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How to Regulate Credit-Expansion

by Lyndon H. LaRouche, Jr.

The following article is a reprint of the third chapter of Lyndon LaRouche's "A 'Gaullist' Solution For Italy's Monetary Crisis," first circulated (in Italian translation) in Italy and then soon after published in 1980 by his National Democratic Policy Committee. That 70-page pamphlet addressed the financial chaos then causing havoc in Italy and put forward possible options for the government of then Prime Minister Francesco Cossiga. The content of the work, however, particularly LaRouche's discussion of credit, banking and taxation policy in the chapter, "How to Regulate Credit-Expansion," reprinted here, is extremely relevant to the banking and credit crisis we face today. The full work, just reissued as a 175-page book by EIR, is now available.

"It is an abomination that one firm should seek advantage over others by any other means than better technology and better management."

USDA

Alternating strips of alfalfa and corn planted on the contour protects this field in northeast Iowa from soil erosion by wind and rain.

I have recently produced for publication an extended discussion-paper of the National Democratic Policy Committee. That earlier paper treats the subject of credit-expansion at some length, counterposing the facts of the matter both to currently influential fairy-tales and to commonly expressed questions on that and closely related matters. Therefore, I shall not duplicate that treatment here.

The task here is to stipulate the methods, policies, and practices required to complement the currency reform, and also to show the lawful interconnection of those credit and tax policies to the economic processes outlined earlier.

The presentation here has two aspects. We examine the principles of credit and tax policies. We do this by considering their operation in a normal, healthy Italian (or, other) national economy. We also examine the way those policies and practices must be adjusted to take into account the reality that the Italian economy to which reforms must be applied is initially by no means either normal or healthy.

We begin with the matter of credit-expansion proper.

1. Without the creation of fiat-credit a modern industrial (capitalist) economy will stagnate, rot, and die.

That is directly evident in the *normal, healthy case*.

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The summary proof is provided by focusing on the significance of the Net Operating Profit of national income, S'. This is a portion of national output which is, by definition, in excess of the sum of money issued in payments for C, V, and d. The task is to devise methods and procedures to increase money supply (in excess of $C+V+d$) by an amount not in excess of S''s price, and to restrict the initial circulation of that additional money supply to the purchase of part or the entirety of S' for either construction or *technologically progressive productive capital investment*—allowing for operating as well as fixed capital.

2. **This is most directly accomplished through the creation and issuance, on capital, account only, of gold-reserve-denominated national-banking currency notes, which notes are lent chiefly as participation in mortgages or investment loans.**

Since these currency notes are issued through either national banking institutions directly, or as participation in loans issued by private banks, the currency issue effected in this way cannot be inflationary—as long as the conditions stated summarily above are not violated. The amount actually placed into circulation will not exceed corresponding loans issued to creditworthy borrowers, with security, for the increase of national wealth. The question, whether or not S' is fully realized is defined, on principle, by the loan-demand for mortgage and productive investments from creditworthy borrowers.

The margin of increased money supply circulated in this way is put in general circulation as either purchase of product corresponding to capital-goods portions of S' or as operating capital (earned wages) of S'. No excess of money supply is caused in the first issuance. Since the volume of output of the economy is expanded by the increase either by scale or in capital intensity of employment, the expanded money supply will be less than the required money supply in the next epoch of expansion in the production cycle.

In other words, this method and policy for issuance

A Real Measure of Physical Profit

Lyndon LaRouche presents here a rigorous metric for defining economic profit on a national, or international basis.

The categorical social distinctions among distinct applications of tangible-product output are chiefly as follows:

V — Consumption of tangible-product output by households of the productive portion of the labor force.

C — Consumption of tangible-product output as capital consumed in the productive process.

S — Gross Profit, after deducting ($C+V$) from total tangible-product output.

d — "Overhead" expenses to be deducted from S.

S' — Net Operating Profit ($S–d = S'$).

These data define the following key linear relationships:

$S/(C+V)$ — Rate of Gross Profit.

$S'/(C+V)$ — Rate of (Net) Profit.

S/V — Labor Productivity.

C/V — Capital Intensity.

$d/(C+V)$ — Overhead Ratio, or Expense Ratio.

In this configuration of key linear ratios, the most critical value is the Rate of Profit, $S'/(C+V)$.

S' is the portion of total tangible product available to the * "firm" to expand production in scale, or to increase the Capital Intensity of productive capacity. Since increases in Capital Intensity, under conditions of technological progress, correlate with increases in Labor Productivity, and thus with increases in the Rate of Profit, it is a combination, of investment of S' in both expansion in scale and in intensification of capital investment, which is the necessary pathway of investment to effect an increase in the potential rate of growth, increased values of $S'/(C+V)$ for an expanding productively-employed labor-force segment.

The outline we have just summarized is demonstrable to the "common sense" of any skilled farmer, skilled productive operative, engineer, scientist, or industrial entrepreneur. This is more or less the case invariably in practice, unless the person has been "brainwashed" by study of the superstition which generally passes for instruction in economic principles. Unless he or she has been so "brainwashed," adult intelligence and experience of such literate persons makes the case we have outlined more or less self-evident.

of increased volumes of currency notes contains inherent "feedback mechanisms."

Under the prescribed conditions of technological progress and tendency for increasing capital intensity of productive investments, *the long-wave effect of credit-expansion of this form is deflationary*.

3. The principled problem of credit-expansion does not arise in consequence of national-banking credit-expansion, but in the credit-multiplication potentialities of the private banking system.

Every financial official of professional competence knows the analysis of the private-banking credit-multiplier process which has become classical since J. M. Keynes's treatment of the topic. In short, we must avoid a "Keynesian" form of uncontrolled credit-expansion through the private banking system.

This included problem is attacked by (a) regulation of criteria for lending, by category, of the private-banking system; (b) administration of private-banking reserve requirements; (c) regulation of the separation of commercial banking, savings banks, and credit unions; (d) regulation of insurance companies; (e) tax policies. The first four procedures are well known. It is the principles which must regulate the use of such procedures which require focus of attention.

