



Full Employment on a Small Planet

By Dr. Mason Gaffney

Article citation:

Gaffney, Mason. "Full Employment on a Small Planet." April 1973. Draft.

Fair Use Disclaimer

The Robert Schalkenbach Foundation, a non profit private foundation, is publishing this article, at no cost, pursuant to the Fair Use provisions of Section 107 of the Copyright Act which states that under certain circumstances, the fair use of a copyrighted material for purposes of criticism, comment, teaching, scholarship and research is not an infringement of copyright. If you have any concerns about the publication of this article, please contact us at info@schalkenbach.org.

The Robert Schalkenbach Foundation's Digital Collections and Archives is an extension of the Robert Schalkenbach Foundation's Engel Georgist Library. It collects, organizes, preserves, and provides free online access to researchers and the general public of Georgist literature including books, newspapers, pamphlets, scholarly articles and archival materials.

RSF is particularly proud to offer free online access to the works of the late Georgist scholar Mason Gaffney, made possible through the generosity of the Danica Foundation and with the consent of the Mason and Letitia Gaffney Trust.

Robert Schalkenbach Foundation: <https://schalkenbach.org/>

Engel Georgist Library: <https://www.librarycat.org/lib/EngelGeorgistLibrary>

RSF Digital Collections and Archives: <https://schalkenbach.starter1ua.preservica.com/>

FULL EMPLOYMENT ON A SMALL PLANET

by

Mason Gaffney

Introduction and Summary

Leading macro-economists today agree that we must suffer either inflation or unemployment, or both. Experience increasingly says both, and in large measures. Democrats, Republicans, monetarists, fiscalists, and even most structuralists are united in their pessimism. Recently wage and price controls have added to the unpleasantness, with little hope that they will help much either. "...this economy can no longer stand a real boom with low levels of unemployment without kicking off a rampant inflationary spiral."^{1/} "...we will have to live with 4% inflation for some time."^{2/} "Congress should act to ensure that unemployment doesn't rise above the 5% level." "One must face up to the bitter truth that only so long as the economy is depressed are we likely to be free of inflation."^{3/} "No one in the world has a recipe for correcting our price performance without some unfortunate increase in unemployment."^{4/} "...the public "should be told the facts of life."

^{1/} Alan Greenspan, "The Budget is the Spur," Newsweek, January 31, 1972, pp. 63-64.

^{2/} P. A. Samuelson, "How the Slump Looks to Three Experts," Newsweek, May 25, 1970, pp. 78-79.

^{3/} P. A. Samuelson, "Nixon Must Alter his Game Plan," The Washington Post, August 23, 1970, p. G1.

^{4/} Arthur Okun, The Evening Star, October 13, 1969, Section C, Back Page; also in Inflation. Washington: Brookings, 1970, p. 9.

"...unemployment can be too low, causing excessive inflation, as well as too high."^{1/} "...we're going through a very mild recession...in which unemployment, though it has risen to a level of 5.6, is very much lower than the peak reached in '60 and '61, which in itself was mild." "...there is no other way to stop inflation. There has to be some unemployment...How can you say there has to be cancer? It is a fact of life." "...This period is salutary...like...a period in the hospital, after you've had pneumonia." "You will undoubtedly have a slight increase (in unemployment)."^{2/} "I know of no nation at any time that has been able to stop a serious inflation without a recession, and generally a severe recession."^{3/} "...unlike malaria, there seems to be no known cure for creeping inflation that is better than the disease."^{4/} "...institutions such as the Price Commission and the Pay Board' should become permanent..."^{5/} "...fiscal-monetary policy can be regarded as trivial and perhaps somewhat obsolete."^{6/} "It is a delusion that we can have

^{1/} Charles Holt et al., The Unemployment-Inflation Dilemma. Washington: The Urban Institute, 1971, p. 75.

^{2/} Milton Friedman, New York Times, December , 1970.

^{3/} M. Friedman, Newsweek, February 15, 1971, p. 58.

