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ISOLATING SOURCES OF STERILITY IN MARX'S THEORETICAL PARADIGMS

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INTRODUCTION

Keynes (1919, 1931. 1933) was both scathing and patronizing on Marx, the writer of 'an obsolete textbook which I know to be not only scientifically erroneous but without interest or application to the modern world' and the spawner of the 'turbid rubbish of the Red bookshops'. Joan Robinson (1942) came to think otherwise, not only offering an expository primer on Marx but also arguing (inconclusively in my close reading of her and Kalecki) that Marx led Michal Kalecki to an early and independent anticipation of Keynes's *General Theory*. (On my summing up, Kalecki by 1933 had arrived about where Kahn had been in 1931, but *no* mechanisms that he could have read in the several million words of Karl Marx paralleled or particularly resembled Kalecki's attained profit-income multiplier mechanisms.) Keynes humoured Joan's Marx book but conceded no merit in its object.

Keynes never explicated the grounds for his rejection. Nor is there evidence known to me that he ever devoted a month to study of Marx. Like Keynes, an American economist of my post-1931 generation was never assigned an *economic* text of Marx (beyond *The Communist Manifesto* and vol. 1 of *Capital*, and these in social science survey courses). No undergraduate or graduate courses were offered at Harvard and the University of Chicago—or I daresay at any of the Big Ten state universities—prior to 1940 when Paul Sweezy and Joseph Schumpeter gave occasional seminars at Harvard. Chance alone caused me to read John Strachey's *The Coming Struggle for Power* and *The Nature of the Capitalist Crisis* when they came out in the 1930s; and these amateurish exercises did not serve as a spectre haunting the pre-war college seminars. Of course, students were attracted in droves to left-wing groups by the Great Depression, but mostly these recruits belonged to departments of sociology, history and mathematics rather than vulgar economics. Also, as I have learned from reading scores of intellectuals' autobiographies, few who joined up with the red flag felt any compulsion to master the intricacies of C–M–C–…and *Mehrwert*. Just as most natural philosophers had yet to cut the pages of their copies of Newton's *Principia*, being content to know that the truth was embalmed in its Latin, so it was enough for most radicals to know that the Master had proved in six solid volumes of scholarship the bankruptcy of the capitalist system and of mainline political economy. I must add that, later, when I came to sample viewpoints of Marxists on Marx, they tended to agree on two things: other Marxists did not have it quite right, but each of them did own the correct version.

George Bernard Shaw is a case in point. He was seen reading simultaneously in the British Museum the scores of Wagner and Marx's *Capital* (in its French edition—all that was available at that time to an educated Anglo-Saxon). Shaw claimed that Hyndman, the leader of British Marxians, had never read *Capital* and that he himself had a monopoly understanding. Alas, as Philip Wicksteed quickly demonstrated, Shaw's understanding was skindeep and easily peeled off him in a conversion to Jevonism, which itself was not very thick.

Bertrand Russell, possessor of an independent income, did devote a visiting year to Germany to evaluate Marxism. His post-mortem was that Marx's critique lacked cogency. I looked up the book he published on the subject of social democracy, but could not convince myself that Russell was ever able to pass a 1955 MIT exam on the subject. What he did infer, and not incorrectly, was that there could not be found in Marx's text a cogent refutation of Mill-Marshall economics.

Schumpeter professed to admire Marx. As his longtime student and friend, I always wondered whether the verb 'professed' should be replaced by the word 'pretended'. On almost every point—and I would artfully confirm this by contriving innocent questions for him—Schumpeter came out with cause-and-effect conclusions 180 degrees different from Marx's. (Example: Marx believed technological change undermined full employment; Schumpeter thought such fears exaggerated. Schumpeter thought capitalism *economically* stable; its very *successes* (!) would undermine it sociologically.) When required to write the foreword to a book on Schumpeter and Marx, I (1970) had to conclude lamely that Schumpeter admired Marx for his chutzpah, his wish to create a dynamic theory of everything. With friends like that, Marx had no need for an enemy, which was what used to be said by orthodox Marxists about Joan Robinson and her 1942 primer on Marx. (During the McCarthy witch-hunt in the USA, Joan once said to me, 'I understand that in Washington you get into J.Edgar Hoover's bad files if you purchase a copy of my Marx primer. And after all it's a book *against* Marx's labour theory of value.')

