LP 3: Outlines, Ideas

FOLDER INSIDE FOLDER

Outlines, R.T.T. Project

Annotated

Outline of Full Employment through Full Use of Land and Capital, by Mason Gaffney, Feb., 1971

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pp. 1-25 cover only

Intro.; I, A, and I, B, 1 & 2 & 26.

Introduction: The Unresolved problem of unemployment

Experience of the last 3 years has strengthened or confirmed suspicion that many have entertained for longer periods, that tools of monetary and fiscal control are not equal to the loads we ask them to bear. Inflation and unemployment. Need to find means other than demand inflation, to cope.

Warfare & unempl., too. Importing primary products of the world, still have unempl. — & rising resource prices too.

Unemployment is more severe than conventional measurement allows. Politicize. of BLS.

Custom has staled full appreciation of how very far we are from any optimal level of employment. Idea of superfluous man is firmly rooted.

Other aspects: discouraged seekers not counted; idle housewives desiring careers; protracted apprenticeship to midlife in schools; homes too far from jobs; their early retirement: time to think about short weeks & hours; weapons production in some part; nonfulfillment of human beings; anxiety; doing will of others. servicemen; featherbedding, make-work rules; forced retirements; under-grasping for security, suppressing creativity; selling out ideals employment--misallocated labor; crime; rising share of population on welfare; wage levels artificially depressed by monopsony; etc.

Some tolerate 4% measured rate as minimum, but why can't most groups be as fully employed as the most fully employed, with 1% unemployment? (Married white male adults). They change jobs, too.

see Hyman Minsky

resulting from unempl. anxiety. (Laffer curve).

Collateral problems: ~~Iron Mountain effect; sacrifice of environment for payrolls; restricted immigration (with profound change in nature of our international position, instead of receiving people we are competing for raw materials);~~ or balance of payments ~~fencing off of professions, adding to generation gap, reducing mobility, damping the confident, innovative, interloping spirit;~~ clutching, freezing up, jamming, locking, like panicky swimmers. Petty vested. (over) and vindicating monopoly, featherbedding, graft; growing anti-natalism, fear of people in general, an easy vehicle for misanthropy; and of course inflation incurred or accepted to fight unemployment; ~~crime; welfare, unempl. comp.; support for draft; poverty;~~ "Unemployment anxiety" leads to abuse, Also to import barriers. And ~~so~~ many are ~~boomerang policies like p.w.,~~ which I will show really reduce empl. "Don't rock boat" attitude toward change ... e.g. absurd notion that palln. control reduces empl.

Drains the courage from people, makes them anxious, petty, clutching instead, and servile, fawning, truckling, which may be observed in any large institution.

Faced with this mountain of unemployment and derivative social ills, leading economists are offering only dismal choices, as in the days of Nassau Senior, & wages-fund ceiling and those within a narrow range of policy controls, those of fiscal and monetary policy (FMP). Croaking, Laudator Temporis acti. Tunnel vision.

In the early age of innocence, the ~~bright~~ promise of FMP (especially but not exclusively the fiscalists) was that by social control of Federal spending we could employ everyone without inflation. Quote McKenna, Samuelson, etc. Hansen? Galbraith? Hardly anyone dares promise that today. Now we are growing inured to the Phillips curve, trading off inflation for unemployment. a nightmare come true. They said this wouldn't happen. Fiscalists said do it by deficit; monetarists said do it by lowering i by FR action. Now FR lost control over i, lean to balance of payments need.

Quotes from Friedman, Samuelson, Okun, Heller, Burns, Wallich, McCracken, Ackley, Galbraith. Counsels of despair, confession of bankruptcy, dismal choices. Can't even promise full-empl. any longer. Subst. of metaphor for substance. Recourse to imperialism, diversions, adventures, Reifying symbols.

Some promise employment; some promise price stability (or "nonflation") but none has delivered. Already, the talk is of more unemployment traded for less inflation, with both suffered. And that is the only honest promise, in view of the record.

Some emphasize control of the quantity of money, others the aggregate Federal budget. But except for a few these are differences in emphasis, each school allowing a large role for the other in its scheme of things. Both accept the premise that the rate at which money is spent pretty much dominates real production and employment.

Macro framework developed around model of stagnant ec., falling rate of profit, surplus of loanable funds. Dubious relevance today, shortage of funds. Model needed that accommodates observed facts.

Manic-depressive nature of philosophical underpinnings of macro models, related to revival preaching, threaten Hell and damn orig. sin & then save by bright promise. Thus stagnation (over)

gloom, rescued by socialism inv., which meant spending.

It is time to be disenchanted with such heavy emphasis on FMP, and the idea that control over aggregate money and spending are the ~~sovereign~~ keys to employment. Fiscal policy and monetary policy are necessary but not sufficient, and maybe not even the most important of the necessary conditions. 35 years of primary attention to these only policy levers has overloaded them, and produced a cultural lag, with other matters badly neglected.

Cite Paul Douglas cross exam. of L. Ackley.

One group long disenchanted are the Dirigistes of varying degrees, who would take control over what remains of the free market and solve economic problems by returning to direct state control and policing of prices and many other key economic decisions. This is not a study of how bad life is under price policing, rationing, and so on, for there is a wide and convincing literature; this is rather a study of how we can help the market solve its problems. But the fact that many people are ready to move into controls and accept the risks and restrictions of enlarged policing, and the political determination of relative values, distribution, and allocation, and the loss of incentives under suppressed inflation, and all the rest--this fact is an index to how badly we are doing, and a reminder of the fate that is ours if we fail to meet the legitimate aspiration for employment opportunities by other methods.

It is not surprising when a committed figure--Galbraith--leads the forces. But when a life-long skeptic, Arthur Burns, ~~now in a seat of power,~~ calls on controls to effectuate his policies--that is a counsel of despair indeed.

Some "Structuralists" have offered another force, but it is underdeveloped, unexciting, fragmentary, and poorly integrated and reconciled with FMP. Some has been coopted by privilege and pressure groups, like the "regional development" work supported to protect dying constituencies.

One should not promise more than he can deliver. But economic analysis of market mechanisms can promise, and policy can deliver better than dismal choices. Full employment without inflation and without controls is attainable. This work purports to begin to develop the analysis and policy recommendations.

I. Market mechanisms for homing on full employment

Economists overreacted or misreacted to the fact of unemployment in the Great Depression, that formative period in economic analysis when many basic premises were imbedded in doctrine. It is the custom to assume that underemployment equilibrium is probable in a free market, so that very deliberate social control, as of aggregate investment, is needed, and that under very tense conditions of unstable equilibrium, as though the authorities were walking a high wire. Reform to achieve free markets is regarded as futile.

The Douglas-Ackley exchange.

The belief in reform futility consists in two levels: one, that the market cannot be made free; and two, that even if it could, it might not help.

Most economists have focused on unfree wage rates as the major and intractable problem. The present work proceeds from a premise that wage rates while important, have received more than their due share of attention. Others, like Douglass, have looked at industrial market power, and the anti-trust laws as a way to solve the problem. The present work gives some weight to this aspect, but stresses remedies other than the anti-trust laws.

Have preferred TNP bcs. seemed more ~~malleable~~ manageable, centralized, captivable. So accept price-fixing and work in that framework — using cost-push as scapegoat, and alternatively as a good thing bcs. high incomes result & generate more spending, our inconsistency needing resolution.

Except for one kind of structural change: territorial expansion. Hansen & frontier

F. W. Autos & highways

Now, world policing. Lebensraum. Iron Mt.

effect again. TNP has gone along seeking new outlets for aid

ex. Hermit, etc Unable to find subs. for territ. exp. Invading both natural env. & for. nations.

Now, on top of old reasons, is environmentalism — they have neglected.

Macro has been anti-Malthusian. Recognized no resource constraint. Hence, ill-equipped to adapt to new recognition of it.

Also, recognized no capital constraint. Ill equipped to adapt to high i, scarce capl.

Need to purge those: find policies not depending on waste, growth, or Territ. expansion.

The focus here is on ~~other~~ market faults, ~~those~~ affecting capital and land. It identifies many key variables and many policy controls over them, which may be used to reach full (more precisely "optimal") employment.

Many economists believe that price flexibility guarantees full employment within the bounds of micro theory, but not those of macro. The present work ~~integrates~~ micro and macro theory, showing that micro mechanisms also have the needed macro effects. Specifically, to anticipate faster replacement of capital, a micro mechanism for greater employment means greater replacement demand and gross investment, a macro mechanism for full employment.

A. Micro-economic mechanisms for full employment: substituting labor for capital and land; substituting capital for land.

1. The variability of factor proportions, and sensitivity to parameters.

The assumption of fixed proportions found in most analysis, explicitly in some (Harrod, Weintraub, etc.), implicitly in others.

Great variability obtains in fact among different countries; industries; firms within same industry; Data.

A small percentage drop of wage rates draws investment and land into labor-heavy industries because it gives a large percentage rise of interest and rent, while giving very little in capital-heavy and land-heavy industries.

The differential sensitivity of durable investments to interest rates--some introductory capital theory and practical examples. Durable means capital-heavy. Martin Bailey on why we cannot run out of investment opportunities.

2. Substitution of labor for capital

The need for a vertically integrated approach, because capital is produced by labor. Hazards of static approach, intuitively assumed by most, where a capital-heavy industry is one with a high capital to payroll ratio. The 'fixed' capital is actually turning over slowly, and the true-labor-input varies with speed of turnover. In a perfectly staggered, vertically integrated group of operations, the capital to payroll ratio is a correct guide to capital intensity, as will be shown. But the displacement of labor by machines in one stage of industry often represents a shift of labor to the machine-producing stage rather than a net disemployment. Example of agriculture.

The share of capital in the product is an increasing function of time. Doctrine of non-coordination of factors: labor hired by investor. Investor's function to advance "subsistence" or ripe goods in return for green ones.

Models of investments showing how share of labor in value of product is a decreasing function of the life of capital.

a. Appreciating capital. The point-input point-output (PIPO) case. The single investment model.

The staggered model. Work of Wicksell, Brems, Dorfman, Donar

Applications: timber, livestock, inventories, minerals, research (work of Barzel). Data from specific cases.

Denial by J. Robinson of the models, and refutation. Denials of Clark, Knight, and refutation. simple math. problems re normalizing.

Sensitivity analysis--the basic math.

Conceptual pitfalls and their solutions:

-- the definition of "life." Life as the reciprocal of frequency, where frequency is the output to capital ratio. Dorfman's "bathtub theorem."

-- the definition of capital, and some implications. The Stubblebine position. Refutation.

-- beware thinking of "capl. service" (int. + ann.-u.) as cap. input (own)

b. Depreciating capital

Single investment model

~~i~~. Followed over life

~~ii~~. Breakdown of cash flow at a point in time

Staggered model

Work of Brems

Mathematical necessity for consistency of principles applying to both kinds of assets, since depreciating assets are mathematically definable as sums of appreciating assets. Vickrey's proof of Haig-Simons theorem for all assets. $C = PV\,\Sigma(R_n - a_n)$

Ackley's denial, and refutation. ~~The useful concept of "half-life."~~ Or carcass- life vs. service life. Ackley's error reflects SNP accts. different treatment of deprecn. from inventory exhaustion.

Applications and data: autos; housing stock; fruit trees; alfalfa; industry in Milwaukee; machinery (Terborgh); etc.

The deceptive comparison of lives of appreciating and depreciating capital: former is relatively much longer than at first appears, so cattle and timber and minerals show low labor to output ratios.

Am-n. or recovery is return to labor. See if anyone commits this fallacy. JVK said was common.

Long cycles use less harvest labor ÷ tree value, so are cap. intensive for 2 reasons: higher share of gross is stumpage; higher share of stumpage is return to capl.

More conceptual pitfalls. The misleading treatment of capital turnover, depreciation, depletion, and replacement in the national accounts, a professional stumbling block to clear analysis.

c. Adaptation to scarcity and glut of capital

Wicksell's model; Brems' expansion. Shortage of capital not an absolute barrier to full employment, given the absence of structural barriers to mobility.

Neither is glut of capital a barrier to full employment. Ratios adjust. Martin Bailey's sink of capital.

The Luddite ~~anxiety~~ fallacy. Machines produced by labor. Limits on the substitution of capital for labor. R&D affected by relative factor prices, and it can foster labor-using as well as labor saving innovations.

Aggregate increasing return to capital--refutation of Marx and Hansen.

3, —3. Substitution of labor-and-capital for land: "intensity"

a. Classical diminishing returns – a retreating limit on intensity

Elasticity of production, intensity quotients, and leverage of higher prices or lower wages or lower taxes, forces causing great intensification, showing scope for intensification. Examples from agriculture, industry. Recycling urban land by site renewal, important aspect. Increasing height of bldgs.

b. Increasing returns from intensification.

Circulation and synergism, urban and rural.

c. Use of capital to develop new land, i.e. to raise land to higher use, at several frontiers of succession.

Land and extractive resources not a limit on employment, so long as capital may employ labor to bring submarginal land into use -- or any land into higher use. Barnett and Morse. Or recycle.

The historical record: falling terms of trade of primary products; excess capacity in primary industries. Landsberg, Fischman, and Fisher. (But rising land prices now. & they are more basic than primary products?)

Environmental quality not a limit on employment, by same reasoning, so long as capital can employ labor to enhance (or avoid degrading)environment.

Slow recovery of capital used to develop marginal land. The extreme case of landfill. Ultra-extreme case of appropriative investments that don't even return interest except in acquisitive, redistributive forms. Importance of developing intensive margins in preference to extensive ones. 3d dimension (height); 4th dimension (renewal or rejecting of sites).

4. Substitution of labor for capital-and-land--the way to full employment.

Greater intensity means higher labor-and-capital to land ratio.

Shorter lives mean higher labor to capital ratio; also more frequent use of labor on land, hence higher labor to land ration for any given capital stock. Harmony of Georgian and Wicksellian approaches to full employment--seen by Wicksell. Harmony modified by lag of site renewal behind capital recovery.

Models for appreciating and depreciating capital repeated with addition of land, single-investment and staggered.

Sensitivity analyses repeated.

Mechanism for free market for homing on equilibrium at full or optimal employment.

The frontier trap. Developing new lands (at every margin of land-use succession) intensifies land use on new land, but substitutes capital for labor by slowing rotation of capital. Also slows rotation on and recycling of ~~new renewal on~~ old land. To avoid trap, intensify more, expand less. Intensify in 3d and 4th (recycling) dimensions.

5. What determines the rotation of capital, and renewal of land?

Role of interest rate in simple PIPO model easily and widely understood. Basically correct, but too simple for most analyses.

Define and contrast capital recovery, capital replacement, site renewal, and throughput of materials. E.g. recycling is replacement w/o throughput. Rotation of capital is a full cycle of investment, recovery, and replacement. Capital rotates faster than sites are renewed and materials are put through. Service life vs. carcass life. ~~Eg.~~ Repl. freq. is double or so renewal freq. The share going to capital varies as an increasing function of the rotation period. The share going to land varies as an increasing function of the renewal period.

a. Appreciating capital. Cap. put in slowly — (not really PIPO). Recovered in one stroke at m.

Faustman's solution. Review and improve.

Sensitivity to parameters. Preview: effects of different methods of taxing.

Applications to forestry, livestock, inventories.

Depletion of minerals.
Intangible capital: R&D, goodwill, education, etc.
Determinants of capital rotation are almost the same as those of site renewal, but not quite, at the ~~terminal~~ (harvest) end; and very different at the ~~vintage end~~ beginning.

b. Depreciating capital. Cap. put in in one stroke: recovered slowly.

Capital recovery leads site renewal by large factor.