^{4/} P. A. Samuelson, "Living with Inflation, Newsweek, February 15, 1971, p. 59.

^{5/} Arthur Okun, The Washington Post, November 6, 1971, p. 1.

^{6/} A. M. Okun, Business Week, January 1, 1972, p. 17.

both full employment and stable prices."^{1/} "Macro-economics has simply ended up in a blind alley."^{2/} "The U.S. will have to have an incomes policy for a long time, maybe forever."^{3/}

Thus macro-economists, who recently heralded a modern understanding of economic truth that would assure steady good times, have turned into dismal scientists who lecture us to grow up and face hard facts. The philosophers of spending who flogged the Puritan ethic are admonishing people to tighten their belts and accept the truth that they must do without. Full employment is a utopian dream, price stability a kindergarten homily. To complete the irony, the conservative critics who tried to keep the Keynesian zealots from forgetting the value of the market mechanism are turning to wage-price controls and dirigisme, perhaps the hardest choice of all.

I find this unacceptable. It may be true that the new orthodox tools of fiscal and monetary policy (FMP) were oversold, and have gotten overloaded by too exclusive a reliance. But there is no need to scan only so limited a range of options. If there is no hope left in FMP, it is time to look at a hundred other policy choices, neglected for 30 years by economists preoccupied solely with federal deficits and Federal Reserve Deposits.

Part of the problem, to be sure, is that some people may really not want full employment, for fear of raising wage rates.

^{1/} Edgar Feige, "Behind the Threat of More Inflation," Business Week, November 18, 1972, p. 78.

^{2/} J. K. Galbraith, "Economists Shift the Focus," Business Week, January 6, 1973, p. 56.

^{3/} Congressman Henry Reuss, Business Week, September 18, 1971, p. 19.

"You have to keep unemployment high enough so that workers don't get too greedy."^{1/} "My biggest fear is that as we approach fairly full utilization of labor...we may undermine controls, overshoot the mark."^{2/} "...unemployment may go above the range of 4.5% to 5%. This is serious --much more needs to be done to extend and broaden unemployment benefits. The temporary loss of output resulting from unemployment is far less important...As soon as you adjust to wage increases of 4%, unions will ask for 7%...Present policies (of tightness) are about right, and will work if pursued long enough."^{3/} "My own preference continues to be for ...The profits surtax on companies granting excessive wage increases."^{4/} "Today, 4% unemployment unfortunately is more inflationary than in the past."^{5/} "This time, policy was held steady on a restrictive course while production fell and unemployment rose...The conviction that the economy ...operated at too high a level, counseled restraint for a number of months...The (election) will show whether the American people are mature enough to accept a sustainable level of activity."^{6/}

It is not politic to put one's name to quotes like "You have to keep unemployment high enough so that workers don't get too greedy," but that

^{1/} "Economist," Business Week, July 20, 1968, p. 112.

^{2/} James O'Leary, "The Budget," Newsweek, January 21, 1972, p. 64.

^{3/} Henry Wallich, Newsweek, May 25, 1970, p. 79.

^{4/} H. Wallich, Newsweek, February 15, 1971.

^{5/} H. Wallich, The Washington Post, February 19, 1972, p. A1.

^{6/} H. Wallich, Newsweek, April 20, 1970, p. 91.

also lies between the other lines quoted, granting the writers' need to circumlocute. It also lies behind the continuing propensity to define unemployment and poverty out of existence. There is even a danger that time and custom shall so inure most people to the chronic shortness of good jobs that they will believe the official figures.

This, too, I find unacceptable. Unemployment is too serious an evil to be imposed on people by their government as a bargaining force. Without elaborating, let us review the many social evils other than inflation that derive from the fear and reality of unemployment.

1. The Iron Mountain Effect. This is fear of peace because only war can persuade Congress to the deficit spending that macro-economics has taught is the cure for unemployment. It is also folk-wisdom, often heard. John Connally prominently speaks of the tradeoff between peace and jobs, and we may speak seriously of a folkish "Connally Curve" that upstages the academic Phillips Curve in real politics.