It is well known that Böhm-Bawerk more than once published critiques of Marx. I have not been a great admirer of Böhm-Bawerk's kind of pedantry. But in this matter I have never thought he has been accorded simple justice. One, Böhm was critical toward *all* writers not of his name, and his captiousness is not so much ideological as logical and terminological. Moreover, his simple points cut deep and have never been refuted or even rebutted. He is boringly complete, but then completeness and boringness are part of his customary style when dealing with English dons, orthodox churchmen, radical Europeans, or mathematical economists like Irving Fisher. The Böhm-Hilferding boxing match I cannot score for Hilferding.

That leaves Ludwig von Bortkiewicz. Twice in 1907 he analysed the relationships of 'the rate of surplus value paradigm' to 'the rate of profit paradigm'. Bortkiewicz is widely interpreted to have in some sense vindicated something novel and valuable in Marx's alternative paradigm to mainstream economics. However, when you follow through in detail the exact steps of Bortkiewicz's mathematics, you discover that he is showing precisely how to extricate yourself from Marx's detour and get back to where mainstream economics always had been. He took his clue from the little-known 1898 pre-Sraffian analysis of Vladimir Dmitriev, an obscure Russian reader of Ricardo. Dmitriev

was the first to solve the Quesnay riddle of input-output, and his solution is that of Leontief, von Neumann, Sraffa, Smith, Ricardo and Böhm-Bawerk.

To prove this, let Jack's labour produce the corn, which with Bill's labour produces the finished loaf of bread. In that case the 'exploitation' of workers' wages from the competitive presence of positive interest rates is crystal clear, and gains nothing from going to a *bad* approximation given by an idiosyncratic Marx labour theory of value. (When corn itself needs corn input as well as labour input, the Ricardo-Stigler '93 per cent labour theory of value' can easily become an *infinitely* bad approximation for the $P_{\text{bread}}/P_{\text{corn}}$, and wages/profits ratios.)

I have not forgotten the 'transformation problem' *à la* Marx, Tugan-Baranowsky, Winternitz, Dobb, Meek and Seton. By all odds Francis Seton's 1957 version is the most comprehensive and conclusive, and Marx's *Mehrwert* paradigm receives no shred of defence from it.

The real Trojan horse in the Red bookshops has been Piero Sraffa's 1960 classic *Production of Commodities by Means of Commodities*. Ian Steedman's 1977 *Marx after Sraffa* tells that story. What would be deemed unacceptable by Marxians from Dmitriev or Debreu may sneak in from a non-admirer of J.B.Clark and Böhm-Bawerk.

After this extensive introduction I turn to my business of the day, to try to discern in detail how Karl Marx was thrown off an understanding of (a) the laws of motion of capitalism (and the mixed economy and the planned-bureaucratic state), (b) the laws of distribution of the social product between wages and property returns, (c) the trends in degree of income and wealth inequality (Gini-Pareto parameters), (d) the *ex ante* and *ex post* divergences and convergences of economic development by region, and (e) the avoidance of chronic mass unemployment.

If you sample Marx texts, say in Sweezy's 1942 classic or Robinson's contemporaneous introduction, and find the gleanings unrewarding, good scholarly procedure entitles you to follow Keynes's example and ignore the subject. However, around 1955 I volunteered mentally for the duty to investigate whether the subject was truly as lacking in merit as seemed thought to be the case. (Mark Twain: Wagner is not as bad as he sounds.) My curiosity was not so well rewarded as to make me want, for that reason, to stay the course; but the fact that some billions of humans then did claim to be followers of Marx's vision did carry weight with me—just as the rather eccentric Judeo-Christian-Islamic doctrines acquire importance when a billion folk think they do. I sensed no personal affect in either eschewing Marxian economics or studying it. But I would joke in seminars that those who had attained reputation as mainstream economists could only gain a second reputation if they could uncover new, certifiable merit in the Marxian paradigm. If!