4. The power to create and regulate currency and credit must be reserved to national banking.

Private bank lending should be restricted to lending against capital plus deposits, to resale of national banking credit through loans, in which national banking credit participates as a supplementary element, to lend as a lending agent of other private banks, and to perform export-, import-, and investment-banking functions.

While restricting the categories of loans in which national banking credit participates, national banking provides adequate lendable margins of funds for productive investments, construction loans and permanent mortgages, industrial, agricultural, and commercial operating capital. It purchases mortgages and other high-grade assets from banks, as well as participating with banks in providing export and import credit.

By supplying national banking credit at low borrowing costs, and by permitting private banks a standard service charge for handling such national banking credit, an adequately liquid, and prosperous private banking system can be maintained within tight reserve requirements.

5. Tax policies must be coherent with credit policies.

What credit policies seek to inhibit, taxation should deplete at relatively higher rates. The investments and commerce which credit policies seek to encourage must be taxed at relatively much lower rates.

There are two principal categories of taxation: *taxation of income*, and *taxation of real property*. Preferably, taxation of income should be limited to the national government, with percentiles of receipts collected paid to local governments, except revenues from import and export tariffs. Preferably, taxation of real property should be governed by *uniform national policies*, but collected to the account of local governments.

Taxation of Income

6. There is a maximum, determinable household income below which no income-tax liability should exist for the household, except the duty to report income according to standard, legal procedures.

The proper determination of the household tax exemption should be a fixed amount per member of the household.

This encourages family formation (marriage), and excludes regressive forms of taxation of lower-income households.

These households pay state-insurance premiums, real property taxes, and service taxes. They pay income tax on no portion of their income except that portion in excess of the exempt amount.

7. The progressive income tax schedule, before adjusting for investment-incentive exemptions, should have high rates.

The principled function of the high rates is to create powerful relative incentives for using income in ways which earn relatively generous investment-incentive exemptions.

8. The first category of investment-incentive tax exemptions is for depreciation, amortization, and depletion allowances, for tangible-product investments in fixed-capital capacities and productive improvements in agricultural and industrial production.

There are two categories of rules for determining investment-incentive tax-credits to farms and firms. First, we must determine the gross amount to be depre-

ciated. Second, we must determine the rate at which it is to be depreciated.

The price of the depreciable asset is determined as the price of the original purchase of the manufactured asset or improvement; no allowance is to be given for a higher resale price paid than previously depreciated value for a resold asset.

However, the historical purchase price for the depreciated asset is not necessarily the price used to determine depreciation. The true replacement price is not the price of a duplicate of the historical, physical asset; it is the price of the technologically improved equivalent of the original item, according to the standard technology of that and comparable industry's current capital purchases at the time the replacement is made or the item fully depreciated as scrap.

The depreciation is also adjusted (indexed) for inflation or deflation, as is applicable.

The rate of apportion of the depreciation of an asset over its entire life is a declining exponential, or an easily approximated equivalent for each tax year.

9. The second category of investment-incentive is the investment tax credit.

This is an amount deducted directly from the taxpayer's national income tax liability as otherwise calculated. It is awarded to taxpayers for stipulated categories of agricultural and industrial investments or other special categories of agricultural or business expenditure.

In the first case, for a capital-investment purchase, the taxpayer's credit for depreciation, amortization, or depletion.

In the second case, it is awarded for expenditures other than income-producing investments, which are selected to be awarded bonuses because they are in the national interest.

In a typical case, investment tax-credit bonuses may be awarded to taxpayers' expenditure for specified scientific and related developmental expenditures. In addition to deducting these expenditures as an ordinary business expense to determine taxable income, the taxpayer is credited with a tax credit bonus, which amount is a percentage of a designated category of that expense.

10. The third category of investment-incentive is a saver's tax credit duplication.

This may appear slightly complicated at first, because it is an unusual procedure historically. It is most desirable, because of the powerful incentive it provides either to invest or save among all ranges of household-income brackets.

All farms and industries earning either of the two previously designated income tax exemptions make the following calculations.

They calculate the total amount of reduction of tax payment each year from combined, depreciation, amortization, depletion, and investment tax credits.

They total the combined paid-in equity plus unpaid loan balances represented by the taxpaying entity, the agricultural or industrial producer.

They apportion the amount of the total tax credit to each lira of combined paid-in equity plus unpaid loan balances. They issue a duplicate set of statements of the duplicate tax credit earned by each investor of paid-in equity and each lender according to unpaid balance of loans. This tax credit shall be applied to the tax liability of each investor of paid-in capital and to each lender, accordingly.

Banks receive their duplicate tax credits to the account of the bank, and should distribute half of that total tax credit so earned by the bank as tax-exempt dividends to their depositors, in proportion to average saving-deposit balances over the year.

If persons, farms, and firms concentrate investment of savings and reinvestment of profits in profitable investments in categories preferred by government tax incentive policies, they become, relatively speaking, the richest persons of the nation in respect of after-tax income.

Few citizens will apply the entirety of their potentially investible portions of income to highest-gain tax-benefit pathways of direct investment. Part of the potentially investible portions of income of everyone should be in the form of savings deposits. For some, all the potential savings of the household should be invested in the form of bank savings deposits. Since secure bank savings incur significantly less risk than equity paid in as investment in productive capital, the tax benefit to the risk-free savings deposit is correspondingly less.

In addition, we foster growing strength for the private banks of all varieties, guiding those banks, with aid of the bank's share of the tax benefits available, to develop the bank's policy-outlook and executive skills in directions of competence corresponding more perfectly to both the national interest and the tax advantages provided depositors.

Meanwhile, those firms and citizens that prefer to

perpetuate the investment and spending habits of Babylon, of Sodom and Gomorrah, remain free to do so, within the limits of the criminal code, and the constraints of both credit and tax policies.

The citizen in entrepreneurial or professional ranges of income who spends some thousands of (new) lira of his direct income foolishly, or who invests that in enterprises of a less desirable variety or management policies, will weep tears of regret over his folly—while reading the tax statement prepared for him by his accountants.