2. The Dependency Effect. The widespread idea that man is superfluous and a job is a favor to the employee robs human beings of self-worth and dignity. The threat of joblessness drains courage and undermines character, making people anxious, clutching, and manageable, timid to speak up or think for themselves in work or politics; fearful to release scraps of security they have gleaned; prone to sell out their ideals. Like panicky swimmers, they lock onto whatever they touch, jam up the labor market, and stunt their own lives. Fear immobilizes people: no climate for a free economy, society, or polity. Fear damps the confident, innovative, interloping spirit, vindicating monopoly, featherbedding, graft, and subsidy. Anxious people don't rock

the boat. Proposed change, however, salubrious, is an instant job threat. and a new opportunity only grudgingly after long thought and persuasion. Fear makes people confirm Parkinson's Law, expand and perpetuate bureaucracies, oppressing others as they stifle themselves. Professions are fenced off with ever higher apprenticeship standards, widening the generation gap, alienating the young, the female, and the poor (for an apprenticeship barrier is a wealth barrier), and burdening them with more than their share of everyone's problem. Man is no longer usable, it seems, in his natural condition, but must be pumped full of human capital until middle age, when he should begin thinking of early retirement from his bobtailed work week.

Fear of joblessness is so strong a force it leads people to extreme acts of inhumanity and irresponsibility like those Ibsen dramatized in Enemy of the People: the Japanese employees of Chisso Corp. who beat up photographer Eugene Smith for documenting crippling birth defects which Chisso's mercury wastes inflicted on the families of Minamata;^{1/} the mill hands of _____ who threatened the life and family of a man who objected to waste in military contracts; unionists who attack scabs. But these extreme publicized cases manifest a poison that sickens us all, every day. Losing one's job is like being thrown off the edge of the world, and job anxiety surely ranks with inferiority complexes, sexhangups, territorial imperatives, father protests and games people play as cause of the insecurity that haunts modern man.

^{1/} "The Twisted Face of Minamata," Newsweek, April 2, 1973, p. 38.

3. Welfare. Welfare outlays are now at \$__ billion a year, up from \$__ billion in 1950. Unemployment is not the only cause, but way ahead of whatever is in second place. It is also an indirect cause in that the public's increasing willingness to pay recognizes that it is unduly hard for many people to find jobs. It is also a bribe from those with jobs to head off competition, and from those with property to dissuade the jobless from crime and radical politics. It is on its way to creating an ominous permanent voting and pressure group of the welfare dependents themselves, along with a vested welfare bureaucracy.

After welfare, the favored way to live without work is by crime. It is high time that crime and welfare rates were cited along with the suspect official jobless rate as valid indexes to the social problem we call "unemployment." Underemployed and lowly paid persons do not count as unemployed, but their high propensity to trade off their lot for lives of crime is a truer mirror of their condition.

And what is Women's Lib but a protest against enforced idleness and underemployment?

4. Waste. Some early Keynesian made a virtue of waste--"consume and make work," they said, although they waste, consistently enough, more words on it. Labor is a glut, so in the new morality work is a vice, consuming a virtue: so said a cult of writers like Theobald and Michael in the sixties, premising their case on unemployment. They attracted an eager following because such ideas are everywhere. If patriotism is the last refuge of a promoter of public works, job making is nearer the first. Payroll costs become job benefits, with multipliers too. We do the boys a favor to draft them: they never had it so good.

Government programs are hardly ever cut, only bypassed. The civil servant most in danger of losing his paycheck is one like Ernest Fitzgerald who tells on a cost overrun.

Ironically, this study finds that jobmaking waste of such kinds is a boomerang policy that on balance destroys jobs, compared to leaving the money with taxpayers (because it wastes capital more than labor).

5. Environmental sacrifice. "There's more oil down there; let's go get it!" says Charls Walker, oil industry spokesman. Imports threaten American jobs and the balance of payments. Environmental standards threaten prosperity. Pollute the air and oil the beaches less if convenient, but first comes fuel for prosperity and jobs, cars, and highways. So long as men fear unemployment, they may respond to such pleas. The SST is essential, says Wallich, to avoid a balance-of-payments catastrophe. Imbalance-of-payments is code for import balance, threatening jobs.

