

Lyndon LaRouche, during a nationally televised half-hour television address in January, documented the effects of American economic decline of the relative military capabilities of the United States and the Soviet Union.

Jimmy Carter's economy enters into 'Weimar hyperinflation'

by Lyndon H. LaRouche, Jr.,
Contributing Editor

Computer analysis shows that President Jimmy Carter's new round of "fiscal austerity" measures has pushed the U.S. economy into the "threshold area" of a "Weimar-style hyperinflationary spiral."

Although some leading Manhattan investment-banking circles have hinted at such a possible condition

during the past two weeks, mathematical proof was delivered over the past weekend.

Either Carter and Federal Reserve Chairman Paul A. Volcker soon reverse their policy-initiatives announced last week, or their so-called anti-inflationary measures will move the U.S. economy into a condition like that of 1922-1923 German hyperinflation.

The initial report on the computer analysis of this new round of "austerity" measures will be published in next week's issue of the *Executive Intelligence Review*.

The talk around Wall Street

An echo of the opinion among best-informed Wall Street circles was published in the March 13 *New York Times*. That article added: "After 15 years of blunders" [i.e., since President Johnson's and Fed Chairman William McChesney Martin's failures of the middle 1960s] "there's no basis for having any confidence in the system [of fine-tuning through monetary policy measures]. . . ."

Some of the higher Wall Street echelons have been discussing their own estimates with the *Executive Intelligence Review* during the past week. That discussion is prompted by financial experts' recollection that it was

this publication which, alone, correctly predicted last October the now-experienced inflationary and depressive effects of the "fiscal austerity" measures which Carter and Volcker enacted at that time.

The *EIR* at that time reported the results of its computerized analysis. It projected that Carter's "fiscal austerity" measures would accelerate the rate of inflation—just as has occurred. It predicted those measures would cause a collapse of the construction sector, and also cause a drop of more than 20 percent in the automobile sector by late February. It projected a further, post-February decline in industry sectors "upstream" from their construction and auto industry customers.

Based on that experience, some leading investment-bankers are presently warning insiders that the new "anti-inflationary" round of Carter's and Volcker's "fiscal austerity" will accelerate inflation to higher rates than ever before, and are estimating that a new major bankruptcy, like that of the Penn Central in 1970, might send the whole U.S. economy into a depression-collapse worse than that of the 1930s.

Leading European circles are fearful that Carter's latest blunders might even bring down the entire world economy. In response to this, leading members of the European Monetary System are thinking out loud of an immediate implementation of the Carter-prohibited "phase II" of the European Monetary System, the European Monetary Fund, as the only visible defense of the world economy against what is widely seen as Carter's economic and monetary insanity.

The current computer analysis

The current computer analysis being made by the *EIR* is a qualitatively upgraded version of the study completed last October.

The added improvements involve a qualitative refinement in the basic parameters used. These improvements were specified by Contributing Editor LaRouche immediately on receipt of advance-notice of the contents of Carter's and Volcker's impending announcements.

Technically speaking, the improvements in basic parameters of the economic "modelling" are as follows.

The basic parameter is a four dimensional phase space which is composed of the following variables:

(1) Average energy-flux-density through (a) combined productive sectors, and (b) for each of the 25 subsectors of the basic "model."

(2) Average energy-flux-density for each case distributed among gross (S) and net (S') profits, direct labor costs (V), and combined costs of productive capital (C), to derive a ratio, $[S'/(C+V)]$ in dollar-equivalent terms.

The derived parameter corresponds to Helmholtz's "free energy" parameter for thermodynamics. Using Riemannian analysis for the determination of changes from a phase-space of one physical geometry to a new phase-space of a different physical-geometric characteristic, the 25 subsector "model" then projects two kinds of conditions resulting from the sort of measures initiated by Carter and Volcker this past week.

(1) Changes in economic-activity rates occurring within the phase-space of the initial physical-geometric characteristics.

(2) Defines the approximate point of change to a phase-space of different physical-geometric characteristics.

In the case defined by the application of the Carter-Volcker measures to the current condition of the U.S. economy, the phase-space change to which analysis is properly most alert is the point of contraction at which the "free energy ratio," as indicated, converges on and falls below "zero."

It is such a passing-through "zero" value for that "free-energy ratio" which defines a passing-over into an economic domain of physical-geometric characteristics analogous to the hyperinflationary "whirlpool" of the 1922-1923 economy of Weimar Germany.

The conclusion is, allowing for margins of error in governmental and other present data on levels of output and profit-ratios, that the U.S. economy is now entering, or may have already passed below the critical "zero" value.