Speed of capital recovery largely set at birth or vintage. Speed of site renewal much more sensitive to parameters of later years, mainly land value. The useful concept of half-life.

Land 'ripening' factors also affect renewal period by slowing beginning of new cycle (which is same as ending of old cycle.)

Determining life. Economies of longevity vs. (costs of time, interest and rent.) Balance by maximizing present value in perpetuity.

Intellectual, religious, sentimental, and class bias towards overstating the benefits of durability. Capital recovery factor and the small benefit of spreading capital costs over more than twenty years.

Sensitivity to parameters.

Combined appreciating and depreciating capital: mineral extraction. A special case?

c. Dynamic role of land rents and values in replacement timing.

i. Static role--review. (Rent as counterweight to interest.) (Land yielding rent demands use, to get supplies — thus A inv. opps.)

ii. Rising values. Effect on timing of building for land use succession, and life of buildings. The ripening question.

The tendency to consume rising land values under buildings by non-reinvestment of recovered capital.

iii. Preemptive investments to capture submarginal resources. (Military spending the greatest of these)
Non-recovery of social capital, as private capital is recovered by rise of value of captured resource.

iv. Extractive?

d. The intersite linkage sector and other mass systems.

Linkage extensions have special role of adding to effective land supply. Lag of site renewal behind capital recovery raises land prices which stimulates land use succession and extension of mass systems.

Mass systems are characterized by decreasing costs. This leads to building capacity ahead of demand. Lengthens payout period.

Other factors slowing payout: capture of territory; nature of payout through enhancing land values; durability of capital fixed to right of way.

Nature of political incentives to build public works whose payout is in votes and contributions rather than sales.

i a. The political value of raising land values before land is ripe for the higher use. Immediate gratification, deferred retribution.

ii. b. Payout through taxes on capital, sales, and payrolls. or developer contrib. for streets Land value hike comes first; tax returns come in later if at all. Govt. finances the private developer, in effect.

Preview: institutional factors slowing payout.

Large subdivision, company towns, new towns, shopping centers, and other large integrated developments which pay out by capturing their own spillover benefits.

Scattered and unpredictable settlement pattern inflates capital requirements for linkage sector.

iii. c. Lag of response to new parameters.

Speed of capital recovery is largely set at vintage. This is most obvious with depreciating capital. There is more short run latitude in harvesting appreciating capital, but there are narrow limits on this, too.

Recovery of some capital requires further investment of complementary capital. This dependency increases with durability, and is most evident with public works. This lengthens adjustment to high interest rates. Not only can they not speed the release of sunk capital, they slow it down by suppressing required complementation, if public works have been built far ahead of complements. This is one element in the possibility of a serious crisis.

Speed of adjustment declines with durability of stock.

In the short run, capital recovery is largely predetermined by previous decisions.

The recovery of land, from beneath old, capital may be accelerated a great deal in the short run, because of asymptotic depreciation patterns of old buildings. But the revenue is true for appreciating capital, for land is a smaller share of total value in later years of life,

B. Macro-economic mechanisms for full employment

1. Sources of doubt about market mechanisms in the aggregate.

There are several strains of thought doubting the ability of free markets, to home on the full employment which micro seems to promise.

Some, have already been answered by (A). Others are mutually refuting. Other answers latent in (A) need translating into the language of macro-economics.

a. Malthus. Limited earth, superfluous people. In simple forms has been rejected. Reasoning and data already given in (A). Scope for substitution of labor and capital for land. (Returning, however, as an element in more complex theories).

b. Inadequate demand to absorb supply, above underemployment equilibrium. Oversaving, underinvestment: surplus of capital.

Oversaving, coupled with dwindling outlets for investment. Falling rate of profit (Marx), or diminishing marginal efficiency of capital (Keynes). Has elements of Malthus--reaching limits of the earth, both

territorial and inventive, are causes for falling yields on capital (Harmon). Has elements of Ludd--capital piles up, seeks outlets, machines displace labor. (Theobald et. al.). But declining population growth also viewed gloomily, as reducing demand.

Although pessimistic about what a free market can achieve, this approach is optimistic over what social control of investment can achieve. Policy implications: keep interest rates low; invest public funds at low or even negative returns. Has elements of Henry Clay--invest in public works, open new frontier. Saving is redundant, little incentive needed to create capital, only to keep savings from being hoarded. Has elements of cartelism: avoid supplying ripe goods for today's glutted markets; employ labor to build up capacity to meet tomorrow's scarcity. (farm and reclamation policy). Has elements of easy money (Patman), but generally regards money supply subordinate to direct control of spending.

Meeting inflation with unemployment, however, this optimism fades, leaving the left prone to seek recourse with Galbraith in direct controls.

c. Inadequate supply to meet demand, above underemployment equilibrium. (Overinvestment, shortage of capital?)

This strain of thought has not been so well articulated as (b), the Keynesian orthodoxy taught in academe, but it often prevails in seats of power. It has influenced much Federal policy ~~since~~ after Heller. Cite definitive statements. The "overheating" school. Heller bespoke the optimistic side of Keynes: increase investment incentives, soak up unemployed by increased investment, achieve large net gain. This bullish version of Keynes could even be

construed as optimistic about the free market, since increasing investment incentives, ~~took~~ can take the form of reduced disincentive taxes on new investments; and the market is assumed extremely responsive to the touch of added spending. The bearish view is that such increased investment can only be a stirring up of paper with little real effects, only inflation. That is deeper than simply saying increased money supply is inflationary, although it has elements of tight-money thinking. It says increased incentives to invest are inflationary, creating demand without supply. It is seldom made clear whether this reflects a promise that capital is too scarce; or too unadaptable; or what. (This work seeks to formulate and articulate the premises.) It evokes memories of the theory of a fixed wages-fund limiting possible increases of output, and goes with ideas that fast and large increases in employment are unattainable (cont) The major policy implication: route to full employment is to lower wages, using direct controls if necessary; suffering must precede fulfillment; don't hope for too much.

Faced with inflation in spite of reduced investment, this school, too, ~~fades from optimism and~~ turns to direct controls. (Burns)

(b) and (c) may appear contradictory, but they have a common theory: the lack of market thermostats, need for Keynes' "socialization of investment," i.e. conscious intervention by government and quasi-government to regulate rate at which money is spent to employ labor. They differ on what rate is optimal, neither regarding the other as benign.

There is a common readiness to abandon free markets when faced by inflation-with-unemployment, or other crises. The issue is not intervention vs. laissez-faire, but rather who is to intervene and for whose good.

and Utopian.

d. Structural and institutional frictions

This strain of thought traces unemployment to stickiness, friction, lags, monopolies, cartels, uneconomic regulatory criteria, closed unions, licensure, privilege, tax bias, and so on. Individuals vary widely in the weight they give it, some believing Keynes proved that underemployment equilibrium is as likely under perfect competition as any other condition. Individuals also differ in how curable to regard the market's faults. Pessimists believe markets cannot be made free; many believe they should not, either, or that there is little good in it, and the positions merge and support each other. Free market liberals trace unfree markets to abuse of government power by dereliction or complicity, and are optimistic about what can be accomplished by reorienting policy away from interference with free markets, and where forebearance alone is not enough, toward actively fostering them.

The following sections (2 and 3) of this part (B) purport to show that the micro-economic devices for homing on full employment also have the necessary macro-economic qualities. Later parts (C and ff.) suggest that there are many feasible policy measures to take -- or cease -- that can materially increase employment, once the importance of removing bias against replacement be recognized. The writer is optimistic about the benefits and the feasibility of removing structural barriers to the market.

To capsulize the argument, the preview follows. The macro device for increasing labor to capital ratio is faster rotation of capital.

This counters two pessimistic macro ideas. One is that final demand is inadequate to carry away increased output. But turnover increases gross investment, creating added income. Capital owners invest to replace capital in anticipation of replacement need, creating the money income to buy what they sell. The other is the reverse, the fear of inadequate flow of ripe goods to balance increased incomes from gross investment. Increased turnover adds to the flow of supply as well as demand.

A micro device for increasing labor to land ratio is also faster rotation of capital, and the same arguments hold. A second micro device is increasing the capital to land ratio. This reduces linkage capital needs and so speeds overall capital rotation, because linkage capital is very durable. It may slow some specific rotations on private land, but the extra capital put on better land is pulled from marginal land, where rotation speed is at its lowest.

Having shown that market mechanisms do home on full employment, (B), the major aim of the work is then to identify faults that can be righted to let the market work optimally.

2. Market mechanisms for full employment equilibrium: real terms analysis

a. Replacement, aggregate demand and supply. The prime micro device for full employment is faster replacement. A theme of macro is that there are forces not contemplated in micro which may keep aggregate demand too small to buy the output necessary for full employment. But faster replacement has a macro dimension: it means higher gross investment, and so supplies greater income-creating spending.

We will pursue this line of reasoning to show that micro devices for housing on full employment also have the necessary macro qualities. ~~Another theme of macro, we have seen, is school (c), the anti-overheaters, who~~

It is not the spending alone that is healthy. Spending alone is cheap, and may do no good. Faith has turned to doubt, and doubt to disbelief that spending alone can do more than raise prices and help finance government, even in the U.S., Latin American, Kuo-Mintang Chinese and other experiences with deficit finance as a way of life have shown what can occur in nations that overload this one device. The anti-overheating school often interprets any increased spending in the U.S. this way, even that due to increased incentives to invest.

But they should not so interpret replacement investment. The ripe goods being replaced are also being sold: the supply balances the replacement demand. Faster replacement simply means supply and demand balance at a higher level.

The fact that greater aggregate investment is meaningful only when accompanied by greater volume of flow of real goods tell us there is a real macro-economics, one that can be analyzed in terms of a barter economy as though money were only a veil. Macro or "new economics" has been contrasted to classical ~~analysis~~ economics as analysis in which money is an active causative agent and not merely a neutral and passive medium of exchange. Inadequate aggregate demand, the original macro problem, is perceived as a monetary problem caused by oversaving and a bottomless

sink, or liquidity trap, into which saved money may flow without pushing investment out any outlet. This was monetary -- it could not happen in a barter economy, which is why classical economists had overlooked it.

But there is a real macro. Aggregate demand could fall short of full employment in a barter economy simply because of slow replacement, where the real aggregate demand for labor is the flow of ripe goods. A given capital can generate larger or smaller flows of final goods and employment demand simply by rotating faster or slower. The cycle of sale and replacement is a pacer so determinate of aggregate supply and demand that a basic macro-economics should begin there.

The value of looking at a barter economy is to gain insight into the things that move behind the symbols, the substance behind the shadow, thus to see if the symbolic language of our times has veiled anything important. A precondition of Keynesian optimism, latent but not explicit in its language, is a real capital stock highly responsive to the touch of spending. There is a supply of surplus goods ready to meet increased spending, ripe yet waiting for the flow of money. The goods when sold are automatically replaced, so that consumption spending creates income. The possibility of disinvestment or non-replacement is formally allowed, although not stressed and generally submerged. The possibility that the capital stock is insensitive to spending is not considered at all, nor is the possibility that replacement-investment (R) may be primarily determined by factors other than spending.

Irony. Classical econ. tried to look behind the scenes, see what was really happening. Had some success. Then came a generation of econ. who succeeded in persuading another generation of students it was old-fashioned and stupid to pierce the veil.

It's fun to be fooled, but it's more fun to know. Let's get behind flashy false front, see what really happens.

A precondition of conservative pessimism is that R is refractory not only to spending but to almost any thinkable policy.

To evaluate these macro positions we now analyze the relation of R to aggregate supply and demand in a barter economy.

b. The storehouse model

Picture the world's capital as a fund of goods flowing through a storehouse. It is only a detail that some capital appreciates and other depreciates en route.

The storekeeper grubstakes the hired factors of production, by trading them ripe goods for their services which produce green goods.

i. Simple model -- capital hires labor

The major point can best be seen in a simple model, or word-picture where capital hires labor. Other details are deferred to model ii. Labor brings green goods to the receiving dock and takes ripe goods to consume from the delivery dock. Labor's share is its discounted marginal product. The storekeeper consumes the excess --- Böhm-Bawerk's "agio" --- which is his share. Goods in process are perfectly staggered, so his share is the same whether we measure it as current accrual of green value or his share of ripe value. There are no direct services -- all labor must pass through the cycle of transformation into green capital and recovery or consumption or ripe capital. There is no current saving by anyone -- labor converts to new capital only the green equivalent of the ripe goods it consumes. It is only a detail -- at this point -- that much labor is used also in the delivery of ripe goods to consumers. (109)

The role of the storekeeper -- the investor of capital -- is to advance ripe consumer goods to labor. This advance of ripe goods is the aggregate demand for labor. The advance pays labor to replace what is currently consumed. The storekeeper's share rewards capital for having carried goods over time.

Aggregate income-creating expenditure is the sale of ripe goods. The supply of ripe goods is the demand for labor. This answers to "Consumption" in common macro parlance, but it is the flow of ripe goods and their replacement that is the essence of demand, not the flow of money.

Consumption is limited to the flow of ripe goods. No mere flow of money could increase this, for it is the fund of real capital times its turnover rate. Labor cannot directly control this -- not by demanding more ripe goods, and not by offering to work more. Indirectly such demands by labor will speed up turnover, but only by making the storekeeper want to in his own interest. Control of the system is in the storekeeper's hands.

The flow of ripe goods to consume balances the income with which labor and capital buy them, because they are the same -- the flow of ripe goods buys an equivalent amount of factor services. Replacement is income.

Unemployment of labor results from a shortage of ripe goods, not a surplus as in much orthodox thought. If there are not enough "jobs" to go around, it is because there are too few ripe goods to go around. They have to be rationed, and unemployment is a way of rationing limited goods. If there is not enough "consumption" to employ labor, it is because there is too little to consume and replace. The demand for labor is the supply of ripe goods.

oversaving is not the problem.

As to saving (hitherto assumed zero), real saving would help employ men, not hurt. If men would work for deferred claims on their green products, rather than ripe goods, they could be employed. Thus real saving does not reduce demand for labor below consumption, but raises it above consumption.

In this real world of barter, then, unemployment results not from any liquidity trap, but from a real capital trap. That is if the storekeeper sinks his limited capital stock in firms that ripen too slowly to feed all the troops, there will be unemployment, because the flow of ripe goods will fall short.

For full employment, the storekeeper displays his capital so he can always meet the national payroll. (113) How does one meet a payroll? One schedules maturities so goods ripen and he recovers capital at a rate equal to payroll, before capital is exhausted. On a going concern basis, that means turnover must not fall below the payroll - capital ratio. For example, assume settlements are monthly. If capital equals 12 monthly payrolls, the storekeeper can wait 12 months before the first cohort of green goods ripens for sale. Turnover is 1/12 per month, or once per year. It is only a detail that labor advances work on the average two weeks before payday.

If the storekeeper falls into the capital trap, his capital ripens in over 12 months and he cannot meet the 13th payroll. If this were to happen abruptly and extremely, he could not meet any of it, but that never happens in the aggregate in fact, because there are many storekeepers and there is a great deal of play in the system. But he can fail to meet part of the 13th payroll. Then some go begging, and this can become (and has become) chronic.

Several analogies and illustrations are submitted. (to be added)

To cure unemployment, the storekeeper need only increase his volume, which he does by speeding the turnover of capital. This increases both the supply of ripe goods and the demand. Durability & the accelera. principle.

Some worry that increasing investment may create demand without supply. This model shows that an increase of investment from the source here analyzed -- replacement -- supplies ripe goods simultaneously with demand.