In actual fact, colleagues and friends thought it strange of me to waste good tennis time on so irrelevant a subject. Indeed, when I first lectured at Yale on the transformation problem, the overflow crowd evaporated away at first whiff of matrix algebra; and the hardy remnant of economist dons and graduate students were suspicious that it was all a Samuelson put-on and hoax. No one understood my demonstration that Bortkiewicz's algorithm was literally a way to get rid of Marx's invariant $(p_j - c_j)/v_j$ paradigm and, after a fresh start, calculate the quadratic or nth-degree polynomial equations for capitalistic [price$_j$/wage] vector elements in function of the interest rate. When a Marxist 'transformed properly', it was literally a process of 'erase and start again' and not an

insightful stepping-stone to complicated reality. Meek and Dobb went to their graves without having a clue to this damning logic; and if Morishima ever understood this fact about 1907 Bortkiewicz, I know not where he has said so.

Let me end this long introduction with the admission that at the end of the day I never could find analytical pearls in Marx to cast before orthodox economist swine. As will be made clear, *Capital*'s volume 2 tableaux of reproduction and balanced exponential growth represented Karl Marx's sole contribution to economic theory. See my 1974 contribution to the Lloyd Metzler Festschrift where I justify this. Still, here his formulation generically avoids error only when organic compositions of capital are all equal and when nothing new could possibly come from the *rate of surplus value (Mehrwert)* innovations.

In sum, at its heart Marx's paradigm was hopelessly flawed. For the rest of this chapter I sample the constructive task of identifying where and how Marx got thrown off understanding of why, and to what degree, wages fall short of the whole of aggregate income; of what trends tend to raise or lower profit shares; and why dynamic planning has need for the signalling of competitive market price and for the mechanism of self-interest incentives. (In the famous debate over socialist planning by means of decentralized auctioneer planning—by Lerner and Lange against Mises and Hayek—it was Hayek who was the victor since necessary information will evaporate away in the absence of real-thing markets. More on this later.)

FALLACY NUMBER ONE IN (YOUNG) MARX

Before Karl Marx was a Marxian economist, both he and Friedrich Engels independently arrived at the uninformed view that mid-nineteenth-century Europe had attained to a stage of technological plenty sufficient to support comfortable living *for all the population* if only the evils of private property were abolished. Knowledge since then of economic history makes this faddish *Weltanschauung* of Rousseau, Godwin and Condorcet a ludicrously over-optimistic pipedream. Reasoned hopes for progress, yes; but attained technology sufficient for utopia, no. Such limited historical and statistical knowledge as could have been known to Karl and Friedrich at the time, if they looked for it, would not have rationally supported their unthinking self-confidence on the subject; and there is no evidence that they felt much need to test their empirical view.

This fallacy of 'plenty already here' is not unique to Marxians. It has long been widely held in many places. Among conservatives and reactionaries it can take the form: 'If only Milton Friedman's stipulations are followed, potential plenty will become actual plenty.' Psychologists say that the simplest fallacies tend to be the most persistent ones. Certainly this general one has persisted. In part, but only in part, it helps account for Marx's deliberate neglect of how his future utopias were to operate economically. (Lay people divide into those who exaggerate potential plenty and those who exaggerate inevitable exhaustion of non-renewable resources.)

FALLACY TWO: NEGLECTING OF NEED FOR LAND AND NATURAL RESOURCES

Labour to get all of product is a possible ethics and a natural wish. But that implies nothing valid about the cause-and-effect productivity of non-human inputs. Unlike their classical contemporaries, Marx and Engels were scathingly critical of the Malthusian algorithm. Capitalist apologists are not wrong to recognize the fact of the essential productivity of land input when it works with labour input—particularly in pre-twentieth-century times; though Marx, who if anything exaggerated the 'scientific' quality of Quesnay, oddly himself downplays the Physiocratic truth about land's peculiar *non*-sterility. The Irish question without land scarcity is Hamlet without the gloomy Dane; real North American GDP per capita superiority in 1880 to European, when abstracting from the copious geological endowment of the former, makes for shallow economic history.