That estimate, derived from the computer analysis, cross-checks with observation of the way in which the U.S. economy is behaving at this time. The month-to-month movements in the economy over the past two months, most emphatically, are of that distinctive quality peculiar to an economy which has passed below the "zero" value, into the degenerative phase-space analogous to the cited Weimar case.

Carter's grave policy-blunder

By comparing the contents of the 1975-1976 policy-papers, written under the included direction of Cyrus Vance, Zbigniew Brzezinski, and W. Michael Blumenthal for the New York Council on Foreign Relations, with the Carter administration's policy-decisions of the post-January 1977 period, we prove with certainty that Carter is merely a puppet of the Trilateral Commission.

We also prove, in the same way, that Carter's administration is clinging hysterically to the doctrine of "con-

trolled disintegration" of the U.S. dollar and economy demanded in those policy-papers. It was the adherence to exactly such "controlled disintegration" doctrines which characterized the collapse of the U.S. dollar under the direction of W. Michael Blumenthal, Anthony Solomon, and G. William Miller prior to the past summer. Miller's replacement at the "Fed," Paul A. Volcker, publicly avowed his own dedication to the "controlled disintegration" doctrine, speaking to an audience in Britain, a short space before his appointment by President Carter.

Therefore, up to a point, the rise of U.S. inflation from about 5 percent, at the time of Carter's inauguration, to about 13.5 percent before the austerity measures of last autumn, represents a deliberate wrecking of the dollar and economy by the Carter administration—just as Vance et al. "promised" in their 1975-1976 policy papers.

Therefore, although a majority of U.S. citizens—and many leading West Europeans—regard the consequences of such Carter administration policies as down-right evil, up to the point of last autumn's 13.5 percent reported inflation-rate, all of the collapse of the dollar and the U.S. economy was in fact the intended outcome of Carter's economic, monetary and energy policies. The comparison of the 1975-1976 with the indicated sorts of other, corroborating evidence, proves this judgment beyond competent dispute.

The problem for the Carter administration now is that, since the so-called anti-inflationary measures of last autumn, the U.S. economy has passed over to a state of "uncontrolled disintegration." For that reason, we must regard the present downward-spiralling of the U.S. economy as a result of a gross miscalculation by the Carter administration and that administration's principal advisors.

If one imagines that this evidence has caused many of Carter's advisors to propose corrections to the failed policies, one is leaping to the wrong judgment of those advisors. Many of those who share the estimate of the cited *New York Times* article of March 13 are now saying, in effect: "Very well, let the collapse of the economy happen. Let it collapse; we will pick up the pieces after the collapse has occurred."

That also appears to be the policy of the campaign-organization of Governor Ronald Reagan, judging from an analysis of his address to the Chicago Council on Foreign Relations on the eve of the Illinois primary election. The present group of top-level Reagan advisors on foreign policy and economic policy are representatives of the top layer of Georgetown University's hard-core "Friedmanites." They are dedicated, in fact, to going to more drastic austerity than even Friedman has recommended publicly so far; they are hard-core sup-

porters of the Nazi-economic Mont Pelerin Society, all committed to the proposition recently stated by London's Friedrich von Hayek: that Friedman's austerity is much too soft.

The small businessmen, farmers, trade-unionists, and professional strata now rallying as an "American nationalist" force of "middle America" behind Reagan's campaign have reason to be dismayed. At present, Reagan's economic policy is even much worse than Carter's.

Harvard's 'bubbleheads'

The *EIR*'s analysis took this occasion to compare the results of its own evaluations with a report by Harvard Business School's Robert Stobaugh and Daniel Yergin, published in the *Foreign Affairs Annual Review* for 1979.

Those writers argued, as has ultra-liberal Republican John B. Anderson, that government-mandated increases in energy prices would be counter-inflationary.

Those authors stated: "Can this be done? We think it can, with substantial investments in conservation measures encouraged by federal financing—and the removal of institutional barriers. The result will not only be a higher GNP, but much less inflation than if we send these dollars abroad to pay for oil and ever-increasing prices not just because our supplies might be limited to that, but because meeting this goal through productive conservation is the best way to promote positive economic growth."

They add the arrogant and incompetent assertion: "Conventional economic analysis would dismiss this notion as fanciful. Our reply is that such conventional analysis is increasingly and distressingly distant from reality."