His neighbor, which is to say a person in a comparable income bracket, spends his salary more frugally, and saves more prudently. If this neighbor invests successfully in technologically progressive, capital-intensive productive enterprises, the neighbor receives tax-exempt income in return for making such an investment. Or, that neighbor receives a more modest, but significant recompense with tax-exempt income for simply increasing the household's or firm's savings deposits.

Of the two neighbors so compared, over a few years, the first is, progressively, relatively poorer than the second. Justice has been done. As might be said as a malediction upon the imprudent libertine in Nassau County, New York: "May crabgrass flourish on your lawn!"

There is an implicit *incomes policy* in such an arrangement. Before continuing to the next topical area of our policy analysis, we clarify the relationship of such an incomes policy to proper actions of government.

Why We Developed Capitalism

We republicans of the same school as Raphael created modern industrial capitalism over the course of the fifteenth and sixteenth centuries. The principles were shaped in Renaissance Italy, first successfully brought to fruition, in establishing the first modern nation-state republic, under France's Louis XI, and later brought into play as the Erasmian-led political revolution under Tudor Henry VII in England. The rudiments were also fostered by Agricola's heirs in the formerly rich industrial development of regions of Bavaria which have devolved to a bucolic notoriety.

From the outset, the state directed and otherwise controlled the national economy. This was correct then, and has always been the feature of any capitalist economy whose success was secured by means other than the sort of looting of others we associate with the British colonialist, semi-feudalist "model" of political economy.

King Louis XI of France.

Portrait by an unknown artist, 1505

King Henry VII of England.

Portrait by Claude Lefebvre, 1666

Jean-Baptist Colbert.

"Free trade" does not and could not exist as Adam Smith and charlatans such as Friedman and von Hayek falsely portray such policy as one of "freedom." The essential point of British "free trade" policy is to keep agriculture and industry poor relative to rentier interest, and also to prohibit the state from revolting against enslavement of both the state and national commerce by a rentier interest which has insolently placed itself in power above sovereign nations.

True freedom in a capitalist republic occurs in a modern capitalist state on the historical premises we, of

the same school as Raphael, developed capitalism, in opposition to Genoa, Venice, and the British oligarchy, into the period of the establishment of the United States as the first successful consolidation of the form of capitalist constitutional republic fulfilling the conceptions of Louis XI, Colbert, and Leibniz.

What the state cannot do is to substitute itself for the potential creative-mental powers of individual citizens. The state must foster the development and fruitful exercise of such powers, through technologically directed compulsory, free public education, and other relevant matters of social and economic public policy.

What the state cannot do, it must not permit itself to be led by folly in attempting.

The key to the private-ownership institutions of republican forms of industrial capitalism is a properly industrialist view of the *patent*.

Under republican policy, the patent, *a power and creation of the state*, is a privilege extended to the inventor of useful inventions and also to the collaborators of that inventor *for specified conditions and period of time*. This privilege *takes the form of a right* which may be invaded by no agency but the state itself: *a right in ownership of means of production*. The inventor and his collaborators are granted the right, respecting all competitors, to produce and conduct profitable commerce in articles based on the advantages of that patent.

The combination of the inventor and competent management of the firm effects the happy condition of executive capability which Clausewitz associates with *Entschlossenheit*. This combination combines discovery of technological advantages to society, with the entrepreneurial capacity to realize those discoveries in the form of the fruitful practice society requires for its benefit.

All law of the capitalist republic pertaining to matters of commerce, and to related matters of property-right in means of production and distribution, is properly interpreted from the standpoint of reference we have just summarily identified.

Society—the republic—through its instrument of self-government, the state, alienates to specified persons a power which originates in society as a whole, and whose realization society mediates through the state. This alienation of state power, extended as a *privilege* by the state, becomes the right of the patent-holder relative to all others.

The exercise of this privilege extended to become a relative right, is constrained by public policy concerning minimum wages and working conditions of productive labor, and otherwise by the combined effects of tariffs, credit, banking, and tax policies of the state.

However, although the case of the single, simple industrial-capitalist patent illustrates the underlying principle involved, that simple case contains the germ of a more elaborated, coherent area of public policy.

An industrial firm does not exist, properly speaking, on the basis of executive and productive capabilities associated with merely a single patent. Effective industrial management is subsumed by a process of continuing innovations. This process expresses the fruits of science, technology, and general culture of the nation continually brought to bear on the development of the productive powers mediated through the industrial firm.

USDA/Joel McNee

A wheel-line irrigation system in Idaho.

So, the principle of the patent is properly extended indefinitely *to such a firm* as a whole.

This point is generalized for better comprehension by comparing the industrial firm's case with that of property-right of farmers.

It is not in the interest of the state (society as represented by the state) that a farm based on backward agricultural practices should enjoy the same degree of permanence of property-right as the farm which develops the fertility of the soil and the productive powers of agricultural production more generally. It is desirable that the economic environment be shaped in such a way as to drive the former into extinction, to the advantage of farmers of the latter category.

Examining a concrete example, agriculture in the United States, we have massive empirical proof of per-

formance in support of the industrial-capitalist principles we have identified up to this point.

It should not be surprising that the most successful mode of agriculture in the United States, from all considerations of vital national interest, is that associated with technologically progressive farmer-owned farms. This independent farmer is an innovative technologist, a farmer with *Entschlossenheit*. He is inventor, highly-skilled laborer, entrepreneur, and a production and marketing executive with qualities sometimes converging manifestly upon those of a successful field marshal. *Such employees cannot be hired*, except from among the ranks of farmers whose special capabilities have been matured in circumstances of technologically progressive independent agriculture.

USDA/Tim McCabe

A Natural Resources Conservation Service technician adjusts an irrigation flow-rate meter.

sively by research, development, and production of industries which supply agriculture. Agriculture is the largest single category of consumer of industrial output.

In this way, U.S. agriculture represents *a level of agricultural technology*, far above the level of technology represented by "peasant agriculture" in emerging nations. The gap between the first and latter levels of technology is so large that the introduction of U.S. levels of technology, already perfected, to emerging nations' agriculture, results in quantum leaps upward in output per hectare and per capita.