And the fallacy is so unnecessary. The productivity of inputs privately owned by non-workers can be admitted without agreeing that their status quo owners have legitimate ownership and a legitimate claim to their competitive returns. Furthermore, even if workers were all endowed exactly alike and shared equally in the fruits of natural resources, land's important scarcity emasculates vitally the labour theory of value as applied to the relative prices of corn and cloth and mousetraps. It is no wonder that Marx (and even Ricardo!) never really understood this—inasmuch as the pens of Stigler, Sraffa, Hollander and Blaug have failed to spell out the needed understanding.

'But didn't Marx write extensively and authoritatively on land rent?' I will be asked. Yes, he did devote some manuscripts and notebooks to rent. But his rent analysis is grossly defective, even for a pre-1870 writer (see Howard and King 1992; Samuelson 1992). And Marx's tableaux of $c_j+v_j+s_j=c_j+v_j$ (1 +rate of surplus value) do ignore any special role for land and fail to generate an insightful theory of how labour gets 'exploited' and how the swag gets divided between landowners and tool owners.

The greatest fortunes in the past three centuries completely elude the paradigm that Marx thought was his most insightful one. The paradigm cannot touch the question: why is Japan in the OECD more egalitarian than France is?

Between the Napoleonic and First World Wars, world population doubled whereas European population quadrupled. Carlyle's dismal science of mainstream economics broadly explains these basics that escape the Marxian novelties.

The future problems of non-renewable resources and environmental deterioration fit smoothly into Walras-Fisher economics. Von Thünen's pages of 1850, which contrast starkly with those of the Marxian school, can also accommodate well to these issues.

So far I have been talking about Marxian economics as bad *positivistic* economics on these matters. It is equally damning as bad *normative* economics on issues such as planned parenthood and other policies relevant to people/land densities. (Mao's Malthusian China was in contrast here to, say, the Indian Communist Party line on absence of birth control as a factor in Indian poverty. But Mao did not use, or have need to use, *Das Kapital* as a bible in this regard.)

Marx and Engels were enthusiastic admirers of Charles Darwin, who never learned of their movement or doctrines. They liked his emphasis on change, but the Malthus they vilified was the writer who led both Darwin and Alfred Wallace independently to their conception of evolution by natural selection. Darwin would have been scathing on the sentimental notion that there would be plenty for all if only man's market etiquettes were not so vile, and even more scathing on the notion that lush living would last for ever after the withering away of the state. Neither Darwin nor neo-Darwinians like R.A. Fisher (1930), however, predicted the successful potential of volitional preventive checks to population in a modern educated society.

FALLACY THREE: THE STERILITY OF DEAD LABOUR EMBALMED AS 'CAPITAL'

At first the young Marx rejected labour cost as the determiner of price. Later, after grappling with Ricardo's texts, he decided that relative prices could to an approximation be equated to relative (dated, marked-up!) labour costs. Although an early admirer of Quesnay's Physiocracy, with its *tableau économique* based upon land alone as non-sterile, Marx mostly ignored land scarcity as an important (and proper) value-added formulation in which price equals wage+rent+interest-profit, where the depreciation of the capital used up today includes in it the direct wage and land costs at earlier stages of production.

We can ignore land complications too if we concentrate on scenarios where land is redundant and free in newly settled continents. Suppose you start with a dogma (which, by definition. is a proposition not to be questioned): the only legitimate income is that earned by the sweat of the brow, the craft of the human hand, or the wit of the brain of *Homo sapiens*, What does the impersonal competitive market mechanism know of, or care for, such abstract ethical principles? Dr Pangloss and Adam Smith's palaver about Invisible Hands are also immaterial to the brute facts of ruthless Darwinian competition involving cents and dollars.