6. Protectionism. The vote-getting argument against imports is the job argument. It does not bear analysis, for exports also make work. But it does not have to bear analysis, for between the job that is and the one that might be lies the abyss of unemployment, the loss of seniority. Protectionism and the Iron Mountain Effect in tandem create and sustain warlike attitudes, jeopardizing our peace.

7. Immigration barriers. These derive directly from job anxiety, and indirectly too, via taxpayer anxiety about supporting indigents. They deny people free choice of location, and may bereave the nation of economies of scale long before there is any real need. They help profoundly change our international role: from a haven for surplus labor we have become the main seeker after others' raw materials. From a safety valve for pressure on resources, we have become the pressure,

aggravating world competition for territory.

Domestically the counterpart is antinatalism, which since Malthus at least has been an easy vehicle for misanthropy, a rationale for inhumanity. Locally the counterpart is the exaggerated, exclusionary attitudes of state and local jurisdictions, seriously distorting the land market, narrowing location choices, fouling up school finance, and wildly inflating gross needs for transportation.

There are also some who say that unemployment is a data myth, or is due to including marginal classes in the work force, or is normal at 5 percent, and so on. These are mainly variants of the view that unemployment is not undesirable, and do not, in my opinion, warrant refuting. "Unemployment" can be measured anywhere from 1 percent up to 50 percent depending on one's standards, and official measures measure

official attitudes as much as they measure any objective fact. I begin here with a postulate most share, that we are all better off when there is higher demand for labor, more jobs. If some people choose to decline jobs, well and good; we should have jobs to decline, as well as to accept. But leisure should be chosen, not forced. If high job demand raises labor's share of the product, it is as valid as any other claim. "A society is rich when material goods are cheap, and human beings dear." (R.H. Tawney)

This study develops a thesis that we can employ ourselves as fully as we wish, without inflating, without borrowing, without fighting, without polluting, without wasting, without impoverishing posterity's resources, without invading more wilderness, without controlling prices, without stopping migration, without defining people out of the work force, without socializing, and without forcing. Economic policy can

offer better than dismal choices. In a word, this is because we now live with a set of biased institutions that force us grossly to inflate land and capital needs per person. We need not force employers to use more labor, but stop biasing them to use more land and capital. We will find that the same market forces that regulate factor-mix also help regulate aggregate demand optimally.

The neoclassical economists saw full employment as a natural equilibrium condition maintained by the play of prices and self-interest in free markets. Surplus labor, if any, lowered wage rates or raised interest, so producers substituted labor for capital. The Austrians called this "Ricardo Effect." Knut Wicksell elaborated on the anatomy of how labor substitutes for capital (and land, too), and gave us insights into the meaning and control of factor mix. "If ... more labor is available than can be employed ... a shorter period of production ... is adopted, and the capital which was before insufficient is now able to give employment to all workers..."^{1/} Wicksell saw society's capital as a great revolving fund, which by recycling faster employed more men up to any needed number. In modern macro idiom, this increases replacement demand. Thus, "...the existing capital must just suffice to employ the existing number of workers..."^{2/} The greater replacement demand is financed by greater capital recovery, and matched by a greater flow of supplies of finished goods, so it does not simply raise prices or "overheat the economy." This insight appears sporadically in Ricardo, Senior, Von Thünen, Jevons,

^{1/} Knut Wicksell, Value, Capital, and Rent, S. H. Frowein Translation. London: G. Allen & Unwin, Ltd., 1954, p. 127.

^{2/} ibid., p. 160.

Barone, Böhm-Bawerk of course, Åkerman, Spiethoff, and Hayek, and surfaces today in works by Robert Dorfman, Solow, Domar, Brem, and others.