If the peasants of those nations were developed

Chad Douglas

A modern grain harvesting combine fitted with a 12-row corn header.

This appears to be contradicted by some situations in emerging nations. A brief examination of the most common reasons for such apparent contradictions reinforces the point just previously made.

U.S. agriculture (in particular) is an organic body of technology. Within agricultural production and development as such, this technology is represented by the unity of science and technology of practice mediated in exemplary fashion by normal functioning of the Agricultural Extension Service and institutions performing similar functions. That unifies agronomists, agricultural education, and research institutions, with (especially) the technologically innovative individual farmer. This aspect of agriculture is intersected mas-

along lines of independent U.S. agricultural producers, the large "family-owned" farm in such nations would come to be significantly more productive than the alternative of the absentee-owned farm employing the same range of technology.

So, the relative success of certain industrial-agricultural absentee-owned enterprises in emerging nations is not truly an exception to the principles adducible from U.S. agriculture. Rather, it is the development of agricultural technology extended to emerging nations, out of the development of independent high-technology agriculture in OECD nations, which makes the apparent contradiction possible.

Therefore, the extension, and tariff-protection of the

indefinite patent of ownership for the independent, technologically progressive farmer, is public policy of properly informed capitalist republics.

In all matters bearing on relationships between the state and technologically progressive forms of private ownership, the principles underlying the development of this form of the patent must not be forgotten. "Existence is not a predicate." That principle, otherwise applicable to the highest levels of scientific discovery-practice, does not lose its proper force of applicability as we descend the scale of importance to principles of public commercial policy. "Existence" in this instance of application is the underlying purpose behind the development of the industrial-capitalist patent. The traditions of secondary public policy developed around the established existence of that form of patent pertain to the mere "predicates" of that "existence."

The application of "case law" to commercial matters becomes a properly unconstitutional obscenity whenever interpretation of such "case law" is stretched to adduce judgments conflicting with those underlying and determining principles directly associated with the principles of "existence" of this form of the patent.

The principles underlying this patent apply to incomes-policies of the contemporary state. Essentially, the essential purpose of the patent must be served: the purpose of the patent is to give expression of liberty to that individual creative-mental power which the state as such cannot and does not efficiently contain. Stated otherwise: *the function of the state is to order the "environment" for the individual member of society such that the creative-mental potentialities of the individual flourish to the advantage of society as a whole*.

Therefore, the state must not attempt to regulate innovations in practice of productive firms and their commerce in detail, since, in such a bureaucratic practice, the state violates the self-interest which society as a whole expresses through the medium of the patent.

The establishment of minimum wages and minimum standards of working conditions does not violate that principle. *It is an abomination* that one firm should seek advantage over others by any other means than better technology and better management. That constitutes a *prima facie* violation of the inalterable principles and conditions of the patent. The degradation and other injury to households of productive labor represented by exploitatively low wages and poor working conditions are such abominations, injuring not only the victimized households in particular, but generating a lowering of the cultural standards of household life which is a major injury to society as a whole.

It is also required of the state, by the same principles, that the state protect technologically progressive, competently managed agriculture and industry by tariff policies. No consideration must be permitted to force agricultural prices paid to farmers or incomes of industrial firms down to levels, at which exploitative wages and abusive working conditions become the only source of profits for technologically progressive, competently managed farms and industries.

In between, except for enterprises properly managed by the state, there should be no intervention by the state into the details of operation of the patent.

This has no relationship to the wicked doctrine of "free trade" advanced by such charlatans as Adam Smith and Milton Friedman.

The state, while avoiding bureaucratic intrusions in matters of detail, is obliged to shape the environment of business practices to encourage business to choose options which coincide in direction with the determinable general national economic interest.

The promotion of technologically progressive, capital-intensive productive investment, through tariff, credit, and taxation policies, is a very efficient shaping of incomes policy. Such a shaping of policy impels employers to employ relatively more skilled operatives, engineers, technicians. This requires improved cultural standards of households, and promotion of skills-development among employees. This means that rises in real wages tend to follow advances in technology, rises in real-wage levels of relatively more skilled labor which are readily dispersable, because of the gains in productivity associated with capital-intensive forms of technological progress.

The result is a lifting of the incomes of the population through a process of advancement in mean skill levels of employment.

State, protectionist tariff policies, combined with credit and taxation policies, shape the environment such that earned increases in skills levels of employment are payable in fact by such employers.

The state properly does determine recommended incomes policies as matters of the scientific-research and public-information functions of the state. The state applies such developed recommendations to its own employment practices. So, the state provides leadership by proper methods of direction. Its leadership action centers around *informing* employers of where those em-

USDA/Lance Cheung

A Computer Numerical Control machine operator inspects a high-pressure aluminum die-casting at Port City Casting Corp. in Muskegon, Michigan.

ployers' best interests lie in respect of a truly enlightened self-interest, respecting incomes policies.

This aids the proper relationship between trade unions and employers. The private relationship between the employers and trade unions helps to minimize the scope of required actions by the state. National trade unions provide the necessary social influence for promoting coherent incomes policies among employers. The state, by providing scientifically premised public information showing the reasons for preferring certain incomes policies, creates a climate of public belief in this matter among employers, employees and others, aiding in channeling trade-union negotiations into rational composition of economic and directly related issues.

The basis for incomes policies of the state is the same principle underlying the existence of the patent.

Irrational anarcho-syndicalists and bestial employers share the infantile delusion that productive labor is mere animal muscle deployed according to detailed instructions of management. Show me a management which practices such a policy as a matter of philosophy and I have shown you, in return, an incompetent management.

It is the development of the mind of the industrial operative, as reflected in his or her manifest or potential levels of productive skill, which is the wellspring of the productive powers of labor. It is that mind's powers which enables labor to advance its mode of production from lower to higher levels of technology. It is that advancement, not the mere output-ratios associated with a fixed, routine mode of productive activity, which is the productive power of labor. It is that productive power of labor which is the only source of all of the wealth of society.