The authors' argument is as absurd in fact as their momentary twinge of a sane conscience, the word "fanciful," might imply. Unfortunately, like the fad of "flagellationism" which seized half-psychotic masses in Western Europe during the course and aftermath of the fourteenth-century bubonic plague, the lunacy of a current fad is no sure guarantee against its momentary popularity. What the misguided authors are proposing is the current policy of not only the exotic Mr. Anderson, but it has been the direction, as well as the current viewpoint of Carter administration policy.

The entire history and prehistory of the human species combines to prove conclusively that increases in the energy-flux-density, as well as the amount of energy man commands per capita, are the bedrock on which the mere survival of any nation or culture depends. A zero energy-growth policy in a modern industrial society means a very rapid, and accelerating devolution of that society.

The case of American agriculture provides the easiest, most direct sort of illustration of that point. As we graph the percentile of the total labor force required to supply

essential farm products needed by the entire population from the 1790s, the first U.S. Census, to the present time, we find a very rigorous sort of correlation between the net energy-flux-density ratios per acre and per farmer and the decline in the percentile of the labor-force required to produce sufficient nourishment for the entire population.

Let us assume, for the sake of neatly rounded illustrative figures, that a farmer with modern implements can produce as much as 20 farmers using horse-drawn equipment. That means that each of the latter farmers can earn only one-twentieth of the combined costs of the farmer employing modern, energy-intensive equipment. What sort of lunatic statistician can conjure images of "economic growth" from such devolutions in technology?

That does not take into account the energy-flux-density ratios represented by fertilizers, pesticides, and so forth.

One must conclude that the only "reality" which can be invoked by authors Stobaugh and Yergin is the "reality" that the Carter administration and other dominant influentials of the moment have committed themselves hysterically to the sort of nonsense which the authors are defending.

The computer rebuts Harvard

The qualitative measures of the Stobaugh-Yergin process may be described:

Although, in the two-dimensional phase-space described by the four parameters used in the *EIR* analysis, a phase-space spanned by energy throughput and economic output, an actual growth in output can be achieved with less energy, that hypothetical possibility leaves open the question: How might this be accomplished?

It could be accomplished, even hypothetically, only by an increase of sufficient magnitude in the Helmholtzian "free energy" ratio, the energy-flux-density correlative of increases in the output-ratio $[S'/(C+V)]$. Such could occur only through very substantial increases in high-technology capital-formation rates in the economy.

The Harvard authors presume a change in internal composition of output, favoring low-energy, labor-intensive production categories—at the expense of the more-productive capital-intensive forms. The Harvard authors have introduced to their schema, wholly arbitrarily, the axiomatic assumption that, in some miraculous fashion, "less is more."

For example, analyzing the surface of the four-dimensional phase-space defined by the four parameters listed above, we are forced by analysis of post-1974-U.S. economic data to the conclusion that the U.S. economy has been deteriorating in a fundamental way over the course of that period.

Economic throughput and economic output

In the two-dimensional phase spaces described by the parameters of energy throughput and economic output, it would appear from the graphs that an actual growth in output can be achieved with less energy. It could, under a policy of very substantial increases in high-technology capital-formation rates in the economy, that would lead to an increase of sufficient magnitude in the "Helmholtzian" free energy ratio (S')—the two key parameters of a four-dimensional phase space.

But Carter's policies do not. The graphs in fact show a shift, a phase change of the U.S. economy toward more labor intensive production methods and more non-goods-producing activity. The costs incurred by the administration's low-energy policy have already exceeded the economic free energy available for investment in productive capital formation. As S' declines below zero, there is a passing over into an economic domain of physical-geometric characteristics analogous to the hyperinflationary whirlpool of the 1922-1923 economy of Weimar Germany.

If we view the economy as analogous to an engine, in the sense of physical thermodynamics, the U.S. economy is to be described over this recent period as on a path toward drastically lowered thermodynamic efficiency. Viewing this actual decay in the manner its results are reflected on our four-dimensional surface, we see that the rate of decay of the U.S. economy's thermodynamic efficiency has been accelerating since the summer of 1979.

