, that the principle of investment in production and infrastructure, should not be as much investment in things, as investment in the margins of gains in productivity achieved through science-driven approaches to both production and product-design. Essentially, investment should be directed to introduction and application of principles, rather than merely the production of things.

3.2 The Needed Program for Now

The chief immediate threat to the U.S. economy is the threat of loss of that machine-tool-design capability which is now chiefly lodged within the organizations of the relevant skilled labor-force of the automobile and aerospace sectors of the national economy. Should we permit the U.S. national automobile manufacturing capabilities to be cut back massively, as is presently threatened, the U.S. loss of a principal portion of its indispensable machine-tool-design sector, would transform the United States as a whole into virtually a "third world" economy, with the general social effects on the nation which that implies.

The problem to be considered in reorganizing that industry to avoid this loss of machine-tool-design capability, is the fact that de facto national policy has created a greatly excessive dependency on automobile manufacturing as such, relative to urgent other needs in national transportation capability such as the railway system. In the meantime, the nation has great needs for the manufacture of other things, such as mass-transport systems, power-generation capacity, and repair of inland waterways, for many of which the capacity represented by today's auto industry would provide the obvious remedy. Much of these options for new streams of manufactured output lies within the domain of public infrastructure of either the Federal, State, or Local government. Contracts issued in support of the production of these elements of public infrastructure, would be the most efficient way of using long-term capital investment generated chiefly by the Federal government, to stimulate the recovery and modernization of pres-

FIGURE 9
Counties Which Have Lost Population, 2000-2004



Source: U.S. Bureau of the Census, *EIR*.

Population declined in this three-state region, from 29,714,679 in 2000, down to 29,691,466 in 2004. One-third of the counties in the three states—84 out of 246 total—lost population (shown with dark tone). Ohio saw a 2.8% loss, from 11,353,140 state residents down to 11,050,605 in 2004. Extensive areas were depopulated within the other two states. An animation on solving the economic crisis behind this trend appears at www.larouchepub.com.

ently imperilled sectors of the privately operated sectors of the economy.

Study of the economic map of the U.S.A. over more than a century, shows patterns of decline, rise, and then recent decades of typical decline in the physical output, per capita and per square kilometer, county by county, in most of the territory of the nation. The case of the regions composed of the western portion of the states of New York and Pennsylvania, together with Michigan, Ohio, and Indiana, are only the most lurid of the cases of ruin of the U.S. economy as a whole through the effects associated with a shift from the producer-oriented economy of the early 1960s to the post-industrial ruin associated with the marked, 1970s, shift from a producer to a services economy (**Figure 9**). This decadence has been associated, prominently, with the loss of the nation's rail-transport system, and a related, uneconomical concentration of populations in gluts of suburban congestion in other parts of the nation, such as around the nation's capital.

This shift, from a producer to a services economy, has resulted in a collapse of the level of tax-revenue base in most of the nation, that most directly associated with the replacement of industrial and related highly skilled employment, to low paid, unskilled services employment. The shrinkage of the state and local tax-revenue base as a result of loss of capital-intensive industrial and agricultural employment, together with the collapse of the tax-revenue-base effected through the shift to employment in unskilled or quasi-skilled cheap labor, is a conspicuous part of the pattern which has led the nation to the present brink of bankruptcy of entire Federal states, and also the nation as a whole.

We must reverse these trends of the recent thirty-odd years' shift from a global fixed-exchange-rate system based on capital-intensive productive investment, to a floating-exchange-rate system of emphasis on cheap labor modes available in regions of the world which have the relatively most intense poverty-rates, and the lowest level of development per capita and per square kilometer.

Certain ABCs of successful modern economy must be stressed at this point in the report.

True Profit

The ultimate source of an actually net profit from investment, is scientific, technological progress, as complemented by progress in the influence of Classical modes of artistic composition. These improvements are expressed in sundry ways, but the adducible principles underlying the generation of such public benefits all have the character of, first of all, an upshift in the level of the principles of science and Classical art employed, and an associated improvement of the relevant physical qualities of the land-areas in which human life and production is situated. The superiority which European civilization had achieved, in net effect, over the period from Solon of Athens, the Pythagoreans, and Plato, to modern times, was chiefly a reflection of two interrelated tendencies: physical-scientific and Classical artistic development, and the degree of success in replacing societies dominated by slavery or quasi-slavery standards for the majority of the subject populations, by what became known in modern European civilization as the Fifteenth-Century model of modern commonwealth forms of sovereign nation-states associated with high rates of scientific and artistic progress within the population generally.

The advantage of the Classical, pre-Peloponnesian War Greek culture associated with Athens and the Pythagoreans, was based on conceptions of science and artistic composition associated with the ancient Greek use of the term *dynamis,* the modern Leibnizian notion of *power,* as the expression of discoveries of universal physical principle which increased mankind's power, per capita, and per square kilometer over raw nature. Since both forms of expression, physical science and Classical artistic principles, are expressions of the same principle applied to a different composition of media, it is this principle, most famously associated in ancient times with the Pythagoreans and Plato, which has paradigmatic significance as the conceptual form of the impulse for human progress.

It is this connection among successive generations, which unites those generations, as if in immortality, in the transmis-

sion of the contributions to progress from earlier to subsequent generations. This characteristic of societies committed to progress is the most typical practical intimation of immortality of the human personality. On this account, in the best aspects of European civilization since Greece prior to Athens' descent into sophistry and the Peloponnesian War, the idea of the immortality of the human individual personality, is not only strong, but a crucial, functional characteristic of the best, most fruitful aspects of culture. On this account, the motive which drives the creative individual personality in our society, is not the acquisition of wealth, but rather the expression of immortality which is met in individual contributions to the perpetuation and progress of the fruits of physical-scientific and Classical cultural progress.

This quality of intimations of immortality, is what is expressed in sections of our population typified by the creative machine-tool-design specialist. This specialist, who functions, on the one side, as the associate of the discoverer of a new principle, in the design of the relevant test apparatus, and, on the other side, as the creator of those tools and other products which validated discoveries of principle make possible, typifies, rather than mere "financial profit," the true driving force of agricultural and industrial progress. This is the face of the impulse to "do good," and to be able to make a living at it, on which the nation depends for its most valuable entrepreneurs and other leading contributors to the public good.