How do produced inputs enter into the time-phased price structure when labour produces the corn that works with labour to produce finished consumable bread? Smith understood the general notion of value-added accounting. To Marx's credit, he worried about what today we call input-output systems and the infinite (matrix) progressions that converge to stationary-state *real* prices: (P_{corn}/wage, P_{bread}/wage). And, in the singular but possible case, where the competitive market-clearing rate of interest-profit is zero, labour will get its ethical 100 per cent at the same time that positive-priced produced corn is being reimbursed for that amount of it used up in producing the loaf of bread. (Aside: Böhm-Bawerk also understood this. That is why he never accepted the positive productivity of tools as, by itself, an adequate proof of the necessity of a positive rate of interest. Something extra was needed to explain why there could be, or has to be, a posited time markup charged against *all* inputs.)

Capitalistic owners of tools useful in working with labour will receive steady-state positive interest-profit if the supply of needed tools is not forthcoming repeatedly at a zero interest rate. Capitalists have something that workers do not have. From the Darwin-Walras viewpoint, the enemy of worker A is worker B or worker Z. The enemy of tool-

owner α is tool-owner β or ω. Those are the brute realistic facts about power in a market where 1,000 workers face each other and 100 tool-owners. It will be a miracle of singularity if the ruling conditions of supply and demand work out to a net resultant where the steady-state interest rate is Schumpeter's 0.00….

All this is oh-so-elementary. Has it failed to reckon with the *possibility* of there being a single input-output set of techniques? No. Has it overlooked 'double reswitching?' No. Has it failed to notice Wicksell effects? No.

Marie Antoinette said of the poor: Let them eat cake. Karl-Piero-Paul can say of the worker desirous of receiving all of the steady-state product that his labour can produce with the use of tools that are priced with *no* time mark-up in them: Go off and somehow get the tools you need; or, if you like, produce them yourself and maintain their supply in the steady state, then you will be able to consume *all* with no exploitative mark-ups or time discounts; of course if you can't catch the rabbit, you can't make this prescribed stew.

Why are these banalities of any relevance? It is because you cannot understand the 1950–90 growth of the Soviet Union if you fail to recognize that its progress early in this period was importantly conditional on its extraordinary accumulating of produced inputs relative to labour-force growth; and the deductive truth that extrapolating into the latter part of the period what would be necessary to assure comparable exponential growth will make implausible the prediction that Soviet growth rates would be maintainable. See Bergson (1973) and Weitzman (1970) for *ex ante* analysis of what was confirmed *ex post*.

Be resigned then to the sterility of the Marxian paradigm to interpret trends under communism. What about understanding the 1960–90 growth trends in, say, Singapore, Hong Kong, Haiti or the USA? Modern savants, rightly, study the statistics of the Singapore labour force, capital formation, raw material imports, and so forth. When they note an apparent difference between Hong Kong and Singapore, in which the former seems more impelled forward by technological change and the latter by increased produced-goods input, this suggests much that could be of interest in hypothesizing future trends.

CONCLUDING REFLECTIONS

It is ever difficult to try to separate ethical wishes of desiderata from positive descriptions and proposed models for explaining and understanding. But at the end of the day ethical goals are ill-served by mere wishful thinking. The facts do not tell their own true and unique story. They get perceived; and some perceptions tolerate deviations from reality more stubbornly than others.

Karl Marx had a high IQ and energetically studied writings of his predecessors and contemporaries. He began with great self-confidence, and amazingly his belief in the correctness of his novelties of analysis never weakened. (I have pondered over what alternative patterns of economic history might have altered the time profile of his beliefs, but with little in the way of conclusions.)

If Marx learned about problems of defining a Newtonian derivative in calculus, he left us manuscripts on the subject. Some of these are in some circles admired; when I present his words anonymously to a world-class mathematician and ask for a comparison of them

with Bishop Berkeley's similar scribblings, he chills with faint praise. When Marx chanced upon works in commercial arithmetic—compound interest and all that—his preserved notebooks show him to have assayed better formulations: this failure to calibrate his own comparative advantages is illuminating. To avoid sterility and error a self-confident autodidact must be very lucky indeed.