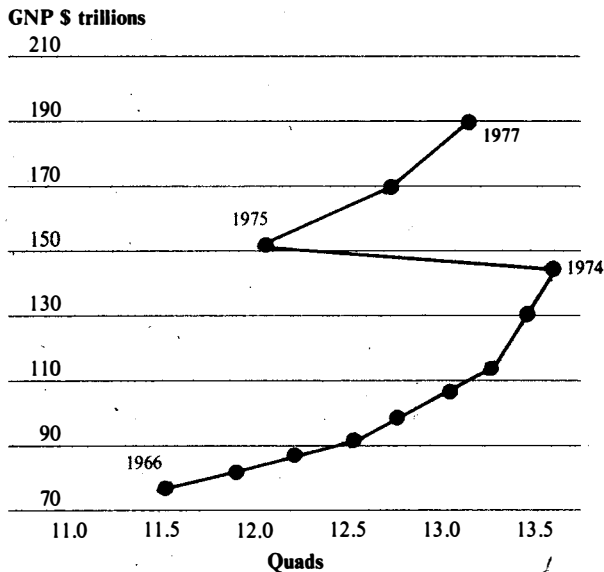
The correlatives of the accelerating decline of the U.S. economy's thermodynamic efficiency are, most essentially, these:

- (1) Capital formation in all sectors has been "flat" over the past period.
- (2) Of the capital formation which did occur, a large portion was plowed into nonproductive "pollution abatement." This, which often lowered the energy efficiency of affected sectors, represents a deduction from capital formation totals, to determine a true net rate of capital formation.

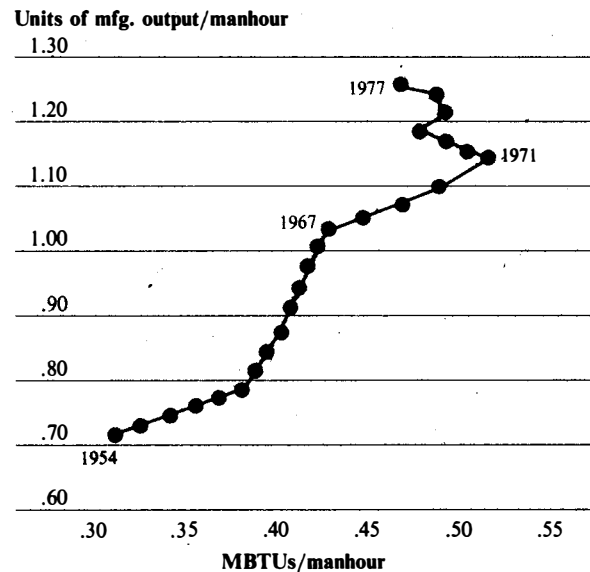
The net capital formation has been in fact negative.

These facts are concealed behind continued official adherence to the incompetent Gross National Product

Energy content of the GNP



Manufacturing output/manhour vs. energy flux density, 1954-1977



measure of "growth." In addition to actual tangible output of wealth, GNP includes pure economic waste, as well as those private and public rises in debt-service, in administration, and in services, which are, at best, overhead-burden costs, rather than actual contributions to total economic output. If combined waste, debt-service increases, administration and services, are properly defined, as nonproductive overhead cost-burdens, a tax on gross profits earned by production, then a true picture of the economy is obtained.

On the principle that it is "an ill wind that blows nobody good," one finds some probably unintended merit in the output of another pair of Harvard gentlemen. We refer to the October 1978 "Energy Prices and the U.S. Economy, 1972-1976," by Dale Jorgenson and Edward Hudson. This source is useful for its compilation of data concerning the substitution of labor for energy—and vice versa. Such data is useful as a source of first approximations of the correspondence between energy-flux-density and output, in building a data-base for the four-dimensional phase-space "model."

Those authors calculate a 3.2 percent drop in the GNP, and a 2.64 percent rise in the demand for labor over the indicated period, as a result of rises in energy-prices. (This implies the reverse relationship, that gains in productivity of labor lag behind the required increases

in energy needed to make such gains in productivity possible. For example: if existing technology had been used to improve labor productivity during the period, using "off-the-shelf" equipment for increasing capital-intensity, it is indicated that 82.5 percent of the increases in energy-intensity would have been realized as gains in productivity. That indication correlates with the historical evidence of energy-productivity correlations.)

Those authors' cited figures for labor substitution grossly understate the losses in efficiency the economy must suffer under such a continuing policy.

As (S'), or Helmholtz "free energy," declines along a four-dimensional surface of the form cited, the deductions for various forms of waste reduce the available free energy toward zero.

For example, as we noted above, there are the aggregate demands for various forms of "energy-saving" (therefore, less energy-efficient, less productive) investments, military spending, synthetic fuels plants (representing a sharp drop in energy efficiency), and other costs caused by the Carter administration's low-energy policy. These costs have already exceeded the economic free energy available for investment in productive capital formation. As (S') declines below zero, these costs then become an absolute deduction from the productive sector.

The formal, rigorous statement of this matter is summarily as follows.