High land rents and lower wages also motivated higher intensity, or substituting labor for land, a process less evocative than the mind-tingling concept of a Great Revolving Fund, but also more commonly perceivable and folkish. In the United States there is a long tradition of putting the jobless to work on the land. It has not been, however, a simple matter of substituting labor for land, and intensifying land use. That was one element, but a collateral element has been frontier expansion. The doctrine that land is a safety-valve for the jobless has not been adapted fully to a closed economy and finite world. It has thrived best in its imperialistic variation, finding jobs and investment outlets and markets by territorial growth, intensifying use of the other fellows' land in the process of occupying and acquiring it. We have succumbed to claustrophobic gloom and fatalism, like that of Alvin Hansen, whenever the frontier seemed full, and gone seeking new ones. Today this process is meeting increasing resistance: from foreign nations, from environmentalists (whose land is also being invaded), and from growing awareness that we have to begin limiting our demands on the finite treasures of the earth.

The obvious economic move has long been to develop our inner frontiers by intensifying land use. And so we have, moving to the cities in force. But characteristically, instead of intensifying urban land we have cut its density of use in half. Instead of urbanizing the people we have suburbanized the cities. Suburbanization and sprawl have repeated the frontier experience in the new context, subdividers invading farmers as farmers used to invade the cowmen, and the cowmen the trappers and

Indians. As to minerals we have taken over half the world, after skimming the cream from our "homeland"--recently the Indians. Both movements are heavily subsidized and display political, not just market choices. We have never fully followed market signals and simply intensified use of the land we already have. But the neoclassical market doctrine is clear enough: higher rents and lower wage rates cause labor to substitute for land until the land soaks up the jobless.

Meantime however the market went out of style, especially in affairs macro-economic, to be replaced by social control of aggregate investment. The Great Depression convinced most people that the market did not assure jobs. "...the laissez-faire system is without any thermostat," said Samuelson. Keynes had formalized this belief, and swept the field with his model of underemployment equilibrium in which the market mechanism homes and comes to rest with millions out of work.

It was not this pessimism that carried the day, although like a good revival preacher he prefaced his promise of paradise with a threat of hellfire. But he did promise paradise, and it was this "good-spiel" that distinguished him from gloomier prophets: optimism about putting everyone to work productively, without insisting, as others were doing, that they undergo prior pain and penance. He recognized no real resource constraints on employment. Land was not mentioned and capital was redundant, needing only to be activated by spending. Government need only intervene to recycle money: then real resources would recycle themselves. Prices would not rise unless we had first employed everyone.

The solution, he said, is for the Treasury to recycle money by borrowing and spending it, creating new money or not, it doesn't matter. It was a hopeful, positive doctrine, and competed at a great advantage

with the dismal choices offered by rivals who claimed--on questionable credentials--to represent the free market.

Monetarists never cease to debate Keynesians over the most effective way to regulate aggregate spending, and are more disposed to recognize other constraints; but this is more an intramural heresy than another faith. Neither party questions that spending money is the motor that makes the economic system go. To increase jobs, spend more money, and so long as there are jobless the spending will employ them rather than raise prices.

For a brief heyday, fiscal and monetary policy in league (FMP) seemed to have all the answers and rode the crest. "Full Employment without Inflation" promised Samuelson heading up Chapter 18 of his 3rd Edition. Specialists in FMP spoke confidently of the conquest of the business cycle, mastery of the modern analysis of income determination, educating Congress and the public in modern economic science, dragging the green-eyeshade brigade of budget-balancers into the twentieth century, economists' new understanding of economic forces, the coming of age of economics, and so on. Having mastered the basics and won the citadels, they moved on to fine tuning. They split into heresies, sects, and factions, but rarely doubted their basic perception of Truth.

