credit flows to industry and business and 2) a steeper decline in economic health, brought about by sharp credit attrition to the economy's productive sectors.

A third trajectory—that of 1929-style economic blowout ensuing in the wake of the international banking collapse feared by Morgan Guaranty and its friends at the Fed—of course exists, but has not been made the subject of the fourth-quarter projection we report on here.

As we elaborate below, without a well-coordinated effort by the U.S. administration and the Federal Reserve to inject funds into the goods-producing sector of the economy, the rate of decline in America's production of tangible goods increases to 10.8 per annum. But even a partial reflation would probably only succeed in holding the present 7 percent rate of decline (first trajectory). Except for a drastic and unexpected reversal of monetary policy, i.e. the adoption of a policy of directing cheap credit to the goods-producing sector of the economy, an economic recovery is ruled out.

Largely due to the attrition of employment from hitherto-protected service industries, we expect the unemployment rate to reach 14 percent by official count by the second quarter of 1983.

Total U.S. imports are expected to decline by 4 percent in terms of physical volume in 1982, and by 10 percent in 1983. However, in the capital goods, consumer goods, and automotive categories, imports are expected to rise by 10 percent in 1982, and fall 5 percent during 1983. Total U.S. exports are expected to fall by 11 percent in physical volume during 1982, and by 20 percent during 1983. In the categories of capital goods, consumer goods, and automotive, the decline for 1982 is 17 percent, and will be above 20 percent for 1983.

Point of no return?

The question is not whether Volcker's current manipulation of the interest rate will miraculously produce a U.S. recovery, but whether the Fed chief's monetarist policies have already brought the U.S. economy past the point of no return. The United States is rapidly being stripped of its basic industrial infrastructure. In the 10 months before June 1982, U.S. steel production dropped to 40 percent of capacity. Since steel companies are now cannibalizing the tools of their idle facilities to maintain those still in production, the nation's 1978-79 capacity of 110 million tons cannot now be restored without major new construction.

America is also losing the ability to produce its own tools. Machine-tool orders for 1982, in constant 1972 dollars, will be less than one-fifth those of 1979. The skilled labor pool of machinists and tool-and-die makers which manufactures these tools is disappearing. According to the Bureau of Labor Statistics, there was a 50 percent drop in the number of skilled machinists employed in the U.S. industry between 1972 and 1980. As we emphasize in this report, the fundamental deterioration of the U.S. industrial base is taking on a character of *irreversibility*.

The model's fourth shows the scope of

by David Goldman, Economics Editor

From the LaRouche-Riemann forecast, titled "Two Paths Into Depression for the American Economy," by David Goldman, published in the July 27, 1982 issue of EIR:

The present forecast, a survey of the second quarter of 1982, is not substantially different from our December survey in terms of its base-line projection. No other computer-based service can come close to making such a claim. We project—on the assumption that the policy of the Federal Reserve remains unaltered through the period under consideration—a 7 percent decline of economic activity in the 1981-82 comparison. That is to say that there will be no economic recovery, but little spectacular downward motion in the rest of the year—with one great proviso: that the financial system does not break down. In the latter case, which now appears next to unavoidable, economic activity will turn down again sharply by year end, and the annual rate of economic activity will be substantially lower—perhaps 13 percent lower—than the 1981 average. . . .

At least half of all capital investment in the United States (gross, not net) has been directed toward energy-saving rather than raising productivity; the remaining capital investment *is not sufficient to even maintain the existing stock of plant and equipment*. That the fundamental productivity level of the economy should continue to fall is therefore not surprising; the overall productivity level of the economy correlates precisely with the rate of improvement of national infrastructure. . . .

The extent to which the abandonment of capital stock in steel and other industries will inhibit future recovery—let alone the rapid attrition of industrial labor—remains to be determined. A program of capital-stock rebuilding, starting with electrical-utility and other basic infrastructure requirements, could, starting from the 1981 economic profile, still yield an economic recovery in the middle and late 1980s.

quarter forecast the U.S. disaster

In our report on the LaRouche-Riemann model third-quarter projection for the U.S. economy, "Two paths into depression for the American economy," *EIR*, July 27, 1982, we identified two possible trajectories for the U.S economy under most-probable political conditions. The first represented a continuation of the 7 percent rate of decline of tangible output *EIR* had forecast in December 1981 which had actually occurred during the first half of the year; the second assumed a financial crisis, and a sudden cutoff of credit to industry and households, leading to a 13 percent annualized rate of decline in tangible-goods output.