Consequently, we rightly assess a life devoted to fixed, routine levels of practice as expressing a tendency to degrade man to beast-like conditions. True, an industrial operative may toil at repetitive, routinized forms of labor year after year, to the effect that his or her nation may develop the economic potential for technological advances above such brutalizing routine. That industrial operative works, essentially, as a patriotic citizen—making a painful sacrifice of his or her life for the sake of the nation and its future generations. It is a submission to brutal circumstances which is to be honored as we properly honor sacrifice in war. While honoring such sacrifice, we must not obscure in the least the ugly truth of the arrangement. Routinized labor over large parts of a lifetime brutalizes the operative.

The most fundamental of all desirable working conditions of labor is progressive change from routine in the application and development of more advanced skills, always emphasizing, increasingly, the mental potentialities the operative can bring potentially to refinements and problem-solving in the technology of production.

It is such technological progress, and only such a process, which "humanizes" productive employment. All contrary or alternative views on this matter are dangerous frauds.

It is not only the inventor and his entrepreneurial collaborators whose mental-creative powers advance the condition of society. The potentials of such inventors and entrepreneurs depend upon the creative-mental potentialities of the productive operative, the employed scientist, engineer, technician, and ingenious production executive. It is the individual mental-creative potentials of all citizens which must be fostered for fruitful expression.

That is the principle which subsumes the patent's existence. That higher principle is, correspondingly, the essential limitation, conditionality, to be imposed upon the continued holding of the patent's privileges.

The industrial-capitalist republic is not premised on the self-evidence of individual property-right. *The existence of individual property-right is premised, defined,*

and circumscribed, in terms of the interests of the republic which have prescribed the development of such individual property-right.

Credit & Taxation of Real Estate

11. All policies respecting real estate must be premised on rigorous projection of the principled antagonism between ground-rent and profits of produced improvements.

12. In practice, we dare not collapse presently the fictitious, but institutionalized valuations associated with the capitalization of ground-rent. We must, however, starve into extinction all future growth of ground-rent capitalization, by methods of credit and taxation policies of the state and state-regulated banking system.

These two principles are the crux of the success or failure of all efforts to bring a durable economic recovery out of the present slide toward a new dark age.

The essential cause of the present spiral of inflationary monetary crises is the shift of massive flows of nominal income and fiat-credit away from productive investment, into what is presently a John Law-type "bubble" of pyramided speculation in capital gains income from appreciations in ground-rent and capitalized ground-rent.

In many OECD and other countries, each small householder is drawn by individual desire for unearned riches into supporting greedily this form of collective insanity. In the myth-ridden United States, for example, professors of economics solemnly recited to their credulous students frightening accounts of the lemming-like stock-market hysteria which seized the United States during the late 1920s. The canting professor continued: Happily, my children, wise men of our nation have constructed rules and institutions which ensure that nothing like that can ever occur again. Meanwhile, outside that classroom, every citizen with the price of a down-payment for a mortgaged purchase was participating in the biggest and most lunatic, international gambling hysteria in all human history!

Portrait by John Trumbull, 1806

Two great proponents of the American System of Political Economy, Treasury Secretary Alexander Hamilton (left) and Friedrich List.

The crucial empirical point of reference for making the essential distinction between earned income and ground-rent is the development of agriculture.

The classical examination of this point is the 1791 *Report On The Subject of Manufactures* to the U.S. Congress by Treasury Secretary Alexander Hamilton.

This document, not the writings of Karl Marx, is the first prominent statement of the principle that all wealth is derived from development of the *productive powers of labor* ("labor power"). Marx, in turn, learned the Hamiltonian notion of "labor power" from Friedrich List. Since Marx was induced by Apostles' agent Friedrich Engels to commit himself publicly to a fraudulent attack on List, Engels, who knew and opposed List's

economics, was positioned to offer the lying report later, that it was Karl Marx who discovered the notion of "labor power!"

This same document is the first place in which the Hamiltonian notion of *development of the productive powers of labor* was rigorously demonstrated empirically, and employed, with aid of the crucial empirical evidence of the development of American agriculture up to 1790, to refute absolutely from this vantage-point the so-called French physiocratic doctrine, which latter had been imported to eighteenth-century France by British agents and agents-of-influence.

The general principle underlying the American System was not original to Hamilton.

The conception was stated as the basis for proposed state economic strategy of the Paleologues by the great Platonist Plethon, the collaborator of the great Cosimo de Medici. The notion of technological progress as the basis for increasing national wealth had previously produced the great technological advances of the Hohenstaufen period of European history, permitting the population of early thirteenth-century France to enjoy a higher level of technology than was recovered fully and generally until the late eighteenth century, and thus to sustain a population not equaled until the eighteenth century. The immediate source of Hamilton's scientific accomplishments in this matter was the mediated influence of the combined work of Jean-Baptiste Colbert and Gottfried Leibniz. It was Leibniz who first generalized the underlying principles of political economy.

Workshop of Agnolo Bronzino
Cosimo de Medici

Putting aside the indicated element of fraud in Karl Marx's published work, it was otherwise the central formal achievement of Marx's work in political economy to attack both Adam Smith and David Ricardo, as well as Malthus (and, implicitly as well as explicitly, Darwin), from the vantage-point of Marx's own inadequate attack on the bestial fallacies of the physiocratic doctrine. Otherwise, Marx is superior to Ricardo, but inferior on essential points respecting analysis of capitalist development to Hamilton and List.

There is little inherent "fertility" in natural resources, and none beyond the proverbial "hunting and gathering" stage of human bestiality. The productivity of U.S. agriculture in 1790, the year of the first U.S. Census, was the fruit of the importation of the most advanced, pre-existing European technologies, to transform cruelly unfruitful wilderness into fertile, improved agricultural land.

Accordingly, *the fertility of "natural real estate" in and of itself is zero with respect of the levels of productivity required to sustain modern potential levels of relative population-density*.

Hence, the true economic value of all ground-rent (rent for the possession of land in and of itself) is zero, or less.

Hence, all money-capital poured into capitalization of ground-rent has the same economic merit as investment in prostitution, gambling, and illegal drug distribution. It is a pure waste, which can exact profit (rent) from society only parasitically.