Some worry that increasing sales may create supply without demand. This model shows increased supply of ripe goods brings on demand by putting the unemployed to work. As to saving and the liquidity trap, a barter economy does not rule them out. Saving occurs when labor takes payment in claim$_{\lambda}^{\zeta}$ on green goods in lieu of consuming ripe goods. Since ripe goods are the bottleneck, saving does not retard but hastens the transit to full employment.

Precedents: Clark; Wicksell
Fuller

ii. ~~Complete~~ model.

A ~~more~~ complete model does not change any findings of the simple model, but fills in undefined areas and adds realism.

Land and green capital are hired factors, like labor. They apply their inputs of service flow to goods over lifespan. Their owners receive incomes steadily as the inputs are supplied and the value increments are packed into green capital as it ripens. The incomes are paid by investors who advance ripe goods in return for ownership of the accruing value of maturing capital.

It is only a detail that the investor advancing ripe goods may be the same person as the owner of land and/or green capital. The functions are different. It is easy to assume that holding goods as they ripen entails net capital formation -- that the owner automatically ploughs back his income from value accrued into ownership of the ripening capital -- and then perchance blows it all in a grand spree after harvest. That is inconsistent with the behavior of property owners, who tend to consume at constant annual rates, even as other men. It is done by staggering maturities, borrowing on collateral, pooling, and other devices.

The special role of ripe capital has found expression in the doctrine of non-coordination of factors. In this doctrine, hired factors are paid their discounted marginal products by investors. Investors who advance ripe goods, and carry green goods to maturity, are the non-coordinate factor.

Earl Rolph's criticism of the doctrine. Refutation of Rolph.

It is more than a detail that labor inputs are bunched at vintage and harvest, while the inputs of land and green capital span the years in between. Shorter cycles mean a higher share of value-added comes from labor; and labor is needed more often. Labor applied at harvest turns into ripe goods faster than any other labor. Shortening cycles helps employ labor not just by increasing demand for labor to begin new cycles. It takes labor to end old cycles. Final stages of production are the greatest use of labor.

This holds true for depreciating capital, too. Here, a shorter cycle means higher capital recovery each year from each dollar of capital, and this requires more service flow. Service flow is the delivery of capital to consumers. Labor needs vary with gross service flow, as a generalization.

Examples; data.

Cycle-~~terminating~~ ending labor is so close to consumers the value-added is mostly labor, like pure services. Unlike pure services, it depends on the flow of capital.

The meaning of 'services' in current professional parlance is quite removed from a pure economic definition, and generalizations often made from available data are irrelevant and misleading.

Wicksell, who created our simple model, saw the need to expand it to treat land as a hired input. He never capsulized his insights and so most economists associate his name with his simple Austrian model. But he preferred our model ii.

The economy consists of several stores, not just one. Capital flows through them at different rates. Rates of turnover fall as we move from small business to big business to housing to government. Housing for the rich turns slower than for the middling: And so on.

Capl. must meet not just the net. payroll, but also the net. rent-roll. (In many cases, this shows up as land purchase, e.g. for bldg.; or bonus for lease.) Higher rents require more capl.

Outline, Full Employment on a Small Planet

Mason Gaffney
June 1973

Introduction: The Unresolved Problem of Unemployment

Book I: Market Mechanisms and Full Employment

Part A: Variable Proportions

Chapter 1. The Range of Factor Proportions, and Sensitivity to Parameters

Chapter 2. Substituting labor for capital and land: Theory and Mechanics

a. Substituting labor for capital

b. Intensifying, or substituting labor-and-capital for land

c. Substituting labor for capital-and-land

Chapter 3. What determines the timing of capital recovery and site renewal?

Part B: Factor Proportions, Aggregate Demand and Supply

Chapter 1. Sources of Pessimism about achieving full employment

Chapter 2. Replacement, demand, and supply: a model of real flows

Chapter 3. Replacement, demand and supply: a model of spending flows related to real flows

Part C: The Efficiency of Full Employment via Faster Replacement

Chapter 1. The micro and macro solutions are the same

Chapter 2. "Growth" is an option, not a requirement

Book II: Laws against Jobs: the Institutional Genesis of Unemployment

Part A: Tax Biases

Chapter 1. Forest Taxation, a Case Study

Chapter 2. Other growing capital

Chapter 3. Depreciating capital

Chapter 4. Interclass Biases, Selective Exemptions

Chapter 5. Payroll taxes

Chapter 6. Other taxes, a survey

Part B: Survey of other institutional biases

Chapter 1. Laws against full use of good land

a. Urban land: zoning, auto subsidies, sprawl, etc.

b. Farm land: the soil bank

c. Minerals: the worst-first syndrome

d. Water: the law of comparative disadvantage

e. Effluents and spillovers: the deer park and gadget approaches chosen in preference to modifying products and processes

f. Industrial organization: cartels, price umbrellas, and excess capacity; vertical integration, corporate autarky, and excess capacity

g. Administration of public lands

h. National autarky

i. Summary and common themes

Chapter 2. Laws for overapplication of capital

a. Suppressing the cost of capital
(Low-interest loans, management aggrandizement, internal financing, etc.)

b. Forced use of capital
(Building codes, etc.)

c. Bias against mass systems, high density, and sharing capital

d. Consolidated accounting and subsidy to submarginal appendages. Regulatory bias

e. Rule of capture: losing capital to appropriate resources

f. Public investment for private income

g. Antiquarian bias

Chapter 3. Labor legislation (Apprenticeship requirements, human capital, etc.)

Chapter 4. Political aid to firms that use less labor in the mix

a. Supply contracts, charters, quotas, licenses, franchises, etc.: bias toward larger and better cushioned firms

b. Wealth effect of original distribution of public lands, and weakening assertion of public equity

Book III: Compensatory Territorial Expansion

Part A: Inflating intersite linkage capital

-- The containment-expansion counterdominant (or soil bank vs. subsidized reclamation)

-- Scattered settlement and inflated linkage sector

-- Inherent capital-intensity of the linkage sector

-- Regulatory bias inflates capital needs

-- Politics of public works inflates capital needs

-- Lags and imbalances inflate capital needs

Part B: Military costs: an infrastructure investment in territorial expansion

Part C: The heavy capital needs of marginal land

-- The underestimated public costs

-- Private costs

-- Effect of spreading rent thin: all land is made more marginal

-- Longevity of capital substituting for land

-- The El Dorado Effect: increasing returns to capital developing new regions

-- The Rule of Capture: consuming capital to acquire land

-- Summary: rent spread thin; capital wasted and frozen

Part D: Why new frontiers fail to employ everyone

Chapter 1. Limits on Capital

a. Capital intensity synonymous with slow recovery -- reprise

b. Jeopardy of crisis of frozen capital

c. History of such crises in U.S. history

d. Current shortage of capital

Chapter 2. Limits of the Earth

a. current rising land prices and materials shortages

b. Claims of other nations on the earth: growing anti-Americanism

c. The environment

Chapter 3. Cheap land and materials: a mixed blessing to labor. (Complementation and substitution.)

Book IV: Full Employment on the intensive frontier

A. Scouting some bogeys

B. Modifying taxation

C. Modifying other institutions

D. Containing Territorial Expansion

E. Increasing capital formation: a byproduct of other changes

F. Other desirable byproducts

G. Summary: adequacy of capital and the earth to employ and serve the population

Intro. & summary

The goal of this paper is to show how we can employ the jobless, and ~~near jobless by~~ employ most people better, by combining ~~the~~ finite resources of the earth with more people — both as producers and consumers.

~~how~~ We can soak up the unemployed in productive labor, and turn out, more of the final goods ~~at~~ now so short, ~~by applying a few~~

~~of the ancient~~

basic economic
~~fundamental criteria to our economic institutions.~~ The

simply by reducing the share of resources, and increasing the share of labor in the mix of inputs that produce goods & services flows. At the same time the paper shows how we may substitute (over)

The argument proceeds via x high spots. The "New Economics" has failed and collapsed in the face of inflation mixed w. unemployment. It has neglected, and its dominance has suppressed thinking ~~the study~~ of how we ~~may~~ can employ surplus people by combining ~~make jobs by substituting~~ labor for land & capital. The

labor for capital, and how ~~with~~ this ~~fits~~ dovetails with

economizing on land. ~~Too.~~

Save – not fully used.

Notes, partially used in organizing B, 2. (beginning p. 17)

2. Full employment equilibrium: real terms analysis

Macro analysis has been contrasted with classical analysis as one in which money and spending are regarded as active agents rather than simply as veils to be penetrated to perceive the real effects. In practice, analysts have carried this to the point of overlooking the role of real capital turnover. This section seeks to penetrate the money veil of orthodox macro and show that there are real capital phenomena behind it, (phenomena capable of producing multiplier effects usually conceived in monetary terms.) Next the real model is translated into monetary counterparts.

There is a real macro

The store house model. National capital pictured as a stock of wares flowing through a storehouse. Labor deposits green wares at the receiving dock, and withdraws ripe wares from the delivery dock.

The volume or flow of ripe goods is the product of capital times turnover. Volume thus is thus may be raised by speeding turnover, and vice versa, adapting to changes in capl. stock, man-hours and wage levels. Thus the stores are managed so as to meet the national payroll. Raising volume may also cause increased demand

for labor.

The real demand for labor is the flow of ripe wares. This is gross investment. It answers to the old "wages-fund", but is a flow, not a fund, and is not limited by the stock of capital. From the investor viewpoint this is recovery and replacement of capital.

~~Altering~~

The process of changing turnover may be ~~analyzed~~ perceived in manner analogous to the orthodox monetary multiplier. Let the owner seek to increase his wares by hiring more labor. He receives more green wares but also delivers more ripe wares — thus tries and fails, tries and fails, but succeeds in raising volume of flow, hiring more men who consume more ~~goods~~ wares. With rising real incomes, labor takes shares in the store in preference to 100% of pay in ripe goods, thus letting owner finally succeed in increasing stock.

This is counterpart to the ~~analogous~~ ~~money~~ spending multiplier,

where an effort ~~by money holders to save~~ to increase

wages by investing raises incomes and consumption but not

the stock of wages until there is more saving. The

~~spending~~ ~~theorizing~~ multiplier may be perceived equally well ~~as~~ in 3

alternative ways: as

an effort to increase wages; an effort ~~by~~ to reduce

holdings of money; or an effort to invest more without

saving more.

While the stonehouse model may thus readily be (over)

The ~~the~~ faults in the orthodox spending multiplier

Two: one

perception is that by focusing attention on the

veil of money it overlooks the need for real

capital actually to turn faster, physically, for the

increased spending to ~~to~~ increase employment and output

translated into spending terms, the converse is not true of the spending multiplier model.

It requires real capital turnover to change without resistance in response to changes in spending, when in fact it does not; and it obscures the fact that changes in real capital turnover cause changes in spending.

Two, it focuses entirely on the factor of growth of capital (variously seen above as desire to convert money into ~~goods~~ wares, desire to increase ~~real capital~~ stock of wares, and desire to invest more than save) as the key to determining income -- a small tail that wags a big dog. It ~~is not equipped~~ has distracted attention from turnover as an ~~independent~~ autonomous factor, that can change real income by controlling real gross investment, ~~one that~~ affected by forces outside the purview of orthodox analysis. ~~Good~~ It ~~leaves~~ puts undue emphasis on capital growth as the ~~makes growth the only~~ route to ~~prosperity~~, full employment, when in fact capital need not grow at all, but only turn faster, to soak up all ~~unemployed~~ labor.

Keynesian overoptimism says cap. responds to spending. It implicitly assumes Wicksellian adjustment. Assumes it w. such confidence, not necy. even to mention it.

And if spending drives up yields, the adjustment will occur, as cycles shorten. But if policy suppresses yields, trouble w. replacement, etc.

Anti-Keynesian overpessimism says cap. won't respond to anything: tax incentives, etc. Cap. is fixed; nothing can make things better.

Correct view: cap. responds, but not to spending. New tools needed to achieve Ku. goals.

a. Penetrate veil of money

b. Purposes.

i. Show micro route to f.e., viz. ΔR, has necy. macro qualities of Δ gross inst., or C + I. Keeps aggr. demand adequate -- the big worry.

ii. Show ΔR is necessary to ΔE.

iii. Show ΔR is sufficient

iv. Show ΔR is largely controlled by forces other than spending.

v. Show lags in adjusting R to needs & stimuli.

Rate of inv. - disinv. flow is key to macro. See what it means in real terms: what requires, presupposes, etc. Res. it has more control over spending than autonomous spending has over it.

The law of leverage in Keynes. $\xrightarrow{-\Delta i}$ $\Delta I \rightarrow$ larger ΔY. Is there a real counterpart? (yes, bec. Δ inv. opps. lead to shorter R). Is it controlled by tools now in use? ~~I regret~~

Keeping aggr. demand adequate -- to hire inputs. "Ripe & ready" goods are real demands for factors. Can this meet fear of overinving? It can show cap. stocks can remain permanently larger, so needn't worry about fur future demand — but that ed. be said anyway. So is there a value in beginning w. real terms model? If so, what?

a. Pendulum veil of money; from symbols to things.

b. Purposes: 1) see role of a new variable, neglected, ~~lurking~~ lurking, controlling: —
R.

2) Meet fears of

How? α. Supply w/o demand

β. Demand w/o supply

3) Show there is a route to full empl; and what it is; and how to get it, identify new policy levers.

(faster R)

4) Show micro ~~adjust~~ routes to f.e. (hence necy. macro qualities;

Specify.

Purpose: To show macro has confused symbols with things, incidental w. essential.

To show control of spending is not necessary or suff; and exp. turnover is necy. & suff. for f.e.

Great adaptability — C ⇒ ↑, automatic replacement.

To show the real preconditions for Keynesian optimism. It entails great micro optimism. ~~Consequently~~ Suspicion growing to certainty that Δ spending not always going to work. Obvious in Lat. Am. etc. Now welling up here.

Precondition of Kn. opt.: Labor complements are ready. A surplus of ripe goods is ready ~~waiting~~ to meet Δd spending, and is automatically replaced ~~by~~ (using surplus labor newly employed, and surplus land) so consumer spending becomes real inc. w/o inflation. To evaluate assm., must study real capl. (& land).

Purposes of real analysis:

Tie micro to macro. Labor-using means faster replmt., & invst.

To show R is det. not so much by mult.-like process of trying to Δ or $-\Delta K$; but by other parameters det'g replmt. timing.

1. Show ~~how~~ real meaning of meeting nat. payroll. Must meet payroll to get f.e. (or lower w.r. in real terms.) (((3)

Regulating aggr. demand ~~for~~ to yield f.e. -- meeting nat. payroll. Show how slow turnover reduces real demand for labor, (hired inputs). ✓ which is ripe goods, labor hired to replace which.

Demand is for hired ~~goods~~ factors, so might begin w. theory of discounted MP (w.r.t. coordn. of factors), special role of capl.

Aggreg. demand for labor is flow of ripe goods ... there pay labor, & hire labor to replace what is consumed.

Added real demand, labor's willingness to accept claims. But this is minor.

Aggreg. demand may fall short of enough to meet nat. payroll, not bcs. of overuse of K, but too few ripe goods, at fixed real wage

To show, major role of replacement in determining aggreg. demand and aggreg. supply.

To show R is a prime mover, a controller of spending.

Consumer fundamentalism? Real model helps lay.

Autonomous Δ G.I. comes from sellers — selling & replacing are one transaction instead of 2.

Inc.-creating exp. is selling ripe & ready goods.

Brings out how C creates inc. if assume customatic replacement.