The proper business of management of an economy, from the government's role in basic economic infrastructure, on down, is the realization of this human motivation for expression of scientific and Classical-cultural forms of general progress of the nation and humanity in general.

Public Infrastructure and Private Capital

My specific recommendation for immediate action by the U.S. Congress, has been to concentrate the core of the initial measures of recovery of the U.S. economy on a concentrated package of combined major economic infrastructure and power-generation-and-distribution programs. This recommendation takes into account both the advantage of concentrating on the public sector, where government's role is far more efficient, and often also indispensable, and also the limitations of our available potential for relatively high-gain physical-economic concentration.

It is to be emphasized, in advancing such a package, that the rebuilding of a national rail/magnetic-levitation system, has a high-gain potential for promoting development of the economic potential in the widest way within the economy as a whole, and coincides with the urgent need to devise a more rational system of combined air-rail transport for the national territory as a whole. The case for rebuilding our seaports and internal river-canal system, as the skeletal system for conveyance of low-cost-per-ton bulk freight, invokes the same considerations. The scale of capital costs for reactivating the system of water-borne freight from the region below the Great Lakes, between the Rocky and Appalachian mountains down into the Louisiana seaport, indicates the scale of capital investment required for this enterprise.

Thyssen Henschel

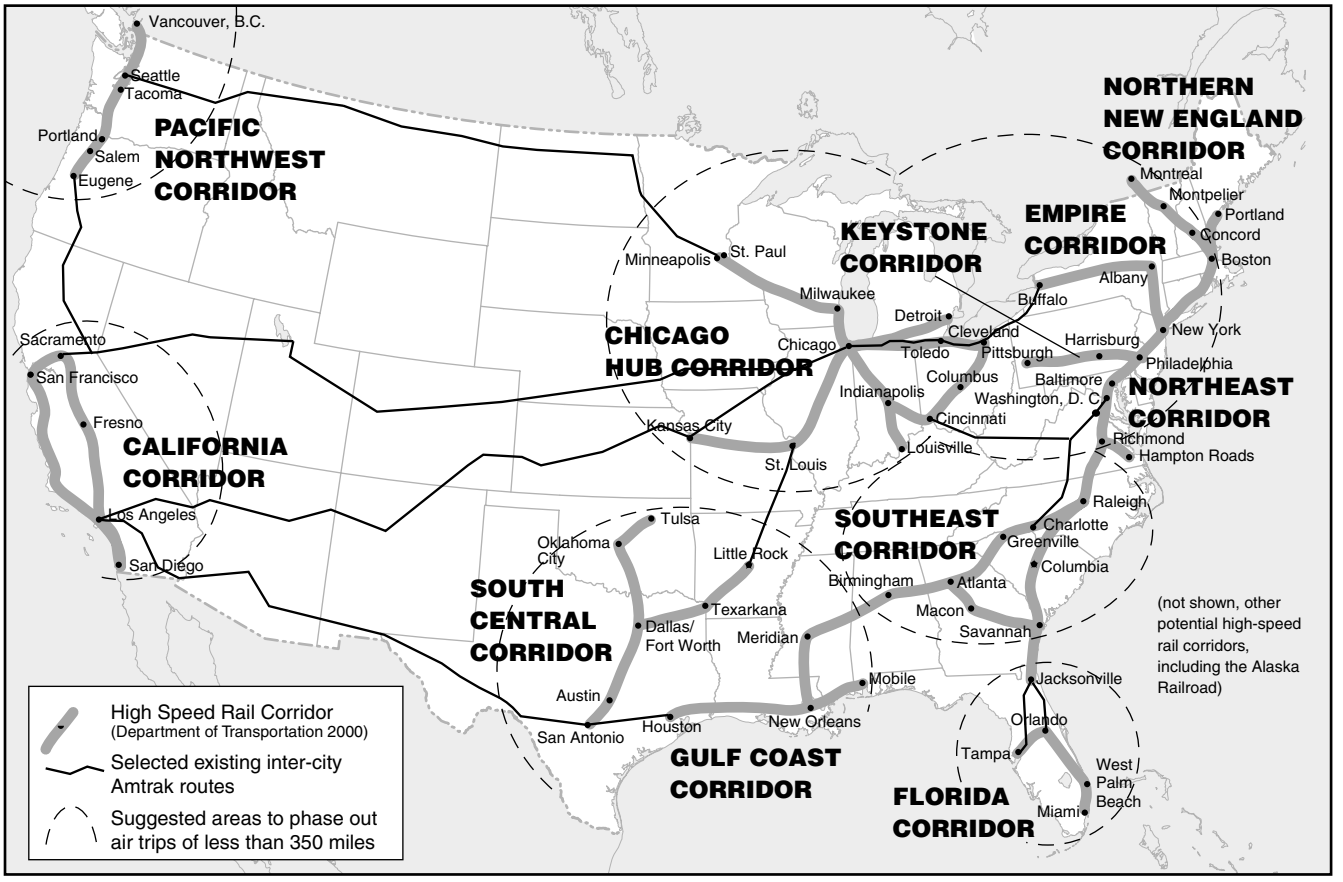
An artist's composite of a maglev train arriving in Washington, D.C. A maglev route from Boston to Washington "would reactivate lost productive capabilities up to maglev standards along the entire route, and thus provide a key part of the development of the capability for producing a national maglev trunk system."

In approaching this proposed action, we must take into account the vast loss of qualified labor-force for this work, which has occurred through the combined processes of ageing and shrinking of the skilled labor-force during the recent quarter-century. We must select some very large projects, which, therefore, have high impact on the national economy at large, but which have the effect of catalyzing increase of the relative proportion of able labor-force within the potential labor-force as a whole.

Take as an example, the matter of introducing magnetic-levitation into the U.S. system. For this purpose, consider the examples of the German system's introduction into China and in the link from the city of Munich to the nearby airport. In order to set into motion the development of a qualified labor-force and sources of relevant essential supply for large-scale applications, it is useful to see development of maglev con-

FIGURE 10

United States: High-Speed Rail Corridor Designations



This map shows the 12 high-speed rail corridors proposed by the U.S. Department of Transportation's High-Speed Train division in 2000; they would cover 12-15,000 miles in the most densely populated area, and cost between $50 billion and $75 billion (in constant 1998 dollars), over 20 years. Only one such corridor—the Northeast—is in operation right now

Once these corridors are created, in coordination with major hubs of air traffic, gear-up should start for key routes of magnetically levitated passenger and freight lines, and for intercontinental connections.

nections to highly-trafficked airports as a means for building up the productive potential for larger-scale applications. Consider, for example, the obvious priority of a passenger maglev system from Boston, Massachusetts, down the coastal land-route, to Washington, D.C. This latter choice would reactivate lost productive capabilities up to maglev standards along the entire route, and thus provide a key part of the development of the capability for producing a national maglev trunk system.