Relative to the economy, the monetary consequences of investment in ground-rent capitalization are inherently depressive. If money supply is augmented in the effort to compensate for the diversion of growing portions of money-capital from the production-distribution cycle into ground-rent capitalization, the results consequent upon this are subsumed by an accelerating spiral of inflation.

The true value of real estate is the value of its manufactured improvements, depreciated in the same exact manner as investments in newly manufactured machinery for industrial production. This is true for agricultural improvements and their maintenance, as it is also for rental or other housing or industrial or commercial real estate improvements.

The two policy-principles set forth above in respect to real estate policies of the state subsume the following leading measures of state and banking-system policy.

For purposes of state and banking-system policy, the following supplementary policy-principles apply.

13. The ground-rent portion of real estate income is to be fully exposed, with no exemption on its own account, to the highest rate of income taxation.

It is made, thereby, the least desirable form of future money-capital investment.

The ground-rent portion of real estate income is calculated by deducting the earned portion of real estate total income from the total.

The calculation of the earned portion of real estate income is summarily this. The depreciated value of manufactured improvements of real estate is calculated, in the same manner as for purchase and maintenance of original purchase of machinery for industrial production. Real estate operating costs are added to depreciation, amortization, and depletion so determined. The average rate of profit on newly constructed real estate is applied to the cost-basis. The total so obtained is the earned portion of real estate income for national tax-accounting and credit policy.

There are readily anticipated kinds of technical objections to the outlined calculation. In response to the relatively more competent arguments posed in that way, the following statement of methodological principle constitutes adequate rebuttal.

In economic science, small margins of unavoidable error in respect to the scalar estimation of short-term money-values are functionally ephemeral. The proper focus is defined by the same approach exhibited earlier in this chapter, respecting "feedback control" principles functionally inherent in the specifications of national banking credit expansion on capital account. We require policies which, in effect, cause the social processes of economy to employ "negative feedback control" analog-varieties of self-adjustment, to maintain tendencies for convergence upon whatever right values might be calculated.

It is the implicit "physical geometry" of the process, not a momentary calculation of local estimates of value, which is decisive.

Moreover, to sacrifice the interests located in the process as a whole, for sake of considerations peculiar to a localized determination of price, is itself an elementary fallacy of composition.

The assessment of the calculations subsumed by policies is restricted, essentially, to the determination of whether or not the direction of decision making implicit in the calculation leads society cumulatively, over the span of "long-wave" phenomena, to the results specified in the adopted policy.

In other words, the proper method is directly opposite to the cited charlatan doctrine of method, proposed by Milton Friedman.

14. With respect to income associated with presently established levels of capitalization of ground-rent, credit and taxation policies must define the gradient of "investment choices" so that such income is forced, by relative punitive measures, to seek investments at the opposing extreme of after-tax investment-income opportunities.

15. However, real estate property-valuation should be applied to the combined market valuation of combined ground-rent capitalization and depreciated improvements.

The intended effect of such combined policy measures is to "dry out" the market for those sales of real estate which are premised upon speculations in appreciations of ground-rent. Real estate holdings will continue to derive present levels of nominal income from such ground-rent holdings, but will be able to retain relatively more competitive after-tax portions of that income only on condition that that income is invested in either real estate improvements or productive enterprises.

If the real estate holder resists the opportunities afforded to him within sheltered portions of the investment spectrum, the state and local governments will find appropriate, productive uses of that portion of his total income the real estate holder refuses so stubbornly to invest prudently.

In other words, the solution to the problem of ensuring the durability of the "heavy lira," is to put Italy to work productively, to make Italy a new "Ruhr" of Europe's southern flank.

The Process of Transformation

The combined credit reforms, banking reforms, and tax reforms outlined ensure that Italy is directed into durable growth. The practical questions posed by those outlined reforms are chiefly two.

First, there is the important matter of Italy's relationship to the European Community, especially in matters of tariff and tax policies. It would be in the immediate, urgent self-interest of the EC nations to bring the community's credit and taxation policies into congruence with those outlined here. The benefits to the community, so urgently needed, and so much favored by the proposed reforms, is the proper opportunity for emergency, provisional modification of EC agreements: To accommodate, at a minimum, the needed

actions of reform immediately to be taken in Italy itself.

It is to be emphasized that there is potentially the broadest social base of support for such reforms in the rationally determined specific self-interests of trade unionists, industrialists, farmers, unemployed operatives, industrial bankers, and savings institutions, not only in Italy itself, but throughout Europe—and the United States as well. The only significant expressed opposition to such Italian reforms would be of an irrational variety, chiefly ideologically motivated attachment to cherished, counterproductive, mythological illusions.

Let us, for example, challenge Italy's leading trade-union association, the CGIL, on this point. Do you not wish an adjustment of tax-burdens, increased skilled employment, a curb on the fungus of ground-rent-impelled inflation? Let us also challenge similarly the CISL, the Christian Democratic trade union association.

We could continue so to other constituency groups. The reader is to think out for himself or herself the rest along these same lines.

The second leading practical matter is already implied by our attention to implications of real estate taxation. *There is not, properly a shortage of lira money-capital at this moment*.

The subsumed practical question centers around estimates of how much of outstanding old lira will the "black economy" prefer to destroy, rather than expose the scale of and conduits used for tax-avoidance or outright tax-evasion?

The period preceding the conversion of currency will be most entertaining on this and related account.

The holders of "black lire" will be impelled to exchange these quickly for other currencies, but the prospective buyers may first wish to consult various experts, including attorneys, on the matter of conditions of registration for exchange of old lire for new.

The most obvious alternative to buying other currencies with such "old lire" is converting the holdings of black lira balances into resalable assets. The obvious feature of such purchases is to pay a large portion of the purchase price "under the table," and to show the nominal, much lower price of the purchase of the asset "above the table." Here, too, the auspices of *caveat emptor* apply to those who purchase old lire with resalable assets in that way.

In general, a properly managed currency reform drives the currency "black market" prices way below the nominal, legal prices.