Storehouse shows flow of subsistence or ripe goods balanced w. flow of inv., bcs. they are same. Supply of ripe goods is demand for labor. ~~Note this is not Say's Law, nor subject to same criticism. Say wrote of producers & not income.~~

Show where autonomy lies. Not so much w. labor, for labor has no way of initiating sales by com. demand, for there is no money. Autonomy & control lies w. capist. When he ready to sell, he trades ripe goods for labor. This is implicit, combatting consumer fundamentalism. Is same in R analysis.

Show how empl. may change due to ΔR, w/o any effort to Δ net I. Thus emphasize that leverage of net I on NI is wrong. } & real factors must be sought elsewhere.
first must show how this theory has real counterparts.

That is, orthodox macro can be interpreted in real terms to mean that effort to ΔK leads to faster R. I say this is small part of what dets. R. But as other factors ΔR, makes ΔS and that this makes ΔI.

"Capital Trap", analogous to liq. trap.

Ripe goods substitute factors.

Ripe goods are not pushed to ripeness by new green goods coming on. They ripen & are sold ~~at~~ under control of capit. and this pulls new green goods into being. Goods in being have their own motility.
In M terms, this says ripeness not brought on by C.

Most demand is replmt. demand, - it's treated like a little freaks. And cons. capl. only.

Cons. demand not even indep. vble. Is just a fn. of factor payments. In real model, goods don't ripen bec. labor wants them & offers to work. They ripen in their time, then are offered to labor, give labor a chance to work for them.

Labor is employed not just replcg ripe goods, but delivering them - as harvesting timber. Also w. depreig cap., that which

yields S.T. faster probly requires more labor to operate. (109)

If pd. is lengthening, means demand gets ahead of S. Initly. justifies current attitude. If pd. is shortening, supply gets ahead of demand, justifies Tru. attitude?

a. Suppose we find pd. is too long, start to shorten it.
Some wd. say there aren't enough "jobs" to go around, but real problem is there isn't enough subsistence to go around! It is subsistence that is being rationed by unemployment!

Some land yields or can yield direct services, w/o more capl. E.g. campsites. Can S 'ripe' goods available by putting labor to work on land w. min. capl. Requires places where land can be used w/o zoning, &c. steep cap. requmts.

If storekeeper decides to replace ripe goods elsewhere, he must take the ripe goods there to pay labor there. Or, he could move the green goods there after making them here.
(Sited goods can't be moved. Problems.)

So?

Change emphasis of means. Release of ripe cap. is decision of storekeeper more than buyer; and discretion exercised more when cap. is produced than at time of sale.

Storehouse model shows no basis for fearing will stop Δ empl. by importing. May import less, bec. local ripe goods Δ. Danger from import is if try to Δ r.f. by ΔM.

Ripe goods carry not just labor, but land, and unripe capl. (int. on)

Serious limits on ability of Δi to speed recovery — perverse effect on existing stock. (143)

In orthodox macro, the autonomous force making inc. rise is ~~the~~ net inv., or the attempt to net inv. R.f. is (implicitly) entirely the result of attempted growth of K. There is no place for autonomous Δ r.f. I suppose it might be described as ΔI which caused ΔC and ∴ no ΔS. But orth. macro model doesn't lend easily to this, for if MPC = 1.00, mult = ∞, and must intro. factor showing I falls as inc. rises, -- when in fact the determinants are other, the dets. of replacement.

Real model shows C not → I, but replacement → I.

Δ replmt. freq. is macro, Δs replacement demand: higher gross invt. spending.

Correction Copy

Full Outline of August 1, 1971

M. Mason Gaffney

Full Employment on a Small ~~Earth~~ Planet

~~Full Employment, Capital, and the Limits of the Earth.~~

Introduction: The unresolved problem of unemployment - unresolved both philosophically and practically

Book

I. Market mechanisms ~~for housing~~ and ~~on~~ full employment (include MC pricing)

Part

~~and derivative price mechanisms~~

A. ~~Micro~~ mechanisms for full employment Variable proportions

Chapter

1. The variability of factor proportions, and sensitivity to parameters. cf. ~~[illegible]~~ 12-8-71 talk, pp. 6-7. ~~Compare indices, products, nations, stages, public vs. pvt. sectors, etc.~~ ~~Relate to size; data from agric., Fortune,~~ ~~Farber — but softpedal here.~~ ~~Changes over time. Large drop in cap:output allegd, but use caution re data.~~ (over)

Durability ≡ cap. int., here is where I establish that.

2. Substitution between labor and capital. Modify processes & products.

~~The importance of labor's producing capital~~

a. Appreciating capital. Single cycle & staggering. Minerals, too.
Sub. labor 2 ways: i, shorter cycles; ii, ↓ C_o, and ↓ labor in C_o.

b. Depreciating capital
see TRED '70, p. 7, Volume ≡ K·R. cap/output ratio ≅ $\frac{1}{R}$

c. Flexible factor mix employs idle resources. Decry labor thy. of value, and assum. of universal marginality, & implicit in specials, etc. Decry rigid assms. of fixed mix

3. "Intensity", or substituting labor-and-capital for land: "land-saving"

a. Classical diminishing returns. The I.Q., and great variability of mix.

b. Increasing social returns. W. balanced growth. El Dorado effect. Refutes Malthus, Marx, Keynes.

C_o reduces s.f., reduces demand for labor, ~~saving~~ labor

c. ~~Using~~ subbing capt. for land. Cap effect of long life, and also of ↓ C_o. But long life, w. given ~~saving~~ labor (see 8-1, in 10-29-69 ltr.) Using capital to develop new land. (Here, "market" means opt. price of nets.)

Develop newer frontiers. Use less resources per man.

d. Do resources ~~and waste disposal~~ limit employment? No, employ men to find resources and dispose of waste. Does ↓ turnover create greater residuals problem? No, (over)

4. Substituting labor for capital-and-land: the way to full employment. Avoiding demands on nature & capital. Shortening lives, which ~~saving~~ Labor-using, land- and capital-saving (or sparing) use both capital and land. Activating inert cap. & land, e.g. stock of fit. cars; recycling. Completing aborted projects.

5. What determines rotation of capital and renewal of land?

What is "eff." & "productivity." Not a loss of eff. to employ more. (over)

a. Appreciating capital

b. Depreciating capital

c. Dynamic role of land rents and values

i. Static role - review

ii. Rising values. See IDA paper; pp. 25-33 Comm. Club talk. Neglected topic: e.g., ↓LV not included in N.I. (?)

iii. Preemptive investments to capture resources

d. The intersite linkage sector and other mass systems. RIMS

6. Summary. Full empl. does not depend on abundance of land or capl, but on how flexible we are at changing mix in response to new needs.

↑ ↓i is an important thermostat, downgraded unduly in Kn. lit. So are other prices.

~~Large increase in public, or s.o.c. savings~~ Intl. differences in ~~labor/land~~. Changes over time: more men/acre? Fewer men/acre in agric., & many fewer men/L.V. i.e., intensify. Energy. Etc. Don't get bogged down.

Inadequacy of theories assuming const. factor proportions.

only if you assume full empl. But ΔR reduces funds of intl. needed to complement labor at full empl.; and also the needed output -- bus. capl. & land will get less.

Increasing C_o not only $\Delta \frac{c}{s}$, but also tends shorten cycles and $\Delta \frac{c}{K}$

Also, Δ labor component in C_o, by making primary products dearer. (And this incidentally also probly shortens life, bec. labor product is flimsier; ~~$\frac{3}{4}$~~ but not Sarouk's!)

B. Macro mechanisms for full employment

1. Sources of pessimism about general equilibrium at full employment

a. Malthusian & environmental

b. ~~Luddite-Veblen-Mumford~~

b. Supply without enough demand: "oversaving"; underconsumption

c. Demand without enough supply: "overheating"

d. Structural-institutional friction

2. General full employment equilibrium: analysis in real terms

a. Replacement determines aggregate demand and supply

b. Reality behind the scenes: basic model of the economy as a store

i. Simple model: capital and labor

ii. Fuller model: capital, land and labor

[Completed annotated outline as of July 26, 1971, up to this point.]

c. How to speed real turnover and raise the flow of aggregate real supply and demand

i. Factor prices: the market at work

ii. Public policy: removing institutional bias

iii. The real multiplier; or leverage from attempted capital formation: a false emphasis

iv. Higher labor skills increase the empl.-generating efficiency of any given unit of spending

d. The locus of system control: where real discretion lies

e. Neglect and subversion of replacement demand in prevailing

f. e. Errors of analysis and policy that follow from neglecting replacements

i. The fiscal left

ii. The fiscal right

iii. Resolving the errors

g. Embellishing the basic model

i. Capital formation, growth

ii. Transit between replacement frequencies

iii. Export and import

h. ΔR answers all 4 sources of pessimism. 10-29-69, pp M-1, 2

fatalism, futility, defeatism

Intro. Output ≅ K·R. So ΔR (or $-\Delta\frac{K}{\text{output}}$) to Δ output.

But ΔR means Δ gross inv., the inc.-creating spending. Replacement demand. Micro linked w. macro -

- rival bottlenecks and eq. w/o full empl., "malignant eq." or

nonoptimizing thermostats.

but we might run out of capl. Barnett & Morse (variation, capl. can cure, "undercons." Overabundance (Owen, Fox)

Marx; Keynes. Need for "growth" to soak up savings. Need waste to use up surplus. (over) over working, Dan Michael, Ludd,

The Calvinist backlash. (over)

(Wages fund, lump of demand for labor — a separate heading?)

Defeatism & resignation will always be w. us. A self-equilibrating system is anathema to the authoritarian. But there is little reason for it; only deep cultural roots. (delete: fixing structural reform w. trust-busting or union-busting

See Davis paper p. 9. or gross inst. C vs. I is arbitrary, & obscures essence. Net I is incidental.

with wages-flow the main bottleneck. Balanced, synchronized S&D. Can balance upward by ΔR.

Precedents: Accn. principle in original form; Wicksell

Kinetic capl. activates labor; inert capl. deadens it. "Emergent" capl. is used & replaced. Capl. is a store, with deposits & withdrawals.

Meeting nat. payroll — Davis, p. 10.

(Mine is dated Feb, 1971)

Capl. is frozen labor, but shd. not be fossilized. Instead of increasing toward consumer, should gallop.

R is macro thermostat, adjusts mix so all resources are used

Wages, int., rent.

assizing this while accepting instl. bias. What happens when w.r. starts to rise before full-empl.? When there (over)

Error of Hayek et al. in overemphasizing (forecaste)

won't work, bcs. emit ΔR of frozen capl.

cap. fmtn.? Harrod-Domar? (Some device for trying to - decr. by comp.)

"Growth models" derive growth from attempted

Net I is incidental. R is both autonomous and not a follower, not passive.

Neglect and subversion of replacement demand in prevailing (over)

Overempl. on low i, p.w., neglect ind generation, heritage of the waste school. (over)

Overempl. on cons., spending, indulgence, alleged beginning eg. w/o state control. Concept of limited mkt., epi-

abundance. Too soft. Too tonized by rejecting Say's Law. Overempl. on cap. fmtn., net inv., penance, alleged

iron laws. Too hard. Terrible doctrine of original sin. Anxiety of tightrope, see extended problems in any new force, e.g. effluent charge.

in % of inc. saved. Of disposable inc. after tax. (But govt. capl. fmtn. has partly replaced.)

Effect of Δ l.v. Kuznets says big secular - Δ

Note current devaluation and protection wave

and underinv. (the point of syncretism w. cc)). Even inv. depended on cons., alleged to create antic. future cons. Foresaw not scarcity bcs. i, No dist. land from capl., so all propty. or "tools of produc." were creatable w/o limit; ii, No foresee torpor of sluggish capl.

Ec. anal. mirrored social instns. by treating land as free good, "eff." ≡ max AP labor.

b & c together constitute fallacy of dividing one solution into 2 problems.

a & b " " " " " " " " "

a & c are ∴ alike. They assume people are unproductive.

Authoritarian mind careens from one calamity to its reverse — in its pessimism and inferiority cannot accept that life can work out w/o a strong hand at the top in conscious control. Reject equilibrium concepts.

Both schools can accept territ. exp. as compromise solution. Manif. Destiny.

Waste school. Idolatry on GNP, shallow acceptance of an ~~fragment~~ idol on a thing, reification. Accept aimless activity as ~~virtue~~ Ally w. Puritans, condone make-work; ally w. imperialists, accept expansion. Ally w. advertisers, push anything. Ally w. locals, accept log rolling.

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is plenty of capl, invt. doesn't stop, it just goes into more capl.-using durable goods. But if real capl. is short, this labor-avoidance by capl. causes empl. to stop out below full empl. It is this, rather than overtaxing, that puts ceiling on empl.

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models.

i. Depreciation not measured. ~~other than~~

Worse, unreal measures are reported and the numbers used.

ii. Depletion not deducted.

iii. Labor theory of value, wage-price spirals, fixed proportions.

iv. Output & employment respond to spending.

Some bottlenecks are allowed, but not unreversibility of capital.

3. General full employment equilibrium: spending flows linked with real flows

a. Proximate ~~income-creating~~ ~~expenditure~~ is replacement, not consumption. (Domar says should use gross inv.)

b. (over)

c, b. Autonomy and discretion lie with replacement rather than consumption or net investment. Money inv. is in antic. of sales of ripe goods, and creates money demand. S & D synchronized — neither creates the other, nor overbalances.

d. Monetary thermostats: replacement linked with velocity ~~rate~~ in the quantity theory framework. Say's Law was overkilled. L. v. shd. not be collateral for money — lesson of '31-'33. Then S & L.-K. sum up mon. thermostat. Cash Balance effect, etc. (over)

C. Integration of micro and macro mechanisms for housing on full employment (Micro solutions are also macro; $\Delta R_i \rightarrow \Delta$ use of labor in factor mix, also Δ real inc. — creating spending.) (Integrates George, Wicksell, Keynes)(Clark). There is no full empl. w/o good alloca. of labor .. heavy-use is not full empl. Waste not needed.

D. ~~Full employment independent of "growth"~~ Jobs and Growth.

1. Population and demand.
2. Cons. per capita. It is likely to rise, as result or maybe in tandem w. Δ empl. (Cover)
3. Capital formation. Need for net inv. to absorb savings? Not avowed worry today but lurks in background between lines. Esp. re War ending. Now, inv. in military soaks up savings. / Need cap. formn. to maintain fixed cap/labor as labor grows? — another thg.
4. Demands on Nature. To replace exhausted land, or polluted or slum land? — not nec.

Keynes mult. makes R depend on net I, implicitly; but reforms can achieve ΔR w/o attempted net I, & w/o G.

II. Current unemployment and slow cycling of capital

Surplus of labor; shortage of land and capital

A. Inflation with unemployment, ~~a bright mare come true~~.

~~1. Overload on fiscal-monetary policy~~

2. Counsels of despair, confessions of impotence: the new dismal science

~~Reifying symbols, robot's metaphor for substance.~~

B. Evidence of shortage of ripe goods and inadequate capital recovery

0. Hi real i. Esp. before taxes, on short invs. where long run expns. are not involved.

1. Shortage of ripe goods

2. Shortfall of capital recovery for reinvestment

3. Low net saving? Probably no way to know, bcs. deprecn. ~~overstated and misstated~~ could in no systematic way.

4. Heavy commitments of capital fund to slow recoveries. Reconcile with alleged low L funding k/O ratio. (over, B, 4)

5. ~~Loss of FR control over i. Try dropping i, get balance of payments problem.~~

C. Land Shortage (over)

D. Threat of serious crisis with self-reinforcing feedback

1. Increasing returns to aggregate investment

a. Richardo, Malthus, Marx, Keynes, the unbroken tradition of misleading iron laws

b. Capital complements capital

i. Spillovers and synergism

ii. Capital used to develop land. Durable cap. is hyper complg. — cannibalistic hungry for more of its own kind. Δg returns to capl. in Lake House &c. $\rightarrow \Delta i$.

iii. Capital used to finish what other capital starts

To p. 6, bottom

To p. 6, bottom

3, b. Sale of ripe goods makes monetary demand real. Ripe goods buy green inputs.
Otherwise it's fictitious demand & inflm. "Forced" demand.