The development of integrated networks of air-rail-maglev-waterway transport reopens large regions of the nation as a whole, such as the presently ruined region of western New York, western Pennsylvania, Michigan, Ohio, and Indiana, with international links to the Atlantic, through the Great Lakes, and to the Gulf by way of the Mississippi system. (See **Figure 10.**)

The obviously required complement of such programs of development of mass transport systems, is a massive investment in power plants and associated distribution systems.

This requires primary investments over spans of a quarter to a half century, and also provides a corresponding amount of investment in capital improvements supporting the main project.

Presently, the U.S. Federal Reserve System, like the international monetary system, is essentially bankrupt, and hopelessly so by conventional standards. Therefore, the notion of a private-capital approach to development of basic economic infrastructure, would be a sheer hoax. Only with a long-term, quarter-century or so, Federal general reorganization-in-bankruptcy of the U.S. Federal Reserve System, could any significant recovery of the U.S. economy be effected. The fact that the U.S. Constitution prescribes a national credit-system, rather than a monetary system of the current European style, affords us the critical advantage of mobilizing adequate national credit in a well-managed way, over a base-period of a quarter-century. The bringing of the about-to-be-bankrupted European monetary systems into tandem with a new U.S.

credit system, rather than a monetary system, provides the cornerstone for a global economic recovery from the presently bankrupt condition of the present IMF system.

Putting the private member-banks of the Federal Reserve into reorganization under a Federal Reserve System in Federal government reorganization-status, will facilitate the generation of private credit inside the United States to complement the use of public credit for major elements of public investment in building basic economic infrastructure.

The ultimate feasibility of such long-term investments in both the public and private sectors, depends upon emphasizing high-gain investment in frontier qualities of scientific-technological progress.

EIRNS

LaRouche Youth Movement members re-create the Greek discovery of minimal distance for reflected light. LaRouche writes, "I have returned to the Pythagorean method of Sphaerics, with the aim of leading young adults to work their way to the physical implications of Riemannian hypergeometries."

The Cultural Basis of Recovery

The middle of the 1960s saw the emergence of a great conflict between two diverging perspectives on the matter of scientific and technological progress. On the one side, there was the rebirth of the Franklin Roosevelt legacy in the successive actions of the Eisenhower and Kennedy Presidencies, as expressed by the commitment to the Moon-landing. On the opposite side, were the rise of the anti-progress fanaticism of large sections of the 68er generation, and the destruction of the mechanisms of scientific and technological progress set into motion under the Nixon Administration.

The latter, anti-progress current, did not surprise those who had studied the Adolf Hitler regime more carefully from this vantage-point. Apart from military systems, the Hitler regime was predominantly a reflection of what we would term today "green ideology." It was the hostility to actual science by the Hitler regime which played an ironically helpful role in preventing Nazi Germany from realizing some of the strategically significant potential embedded in the German scientific tradition of that time.

The decline in the science-technology potentials of the United States under the Eisenhower-Kennedy resurgence of commitment to progress, was already under way during the 1950s, even under forced-draft efforts in military systems. A more routine approach to engineering product replaced the science-driver potentials of earlier versions of secondary and higher education. The science-driver capability which we and Europe still claimed during the 1970s and into the 1980s, was concentrated in both the generation of veterans of the World War II, and that of the immediately following years. Much of the destruction of the scientific potential of the United States and Europe today, has been largely a product of the collapse of scientific and related education in schools and universities; but, a more significant part of the destruction has been the result of a radically positivist influence, associated with the cults of so-called "information theory" and "artificial intelligence," in the content of what passes for scientific practice today.

I have used the occasion of stimulating a rebirth of Classical art and science among the adult-youth generation, to address these problems. My approach has been to return emphasis to the foundations of European scientific achievements among the relevant Classical Greek leaders of the Pythagorean and Platonic Academy traditions, through the work of Archimedes and Eratosthenes. My emphasis has been upon replicating actual original discoveries of universal physical principles, rather than presently conventional reductionist-mathematical pedagogies which teach formulas, but fail to focus on the discovered, experimentally based physical principle itself. For this purpose, I have returned to the Pythagorean method of Sphaerics, with the aim of leading young adults to work their way to the physical implications of Riemannian hypergeometries.

The accomplishments of young adults engaged in that return to Classical methods in physical science and art, are modest, but of crucial, exemplary significance. By bringing Classical scientific methods so into conjunction with the machine-tool-design principle lodged largely in our auto and aerospace industries, we are situated to use a few "drivers," as the Kennedy manned Moon-landing was used, to put a spear-point on national progress, as we now enter an age in which the notion of economy will be premised not on merely

infrastructure as such, but the deeper foundations of economic progress in man's mastery and improvement of the Biosphere and Noösphere.

4. The Biosphere for the Long Term

Those among Earth's water, atmosphere, and the fossil stores of the minerals which we mine for human uses, are relatively finite, relative to the required rates of consumption and of qualities of the required such accessible resources. Required resources are to be measured per capita and per square kilometer of the surface of the planet, and are also to be measured in terms of the increased requirements, per capita and per square kilometer, as society develops and population-levels increase. Without certain improvements in our planet's current, habituated policies of general practice, the rate of using up of Biosphere stocks left by earlier generations will overtake current human requirements. We must now add the need to generate such resources for the Biosphere and Noösphere as current products of the ongoing output of mankind's efforts.

First of all, we have already reached the point, that we must generate an increasing portion of the total consumption of potable fresh water, rather than relying on drawing down what are largely fossil stores of potable or quasi-potable water.[13] As fossil lodes are relatively depleted, we must generate stores, as through desalination aided by high-temperature nuclear and thermonuclear processes with large-volume capacity, to replace what is being depleted. Within this spectrum as a whole, we must meet the challenge of generating those elements and their isotopes which we need, rather than relying, as we have until now, upon mining stocks lying as fossil deposits within the Biosphere.