For decades to come, books written on the subject of the rush to unload "black balances" of old lire will continue to be popular fictional themes, topics of university dissertations, the subject of solemn and frivolous books published on the event, and a recurring touch of naturalism inserted into the scenarios of *roman-à-clef* publications.

Italy as a whole has suffered already too much from that "submerged economy." At the very least, the "black lira" people should repay Italy in part with entertainment.

It makes no difference whether the "black lira" people choose either to eat, or burn, or to pay back taxes due on the old lire. If they burn or eat the "black" old lire, the national bank will merely provide sufficient currency notes, on capital account, to ensure that no money-capital shortage develops.

The taxable real estate income, especially its ground-rent component, will otherwise provide a massive source of initial private money-capital for productive, employment-generating investment. In one way or another: either as private investment into tax-sheltered forms of private productive investment, or as a generously taxed source of capital funds for both the national and local governments. The ground-rent portion of this sector of income will be taxed at relatively higher rates in any case.

Correlation with the Economic Process

We cannot determine rigorously the longer-term consequences of the monetary and related forms without examining the effects of the new monetary ordering upon the underlying economic process.

There is no doubt, among persons who are both literate and sane in respect to the phenomena of monetary experience, that the reforms we have described in outline will succeed magnificently in comparison with the present ordering of Italy's affairs. That is as to compare prosperity with the condition of a hungry orphan vagabond-child of the Mezzogiorno. How will the future compare with some standard of genuine prosperity?

Take, for example, the effects of the package of reforms on revenues and programs of the national government of Italy. That question will be associated with the more prominent initial objections offered from among most political parties!

To answer this question competently, we must first divide the budget of the Italian national government into categorical subsectors. The principal distinction to

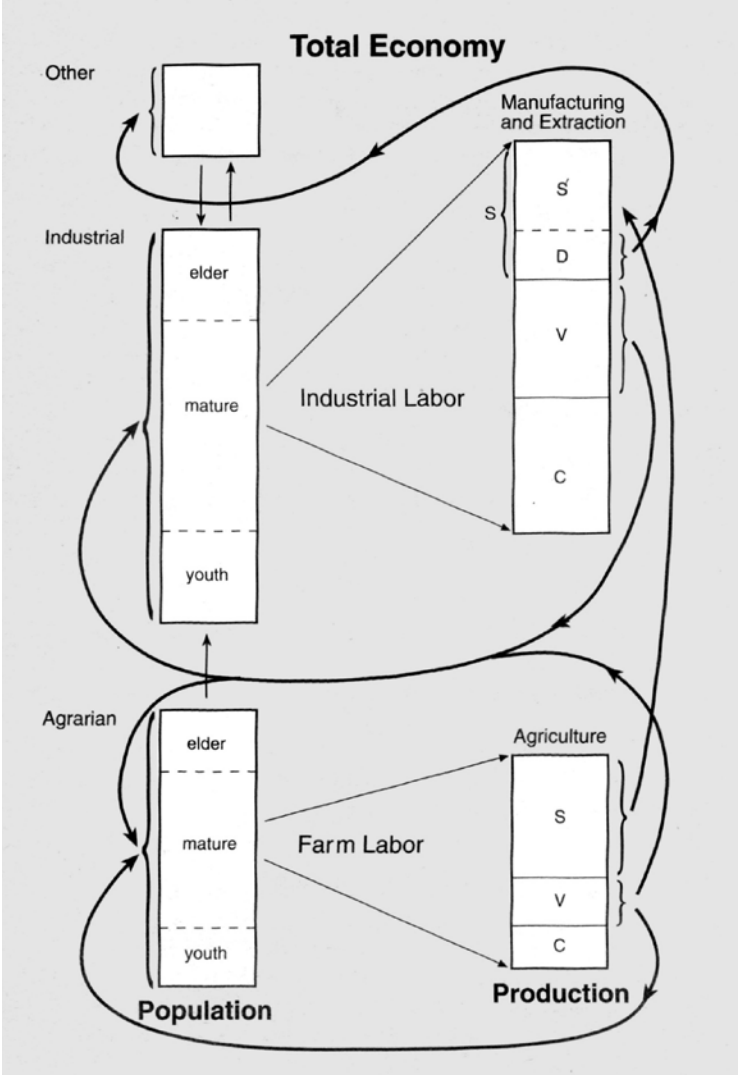
be made is to separate the category of governmental expenses caused by poverty and economic stagnation from other governmental expenditures. We must account for the effects on this segment of expenditures by progressive reductions in poverty. In that and other ways, we must determine the patterns of change in governmental budgets which will correlate with the results of the monetary and related reforms.

For example, tax relief for households in the lower-income range, combined with improved tax revenues for local government will reduce poverty.

We can also project increased employment per average 1,000,000 new lire invested in productive capacity.

Near to the conclusion of that list of considerations, we balance the increased governmental revenues of the program with the decreases caused by tax incentives, and reduction of burdens on lower-income portions of household income.

We add to this the question: In what categories can the benefits of a governmental operating-budget expenditure be accomplished equally or better by issue of national banking credit on capital account? This applies to the local governmental sector, to the state sector of the productive economy, and to the private sector. We should seek to reduce governmental expenditure to *basic, traditional* categories of services.



On condition that we have first established the economic linear equations needed for "econometric" projections in terms of the previously outlined principles of corrected national income accounting, the computer calculation of good approximations of responses to such questions can be, and should be made. The effort is large-scale, of course, but represents no qualitative problem.

Yet, even before that computer projection has been made for the next several years, we know on other ground why the reforms will succeed.

These grounds are located in the domain of "nonlinear" transformations for a developing economy.

The shift in outlook the reader must accomplish now is the same we discussed in the context of the Riemann-wave illustration.

Put aside ordinary accounting procedures. Let us move the focus of our perception to the process of transformations as a whole.

Let us focus on the national income accounting ratios stipulated earlier in this report. If $S'/(C+V)$ not only rises, but rises more rapidly than $d/(C+V)$, then we have solved in advance all the most essential questions which might otherwise be posed to accounting procedures. If the rate of $S'/(C+V)$ is rising, and S' is being realized in terms of allocations proportioned according to the requirement that $S'/(C+V)$ must grow more rapidly than $d/(C+V)$, the ratio $S'/(C+V)$ corresponds *in first approximation* to the rate of growth of the economy.