~~Hicks~~

3, c. Forced demand only wd. work if it cd. force Δ real ripening & turnover. Usually it cannot, and generates only false income. True inc.-genic. spending doesn't cause goods to ripen, but is caused by it. Money doesn't move goods; goods move money. Deposits in capl. warehouse are discretionary, with drawals are not.

3, d. In eqn. of exch., needed is auton. ΔT; buy bear is auton. Δp. Real turnover supplies +Δ T, −Δp.

−Δp → Δv

Bcs. people who have more will consume more. But C not the autonomous cause.

It needn't be C of conventional goods, either. Can employ labor to produce better env., endear material goods.

(C.) Land shortage To top of p. 1

1. Risen prices of land. Farm, urban, ~~suburban~~ sylvan, recreational, water rts., radio spectrum, franchises, licenses, charters, routes, etc.
2. Greater area of land covered. Including submarginal areas. Minerals, primary products.
3. Hidden social subsidies to developing new land, minerals.

Deceptive fall in real terms of trade of primary products.

Intl. conflict & military budget

B, 4. There has been great subbing of land for capl. This also sinks capl. in ways not conventionally counted: lines, exploration, military, indiv. apparati.

In forestry, value of capl/labor has gone up. K/o might not go up, as value of output rises. Labor/output ratio has fallen, too. So K/o tells us nothing re factor mix.

c. Increasing returns and potential instability from self-reinforcement

2. Historical precedents: waves of overcommitment and retrenchment in transportation & land development.

3. Current overcommitment and vulnerability

4. Probability of perverse policy reactions to crisis. But avoid resignation.

II Biases against labor

III. Institutional biases to use less labor, more land and capital, inflate resource requirement per man. The Great Slowdown. B-B, Wicksell, et al. wrote vaguely of "friction." It's much more than that. I will specify. Requires more than just a little oil to lubricate.

Introduction: Harmony of micro and macro

A. Tax policy bias

1. Forest taxation, a case study. In addition to slower cycles, failure to regenerate good land leads to demands on virgin land, of longer cycles & longer mileage.

2. Other growing capital. Inventories; cattle; minerals.

3. Depreciating capital

a. Mobile capital, unattached to land (r.r. rolling stock, in part)

b. Structures

i. Static model

ii. Dynamics of changing land values: locational obsolescence: ripening; preemption. (a paper.)

4. Selective exemption from property tax. Propy - using bias. De facto (over)

5 4. Payroll taxes. Includes inc. tax.

6 5 Low Land taxes. Taxing land w/o taxes, large wealth effect, causes underuse. (over)

~~5. Other Mineral~~

7 6. Other - e.g. taxes on mass transit used to commute. Sprawl as a tax on commuting.

8 B. Survey of ~~non-tax~~ biases

See TRED memo, p. 3 ff.

1. Undercutting good land

8. Regressive use of property, bias to large firms, cap-using.

9 4. Original unequal distr. of land. Worse in LDCs, probably. "Land-denial."

1. ~~Forced land consumption (emphasis here on~~ underusing good land, ~~not on capture of new land)~~ (cf. C 4 below)

Large wealth effect, slows use. and just unequal dist of wealth.

Continuing political favors to larger firms, with low labor shares in mix.

a. Urban land use controls

(Boomerang nature of zoning if used to contain, or protect land.)

~~a.~~ Zoning, urban and suburban (~~and rural, if significant~~)

b. Farm programs. 12-8-71, p. 13.

c. Mineral ~~programs~~ controls and industrial organization (See 12-8-71, p. 11)
Include bias vs. recycling. (See 10-29-69, Q-1)

d. Water law (Kalbeads study). 12-8-71, p. 14.

e. Non-control of effluents, poisons, spillovers. attempted partial control by low density, the deer park syndrome.

~~f.~~ Cartel organization plus national autarky, aggravated by use of protection to fight unemployment

~~(g. Patentable discoveries (Barzel, Hirshleifer))~~

g. Administration of public lands and other natural assets. Hidden subsidies through not charging o.c. of land, etc.

~~(i. Other (quotas; bank charters))~~

h. J. Autarky - Vertically integrated nations.

a. ~~k.~~ Subsidizing autos - also r.r. yards & airports. Bias vs. mass ~~transit~~ systems; user systems. w. free space

exemption of ancillary property, e.g. rail yards?

6 §. Giving land w/o taxes causes undersave 4 ways. a, Wealth-effect, owners have the pp. to hold land for cons., or inert passive spec. inv. b, Unequal distr. of p.p. results, and land for cons. is a superior good — contrary to alleged Engels Law that richer people consume more labor-processed goods.
c. Credit rationing arg. d. Land as inv. of lower turnover is easier to manage

j. Summary and common themes.

1. Forced or induced cons. of capital

a. Suppressing the cost of capital.

— Underassessing for land on which capital rests. E.g. central rail yards

a. Inflation

— Selective exemption from property tax, while taxing labor on the exempt property.

b. Subsidy by loans at low interest; and, loan guarantees, to r.r.s, Lockheed, students, REA, FHA,

c. Aggrandizement of management by plowback

d. Public works' accounting, pricing — no MC = P. Reg. bias.

b. Labor legislation. — forced capital cons.: zoning & bldg. codes; laws requiring durability. (over)

Result: iatrogenic unemployment, since cheap capl. is supposedly to use

Hostility vs. employers, rather than unemployment.

Apprenticeship requirements, education, factitious.

4. Political aid to wealth: firms: contracts, charters, quotas, etc. Book III

5. Industrial organization. How control split markets. Political favors & contracts to larger firms, heavy on land & capl. Regressive use. Loud pedal

6. (Overcompensatory) territorial expansion: substituting land and capital for labor. Lag of renewal behind recovery of capl. creates demand for new land: replacement requires a place. Clay vs. Hamilton. is better than oppressive land-denial, but

Introduction: Overcoming artificial scarcity of land, causes artificial scarcity of capital, and pushes on limits of Nature. Thus causes more iatrogenic unemployment.

artificial abundance of land & minerals

A. Inflation of intersite linkage capital, and other area-sensitive infrastructure.

a. artif. scarcity of land, due to one set of policies; artif. abundance by another. Prototype: soil bank vs. B. of R.

a. Low density, retarded renewal, leapfrog land succession result in inflated distributive networks. Land specn. scatter, lag of pvt. land improvement

b. Linkage sector is capital-heavy, at best, even regardless of scatter — but mass system save social capl, so scatter is main problem.

c. Regulatory bias, pvt. utilities, but also public.

b. Bias vs. mass systems (RTMS)

~~a. Free access to roads — no underpricing.~~

i. Uniform area pricing — no reward for high density & centrality. Also, linear bias or main line bias, trunks vs. feeders (over)

ii. Rate base maintenance

iii. Territorial imperialism:- land-using bias. Bias to extend, rather than to fill in, develop land, & renew old capl. Premature extensions followed by post-mature replacement, equals hyperlongevity or overlife.

iv. Tax aspects, bias

v. Management aggrandizement

vi. Value-of-service rate-making, bias to new mtls.

vii. Inability to tap Δ l.v., rely on user charges, stymied by lag of land improvement.

d. Public works

Open access — no tenure control, no rent charged. Non-pricing of use, bldg. over capacity instead. Like commons

Political allocation: biases toward slow results

Cap. is advanced from other parts to new parts of system.

so there is too little payout pressure.

Logrolling

Partial funding

Avoidance of competition

Perpetuation of bureaucracy

Engineers, construction union, lawyers

Land values: immediate gratification, deferred retribution. (But over)

public cap. turned into pvt. income, not replaced. L.v. fly now, pay later

Linear bias -- overdependence on higher levels of govt.

Lack of user charges for cl as Δs their life. If they paid for using env. & space, they wd. be retired sooner.

but also labor, and cl as may be shorter-lived.

Bias vs. mass systems and for cl as. Requires or biases toward duplication, wasting capl. Requires large lot zoning, thus Δ cap. feeds (or recharge over wide area.)
Within mass systems, bias for lean fringes. (Anticipate C, l, c, i.) This bias is blocked where cl as are in the way, but in power, telephone, etc., runs wild. And roads. 10-29-69, p. V-7.

Rule of capture: water, minerals, residence requirement, charters, franchises (use it or lose it), radio spectrum, utility service areas, zoning, adverse use (Anticipate C, l, c, iii.)

Antiquarianism, relic worship, ancestor worship. Cemeteries.

Budget, or new toy, approach to pollu. control: tail-end cleanup as vs. process modn. & product modn. Cleanup approach is necly. cap.-heavy; p.m. approach depends on relative prices. Cartel orgn. using "capacity" as basis of quotas.

(c.) Non-recovery of value of p.w. captured by pvt. l.v. Thus the cap. is not recovered to reinvest. Becomes pvt. income for ons. Payout from p.w. is made much too slow.

Bias vs. infilling. E.g. bes. t.t.s. had more compn. on main lines they milk feeders to subsidize mains (?)

Over-dependence on user charges, resulting in inadequate emphasis on Δ l.v. as guide to planning, and oggrandizement of roads themselves.

Non-recovery of Δ l.v. means slow payout to public, public freezes capl. (It is Δ rents that shd. be recovered as cap. recovery, not Δ l.v.) Slow devmt. of land served.

Recovery of capl. is ~~in~~ by Δ taxes, for p.w. But slow dev. of served land means slow recovery by this means, — as well as by user charges. So long as recovery is by any use-based formula, ~~sales or~~ private sales or public tax.

Exemption from propty. tax

Tax bias

Low-interest loans: a favored vehicle of subsidy. T.E. munic. bonds, (not salaries)
Low rent on public natural resources, ditto
Monuments for publicity value
Imbalance of trucks and feeders. Not developing interior lands.
Imbalance of large and small elements of development
Leverage of private over public income - serving outposts

e. ~~B.~~ Lags, bad synch. imbalance, and inflated demand for complementary capital

i. ~~a.~~ Lags within public programs: reprise

ii. ~~b.~~ Lag of private complements behind public outlays. Scatter due (over) (Even though early private investment with political influence leads public works)

(B) ~~c.~~ Inflation of miltary ~~budget~~ costs. The cost of minerals - mainly future ones, a capl. cost.

C, 6 ~~d.~~ Rule of capture, ~~e. and f.~~ ~~Inflation of demands on Nature,~~ (and sterile acquisitive investments in capture. ~~emphasizes the role of capture~~)
Require re appropriation, plus new theoretical.

a. Space

b. Extractive, water,

c. Environment. Capture the right to pollute by polluting.

d. Patents (Barzel, Hirshleifer) e. Misc. privileges, out the ~~r~~ right to (over)

(C) ~~f.~~ The ~~inherent~~ heavy capital needs of marginal land, and slow cap. recovery from mgnl. land. Territory, hi mileage/cap. urgency to extract. E.g. capital

1. ~~a.~~ The underestimated public costs ~~title~~ (include mlty. budget.) Learn
Repeat C, 1, d, Public Works
Discovery; invention. Rent-goods: drain swamps, irrigate deserts, dike flood plains, trap remote areas by long lines.

2. ~~b.~~ Private costs. E.g. Douglas-fir cycles. E.g. mgnl. minerals, less believe in need to premake & hold mgnl. mines.
Rent not destroyed, but like watering it a common, partially.

3. ~~c.~~ Spreading ~~rent~~ thin. Substituting capital and marginal land for superior land. Inherent anti-labor bias: inflating the capital and resource complement of labor

d. (4.) Longevity of cap. pushing for land. 10.29-69, p-1.

(E) ~~d. Mlty. budget d. The sterile acquisitive inv. in capture. e.~~ (5) E. Domar effect (over)

~~b.~~ Inadequacy of territorial expansion to achieve full employment. ~~Limited capt.~~

~~Burnett & Hance~~ (Q.) Why new frontiers fail to employ everyone.

Introduction: It works so long as we can bring limitless capital and land into the system. It seems logical, when labor sum share of primary products, use labor to get more. But we meet limits

~~1.~~ 1. Limits on capital

~~a.~~ a. High capital requirements synonymous with slow recovery: review and reprise. Reduced employment-creating spending and demand for labor

~~b.~~ b. Jeopardy of the ~~capital~~ solidity trap See p. 3, supra, old II, D.

a. Minor traps (Civ. cycles); middling traps (Kuznets 20 yr. cycles); & ~~calamitous~~ spectaculars,

Blvd. unrolls like a runner carpet, but rolls to the end when there is no more capl.

i. Review of risks inherent in expansion. Failure of reinv. (over)

ii. Summary of territorial economic ebb and flow in U. S. history Waves of over commitment & retrenchment, w. xpnsn. & mixed dev.

5. c Evidence of current shortage of capital. See p. 3, supra, old II, B. See Davis paper.

Current over commitment & vulnerability.

U.S. has forced inv. into resid. constn. - take from taxpayer. Danger & Tradition of perverse policy reactions to crisis. From c. '61, all govt. inv. is forced saving, whether by taxes or inflation.

Where is the capl. being buried? Some data show low & falling K/O, as Hansen predicted, but it is partial. Omits govt & mlty, and utilities & much else.

to malfn. of pvt. land market. ALV. tapers stimulates both withholding and when one does build, over improving. So bldg. is scattered.

establish future grandfatherhood: bank charters, early zoning, focus of routes, franchises, etc. (see BMS) farm quotas, ...

Migration is cumulative, as one move favors another.

Increasing returns to capl, thirsty for comply. capl. (vs. Keynes & Marx & elem. sets)

~~E.F.~~ Land when rentable is an invt. opp.; land when rising is a premature invt. generator, an unrentable one. By rule of capture, & modified rule of capture when settlers buy land at Indian fighter prices. C, 6, Rule of Cap, over.

C, 7 Summary. Favors to land, like p.w., utility, cause not higher unit rents in general, but rents spread over more space -- at great social capl. cost.

Analogy to commons. Good location is opened to common access by giving all land good locn.

Scarcity of land & mtls. needn't ~~cause~~ disemploy men. More are employed to develop new mtls. Problem comes bcs. this is too cap.-using. Ditto re controlling pollu. Solution is to do it in more labor-using ways.

G, 1.6. ~~III, A, 2, a~~ can explain each. U.S. economy recurrently finds cap. spending tapering off. Much of that is replacement — only current analysis doesn't identify it, bcs. has no adequate way to measure true depreen. Thus falls into inf. liq. ~~trap~~ fund idea, where sources of invt. are assumed infinite; only opps. are lacking. "Bus. cap. spending" becomes treated like a meaningful autonomous variable. But invt. tapers off bcs. cap. recovery declines.

2

~~B.~~ 2. Limits of the Earth

~~a.~~ Current rising land prices, on all fronts, a Evidence. If you require forced conv. (over) and diffusion of high prices. A price index for land is difficult & n.a. by conventional route, but you can relate aggreg. value (over)

value of mtls. shorten life of machines, increases maintce., etc. Cheap mtls. subs. for inexpn. labor (& capt.)

~~a.~~ 3 Do cheap land and raw materials complement or displace labor? Hi scrap

~~b.~~ b. Claims of other jurisdictions.
(We run into political limits before natural limits) Inflating military costs of capture. In long run we're all dead? Yes, if it means we must fight for extractives.