As we are impelled thus, to take charge of our planet as a whole, we have already begun to reach out further, to recognize our obligation to become capable of managing more and more of our Solar System, and to gain willful control, eventually, over the entire Solar System as an entity. How rapidly we might progress along those lines, is uncertain; at the present time we might assume that we do not need to know how rapidly we must make qualitative breakthroughs in such directions within the region of the Solar System beyond the bounds of Earth itself. It is sufficient that we, as the saying runs, "get going." In the first steps, such as dealing with a deadly asteroid encounter, we must explore the physical chemistry of the relatively nearby regions of the Solar System,

Preliminary Design Report 1084, Met. Water Dist. of S. Calif., 1993.

Artist's depiction of a modern seawater desalination tower. Desalination could be aided by high-temperature nuclear and thermonuclear processes with large-volume capacity, to replace what is being depleted.

to accumulate knowledge of the qualitatively broader view of physical chemistry we might develop, even on Earth, by extra-terrestrial encounters with operating chemistries beyond the Earth's bounds.

The intention to explore the Moon, and beyond, by manned landings on places beyond our immediate planet, which began in 1920s Germany, has carried us to the point that we have organized forms of science-driven aerospace mission programs. Despite all the setbacks which have occurred since the U.S. manned landing on the Moon, the impulse for relevant, science-driven exploration of nearby Solar space has crept forward in conception of immediate and intermediate goals.

The most notable characteristic of progress in such aerospace developmental programs, is the evident fact that every imaginable branch of scientific development is implicitly an attainable by-product of a space-oriented aerospace development along those lines. Implicitly, this trajectory in human scientific and related development might be best defined as

13. This problem came prominently to my attention in 1982, in my attention to the use of what might have been fossil-water resources, rather than "renewable resources," targetted for the development of new agro-industrial cities in Egypt. Making the deserts of North Africa and Southeast Asia bloom, is among the major objectives which must be selected for early mastery.

something which began to happen with Johannes Kepler's uniquely original discovery of the principle of universal gravitation.

It is our best estimate today, that, once there was a solitary, fast-spinning Sun, without planets to be its companions. This creative Sun generated our Solar System. The best estimate of the way in which the Solar System emerged, corresponds to the account of the principles of design of the planetary system given by Kepler about four centuries ago. However, it was determined by a scientific deliberation which occurred during the early 1980s, that the possibility of the existence of the chemical composition of the Sun's planets represented by the pre-nuclear-age Mendeleyev table of elements, depends upon a form of polarized thermonuclear fusion occurring in the immediate vicinity of the Sun itself.

The indicated point is, that with man's command of powers comparable to polarized thermonuclear fusion, man's adequate future management of our Solar System would not be feasible. This challenge is the long-range new frontier presently in view. Obviously, we shall not reach that power in the lifetimes of persons living today, but that is the visible horizon toward which coming generations must begin marching, already today.

For the presently living generations, and those just beyond, the present significance of that long-range view of mankind's destiny, is that it supplies us with a mission-orientation which is practically coherent with the notion of the immortality accessible to the mortal person living today. It is a mission-orientation which unites those living today along a common line of march hundreds of generations and more into the distant future of our Solar System, and a further view of the universe beyond that, a view of mankind as in the immortal image of, and a servant of an efficiently willful Creator.

4.1 The New Image of Man

There are no human races. Every phenotype, or genotype of mankind has essentially the same species of cognitive potentials, on condition that potential is developed and its fruitfulness encouraged. What man shares in common with the beasts, is not any of the quality which is specifically that of man; something of a higher order of existence, a quality unique to mankind, is the basis for the human identity and for specifically human identity. That distinction is expressed as the quality of creativity associated with discoveries of universal physical principles, such as the characteristic discoveries by the ancient Pythagoreans and Plato. It is through partaking in the use and generation of such discoveries, that society's practice is organized in a manner coherent with the true distinction of man from beast, the distinction of Noösphere from Biosphere. Scientific discovery and its application, is not a means to an end; it is a necessary characteristic of human individual and social behavior, in and of itself, for even its own sake.

Such is the image of man which we require to mobilize our people to rise from the looming muck of doom which menaces our nation today. Such is the image of man which Vernadsky's insight into the Noösphere implies as the proper economic policy for practice of the present and future nations of our planet.

Since the cultural paradigm-shift which the malicious Congress for Cultural Freedom and its allies induced among those young, within the Americas and Europe, who were born during a period beginning approximately the 1945-1950 interval, public opinion among such strata has been dominated, increasingly, by what is fairly described as a "no-future" orientation within our society, most notably among those presently between fifty-five and sixty-five years of age.

This factor of *existentialist* disorientation, whose causes are typified by the influence of the Congress of Cultural Freedom, is the underlying cause for the special cleavage which has arisen between the so-called "Baby Boomer" generation—the so-called "Now Generation"—and the young-adult generation, such as the 18-25 age-bracket, today. Despite all expressions of religious fervor, the distinction of the "Now Generation" is that it has no efficient sense of an actual future beyond its own demise. The result is the spectacle of a generation, now in or approaching the 55-65 age-interval, which, despite all the religious pretensions among its ranks, has no belief in an efficient purpose in its continued life beyond the point of its death. Whereas, the younger adult generation, typified by those in the 18-25 interval, faces the prospect of a half-century or more of personal life to come. The older generation's claims to religious belief, are therefore as doubtful as they are sometimes impassioned.

This cleavage in outlook between generations, a cleavage induced by the impact of the kind of sophists' existentialist outlook typified by the moral depravity of the Congress for Cultural Freedom, typifies the moral quality of the deep existential cleavage in the outlook of the intellects of the respective generations today. The challenge of the onrushing global economic-financial disaster now looming immediately before us, is to shift policy-thinking away from the "Now Generation" outlook, to an outlook coherent with the half century or more of the future of our global civilization.

The following thoughts are most pertinent to the solving of that problem, that challenge.

Science Versus Superstition

The form of depravity chiefly responsible for the cultural decadence of the Americas and western Europe today, appears in the form of irrational belief in magic, such as the "Ring" and "Harry Potter" cults. These cults have a modern root in the empiricist forms of mysticism associated with Thomas Hobbes, John Locke, Bernard Mandeville, François Quesnay, David Hume, Adam Smith, Jeremy Bentham, et al.: the belief in a principle of magic, such as the dogma of "free trade," as acting to shape the course of events as if by "little green men" operating from under the floorboards of the real

universe; belief in a magical result obtained if we follow a recipe for which mysterious forces would reward us with results met in the domain of experience.