John Morley observed: where it is a duty to worship the sun, the laws of heat will be ill-understood. He could as well have said, where it is a duty to abhor the sun, a correct thermodynamics will be delayed in coming. So it was with Karl Marx. He was not burdened with a belief in Adam Smith's Invisible Hand. But early on, Marx began with a prejudgement that market mechanisms were prejudicial to human welfare. Suspicion plays a useful role in nominating testings for analysis, empirical beliefs and doctrines. Yet when it hardens toward paranoia, suspicion shields the autodidact from recognizing and interpreting real-world trends.

Paul Baran, who was a leading Marxist writer at mid-century, can examplify Morley's points. Once, on the occasion of a visit to California, I chanced to have drinks with Baran at the Stanford Faculty Club. A remark of his quite astonished me, even though I had known him pretty well at Harvard in the interval between his Berlin studies and his sojourn in Washington at the Office of Strategic Services. 'Paul,' said Paul, 'if I could believe that the market mechanism accomplished something useful, I would cease to be a Marxist.' Of course. one is not under oath on such occasion, but I was genuinely amazed at his cavalier rejection of *any* trace elements of truth in Smith's Invisible-Hand mumblings. Legitimate suspicions would have been understandable (around, I suppose, 1955) that market efficiency must often be bought at the expense of intensified inequality of wealth, income and opportunity. But that anyone trained at Berlin and Harvard Universities, and with Baran's demonstrated IQ, could at that date be unaware of the improvements in welfare economics over Smith's apologetics—by Pareto, Barone, Pigou, Lerner, Bergson, Meade, Hicks, Little, and other welfare economists—did definitely surprise me. I could see that, at the moment, he believed in what he was saying.

Marx and Engels themselves, in the *Manifesto* and elsewhere, penned some eloquent lines on what the bourgeois era had been able to accomplish by way of aggregate material advance. But its market trappings, like the moulds employed in helping cement to set during construction, could apparently be shed by the mid-nineteenth century. The ripe technology of capitalism could rather easily be plucked and permitted to somehow run itself in the people's paradise to come. Lenin, too, in hiding between the 1917 February and October Revolutions, enunciated in Petrograd this same comfortable belief.

In the Age After Gorbachev we have to remind our grandchildren that even the clear-sighted Joan Robinson—perhaps fortified by reading the 1920–40 debates between Lerner-Lange and Mises—held a similar view: whatever the process by which capitalism had accumulated copious and varied plants, tools and inventories, after a successful people's revolution those stocks could be maintained while their total of returns were transferred once and for all from undeserving tycoons and *rentiers* to the people in fair shares. Her future utopia was the kibbutz writ large, and maybe this time without distorting Pigouvian externalities, imperfections of competition, and periodic fluctuations in effective demand.

This is not an ignoble vision. Nor is it a paradigm defective in inner logic. Alas, there is no simple study of experience that can clearly rebut or confirm it. (And I, who have

limited patience with strong prescriptive models, will add by way of digression: the alternative model of a 100 per cent *laissez-faire* market-mechanism utopia in no scientific way dominates over it.)

In conclusion, a deeper study would do research into Marx's not necessarily earned self-confidence. And into his penchant for rhetorical paradoxes. (Instead of money buying goods, goods buy money: clever, maybe, but where does that leave you in the study of price-level inflation or possible underconsumption?)

The curse of the poor is their poverty. The curse of the lone-wolf heretic is his isolation. Ricardo had his Malthus to discuss with; and James Mill, and Colonel Torrens, and…. Marx had no semi-equal to give him acceptable criticism and nominate for him new tacks. You may ask yourself, why didn't Karl seriously study J.S.Mill on rent and thereby avoid gross error? Yes, why? Alas, the Marx that might have been is not the Marx, the only Marx, who actually was.

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