In retrospect, a dash of humility was in order. Samuelson wrote in 1955 that inflation resulted mainly from "overful employment."^{1/} Now the Keynesian nightmare of inflationary unemployment has become our daily reality. Geared to assume no resource constraints, FMP has no

^{1/} 3rd edition, p. 350.

response for the new challenges of ecology, environment, and antigrowth-manship. Geared to tolerate and even idealize waste, FMP has no response to emerging needs to conserve scarce resources. Geared to assume that the economic problem is how to dispose of surpluses, the Keynesian framework ill fits the facts of excessive demand, and short supplies of meat, lumber, shelter, energy, medical care, and other basics. Geared to treat capital as a glut and a threat, Keynesian thinking is ill at ease with high interest rates. Geared to idealize federal spending, FMP drifts all too easily into military imperialism, preferably dressed as AID and economic development. Geared to accept monopoly and price-fixing, FMP has no comfort for those who deplore the growing concentration of economic power and the use of government to stifle competition.

FMP has been too single-minded, too narrowly fixed on federal deficits and the money supply. These are important controls, of course, but they are not everything. It should be clear now that FMP has overloaded them. They are not doing the job, and cannot alone.

So I propose here to treat other controls and policy options. Book I, "Market Mechanisms and Full Employment," identifies and describes the equilibrating devices by which a free market would (if we had one) zero in to home on full employment. Part A, "Variable Proportions," begins on a familiar theme of classical economics--and modern texts--that producers vary their factor mix in response to relative costs. It emphasizes how great are the differences in mixes in practice, and how sensitive the mixes are to changes in cost rates (wages, interest, rent)--how much more sensitive than generally assumed by analysts of unemployment, many of whom lean to a fallacy of fixed-mix, and/or a virtual labor theory of value.

Part A develops the mathematical apparatus of capital theory needed to understand the substitution among factors.

In that analysis it emerges that to enrich the mix with labor entails turning, recovering, and replacing capital more often, and renewing sites more often. This in turn means more replacement demand. Thus production economics, the study of factor mix, becomes an integral part of macro-economics, the determination of aggregate demand.

Part B then develops the thesis that this rise of replacement demand inherent in substituting labor for capital and land is also a macro-economic control that guides the economic machine to home on full employment. It shows this in a real model of flows of input and output behind the veil of money, with social capital as a great revolving fund; and then relates these real flows and revolutions to the spending flows of investment and consumption by which FMP specialists seek to regulate real jobs and output. Turning capital more often raises replacement demand, raising gross investment and demand for labor. But it also increases the flow of finished goods to match the increased demand, thus increasing wage flows without inflation.

Part C, "Full Employment and Efficiency," treats the fear that fast replacement is a trumped-up, make-work program, sacrificing efficiency for jobs. It notes that the present problem is the dominance of trumped-up, make-work programs for capital and land, wasting treasure and natural resources as substitutes for making jobs. This does not deny that there is featherbedding by labor, for there is. But the chronic labor surplus, and current shortages of available capital and land, tell that labor is no match for capital and land in the featherbedding game. A free market

would make jobs not by waste, but in the very process of mixing inputs most efficiently. Strong demand for labor would discredit boondoggling and unleash a huge potential now latent.

Part D of Book I, "Jobs and Growth," notes that a free market could employ everyone without depending on "growth," be it of territory, population, capital, or extraction and throughput of materials. Output is likely to grow, but we have the choice of cleaning it up and reducing its bulk and its drafts on nature.

Book II, "Biases against Labor," finds the obstacles to employment in a wide range of law-made biases that motivate producers to use more capital and land and less labor than they would in an unbiased free market. Part A, "Tax Bias," uses the tools developed in Book I, Part A, to analyze in some detail the effects of taxes on factor mixing. A large tax bias is found against labor, although with possible partial exceptions in the property tax and the investment tax credit.

Part B, "Survey of Institutional Biases," scans what I think are the major biases against labor, besides tax policy. These are laws and other institutions that induce us to waste and underuse good land ("under-use" meaning to underman it); and induce us to waste capital. Resource institutions surveyed are urban land use controls, farm programs, mineral controls and cartels, water law, effluent law and anarchy, industrial organization (especially cartels and vertical integration), administration of public lands, and mercantilism or national vertical integration. Capital-wasting institutions are inflation, selective tax exemptions, low-interest loans as a subsidy vehicle, management aggrandizement, regulatory bias in utilities, building codes, bias against mass systems,

transportation bias and scattered settlement, and others. The waste of capital in subsidizing territorial expansion is treated later.