Popular "science-fiction" entertainments are part of this infectious spread of anti-scientific beliefs in the implicitly satanic powers of magic. Even much of what is purveyed as "religious fundamentalism," as by the brutish Rev. Pat Robertson, partakes of this same pro-satanic quality of worship of the delusory, imagined powers of sympathetic magic.

We exist within the real universe, and are, as the closing verses of ***Genesis*** insist, men and women made in the likeness of the Creator, who are His agents in management of the universe in which He, and we live: and, as Albert Einstein rightly emphasized, there is nothing existing beyond that universe within which He reigns as omnipresent, the same universe within which we exist.

In reality, no one has shown the possibility for a state of affairs in which human beings might become immortal in their incarnate form. Rather, unlike the beasts, we can become spiritually immortal, at least conditionally, as no individual member of a species of animal could. The difference between man and beast on this account, is located in the domain of those qualities of ideas which are typified by the individual mind's generation of the discovery of a universal physical principle, or of a work of strictly Classical artistic composition which perpetuates the existence of the identity of the composer as a living force within society for centuries, even millennia to follow. Indeed, as the efficiency of discovered and employed universal physical principles attests, that aspect of us which is immortal, as the uniquely human discovery of universal physical principles attests to this, is within the Creator's universe, not in some place outside, or underneath.

In our mortal bodies as such, our individuality does not differ much from that of our animal pets. However, as we can show from reflection on the fact of valid, original discoveries of universal physical principle, or great Classical artistic compositions, such as those of Bach or Beethoven, which present us with the immortal aspect of a human individuality, the essential existence, and, therefore, the meaning of the individual's human life lies not in the domain of the Biosphere, but that which is expressed for us in the form of the Noösphere, the domain occupied by discoveries in the form of universal physical principles and important Classical forms of artistic composition, and by policy decisions and related initiatives which express the same qualities of the human mind as scientific and Classical-artistic discoveries.

The cruel folly to be considered, and rejected, is the notion that the individual person must see the prospect of death as like the closing and sealing of a door, never to be reopened again. Whereas, those among us who have repeatedly experienced the re-enactment of an original act of discovery, in physical science, or Classical artistic composition, see, more clearly than most of the rest among us, that reliving the experience of such a past discovery is a matter of calling forth again the living process of discovery of principle made by the original individual discoverer of reference. In true science and great Classical art, we experience, in our own flesh, the efficient existence of the person of a long-dead discoverer. We experience thus, *an efficient sense of the future beyond.*

Among rather ordinary, sane people, we have the case of the grandfather who points to some physical work, while saying to the child, "I was part of the team which built that." It is in a sense of the continued, historical existence of living and deceased human beings, that we have a more or less ready access to what has been labelled "an intimation of immortality." By looking backward, thus, and then looking forward to the future where we shall be interred, an appropriately efficient prescience of human individual immortality becomes accessible to our knowledge.

Hence, it is such great scientific discoverers and great Classical artists, who typify the larger category of persons who not only have an intimation of human individual immortality, but an efficient one, one which is of immediate relevance to the knowing individual's practice today. So, it is with the patriot whose love of future mankind carries him into battle. It was said, in a feeble attempt to encompass such a nature in a simplistic way, "Praise the Lord and pass the ammunition!"

The challenge implicitly embedded in such reflections, is typified by the thematic issue of Aeschylus' ***Prometheus Bound.*** Zeus's condemnation of Prometheus for imparting knowledge of the use of "fire" to mortal man, is the crucial issue. The essence of human life is the breaking of the bonds of tradition, as fundamental scientific and Classical-artistic modes of cultural progress do, to locate an efficient sense of both past and future within the finite reach of the individual person's mortal existence. It is that specific kind of sense of personal immortality, beyond the reach of death of the animal body we inhabit, which is the foundation of all true human morality. It is that sense of one's self, of one's own efficient existence in the universe beyond the limits of our individual life and death, which is the only foundation of true morality, the only foundation of that true sense of citizenship which we must now awaken in our people, if we are to overcome the terrible threats which recent folly has bestowed upon our own and other nations today.

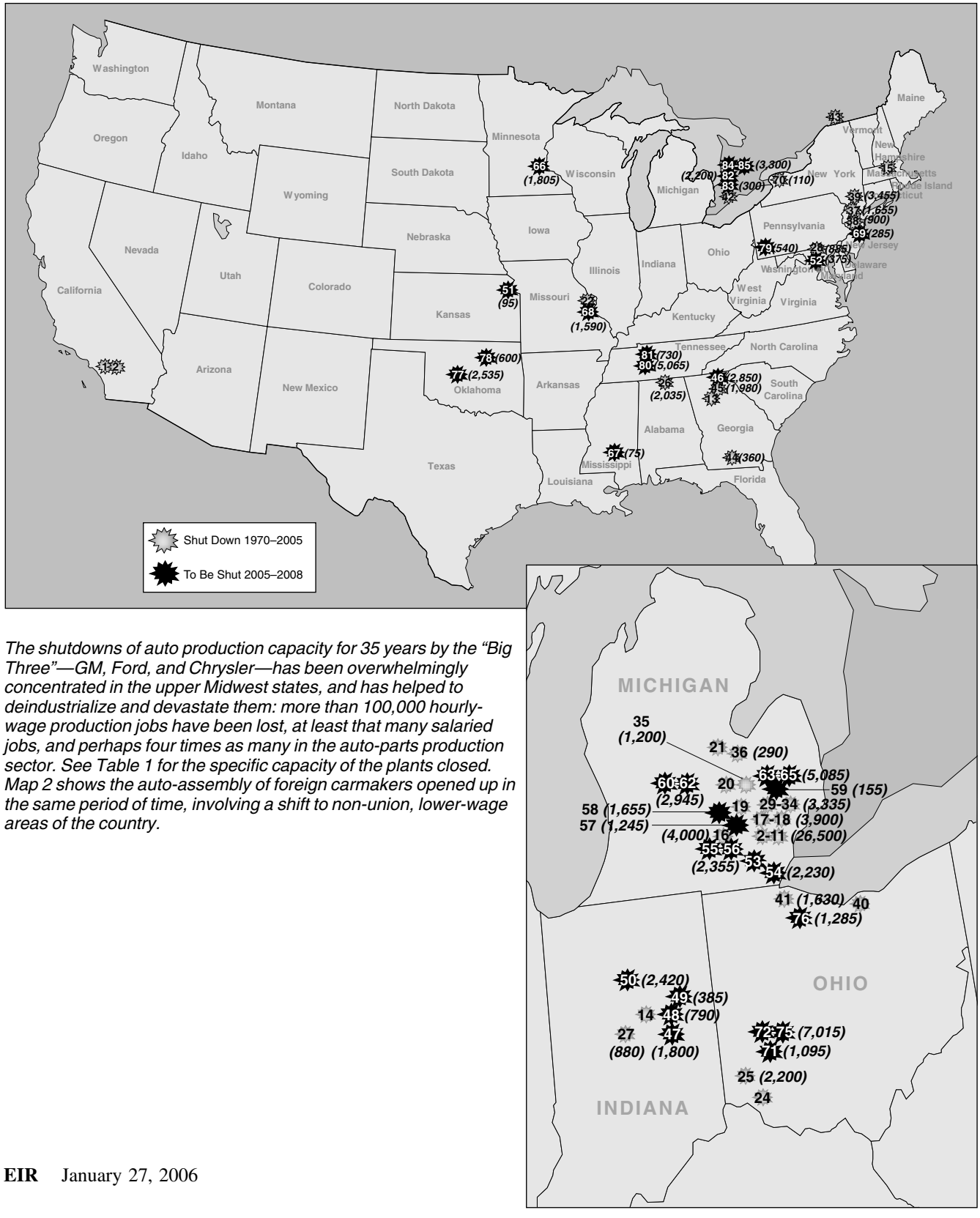
It is only as we grasp our personal responsibility for what happens to mankind in generations to come after us, that we will have located our higher sense of personal identity. Here lies what Gottfried Leibniz defined as "the pursuit of happiness," the notion of the general welfare of present and future generations, and the realization of the good contributed by those who came before us, which is the central conception of our 1776 Declaration of Independence.