~~c.~~ c. The environment (Cf. IV, D, 5) (See RFF seminar I gave on this)

i. Excess transportation and pollution & accidents. Pollu. & congn. are due to land density, not high. Safety in the streets — auto is prime culprit. Oil spills.

ii. Extraction, primary processing and pollution. Primary metals reduction is biggest source user, e.g. mine drainage

iii. Space invasion, sprawl and pollution. ~~Prevents~~ Urban invasion of rural land prevents open land specializing in resid. disposal, water supply, recreation. Rural invasion of forests, hurts watersheds. Foresters invade parks

iv. Material-using bias, non-recycling, and waste-generation. The ultimate labor-saving device is littering. Substituting packaging for retail clerk labor. Cheap land (over)

v. Rules of capture, and encroachment on recreation, wilderness, and ecology

vi. Non-control of effluents

vii. Scenic amenities. Recourse to billboard advertising.

viii. Inflated costs of collection, disposal and control due to sprawl. This affects both disposal costs of residuals and recycling costs. Affects hauling, servicing too. Funds go all into lines, little left for treatment. Muskegon system blocked by distance problems. (over)

ix. Slow capital turnover: a gain for environment?

Chap. 3.

~~4. Current inflation of l.v. and diffusion. Urban, farm, ener, mineral front~~

IV ~~III~~ ~~IV.~~ ~~Conclusion: Full employment through full use of better land and turnover of capital~~ on the intensive frontier.

A. Blind alleys to avoid: diversionary issues to scout. Bogeys.

1. Reduce s.o.l? On contrary, all policies I advocate remove barriers to sovereignty, thus improve allocn. and ↑ raise s.o.l. E.g. by letting people live at higher density.

B. Taxation

1. The property tax

a. Increased overall role

b. Modifying the base

2. End progress? ΔR means newer capt., flexibility, change, newer bldgs. all around, modernity, etc. Now, we hit one crisis after another bcs. capl. can't adapt to new scarcities.

2. The income tax

3. Is structural reform unwieldy & futile? Tax reform is manipulable in s.r., & fundamental in long; while T&P is futile. Structural cannot by grouped w. just trust-busting & union-busting.

a. Purging intertemporal biases

b. Toward an economic definition of property income

c. Modifying the base

i. Taxing property income without disincentive

ii. The payroll component

of all land to no. of people. Etc. — See Toronto notes; see back of p. 3, supra

of land, high complement of land per man, + then full empl. does necessarily mean invading more land.

held by indy. makes open storage + the most common use of indl. land — storing old junk as in an attic, usually.

Precludes ecs. of scale in recycling: shredders, rebuilders, etc. Cities are mines, but like other mines they are only usable if + the material is concentrated.

i.e. charging users to simulate tenure.

3. Excise taxes

a. As user charges, they are an essential part of price mechanism. E.g. of water tolls, congestion tolls, tenure on open range, effluent charge. 12-8-11, "Brief Outline", p. 3.

b. General

4. Pure payroll taxes

C. Non-tax institutional drives to substitute property for labor

1. Forced land consumption. ↓ rate of capture.

2. Artificially inflated use of capital

3. Labor legislation

4. Industrial organization, a. Cartels — vulnerable to propty. tax. b. Dismember large firms, pump cap. to small.

D. Containing Territorial Expansion

1. Tax and institutional reforms of (B) and (C) reduce centrifugal and appropriative drives

2. Deflation of intersite linkage capital

a. Removing regulatory bias. P = MC. Coupled w. positive containment + three taxpoints.

b. Public works

i. Reducing overall need

ii. Taxing beneficiaries

iii. Fewer starts, faster completions

iv. Charging full rent and interest

v. Intergovernmental relations. End bias to shift cost upward. Match trunks w. feeders. Synch.

3. Synchronizing complementary investments

4. Reducing military costs

5. Reducing demands on Nature

a. Space

b. Extractive resources. And dearer primary products cause subs. labor for materials in later stages.

c. Environment See 4-26-12, pp. 5 ff. Pollu. control as such is neutral — depends how you do it. Can use land by lock-out, deerpark syndrome. Can use cap. by subsidy (over)

6. The heavy labor requirements of superior land intensively used

E. Cap. fmtn. ↑ natn → ΔR also → cap. fmtn. Can do w/o it, but with get it. Now, we leave (over)

G. M. E. Summary: Adequacy of Capital and Nature to employ and serve the population

7. Additional benefits. Greater stability — of accel. princ., long capl. destabilizes. Remove danger of capl. trap. Faster applicn. of new ideas, embodiment of technical change. Better environment. Less war. More community, less class divisions. Less dependence on savings of l. v. & rents to affect inv. opps. Better control of M. Earlier discovery of mistakes, like overestd. reserves.

to Charlie, the new toy syndrome. Can use labor by p.m.

too little capl. When we have more, can go ~~back~~ to more cap.-intensity. Not selectively and poorly allocated, as now, but everywhere, at same level.

But land use will decline.

RESOURCES FOR THE FUTURE, INC.

Inter-Office Memorandum

To: TRED

Date: 1/29/73

From: Mason Gaffney

Subject: 1974 or later Conference

At our recent O'Hare meeting I was asked to submit an outline of the topic I have been trying to develop. Here is one, surveying the full range of what I have in mind. A conference could only cover parts of it, but this is a unifying framework that would tie it together and from which individual topics could be carved out, and from which you can decide if you are interested in the topic.

I begin with a premise that macro policy today is at an impasse. Its thinking is sterile, locked into trite patterns developed decades ago and degenerating into sophomoric quarrels and trivialities in practice. Macro policy has overloaded monetary and fiscal tools which no longer even offer us a choice between unemployment and inflation, but give us both, making the new economics into the new dismal science. Free market solutions have been blocked out of minds in a marathon spasm against the misleading rhetoric of Herbert Hoover, and not really examined on their merits.

Topics

I. Market mechanisms for homing on full employment.

A. Micro.

1. Variability of factor mixes.

a. Data: comparing industries and firms.

b. Relation to concentration of ownership: regressive use of land.

2. Sensitivity of mixes to changes in factor prices.

3. Mechanics and theory of factor proportions.

   a. Rapid turnover and replacement substitute labor for capital, à la Wicksell. They also substitute labor for land.

   b. High output/land ratio, (or "intensity"), substitutes labor for land.

   c. What determines replacement and intensity and hence factor proportion?

4. Territorial expansion, public works, and factor mix: how thin settlement causes overallocation to capital--intensive linkage sector (transportation and utilities).

B. Macro.

1. Are natural resources a limit on employment? Is "growth" necessary? Growth of what?

2. Replacement in macro-economics.

   a. Replacement as part of investment demand.

   b. Replacement as an autonomous factor.

   c. Neglect of replacement in present thinking.

   d. Is replacement demand a thermostat for equilibrating on full employment?

~~I. Institutions~~

RESOURCES FOR THE FUTURE, INC.

Inter-Office Memorandum

To: TRED

Date: 1/29/73

From: Mason Gaffney

Subject: 1974 or later Conference

II. Institutional biases against labor-using factor mixes, and/or for land and capital-using mixes.

A. Tax policy.

1. Income, payroll, property, excise.

B. Distribution and wealth effects.

1. Original and continuing unequal division of public lands, resulting concentration, coupled with regressive use of land and capital.

C. Forced land-consumption and capital--consumption, and/or under-use of land and capital.

1. Zoning, subdivision control, building codes, urban "removal" policies, public holding of excess land, regulatory bias.
2. Farm programs--soil bank, etc.
3. Mineral programs: allowables, prorates, quotas, etc.
4. Cartel organization of industry, with excess capacity.
5. Non-control of effluents. (Thus consuming neighbor's land instead of using labor.)
6. Water law, underuse of better waters.
7. Administration of public lands, e.g., national forests.
8. Low-interest loans as subsidy tool.
9. Exemptions from property tax as subsidy tool--bricks and mortar bias.
10. Public works.

D. Regulatory bias.

1. Overpricing rich surplus yielding part of mass system, underusing capital.
2. Subsidizing lean, deficit making, capital-using premature parts of mass system. (This is blocked where costly individual apparati like wells and septic tanks are in the way, but runs wild with phones, etc.)
3. Overall bias in favor of costly individual apparati compared to cheaper mass systems.

(And see below)

E. Territorial expansion.

1. Inflated, capital-using intersite linkage sector.
2. Regulatory bias again: uniform area pricing, rate base maintenance, imperialism, tax avoidance through premature investment, management aggrandizement, value-of-service rate making.
3. Public works: tendency to substitute overcapacity for pricing; logrolling; partial funding and slow completion; avoiding competition, taking on submarginal ventures; bureaucracy; professional aggrandizement of engineers, lawyers, unions, contractors; payoff in higher land values, and resulting biases to premature starts and overcommitment; linear bias to roads, to shift cost to higher level of government.

F. Lags and imbalances.

1. Poor synchronization of public programs, and regulated utilities.

2. Lag of private complements behind public works, due to land speculation and bad capital markets.

3. Lag of feeders behind trunks.

G. Inflation of military budget.

1. Is it land-using, capital-using, or labor-using?

H. The Rule of Capture.

1. Causes premature invasion of marginal land, and is extremely capital-using because of slow payout.

2. Applied to water, minerals, capturing zoning, customary rights to pollute, air routes, radio frequencies, etc. ad inf.

3. Premature research and the patent system. (Coupled with other biases towards research.)

III. Inadequacy of territorial expansion as means to achieve full employment.

A. Limits on capital.

1. Bad tradition of public works to stimulate employment.

2. It works only so long as we can bring limitless capital into the system.

3. It ties up capital, slows payout and replacement demand. This causes political pressure for factitious demand, i.e., federal deficits financed by new money, resulting in inflation because the demand is not matched by ripe goods ready for consumers.

4. Jeopardy of a trap, stumbling into a feedback loop where shortage of disposable capital is self-reinforcing rather than self-correcting. Historical survey, major crises following major periods of premature freezing of capital into territorial expansion (broadly construed, including urban expansion, hydro-imperialism, etc.)

5. Military budget: part of the capital sunk in expansion, like other public works?

B. Limits of the Earth.

1. Claims of other cities and countries. Political limits precede Malthusian ones. Territorial rivalry leads to war, wasting more resources.

2. The environment.

a. Major causes of pollution are:

1) Transportation.

2) Extraction and primary processing.

3) Non-control of effluents.

4) Inflated costs of collection due to sprawl.

5) Premature invasion of open land and wilderness due to sprawl.

IV. Full employment of labor through full use of better land, and of capital via free markets and limited government.

A. Taxation, removing biases from.

B. Distribution of income and wealth. Stimulating small business which is more labor-using.

C. Eliminating forced land consumption.

D. Removing regulatory bias.

E. Containing territorial expansion.

Addendum

In 1879 George said the waste in making labor stand idle was as great as that of destroying great cities. He said there was no limit in a truly free economy on how much work there could be, other than the desire of men to secure the rewards of work. He suggested policies for breaching artificial limits on employment. This theme brought him great popular support.

In 1936 Keynes said there was no social cost incurred when idle labor went to work. He said there was no limit in a properly directed economy on how much work there could be, short of full employment. He suggested policies for overcoming the impasse he saw limiting employment. This theme brought him great popular support.

I invite your attention to the parallel. Today leading economists tell us to forget about full employment; it is prevented by inflation. It is another iron law, another wages-fund theory, another doctrine of inevitable suffering. Whoever finds a way out will find the theme bringing great popular support.

20 October 1972

MEMO TO: Joseph L. Fisher

FROM: Mason Gaffney

SUBJECT: Time estimate to complete book. Time-estimates are made with allowance for fact that some of the work is already done, some half-done, etc.

	Time
1. Complete feeding contributing files into outline.	1½ weeks
2. Rewrite and annotate outline. Shorten outline by minimizing duplication and overlap.	2 weeks
3. Write draft. Introduction (Hold until last).	Homing
I. Market Mechanisms for ~~Housing~~ on Full Employment	
A. Micro mechanisms for full employment	3 weeks
B. Macro mechanisms for full employment	4 weeks
(Omitting B, 2, g, on Capital Formation, Transition, and Foreign Exchanges, because these involve new analysis.)	
C. Integration of (A) and (B).	1 day
D. Full employment independent of growth	4 days
II. Institutional biases to substitute land and capital for labor	
A. Biases in Tax policy	
1. Forest taxation, case study	2 weeks
2. Other growing capital	1 week
3. Depreciating capital —	4 weeks
4. Minerals taxation	1 week
5. Effects of land taxes	1 day
6. Effect of payroll taxes	1 day
7. Taxes on mass systems	2 days
8. Effect of tax exemption	1 day
9. Effects of inflation on intertemporal tax bias	1 day
B. Survey of non-tax biases	
1. Forced land consumption or waste	
a. Urban controls: zoning, subdivision control, condemnation	1 day
b. Farm programs	1 day
c. Mineral programs	1 day
d. Water law	1 day
e. De facto pollution easements	1 day
f. Cartel organization of industry	1 day
g. Administration of public lands	1 day
h. Certain import controls	2 days
i. Transportation policy	2 days
j. Summary and common themes	1 day

	Time
2. Forced capital consumption or waste	
a. Waste derived from suppressing the cost of capital, or externalizing it or imposing it on the taxpayers	
i. Biases in tax policy - from II,A	1 day
ii. Subsidy by loans at low interest; lending of government's credit; pooling risks through diversification	1 day
iii. Low interest rates in public works' accounting, public lands administration	1 day
iv. Underpricing the land input which capital requires	1 day
v. Effects of inflation on real interest rates	½ day
vi. Subsidy by exemption from property tax, bricks-and-mortar bias resulting	½ day
vii. The plowback syndrome in private and public institutions. Nonprofit hospitals, highway trust fund, Port of New York Authority, management aggrandizement, non-distribution of profits for tax avoidance, inflating rate bases and regulatory bias, expensing losses in premature acquisition of franchise territory, etc.	1 week
b. Forced capital consumption	
i. Rules of capture requiring capital outlay: resources, patents, franchises, licenses, charters, routes, etc.	3 days
ii. Quota allocations based on capacity	1 day
iii. Cartel organization of industry, with propensity to excess capacity	2 days
iv. Apprenticeship requirements and inflated human capital	2 days
v. The patent system and R&D (Hirshleifer, Barzel). Another rule-of-capture bias. Tax bias reinforces.	1 day
vi. Building codes, subdivision controls, zoning, (where forced land consumption forces capital consumption, in streets especially).	1 day
vii. Bias against mass systems	1 day
viii. Bias toward fringes of mass systems (foretaste only)	½ day
ix. Gadget approach to pollution control: the new toy syndrome.	1 day
c. Non-recovery of that public capital which is transmitted into private consumable income by capitalization of benefits into value of private land. Benefit-cost analysis of public works treats all gains alike, makes no effort to recover capital.	1 day

	Time
3. Labor legislation and education	
a. Inflated apprenticeship requirements. The bloated educational apparatus.	2 days
b. Imposing costs on employers as such, rather than non-employer wealth owners	1 day
c. Local educational finance, and resulting misanthropic bias in land use controls	1 day
4. Wealth effect of original unequal distribution of national resources, regressive taxation, continued creation and maintenance of privileges, etc. Reduced disposition of wealth holders to deploy their wealth in ways that generate employment.	1 day
C. Territorial expansion. It lets us inflate land requirements per capita, by bringing more land into the economic system. It is our traditional solution embedded in the culture. But it pushes on the limits of Nature; and inflates demands on the stock of capital, slowing its turnover.	
1. Inflation of intersite linkage capital	
a. Underuse of good private land leads to inflation of linkage sector.	2 days
b. Linkage sector is capital using.	3 days
c. Regulatory bias in private and public utilities.	
i. Uniform area pricing	½ day
ii. Rate base inflation	¼ day
iii. Territorial imperialism. Bias against infilling: trucks vs. feeders.	2 days
iv. Tax aspects	1 day
v. Value-of-service rate making.	½ day
vi. Management aggrandizement	¼ day
d. Public works	
i. Underpricing and overcapacity	1 day
ii. Political allocation: bias to slow results. Logrolling, partial funding, bureaucratic aggrandizement, professional aggrandizement by engineers and lawyers, supplier aggrandizement (cement industry and political contributions), land value increments and beneficiary aggrandizement, slow development of lands served, linear bias resulting from constant effort to shift costs to higher level of government, monument syndrome to sway ignorant voters.	1 week