Such a regime, of continuously lower usable energy, or, negative capital formation, cannot continue without passing through a *singularity* of a sort analogous to a rarefaction wave in a thermodynamic system. All thermodynamic systems—and the U.S. economy is such a system—are characterized by areas of singularity. In such areas, an extreme change in energy content will produce phase changes (e.g., rarefaction), eliminating the “smoothness” of the functions characterizing such systems.

In the case of the present state of the U.S. economy, the relative size of the productive subsector is falling at such a rate, relative to the nonproductive sector, that the usable free energy has not merely turned negative. Each further reduction in (S') demands and causes additional deductions from the productive sector.

The U.S. economy has already passed the phase-change threshold, to the effect that none of the functions which previously served to more or less adequately characterize the economy now make practical sense.

This fact makes horrifyingly foolish the assumptions of Jorgenson and Hudson—as well as the more absurd contentions by Stobaugh and Yergin. It is worse than absurd to assume, given present, factually established realities, that the kinds of effects cited by Jorgenson and Hudson are merely one-time adjustments.

Yet, Jorgenson and Hudson insist that the devolutions of the economy caused by “labor substitution” are “one-time” effects, rather than permanent trends. Once the economy has adjusted to the new labor and productivity conditions, they continue, “there will be no further energy-induced pressure for further changes. Continued changes will occur only if there is a secondary wave of induced price responses.”

The final sentence of that quotation situates Jorgenson and Hudson well within the policy-doctrines of Nazi Finance Minister Hjalmar Schacht. The reasoning is illustrated readily, as follows:

Returning to the hypothetical substitution of 20 men with horse-drawn equipment for one farmer with modern, tractor-related equipment, either the 20 accept sharing-out one-twentieth each of the income of the farmer with the energy-intense modes, or the result is an “induced price response”: a rise in inflation-rates, in proportion to the loss in productivity! If this price-increase is efficiently resisted, then we have a case of purely Nazi economic policy.

Otherwise, Jorgenson and Hudson introduce the assumption that a 16 percent drop in energy consumption will produce only a 3 percent decline in GNP.

The following calculations are very rough, but they suffice to expose the wild absurdity of Jorgenson's and

Hudson's argument—even without resorting to our more sophisticated analytical apparatus.

During the postwar period, the percentile of the U.S. labor-force employed as productive operatives (aggregately in agriculture, manufacturing, construction, mining and related, and transportation) has declined from the range of 60 percent to a recent 38 percent. It is that 38 percent (1979 estimated) which produces the entire wealth of the U.S. economy. The remainder is either waste or overhead-burden costs.

Using the 1972-1976 ratios adduced by the Harvard authors, a 30 percent drop in energy-throughput—at the 82.5 percent ratio derived from their data—means a 24.75 percent labor-substitution within the realm of the 38 percent of the labor-force employed as operatives. This means that 47.40 percent of the labor-force is indicated as needed to accomplish the output equivalent to 1979's 38 percent. Assuming that substitutional labor policies meant that the 47.40 percent produced as much gross profit as the 38 percent—which is impossible—that means, a greater than 36 percent decline in real product—all added to the amount of the negative free energy.

Whence, then, do Jorgenson and Hudson derive their optimistic 3 percent figure for a 30 percent decline in energy-throughput? It could only come from their desire to be overheard saying the sort of nonsense which would not enrage the Carter administration's sponsors.

In fact, the effect of the “conservation” they describe is a down-spiral which goes “off the charts” long before a 30 percent reduction in energy-throughput is reached. The analogy is the Weimar hyperinflation of the early 1920s. In other words, exactly the results into which the continuation of Carter's economic, monetary and energy policies are now bringing us.

Such Harvard professors! One thinks of Jonathan Swift's writing of the savants of that fanciful floating island-state, the savants strolling, bemused, sometimes too close to the edge of the island. They are saved from certain death chiefly, according to Swift, by those faithful students, bearing inflated pig's bladders, who gently buffet the savants with the bladders to turn their steps from a perilous next step. It was in the same, fanciful, floating island that the credulous were educated by swallowing lessons written on a form of cracker. Apart from the useful data, the argument of Jorgenson and Hudson has approximately the same merit for imparting knowledge as those edifying crackers of Jonathan Swift's account.

Either we force Carter and Volcker to reverse their lunatic policies quickly—and team up in support of the golden alternatives proposed by our European Monetary System allies, or ... the next step downward for the falling U.S. economy is as big a giant step as one might imagine. Going down that step will break a lot of necks.