Our hope as a people today, lies in the commitment to those great and mighty works, which make not only this nation, not merely this planet, but the immediately surrounding universe, a better place for generations yet to come.

Appendix

MAP 1

Plant Shutdowns 1970-2008 by the 'Big Three'



The shutdowns of auto production capacity for 35 years by the "Big Three"—GM, Ford, and Chrysler—has been overwhelmingly concentrated in the upper Midwest states, and has helped to deindustrialize and devastate them: more than 100,000 hourly-wage production jobs have been lost, at least that many salaried jobs, and perhaps four times as many in the auto-parts production sector. See Table 1 for the specific capacity of the plants closed. Map 2 shows the auto-assembly of foreign carmakers opened up in the same period of time, involving a shift to non-union, lower-wage areas of the country.

TABLE 1

Plant Shutdowns 1970-2008 by the 'Big Three'

State	City	Type of Facility	Workers	Company	Year Closed
1970-85					
1. California	South Gate	Assembly		GM	1980
2. Michigan	Hamtramck	Dodge Main	7,500	Chrysler	1980
3. Michigan	Detroit	Fisher Body 23	915	GM	1970-85
4. Michigan	Detroit	Fisher Body 37	185	GM	1970-85
5. Michigan	Detroit	Chevrolet Forge	1,407	GM	1970-85
6. Michigan	Detroit	Dodge Forge	1,000	Chrysler	1970-85
7. Michigan	Detroit	Plymouth Assembly	2,300	Chrysler	1970-85
8. Michigan	Detroit	Plymouth Engine	1,000	Chrysler	1970-85
9. Michigan	Detroit	Amplex	297	Chrysler	1970-85
10. Michigan	Detroit	Auto Body Division	9,700	Chrysler	1970-85
11. Michigan	Highland Park		2,200	Chrysler	1970-85
1986-95					
12. California	Van Nuys	Assembly		GM	1992
13. Georgia	Lakewood	Assembly		GM	1990
14. Indiana	Anderson			GM	1992-96
15. Massachusetts	Framingham	Assembly		GM	1989
16. Michigan	Ypsilanti/Willow Run		4,000	GM	1992
17. Michigan	Detroit/Fleetwood	Fisher Body	3,900	GM	1987
18. Michigan	Detroit 2	Components Plant		GM	1992-96
19. Michigan	Pontiac	Car Assembly		GM	1988
20. Michigan	Flint Engine			GM	1992-96
21. Michigan	Saginaw	Metal Castings		GM	1992-96
22. Missouri	St. Louis	Truck Assembly		GM	1987
23. Missouri	Leeds	Assembly		GM	1987
24. Ohio	Norwood	Assembly		GM	1987
25. Ohio	Hamilton/Fairfield	Stamping	2,200	GM	1988
1996-2005					
26. Alabama	Athens	Electrical, Steering	2,037	Delphi	2001
27. Indiana	Indianapolis	Foundry	881	Chrysler	2005
28. Maryland	Baltimore	Assembly	883	GM	2005
29. Michigan	Detroit	McGraw Glass	717	Chrysler	2003
30. Michigan	Detroit/Mound Rd.	Engine Plant		Chrysler	2002
31. Michigan	Dearborn	Assembly	2,000	Ford	2004
32. Michigan	Detroit/Mt. Elliot	Tool & Die	290	Chrysler	2003
33. Michigan	Dearborn	Vulcan Forge	80	Ford	2003
34. Michigan	Detroit	Tank	536	Chrysler	1998
35. Michigan	Flint/		1,200	GM	1999
36. Michigan	Saginaw	Malleable Iron (PT)	292	GM	
37. New Jersey	Linden	Assembly	1,654	GM	
38. New Jersey	Edison	Truck Assembly	900	Ford	2004
39. New York	Tarrytown		3,456	GM	1996
40. Ohio	Brook Park/Cleveland	Aluminum Casting	78	Ford	2003
41. Ohio	Toledo	Machining	1,628	Chrysler	2003
42. Ontario	Windsor/Pillette Rd.			GM	2001-03
43. Quebec	St. Therese	Assembly		GM	2002

(continued)

TABLE 1

Plant Shutdowns 1970-2008 by the 'Big Three' (continued)