	Time
iii. Tax exemption: resources in public works, bonds for local finance, autos using highways, income of highway trust fund, capital gains of land value increments, etc.	1 day
iv. Use of low-interest money (recap).	¼ day
v. Undervaluation of public land used.	½ day
vi. Leverage of private over public investment. Cultural imperatives and compulsions to serve outposts, protect inhabited flood plains, rescue embattled frontiersmen, meet disasters, recharge aquifers, etc.	1 day
2. Lags, imbalances, inflating capital requirements, slowing completion and concealing latent excess capacity.	
a. Lags in public works - recap.	1 day
b. Lag of private complementary capital behind major monumental works.	1 week
3. Inflation of military budget	
a. Part of military budget is assignable to territorial expansion in the sense of securing overseas minerals.	3 days
b. Why this is a capital-intensive operation, rather than primarily a user of labor as generally believed.	4 days
4. Inflation of demands on Nature. This is inherent in territorial expansion.	
a. The rule of capture writ large. Recap: universality of rule of capture in our culture.	1 day
b. Demand for space.	1 day
c. Demand for extractive resources.	1 day
d. Demands on the environment.	1 day
5. The inherent heavy capital needs of marginal land.	
a. Public capital is spread thin.	3 days
b. Private capital.	
High cost/benefit ratios	
Slow recovery.	
Slow timber cycles	
Slow payout from exploration	
Slow payout from farm land development	
Slow payment from peripheral urban buildings	
Lack of rent cushion when marginal proves submarginal	
Wicksell's "rent-goods": Capital close to land and resembling it.	1 week

Time

c. Spreading rent thin. Overinvasion of marginal land reduces rent on better land, and slows turnover there, too. 1 day

d. The sterile investment in capturing resources. The social capital is never recovered. 2 days

6. The inherent loggevity of capital substituting for land. Wicksell and "rent-goods." Clearing, draining, cuts, fills, etc. 3 days

D. Inadequacy of territorial expansion to achieve full employment (It works only so long as we can bring more land and capital into the system.)

1. Limits on capital

a. High capital requirements synonymous with slow recovery-replacement, reduced employment-creating spending and demand for labor. Recap. 1 day

b. Capital can be spread as thin as we want, but only if institutions allow a small complement of capital per man and per dollar of land value. 1 day

2. Jeopardy of the trap of capital shortage, frozen assets and self-reinforcing liquidity crisis.

a. Capital complements capital: increasing returns to aggregate investment.

i. Misleading iron laws of Ricardo, Malthus, Marx, Keynes. 1 day

ii. How capital complements capital.
Spillovers and synergism.
Capital used to develop land.
Capital used to finish what other capital starts. 1 week.

b. The potential instability in increasing returns: feedback loops, benign and malignant. 2 days

c. Historical precedents. Waves of overcommitment and retrenchment in transportation and land development. 2 weeks

d. Current overcommitment and vulnerability to crisis of unrecoverable capital. 1 week

e. Danger of perverse policy reaction to crisis worsening and lengthening it.
The misplaced faith in public works and military spending, which freeze or destroy more capital than they release. 3 days

3. Limits of the Earth. This limits the employment that can be created by expansion.

a. No absolute scracity.

i. Whatever we run out of may be supplied by applying more labor. Thus the Malthusian spectre and the unemployment spectre meet and neutralize each other--provided our institutions allow it. 2 days

Time

ii. In most industries the condition obtains that a small amount of the resource base is producing most of the output.
Minerals are a possible exception. 4 days

b. Claims of other jurisdictions. We need political-military limits before Malthusian ones. Military spending results. It may be a sink of capital, like some other public spending, if not benefit-costed. 2 days

c. The environment
This, like minerals, may be alleviated by applying labor. Again like minerals, this can maintain full employment, but only if input prices reflect true social costs and avoid bias against labor.
Territorial expansion as a solution to unemployment runs into the environmental limit, creating a conflict of full employment with environmental quality.

i. Transportation a primary cause of pollution. Congestion due to low density, not high. High accident rates due to congestion. Unsafe driving conditions included in pollution, broadly construed as external costs and crowding of commons. 3 days

ii. Extraction and primary processing are ~~several~~ major sources of pollution. 3 days

second

iii. Sprawl means invasion of wilderness sanctuaries. 1 day

iv. Sprawl means it is hard to find land for dumps, noisome activities, without impacting on someone. 1 day

v. Material-using bias means more residuals, and less incentive to recycle. 3 days

vi. Non-control of effluents--a form of land-using bias.
Sometimes deliberately used to beat down sales prices. Zeckendorf and the Swift abbatoir.
Sometimes a form of territorial imperialism, like a dog raising his leg. 1 day

vii. Inflated costs of residuals control due to sprawl that precludes mass systems. 1 day

viii. Is slow capital turnover good for environment? 1 day

	Time
E. The current pressure on the earth	
1. High land prices: urban, rural, sylvan, recreational, water-bearing, routes, radio spectrum, rights-of-way, etc.	2 days
2. Diffusion of high land prices over wider area	2 days
3. Primary products an exception? The land *in situ* is the relevant price, not the product. Hidden social overheads must be included, and military costs are one of these. New data from Potter and Christy.	1 week
III. Full-employment by full use of better land and of capital	
For detail see outline of 8-1-71, pp. 7-8.	
As this final section merely pulls together obvious conclusions implied by I and II, time will be briefer.	4 weeks
[D, 5, c, "reducing demands on environment," has already been pulled together for seminar of 4-26-72.]	
Total Time	52 weeks, 2¼ days

I believe this is a realistic statement of what is required to do an optimal job.

I have tried presenting capsulized papers several times now and they are not getting through. They are clear enough to me, but to the readers raise too many problems, leave too many loose ends.

In introducing this set of ideas, therefore, I believe a more definitive work, like that outlined, is needed to do the job. Even this is compressed. Several parts of this could usefully be expanded into separate studies. The time allocations given keep this in check however, in the interests of wrapping up an optimal and timely initial package.

Mason Gaffney

M. F. to J. T.

Time estimate to complete book. Time-estimates are made with allowance for fact that some of the work is already done, some half-done, etc.

~~Schedule~~ — MC.

Time

1. Complete feeding contributing files into outline. 1½ weeks

2. Rewrite, and annotate outline. Shorten outline by minimizing duplication and overlap. 2 weeks

3. Write draft. → Introduction. (Hold until last).

I. Market Mechanisms for Homing on Full Employment.

A. Micro mechanisms for full employment. 3 weeks ~~(2000)~~

B. Macro " " " " 4 weeks

Omitting B, 2, g, on Capital Formation, Tranactions, and Foreign Exchanges, because these involve new analysis.)

C. Integration of (A) & (B). 1 day.

D. Full employment independent of growth 4 days

II. Current Unemployment and Slow Cycling of Capital.

A. Inflation with unemployment 3 days

B. Shortage of ripe goods; inadequate capital renewing: evidence. 2 weeks

C. ~~Shortage of land~~ Rising real prices of land and primary products — 2 weeks

D. Possibility of crisis with self-reinforcing feedbacks — 4 weeks

II. Institutional biases to substitute land and capital for labor.

A. Biases in Tax policy

1. Forest taxation, case study. — 2 weeks
2. Other growing capl. — 1 week
3. Depreciating capital — 4 weeks
6. ~~E~~ Effect of payroll taxes — 1 ~~day~~ week
4. Minerals taxation — 1 week
5. ~~Wealth~~ Effects of land taxes — 1 day

8. Effect of tax exemptions — 1 day
7. Taxes on mass systems — 2 days

9. Effects of inflation on intertemporal tax bias — 1 day

B. Survey of non-tax biases

1. Forced land consumption or waste

a. Urban controls: zoning, subdivision control, condemnation, ~~building codes~~ — 1 day
b. Farm programs — 1 day
c. Mineral programs — 1 day
d. Water law — 1 day
e. De facto pollution easements — 1 day
f. Cartel organization of industry — 1 day
g. Administration of public lands — 1 day
h. Certain import controls — 2 days
i. Transportation policy — 2 days
j. Summary & common themes. — 1 day

2. Forced capital consumption or waste

a. Waste derived from suppressing ~~or~~ the cost of capital, or externalizing it or imposing it on the taxpayers

i. ~~Tax~~ Biases in tax policy - recap from II, A — 1 day

ii. Subsidy by loans at low interest; ~~loans~~ lending of govt's credit; pooling risks through diversification — 1 day

iii. Low interest rates in public works' accounting, public lands administration — 1 day

iv. Underpricing the land ~~input~~ which capital ~~preempts~~ requires. — 1 day

v. Effects of inflation on real interest rates — ½ day

vi. Subsidy by exemption from property tax, bricks-and-mortar bias resulting — ½ day

vii. The plowback syndrome in ~~corporations~~, private and public institutions. Nonprofit hospitals, highway trust fund, Pt. of N.Y. Authority, management aggrandizement, ~~etc~~ non-distribution of profits for tax avoidance, inflating rate bases and regulatory bias, ~~etc~~ expensing losses in premature acquisition of ~~a~~ franchise territory, etc. — 1 week

~~b. Direct controls:~~

b. Forced capital consumption

i. ~~viii.~~ Rules of capture requiring capital outlay: resources, patents, franchises, licenses, charters, routes, etc. — 3 days

ii. ~~ix~~ Quota allocations based on capacity — 1 day

iii. ~~F.~~ Cartel organization of industry, with propensity to excess capacity — 2 days

iv. ~~EE.~~ Apprenticeship requirements and inflated human capital — 2 days

v. The patent system and R&D. (Hirshleifer, Barzel) ~~It~~ Another rule-of-capture bias. Tax bias reinforces. — 1 day

vi. Building codes, subdivision controls, zoning, (where forced land consumption ~~is~~ forces capital consumption, in streets especially.) — 1 day

vii. Bias against mass systems — 1 day

viii. Bias toward fringes of mass systems (forecaste only) — ½ day

ix. ~~A~~ Gadget ~~toy~~ approach to pollution control: the new toy syndrome. — 1 day

c. Non-recovery of that public capital which is transmuted into private, communable income by capitalization of benefits into value of private land. Benefit-cost analysis of public works treats all gains alike, makes no effort to recover capital. — 1 day

3. Labor legislation and education

a. Inflated apprenticeship requirements. The bloated educational apparatus — 2 days

b. Imposing costs on employers as such, rather than non-employer wealth owners — 1 day

c. Local educational finance, and resulting misanthropic bias in land use controls — 1 day

4. Wealth effect of original unequal distribution of national resources, regressive taxation, continued creation and maintenance of privileges, etc.

Reduces disposition of wealth holders to deploy their wealth in ways that generate employment. — 1 day

C. Territorial expansion.

It ~~lets~~ allows us ~~to~~ inflate land requirements per capita, by bringing more land into the ~~sys~~ economic system. It is our traditional solution, embedded in the culture. But it pushes on the limits of Nature, and ~~creates~~ inflates demands on ~~capit~~ the stock of capital, slowing its turnover

1. Inflation of intensive linkage capital

a. Underuse of good private land leads to inflation of linkage sector — 2 days

b. Linkage sector is capital using — 3 days

c. Regulatory bias in private and public utilities

i. Uniform area pricing — ½ day

ii. Rate base inflation — ¼ day

iii. Territorial imperialism.
Bias against infilling: trunks vs. feeders. — 2 days

iv. Tax aspects — 1 day

v. Value-of-service rate making — ½ day

vi. Management aggrandizement — ¼ day

d. Public works

i. Underpricing and overcapacity — 1 day

ii. ~~Characteristics of~~ Political allocation: bias to show results
Logrolling, partial funding,

bureaucratic aggrandizement, professional aggrandizement by engineers and lawyers, supplier aggrandizement (cement industry and political contributions), land value increments and beneficiary aggrandizement, slow development of lands served, linear bias resulting from constant effort to shift costs to higher level of government, monument syndrome to sway ignorant voters — 1 week

54/ iii. Tax exemption: revenues in public works, bonds for local finance, autos using highways, income of highway trust fund, capital gains of land value increments, etc. — 1 day

iv. Use of low-interest money (recap) — ¼ day

v. Undervaluation of public land used — ½ day

vi. Leverage of private over public investment. Cultural imperatives and compulsions to serve outposts, protect flood plains, rescue embattled inhabited frontiersmen, ~~and others~~ meet disasters, recharge ~~to~~ aquifers, etc. — 1 day

~~vii~~

2. Lags, imbalances, inflating capital requirements, slowing completion and concealing latent excess capacity

a. Lags in public works – recap. 1 day

b. Lag of private complementary capital behind major monumental works 1 week

3. Inflation of military budget

a. Part of military budget is assignable to territorial expansion in the sense of securing overseas minerals. 3 days

b. Why this is a capital-intensive operation, rather than ~~a source~~ primarily a user of labor as generally believed. 4 days

4. Inflation of demands on Nature
This is inherent in territorial expansion

a. The rule of capture writ large
Recap: universality of rule of capture in our culture
1 day

b. Demand for space — 1 day

c. Demand for extractive resources — 1 day

d. Demands on the environment — 1 day

5. The inherent heavy capital needs of marginal land.

a. Public ~~costs~~ capital is spread thin — 3 days

b. Private capital.

High cost/benefit ratios &
Slow recovery.
Slow timber cycles
Slow payout from exploration
" " " farm & land development
" " " ~~remote~~ peripheral urban buildings
Lack of rent cushion when marginal proves submarginal
Wicksell's "rent-goods": capital close to land and resembling it 1 week

c. Spreading rent thin

Over-invasion of marginal land reduces rent on better land, and slows turnover there, too. 1 day

d. The sterile investment in capturing resources. The social Capital is never recovered. 2 days

6. The inherent longevity of capital substituting for land Wicksell and "rent-goods." Clearing, draining, cuts, fills, etc. 3 days

D. Inadequacy of territorial expansion to achieve full employment (It works only so long as we can bring more land and capital into the system.)

1. Limits on capital

a. High capital requirements synonymous with slow recovery - replacement, ~~Recap.~~

+Reduced employment - creating spending and demand for labor. Recap. 1 day

~~b. Jeopardy of capital trap~~

b. Capital can be spread as thin as we want, but only if institutions allow a small complement of capital per man and per dollar of land value. 1 day

2. Jeopardy of the trap of capital shortage, frozen assets and liquidity crisis self-reinforcing

a. Capital complements capital: increasing returns to aggregate investment

i. Misleading iron laws of Ricardo, Malthus, Marx, Keynes 1 day

ii. How capital complements capital

Spillovers & synergism
Capital used to develop land
Capital used to finish what other capital starts 1 week

b. The potential instability in increasing returns: feedback loops, benign and malignant. 2 days

c. Historical precedents. Waves of over commitment and retrenchment in transportation and land development 2 weeks

d. Current over commitment and vulnerability to crisis of unrecoverable capital 1 week

e. Danger of perverse policy reaction to crisis worsening and lengthening it.
The misplaced faith in public works and military spending, which freeze or destroy more capital than they release. 3 days

3. Limits of the Earth. This limits the employment that can be created by expansion

a. No absolute scarcity.

i. Whatever we run out of may be supplied by

applying more labor. Thus the Malthusian spectre and the unemployment spectre meet and neutralize each other — provided our institutions allow it. 2 days

ii. In most industries the condition obtains (over)

b. Claims of other jurisdictions.