Under present unstable political and monetary conditions, no precise forecast is possible or meaningful. Short-run economic developments are the result of political decisions by governments and central banks mediated through the stereotyped decisions of market participants; but we have entered a world in which most governments do not understand what is occurring, let alone have precise plans to engage the problems they confront, and in which the shaky world consensus identified with the International Monetary Fund has broken down into open opposition.

The present situation has been well characterized by one banker as a "slow-motion financial crisis." A general financial crisis could occur at virtually any moment, bringing the trajectory of the economy downward into the "crisis" scenario range identified in our last report. Conceivably, the Federal Reserve could change policy and ensure that at least the first half-year's rate of credit extension were maintained. However, our base-line forecast assumes a continual gradual deterioration of credit availability. The sector distribution of this decline is rooted in the fundamental assumption that lack of credit availability will principally affect capital investment, and hence investment-goods industries (except for the electrical equipment and transportation-equipment sectors, which stand to benefit modestly from the defense-budget increases).

To the extent that LaRouche-Riemann model forecasts have, since November 1979, accurately specified both the direction and magnitude of economic shifts, this accuracy reflects correct assumptions concerning the likely course of monetary, fiscal, and regulatory policy. No forecaster can "predict the future." Given a specified policy or set of policies, the LaRouche-Riemann model can accurately forecast its impact on an economy or set of economies. Within the provisos stated, the present forecast is accurate.

The LaRouche-Riemann model analyzes and forecasts the following variables for the aggregate economy and for 29 sub-sectors:

Consumption of the productive workforce, or, in the classical designation, variable capital (V), i.e., the volume of tangible goods consumed by the goods-producing workforce;

Depreciation, or the physical-equivalent replacement cost of the capital stock of goods-producing industries over time;

Net capital investment, or capital expenditures for plant and equipment excess (or shortfall) of depreciation;

Circulating constant capital, or raw-materials stocks of goods-producing corporations; this, plus the two preceding, are symbolized as "C."

Surplus, (S) or valued-added, in tangible terms, i.e., the gross profit generated by the goods-producing industries in excess of their labor and capital input costs;

Non-productive expenditures, the portion of the surplus not directly circulated back into production, i.e., the consumption of the white-collar labor force, office buildings and equipment, government expenditures, and so forth;

Re-investible surplus (net profit), the portion of the surplus (or decline in surplus under conditions of falling output) available for investment in expansion of production of tangible goods;

The gross rate of profit, surplus divided by variable capital plus all capital costs (S/C + V), i.e., the economy's potential to produce surplus;

The net rate of profit, reinvestible surplus divided by variable capital plus all input costs (S′/C + V); also the economy's instantaneous growth rate;

Labor productivity, or surplus divided by variable capital.

Taken together, the above measures permit the analyst to judge how current production will affect future production. A high concentration of output in machine tools, for example, will have a considerably different impact on future economic growth than a high concentration of output in video games (it happens that the United States now produces more video games, in terms of dollar sales, than machine tools). Excessive concentration of output in non-productive expenditures, i.e., overhead costs, will lower future output.

The basic questions that must be asked of an economy are 1) how the basic physical inputs to the economy are changing in absolute terms; 2) how they are changing relative to their ability to produce profit; 3) what the economy's potential per unit of labor and per unit of labor plus capital is; 4) how the surplus is deployed with respect to future production. Given different assumptions concerning invest-

ment policies and technological specifications, the LaRouche-Riemann model generates accurate future values for these ratios.

Included below, in the form of computer-generated graphs, are two trajectories for the American economy. The first simply reproduces the historical data through August 1982 and projects the same trends through the end of 1983, for purposes of illustration. The second includes the impact of the credit attrition to the economy's productive sectors.