State	City	Type of Facility	Workers	Company	Year Closed
2006-08 (Planned and Threatened)					
44. Georgia	Fitzgerald	Batteries	363	Delphi	
45. Georgia	Atlanta/Hapeville	Assembly	1,978	Ford	
46. Georgia	Doraville	Assembly	2,856	GM	
47. Indiana A	Indianapolis	Steering Components	1,800	Visteon	
48. Indiana	Anderson	Energy and Chassis	791	Delphi	
49. Indiana	Muncie	Transmission	385	GM	
50. Indiana	Kokomo	Environment & Safety	2,421	Delphi	
51. Kansas A	Kansas City	IP/Lamp Assembly	95	Visteon	
52. Maryland	Baltimore	Transmission (PT)	376	GM	
53. Michigan A	Monroe	Chassis	1,330	Visteon	
54. Michigan A	Milan	Powertrain	900	Visteon	
55. Michigan A	Saline	Interiors	1,585	Visteon	
56. Michigan A	Ypsilanti	Chassis	770	Visteon	
57. Michigan A	Plymouth	Climate Control	1,245	Visteon	
58. Michigan	Wixom	Assembly	1,663	Ford	
59. Michigan A	Chesterfield Township	Seating Foam	155	Visteon	
60. Michigan	Lansing—Delta Twnshp	Assembly	130	GM	
61. Michigan	Lansing—Grand River	Assembly	1,303	GM	
62. Michigan	Lansing	Metal Center	1,514	GM	
63. Mich	Flint East (D)	Exhaust Systems	649	Delphi	
64. Mich	Flint East (E/C)	Energy, Engine	2,173	Delphi	
65. Michigan	Flint	North (PT)	2,262	GM	
66. Minnesota	St. Paul	Assembly	1,805	Ford	
67. Mississippi	Laurel	Energy Systems	73	Delphi	
68. Missouri	St. Louis/Hazelwood	Assembly	1,589	Ford	
69. New Jersey	New Brunswick	Batteries	283	Delphi	
70. New York	West Seneca	Compressors	110	Visteon	
71. Ohio	Kettering	Thermal Systems	1,094	Delphi	
72. Ohio	Moraine	Assembly	3,821	GM	
73. Ohio	Moraine	Energy & Chassis	1,145	Delphi	
74. Ohio	Dayton	Compressors	1,409	Delphi	
75. Ohio	Vandalia	Interiors	641	Delphi	
76. Ohio A	Sandusky	Lighting	1,285	Visteon	
77. Oklahoma	Oklahoma City	Assembly	2,534	GM	
78. Oklahoma A	Tulsa	Glass	600	Visteon	
79. Pennsylvania	Pittsburgh	Metal Fabricating	541	GM	
80. Tennessee	Spring Hill	Assembly	5,067	GM	
81. Tennessee A	Nashville	Glass	730	Visteon	
82. Ontario	Windsor	Engines	2,200	Ford	
83. Ontario	St. Catherines	Powertrain	300	GM	
84. Ontario	Oshawa Plant #1	Assembly	1,000	GM	
85. Ontario	Oshawa Plant #2	Assembly	2,300	GM	

A = In Ford's "Automotive Components Holdings, LLC, as of Oct. 1, 2005
PT = Power Train

Source: *EIR* 2006.