We meet political-military limits before Malthusian ones. Military spending results. It may be a sink of capital, like some other public spending, if not benefit-costed. 2 days

c. The environment

This, like minerals, may be alleviated by applying labor. Again like minerals, this can maintain full employment, but only if input prices reflect true social costs and avoid bias against labor.

Territorial expansion ~~in lieu of~~ as a solution to unemployment runs into the environmental limit, creating a conflict of full employment with environmental quality.

i. Transportation a primary cause of pollution. Congestion due to low density, not high. High accident rates due to congestion. Unsafe driving conditions included in pollution, broadly construed as external costs and crowding of commons. 3 days

that a small amount of the resource base is producing most of the output.

Minerals are a possible exception. 4 days

ii. Extraction & primary processing are second major source of pollution 3 days

iii. Sprawl means invasion of wilderness sanctuaries. 1 day

iv. Sprawl means it is hard to find land for dumps, noisome activities, without impacting on someone. 1 day

v. Material-using bias means more residuals, and less incentive to recycle. 3 days

vi. Non-control of effluents – a form of land-using bias.

Sometimes deliberately used to beat down sales prices. Eickendorf and the Swift abbatoir.

Sometimes a form of territorial imperialism, like a dog raising his leg. 1 day

vii. Inflated costs of residuals control due to sprawl that precludes mass systems 1 day

viii. Is slow capital turnover good for environment? 1 day

E. The current ~~high demand~~ pressure on the earth

1. High land prices: urban, rural, sylvan, recreational, water-bearing, routes, radio spectrum, rights-of-way, etc. 2 days

2. Diffusion of high land prices over wider area 2 days

3. Primary products an exception?

The land in situ is the relevant price, not the product.

Hidden social overheads must be included, and military costs are one of these

New data from Potter & Christy 1 week

III. Full employment by full use of better land and of capital

For detail see outline of 8-1-11, pp. 1-8.

As this final section merely pulls together obvious conclusions implied by I & II, time ~~it~~ will be briefer – 4 weeks

[D, 5, c, "reducing demands on environment," has already been pulled together for seminar of 4-26-72.]

FOLDER INSIDE FOLDER

Annotated Outline, MS

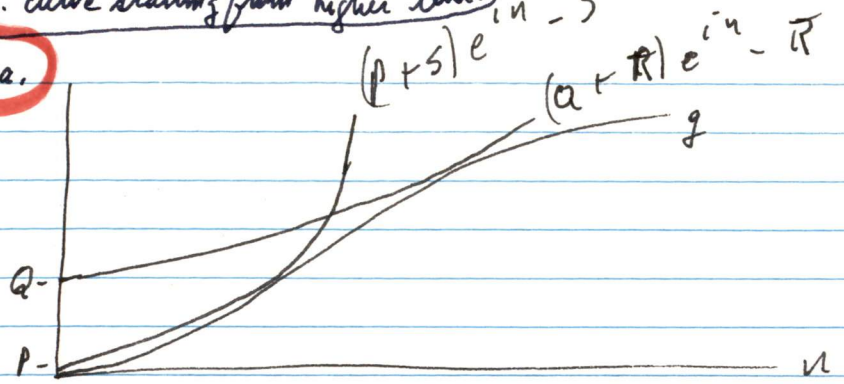
d. Where causation and autonomous discretionary action lie.

Much of macro-economics consists of ~~self-reinforcing~~ chicken and egg cycles, ~~circular flows~~, variously perceived and described as circular flows, positive feedback loops, spirals, multipliers, simultaneous equations, self-reinforcing movements, pump priming, and so on. Spending creates income and income creates spending. It is a question at what point the system is determined — what is autonomous and controlling?

Textbook macro narrows on ~~autonomous~~ net new investment above replacement, and on the MPC as the key matters

Good demonstration, how higher wage rates ~~shorten~~ lengthen life, in spite of comp. int. curve starting from higher level.

Use in I, A, 5, a.



Here it is clear how higher P ~~shortens~~ lengthens opt. cycle.

Let payroll cost rise from P to Q; so site value falls from S to R.

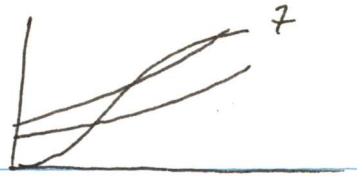
$$S = \frac{ge^{-im} - P_0}{1 - e^{-im}}$$

So as P rises, S falls by more than P rises.

So $Q + R < P + S$, so upper curve rises slower than lower curve.

Now used, 12-8-71. Return and strengthen.

$$S = \frac{7 - Pe^{im}}{e^{im} - 1}$$



S max when $\frac{7' - Pie^{im}}{7 - Pe^{im}} = \frac{ie^{im}}{e^{im} - 1} = \frac{i}{1 - e^{-im}}$

Let P & bg $g > 0$

Maturity comes ~~earlier~~ later if

$$\frac{7' - (1+g)Pie^{im}}{7 - (1+g)Pe^{im}} > \frac{7' - Pie^{im}}{7 - Pe^{im}}$$

$$\cancel{77'} - (1+g)7Pie^{im} - Pe^{im}7' + \cancel{P^2e^{2im}(1+g)i} >$$
$$\cancel{77'} - 7Pie^{im} - 7'(1+g)Pe^{im} + \cancel{P^2e^{2im}i(1+g)}$$

$$(1+g)\cancel{7P}\cancel{ie^{im}} + \cancel{P}\cancel{7'e^{im}} < 7\cancel{P}\cancel{ie^{im}} + \cancel{P}7'(1+g)\cancel{e^{im}}$$

$$(1+g)7i + 7' < 7i + 7'(1+g)$$

$$7'(1 - 1 - g) < 7i(1 - 1 - g)$$

$$g7' > g7i$$

$$7' > 7i$$

But $7' > 7i$ if $S > 0$, so maturity comes later.

I, B,

2 – (outline, of topic sentences) General full-empl. eq.: real terms analysis.

(a) ~~Replacement means gross inv., so micro solution is also macro. Keeps agg.~~

~~Begin with real-terms theory~~ demand adequate; ripe goods (over)
formal, is great gn. whether spending alone creates F.E., Lat. Acts. now here. (over)
There is a real macro. Begin with it. Inc.-disinv. flow is key to

macro – see what it means in real terms. Things behind symbols. See role of cap. & deep. R, controll's vble. lurking behind syntactic language & models of macro.

(b.) ~~Build~~ model, or word-picture of matters ex. w/o money + the storekeeper. ~~Ripe goods~~ ~~Storekeeper grabs labor hired factors.~~ Notice only good as keeper of one store; big box; small box.
~~Labor paid in ripe goods, meaning by.~~ So are other hired factors. Role ~~of cap. is to advance ripe goods, hire others, including unripe cap.~~ (Non-coordn. of factors, disc. M.P.)
~~Flow of~~ Ripe goods are demand for labor. ~~There pay labor to replace what labor~~ consumer. ~~The inc.-creating exp. is rate of goods. Flow of ripe goods balanced w. inc., but they are the same.~~ (over)

(c) ~~Unempl. also due to shortage of ripe goods, not surplus. Overcoming not incentive,~~ ~~and real saving aid, help, not limit. But stored labor may go into cap. prod.~~ (over, X) (113)
~~To meet that, payroll keep flow of ripe goods = payroll, by S.F.~~
~~Schedule maturities so ripe goods are enough. Flow of ripe goods = K. R. = volume.~~
~~Use several analogies, illustrations. Show how ± ΔR must focus of~~
~~demand → labor & supply → demand.~~

~~Model II~~

(d) (c) ~~To ΔR, multiplier not best of~~ the methods shown in micro – outside purview of orth. macro. ~~This may happen w/o any effort to ΔE, or Δ cap. (the real counterpart)~~
~~Another way is mult. method of repeated efforts to create cap. Lure of~~
~~leverage makes this popular.~~
~~Just b.~~
~~But is less important. Growth of cap. not as key as said.~~
~~Suspicion has grown to doubt, and doubt to certainty (negation) (sum)~~

(d) Discretion and causation lies with storekeeper primarily –

not w. hired factors. Storekeeper decisions are autonomous. Autonomy is vulgar slack is. R is prime mover, not an accommodator. Comm. demands not an
Real ~~recent~~ – replint. index. while either for goods or for jobs.
autpromous acts have money effects, i.e. control money flows.
Money flows have less influence on real flows, ~~altho~~
They have some, but orth. policy may choke them by suppressing i.

So ΔR is necy to ΔE; is sufficient; is controlled by non-M. factors largely. And is
largest part of inc-creating spending, by far – not a trickle.

(e) Errors ~~in~~ fiscal left. R responds to spending see (implicitly —
explicitly they ignore it.) Consumer determine! Glut of goods, need to
not so much in formal models as in talks with intimate
Public works to fight unempl.
employ but not produce. Spending relieves labor complements as well as labor
Micro optimism:
Surplus of ripe goods is ready, ripe [illegible] putting for Δ spending, & is automatically released. (over)
Errors of fiscal rt. R can't be ruined by anything, & cap. formation

~~meet demand and replacement inv. hires labor.~~

Preconditions of Ku. opt.: supplies of goods ready to meet $d spending, waiting, altho ripe, for $ spending. The goods are customm. repld. so C → Y automoatically. w/o inflm.

To evaluate, must study real macro.

Labor employed not just to replace ripe goods, but to deliver, harvest, service, or otherwise complement them. Use of labor a sf. of depn. capl. (109)

X. ~~Some say not enough "jobs" to go around, but real problem is not enough ripe goods to go around. These are being rationed by unempl.~~

~~If spending can bring f.e. Obvious in Lat. Am.; now here.~~

Left also errs by thinking you can help by giving M away. This doesn't $ ripe goods available for incentive payments, just dilutes.

Orth. macro. views I as indep. of S, and therefore of replacement. Yet it regards C → Y, or replmt. automatic; a contradiction. ~~The~~ It is more right the 2d time.

Or, attitude could be that new products push old ones thru pipeline faster when new labor employed — i.e. R adjusts automatically. But they are neither pulled out by consumers nor pushed out by labor. In short run they have their own motility. In long run, motility set at vintage by stockkeepers, incl. govt.

is fixed too. (A real return to Wages-fund). We must suffer — dismal science. No route to prosperity w/o suffering. Control of M is sufficient.

Error of both: ignore R, the key controllable, lurking under all the symbols.

In fact, R responds, but not to spending. There is a route to f.e.: let mkt. determine parameters controlling R.

f. Add ~~capt~~ land & capl. funtn., and transit between Rs, ~~to model~~. and intl. aspects to model

b, ii — { Land is hired like labor (Wicksell) but over life-range & instead of at end points. In eq., labor & cap. are fully employed; land not. Is always some submgnl.

Saving in real terms — an embellishment to model rather than heart of it as in present macro.

Transit to longer R. Some labor, less ripe goods. Either labor saves, or takes lower W (or higher ripe prices.) Is transit harder than new eq.?

Transit to shorter R. Immediate relief? Beware perverse effect of Δi on exist'g stock (143)

Intl. No import leakage to fem. Suppose 2 stateless ecs., trade between. ~~Also~~ One speeds R — more local goods available.

c. How to ~~increase~~ speed turnover and raise the flow of aggregate supply & demand

The route to full employment is to speed the rotation of capital. In micro analysis this substitutes labor for capital and land. In macro analysis it increases aggregate demand.

Speeding replacement has been scorned as a macro tool on the assumption it entailed deliberate waste. The "broken window fallacy" is often cited as a classic of bad thinking. "Planned obsolescence" has sinister and frivolous overtones.

But faster replacement may ~~come via~~ be the result of good micro economizing, rather than a deficiency.

Speeding replacement or turnover has been usually treated as ~~an~~ a ~~result~~ by-product of efforts to ~~create~~ invest net, ~~either~~ ~~to~~ to create ~~capital~~ ~~in real~~ or (to turn money into goods, ~~either one~~) ~~depending~~ in textbook Keynesian models; but it may also be interpreted as an ~~by product of~~ effort to increase ~~create~~ real capital ~~as below.~~) This usual treatment is our error I believe, — turnover is ~~often~~ controlled more by ~~more~~ direct ~~and passive~~ determinants.

This usual treatment has three characteristic features that suffuse macro-economic thinking:

i. A small cause has a large multiplied effect. The cause is attempted real investment; the effect is increased turnover and

real income. The concept of controlling a lot with a little gives the idea a strong appeal.

ii. ~~National income~~ Turnover (and with it, national income) is controlled by attempted capital formation. Thus ~~welfare is~~ income and employment are made to depend on continued growth of capital stock. The idea of full employment equilibrium without growth is not contemplated. Turnover is submerged below the threshold of relevance.

iii. The process works through monetary flows, and can be controlled by controlling money, and federal debt policy.

I believe, on the contrary, we can speed and thus employ all ~~the~~ labor turnover, by other policy means, ~~without growth~~ that affect turnover directly. Growth is possible, but optional. ~~The gloomy conclusion~~ Full employment does not require growth, and ~~dilemma of growth vs.~~ a forced choice between growth does not insure full employment.

i. Price adjustments. So long as there is unemployed labor there is pressure to lower wage rates and raise interest and rent. These all lead to faster turnover until the unemployed are absorbed.

ii. Policy changes. It might be wrong to force faster turnover artificially. But there is no need. There are many legal biases extant against turnover. These are anti-economical on both macro and micro grounds. The main policy thrust of this study is to identify these biases and their solutions.

iii. The real multiplier. The multiplier is usually perceived in monetary terms, and perhaps by many even thought to be an instance of unrelated money. But the multiplier process ~~is~~ has a real analogue.

To begin, the multiplier may be restated as a description of what happens when holders of money seek to convert money to goods. The desire to invest more than is saved means exactly the same thing as the desire to convert money into real goods, and the multiplier is simply a particular way of perceiving that the result is to increase the velocity of money — the quantity being fixed. (The multiplier ~~(It~~ may be ill suited to perceive ~~analyze the fact~~ that you can convert money to goods by selling slower, as well as spending faster.)

Next, the same model applies if we think of ~~the~~ storekeepers trying to increase their ~~the~~ stock of capital in a barter world, when the stock of capital is fixed. ~~They with~~

put on more men to add ~~stocks, but they must pay~~

hoping that ~~the men~~ with

The agent in charge of receiving ~~goods~~ knows nothing about deliveries — that's not his department. He lays on more men to increase stocks. But the new men go in two weeks to the delivery dock for ripe goods, where the delivery agent has to let more ripe goods flow out — if he has them. ~~The~~ Stocks do not rise, ~~but turnover does, until a new equilibrium~~ Repeated fructuated efforts to raise stocks speed turnover instead, and volume too of course.

(The model is ambiguous, because ~~people may~~ storekeepers ~~might~~ whose aim was to increase stocks ~~was~~ would

sell slower as well as buying faster. This ambiguity may be a key to why multiplier analysis is not good.)

This model has ~~some~~ dramatic appeal because of the leverage element. A small desired adjustment in stock leads to a large change in flow. But the popular appeal may have lead to overworking the analysis.

The analysis is shaky because the desire to change stocks is double edged. (See parens. above). It could result in turnover falling as well as rising.