The LaRouche-Riemann model forecast for the U.S. economy under the present trajectory

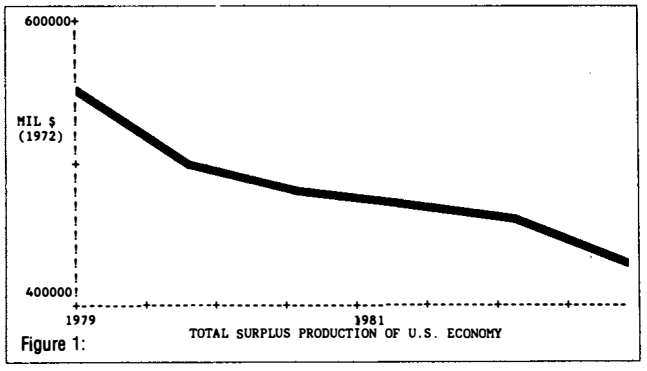

Figure 1:

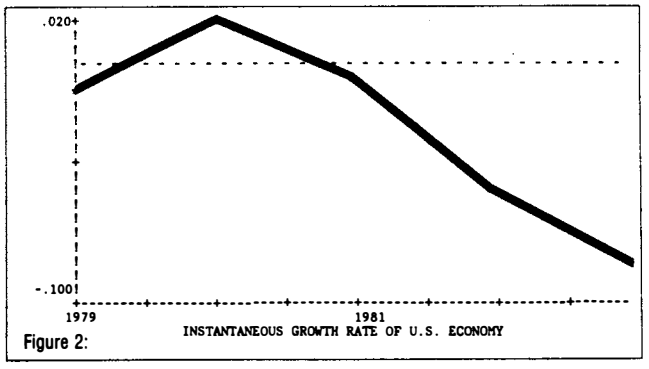

Figure 2:

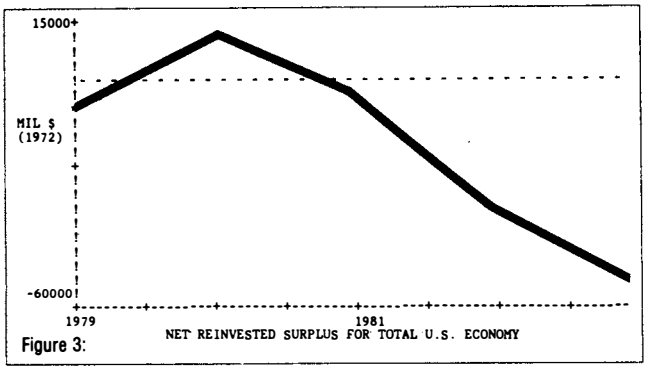

Figure 3:

The present trajectory

Figures 1, 2, and 3 extend the rates of change of the cited variables to the end of 1983. Nothing is more unstable than an economic trajectory; the "natural" tendency of economies is to grow (or decline) at exponential rates, rather than according to a fixed slope. However, the political background that would turn this trajectory into an actual map of the next five quarters' developments would be accommodation by the Federal Reserve, and pressuring of lenders to keep credit sources open. This policy, if not evident from recent developments, is certainly not to be excluded from the spectrum of possibilities.

Figure 1 shows the present trajectory of total tangible profit, or surplus, for the economy as a whole, i.e. production in excess of labor and capital input costs; surplus meets the consumption requirements of the non-productive sector wage bill of white-collar workers, office equipment, commercial buildings, military goods, etc. As the graph shows, total surplus output of the economy has fallen from over $550 billion in 1979 to a little over $400 billion projected for the end of 1983.

Figure 2 shows the instantaneous growth rate, also the net profit rate, of the economy, reinvested surplus divided by input costs ($S'/C + V$). The present rate of decline (for 1982) is slightly over 7 percent, falling to a more than 8 percent rate of decline in 1983.

Figure 3 shows the amount of reinvested surplus in the economy; negative figures indicate a contraction of production. The economy will lose about $40 billion (in constant 1972 dollars) of output during 1982, and nearly $60 billion during 1983, under the present trajectory.