MAP 2

Foreign Auto Plant Openings in United States, 1980-2006

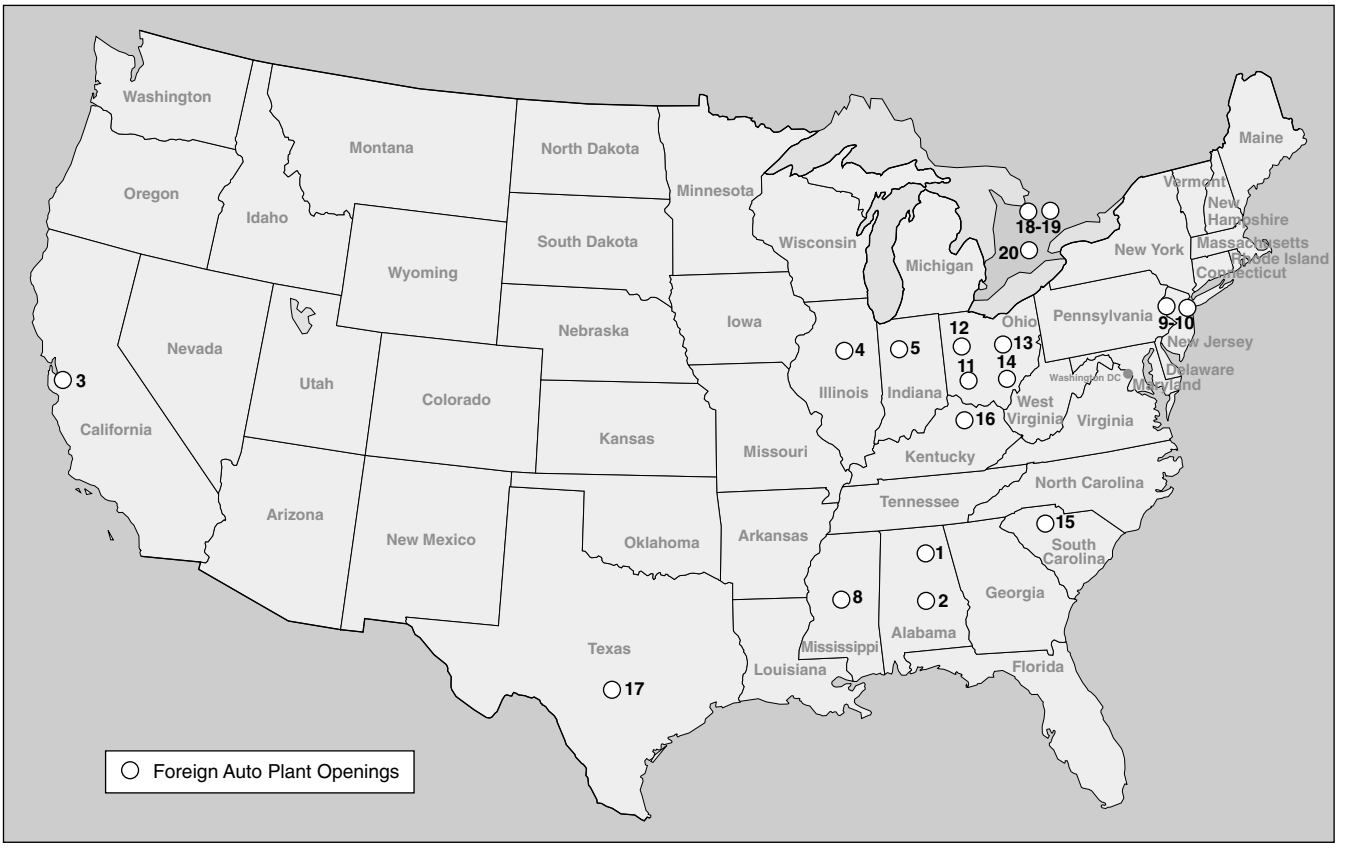


TABLE 2

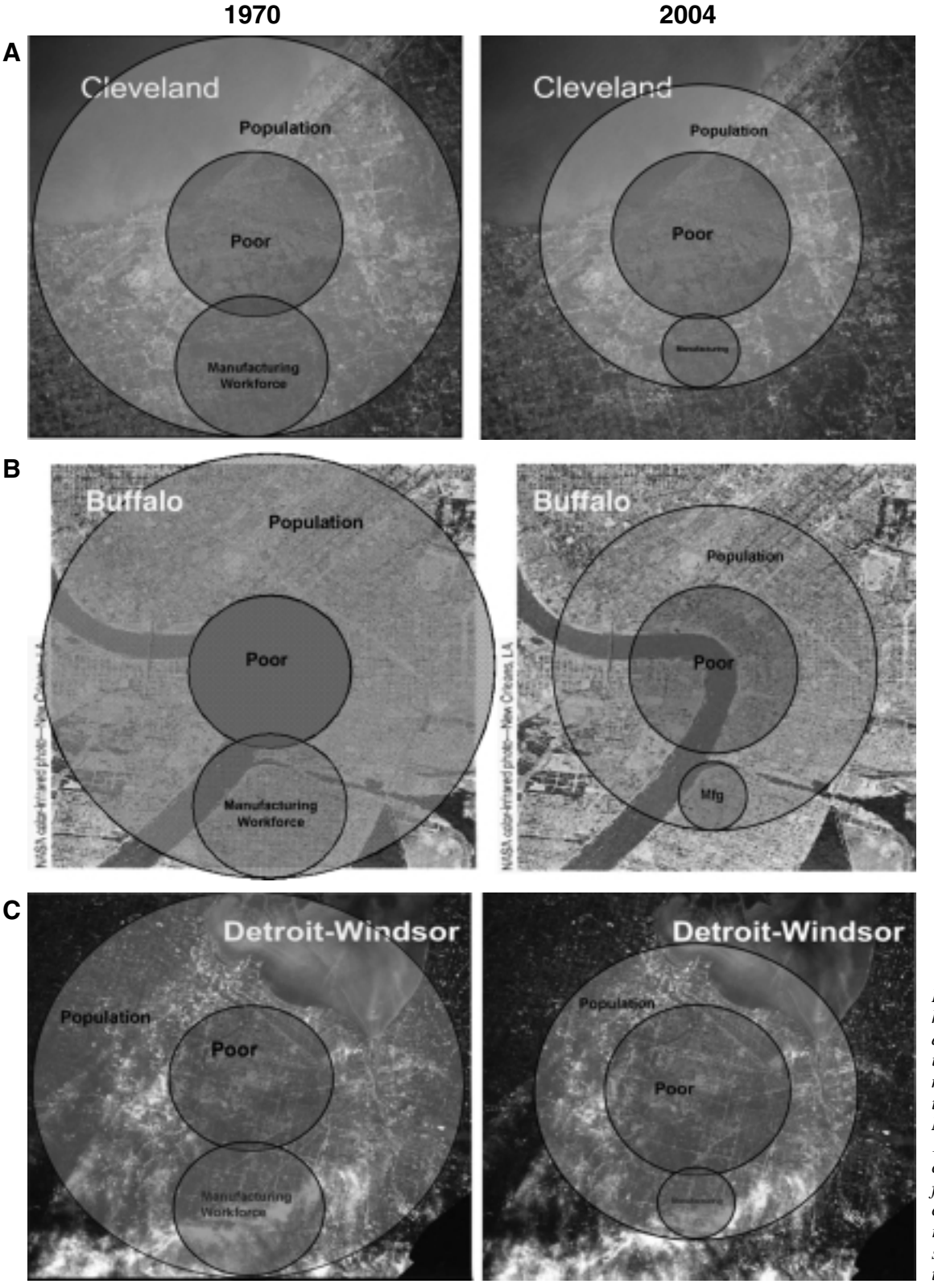
Foreign Auto Plant Openings in United States, 1980-2006

	State	City	Type of Facility	Company	Year Opened
1.	Alabama	Lincoln	Assembly	Honda	2001
2.	Alabama	Montgomery	Assembly	Hyundai	2005
3.	California	Fremont	Assembly	Toyota/NUMMI	1984
4.	Illinois	Normal	Assembly	Mitsubishi	1988
5.	Indiana	Lafayette	Assembly	Subaru	1989
6.	Kentucky	Georgetown	Assembly	Toyota	1988
7.	Kentucky	Georgetown	Assembly	Toyota	1994
8.	Mississippi	Canton	Assembly	Nissan	2003
9.	New Jersey	Princeton	Assembly	Toyota	1999
10.	New Jersey	Princeton	Assembly	Toyota	2003
11.	Ohio	Anna	Engine	Honda	1985
12.	Ohio	Russells Point	Transmission	Honda	1997
13.	Ohio	East Liberty	Assembly	Honda	1989
14.	Ohio	Marysville	Assembly	Honda	1982
15.	South Carolina	Spartanburg	Assembly	BMW	1995
16.	Tennessee	Smyrna	Assembly	Nissan	1983
17.	Texas	San Antonio	Assembly	Toyota	2006
18.	Ontario	Alliston #1	Assembly	Honda	1986
19.	Ontario	Alliston #2	Assembly	Honda	1998
20.	Ontario	Cambridge	Assembly	Toyota	1998

Source: *EIR* 2006.

FIGURE 1

Deindustrialization Ruins Midwest Cities



Deindustrialization has shrunk and drastically impoverished the major cities of the upper Midwest since 1970. The figures could be shown for dozens of cities in the region, with the same effects throughout.