In other words, once one has determined that a piece of wire is ten meters long, it is not necessary to verify this fact by counting off the same distance in individually counted angstrom units. If one has determined the

relative magnitudes of variable quantities to one another, it is unnecessary to verify this by adding up the individual components of each magnitude to the purpose of determining their relative scales.

If we can, using the methods of physical geometry appropriate to study of "nonlinear" transformations in economic processes, predetermine the direction of change of relative values of categorical components of national income accounting ratios, one has proven all that can be proven respecting the success of an economic and related monetary policy.

There are two critical thermo-hydrodynamic features of an economic process. These are, first, the ratio, $S'/(C+V)$, and the capital intensity ratio, C/V, or $C/(C+V)$. These ratios are properly formulated in terms of the negentropic function which combines the thermodynamic and social-productive parameters into a phase-spatial function. The subsumed function, correlating the parameters C/V and $S'/(C+V)$, each stated in those phase-spatial terms, is the critical-path function on which analysis must focus.

The correlation of C/V with $S'/(C+V)$, as statements of thermohydrodynamic potential, subsumes the qualitative changes in state, which, in turn, subsume the changing characteristic ratios of national economic progress.

The increase of C/V, so defined, does correlate with increasing productivity. This subsumes a required rise in the average thermodynamic value of V, but with a rise in C/V and $S'/(C+V)$ accompanying that. The necessary relationships subsumed determine that the required value for $d/(C+V)$ will be less than the full-utilization value for $S'/(C+V)$.

Those functional relationships are not speculative. They are relationships conclusively demonstrated by the empirical evidence available from all of human history.

The problem of maintaining those functions in the desired developmental ordering is, narrowly, a question of economic policy, and therefore also a question of the appropriateness of credit, banking, tax, and tariff policies for the economic policy. The additional problem is maintaining and developing the required technological environment for productive economic investment.

The technological environment is represented by several aspects. First, it depends upon the rate of basic scientific discovery. Second, that rate of discovery is nourished by the interconnection between scientific inquiry into basic principles and subsumed development of improved productive and related technologies. Third, the technological potential of the labor force. Fourth, a correlated rise in the energy flux density and free-energy ratios of basic sources of energy used for production. Today, that rise in the energy flux density means a leading emphasis on development and deployment of fission, hybrid and fusion energy technologies.

Of course, a good portion of that will be fixed capital investment of approximately a quarter-century life, but nonetheless, it indicates the need for a vast and rapid expansion of both the scale and productivity of national economies over the coming two decades and longer.

CC/BMW

A high-precision and highly automated BMW automobile plant in Leipzig, Germany.

The function of science during this period and beyond will be that of both developing plasma and related technologies, and of developing new productive technologies coherent with the transition into the age of the plasma physics revolution in energy production and energy application technologies.

The requirements of these programs mean that we can no longer tolerate the use of public educational

funds for training parasites such as sociologists and incompetent teachers. Except for a radically increased emphasis on return to classical traditions in literature, music, and visual arts, priorities for education throughout primary, secondary, and advanced institutions must aim at producing the maximum proportion of qualified plasma physics doctorates, engineers, technicians, skilled labor oriented to the technologies of the new age, and biologists, agronomists, and medical professionals.

Without accelerated deployment of nuclear energy technologies, to the worldwide equivalent of between 5,000 and 7,000 gigawatts of electrical output equivalent (plus "byproduct," process-heat energy applications) by approximately the year 2,000 A.D., there must be an ecological crisis of world economy. If ultra-high energy flux density fusion technologies (ultra-high relative to fission energy processes today) are hot realized by early during the next century, then a second ecological crisis barrier will crush much of the world.

Therefore, those who oppose nuclear energy are, whether wittingly or not, the greatest mass murderers in all human history.

The projected global nuclear energy goals for the year 2,000 A.D. represent a capital investment equivalent to over 5 trillion 1979 U.S. dollars. This means that a massive expansion in advanced steel capacity, and other vendors of nuclear plant materials must occur. If we add the growing requirement for high-technology agricultural development worldwide, we are projecting about the year 2,000 A.D. perhaps in the order of 50 percent of world industrial output dedicated to development of these two sectors alone.

The included emphasis on classical literature, music, and visual arts is not a "concession" to liberal arts at the expense of science. For reasons we have elaborated earlier in this report, the method associated with Shakespeare, Schiller, Bach, Mozart, Beethoven, is a continuation and development of the methods of great Neoplatonics of the Augustinian current such as Dante Alighieri. The greatest literature and painting of the Italian Golden Renaissance, through the school of Raphael, is based on a method which shares with true science the principle of the hypothesis of the higher hypothesis. It is such classical literature, music, and visual arts which develop in the student the necessary integration of his or her mental life needed to discover and assimilate great new advances in perfecting our comprehension of the lawful ordering of the universe.

The single child developed to maturity is the measure of all that each nation accomplishes or fails to accomplish in each ephemeral period of mortal life of each generation. To understand that in all its historical implications, within the context of Christendom's great work, is to locate the proper basis for comprehending everything, including the management of economic and monetary policy.

The Second Best Form of Republic

Our emphasis on incentives designed for purgatorians appears, and does contrast with this writer's own moral outlook. Unfortunately, the shepherd must lead the sheep to safety in sheep's terms. Yet, we wish that our fellow citizens would cease to degrade themselves into purgatorian political sheep, into "silver souls" of Socrates' "Phoenician lies" in the *Politeia*.

White House

Pope Paul VI receives President John F. Kennedy at the Vatican on July 2, 1963.

Yet, as long as the moral citizens of republics cling so obsessively to the second best in morality, we can achieve in practice nothing better than the second-best form of democratic republic. So, to devise workable monetary and related reforms, it is necessary for "Paradise" to put its hands into the realm of "Purgatory."

With that, I glance over my shoulder to the beloved memory of Paul VI, and say to him: I have given this task before me of my best for today.