Projection of credit attrition

The second series of computer-generated graphs (*Figures 4-9*) includes the impact of an attrition in the rate of credit expansion to the productive sector. The effect of less credit availability was superimposed on other inputs, which included the effect of the military budget as currently projected, and the Reagan administration's current fiscal policy.

Figure 4 shows simultaneously the three leading components of the expected economic decline. Symbol P shows the net invested profit of the economy, or S'; this falls to an annual level of almost $-\$80$ billion (constant 1972 dollars), that is, $80 billion constant 1972 dollars of lost production, rather than $60 billion according to the pre-existing trajectory. Symbol C, or net capital investment (a component of reinvested profit) shows that the major decline in the reinvested profit is attributable to a capital investment level that falls below zero, indicated by the dotted line in the center of the graph. Part of the fall is also attributable to a decline in variable capital, indicated by symbol V, or the tangible wage bill of the productive workforce.

Figure 5 (comparable to Figure 2) shows the instantaneous growth rate of the economy under the assumption of

continued credit attrition. The negative annual growth rate falls to −10.2 percent per annum starting at the end of 1982 and continues at that level through 1983.

Figure 6 shows the net capital investment of the electrical equipment and non-electrical equipment sectors. From earlier high levels, both sectors' investments decline sharply during the second phase of the depression. Non-electrical equipment investment (symbol N) remains depressed, while electrical equipment investment (symbol E) is brought back up to positive levels as a result of military spending.

Figure 7 shows the behavior of the steel (symbol S) and non-ferrous metals (M) sectors under credit attrition; steel production falls to 40 percent of its 1979 levels and fails to recover.

Figures 8 and 9 show the behavior of the chemicals, rubber, and petroleum-refining industries, under assumed credit attrition (symbols C, R, and P) on the graphs. **Figure 8** shows the decline in the tangible consumption of the labor force in each industry, in millions of 1972 dollars; **Figure 9** shows the collapse of net capital investment (investment net of depreciation expenditures) in the chemicals and petroleum-refining industries.

The LaRouche-Riemann model forecast for the U.S. economy under conditions of credit attrition