There are also direct biases against using labor. A pattern that begins to take shape is one of understaffing good land, and then sinking capital to develop marginal land, the capital being only slowly recovered and replaced. A host of biases keep us from exploiting the intensive margin of land use, while another host draw us prematurely to and beyond the extensive margin. A major force is the Rule of Capture, in its protean shapes, by which one asserts tenure over common resources by sinking capital into them prematurely. Another pattern that emerges is one of industrial organization with a capital and land-using bias. Cartels are characterized by "excess capacity," which is undermanned capital and land. Concentrated ownership and control of wealth destroys jobs, because large holdings tend to be capital-intensive, small ones labor-using.

Book III, "Compensatory Territorial Expansion," treats of the Drang nach Lebensraum as a substitute for manning fully and renewing more often the land we already have. We neglect the intensive margin and rush the extensive one. The bias for territorial growth appears to compensate, by bringing more land into the national system, for biases that raise the land requirements of labor. The overall result is underuse of land, but within an overextended infrastructure framework that covers too much land--an anomaly of artificial scarcity within a context of artificial abundance, a pattern capsulized in the word "sprawl." Subsidies to expand, while they do provide labor with more land, take mostly the form of underpricing and overapplying capital, thus draining

capital into a deep sink from which it returns only slowly if at all. Sprawl requires, heavy, slow-yielding infrastructure, the form in which capital least complements labor.

Part A, "Inflation of Intersite Linkage Capital," treats of the long commitment of enormous capital to intersite linkage--roads and utility grids--and to other area-sensitive infrastructure costs like flood control, aquifer recharge, and environmental enhancement. The inherent high capital-intensity of infrastructure services is exaggerated by sprawl, and also by regulatory bias affecting utilities, political control of public works, and weak synchronization of different kinds of complementary capital, slowing the recovery of all infrastructure capital.

Part B, "Inflation of Military Costs," develops a thesis that military costs (which obviously rise as an increasing function of territorial expansion) are more capital-intensive and less job-creating than usually assumed.

Part C, "The Heavy Capital Needs of Marginal Land," develops a principle that marginal land needs more capital per man than better land. It treats of "rent-goods," the long-lived capital that substitutes directly for land. Finally it treats the Rule of Capture in its polymorphic applications, a protean institution that lets people establish tenures by developing resources prematurely, turning frontiers into sinks of capital.

Part D, "Why New Frontiers Fail to Employ Everyone," summarizes the moral that frontiers use up capital faster than they do labor. There is a beautiful logic, in a two-factor world of land and labor, in noting that if labor runs short of materials, labor can find work winning more materials from the earth. But in a three-factor world this

requires capital, and here is where our institutions fail us: they magnify the capital duty per man, even when capital is short and labor long. So territorial expansion makes jobs only so long as we can bring unlimited capital into the system; after that it fails.

Part D also treats the limits of the earth, brought home to us by rising land prices, by the growing resistance of other nations to our expansion, and by environmentalism. Territorial expansion only makes jobs by bringing more land into the system and this, too, has limits which are closing in on us.

Book IV, "Full Employment on the Intensive Frontier," shows how activating inert land and capital could soak up the jobless. Since Book I has shown how a free market would home in on full employment, and Books II and III have identified the law-made barriers to the goal, it remains for Book IV merely to lay out the process of unbiasing the system. No elaborate schemes and programs are called for, but primarily the removal of ill-advised schemes and programs that prevent flexible prices and market forces from governing economic life. Efficient input mixing and the heated prosperity of full employment are not only compatible but mutually requisite. The radicalism of "jobs for all" and the conservatism of laissez-faire, too, are one and the same. The polar positions stereotyped by debates of the left and right have become irrelevant and futile games of repeating thrust-and-parry that were banal in Junior High School in 1935. The effort here is to shake off these futile games, life's counterfeit, and come to grips with life itself.