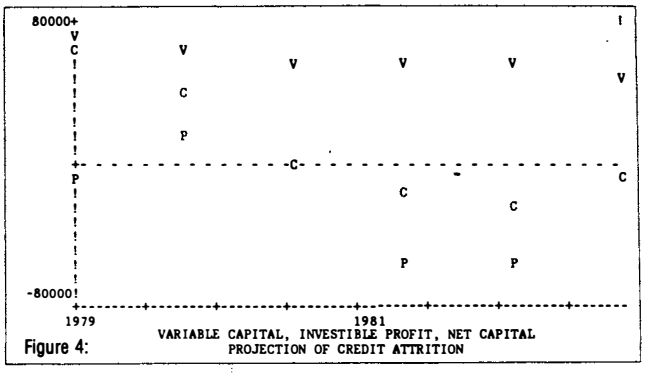

Figure 4: VARIABLE CAPITAL, INVESTIBLE PROFIT, NET CAPITAL PROJECTION OF CREDIT ATTRITION

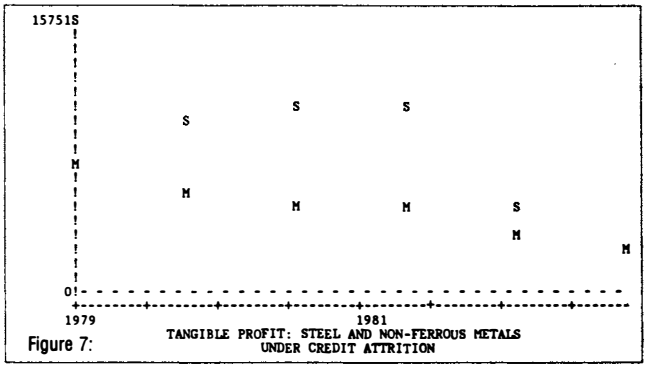

Figure 7: TANGIBLE PROFIT: STEEL AND NON-FERROUS METALS UNDER CREDIT ATTRITION

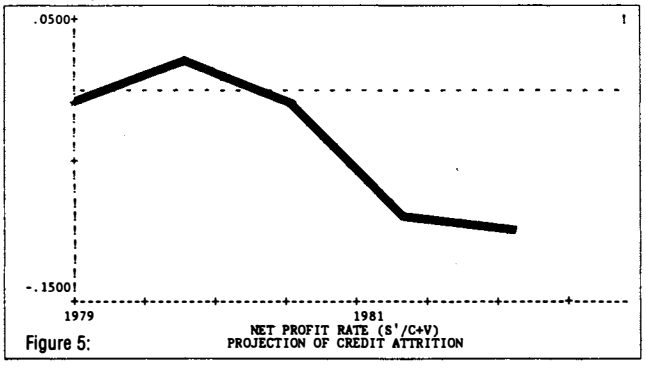

Figure 5: NET PROFIT RATE (S'/C+V) PROJECTION OF CREDIT ATTRITION

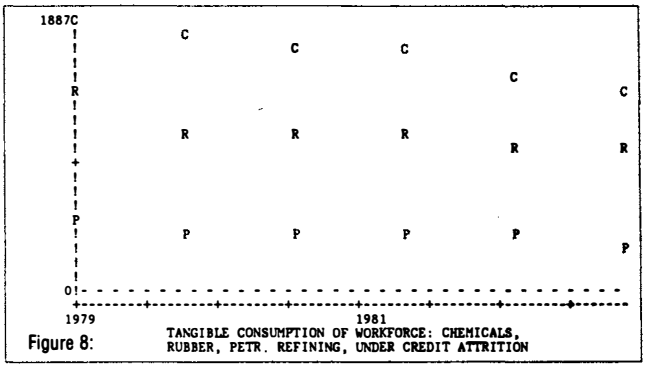

Figure 8: TANGIBLE CONSUMPTION OF WORKFORCE: CHEMICALS, RUBBER, PETR. REFINING, UNDER CREDIT ATTRITION

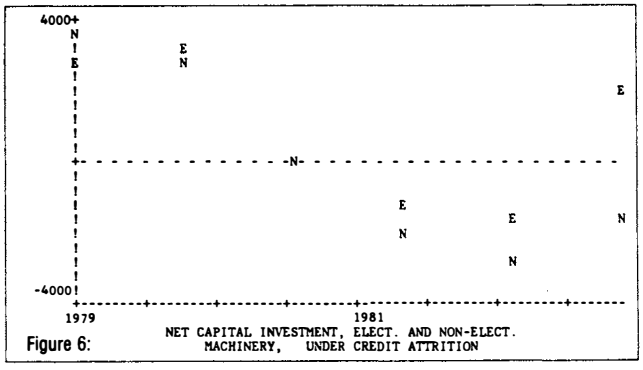

Figure 6: NET CAPITAL INVESTMENT, ELECT. AND NON-ELECT. MACHINERY, UNDER CREDIT ATTRITION

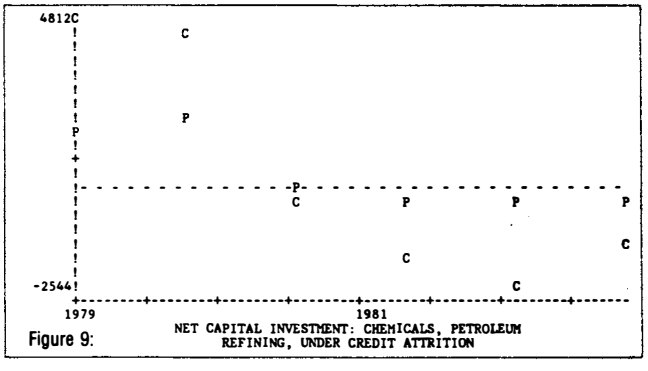

Figure 9: NET CAPITAL INVESTMENT: CHEMICALS, PETROLEUM REFINING, UNDER CREDIT ATTRITION