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Review Article of *Capital in the Twenty-First Century,* Thomas Piketty

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REVIEW ARTICLE

Thomas Piketty, *Capital in the Twenty-First Century*. Translated by Arthur Goldhammer. Cambridge, Mass and London: The Belknap Press of Harvard University Press, 2014; viii + 685 pp.: 9780674430006. RRP $77.00.

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Placed at each end of the long spectrum of responses to Thomas Piketty's best seller (in its admirable 2014 English translation by Arthur Goldhammer) are those of Paul Krugman and Deirdre McCloskey. (I omit the responses of Tea Party right-wing nutters. The book was published in French in 2013 and evidently did not make much of an impact; it is the English translation that has caused the sensation.)

In the *New York Times*, Krugman pronounced it to be 'the most important book of the year — and maybe of the decade'. In a review article in the *Erasmus Journal for Philosophy and Economics*, McCloskey graded it as mistaken on most fronts. She concludes her amusing diatribe: 'On the next to last page … Piketty writes: "It is possible … to have an approach that is at once economic and political, social and cultural, and concerned with wages and wealth"… he has not achieved it. His gestures to cultural matters consist chiefly of a few naïvely used references to novels he has read superficially, for which on the left he has been embarrassingly praised … His social theme is a narrow ethic of envy. His politics assumes that governments can do anything they propose to do … his economics is flawed from start to finish … a brave book [that] is mistaken' (112). McCloskey herself gives 'Two-and-half cheers for the new dominance since 1800 of a bourgeois ideology and the spreading acceptance of the Bourgeois Deal' (112). As would be expected, Bob Solow in his review article in *The New Republic* (2014), both supports Piketty — 'Thomas Piketty is right' — and provides the clearest account and analysis of the issues and Piketty's theoretical approach without ever leaving the realm of simple arithmetic.

The book is nearly 700 pages long and has been 15 years in the making. Piketty handsomely acknowledges his collaborators and his mentor, Tony Atkinson, who has devoted the whole of his working life to understanding inequality of income and wealth, bringing his outstanding multi-dimensional talents to bear on theory, measurement and policy, inspired to do so in turn by one of his mentors, James Meade. Bob Solow rightly dubs Tony 'the pioneer and gray eminence of modern inequality studies' (2).

Piketty evidently started his career as a promising young French mathematical economist who, on the basis of theoretical papers in brownie point journals, was head-hunted to a post in an economics department in the Boston area (is he coyly not willing now to name MIT?). But he quickly tired of both American life and what he considered to be the too narrow American approaches to economics, so he returned to his native France where he is now a Professor at the Paris School of Economics. He sees himself as much an economic historian as an economist, and greatly favours multi-disciplinary approaches to issues that come under the rubric of the social sciences. As a cultured French person — is there any other? — he brings illustrations from literature, including Jane Austen, into his interpretation of empirical findings. (As I noted, Deirdre McCloskey is not that impressed with the depth of his understanding of literature.)

The driving force behind his research is the tremendous growth in the last 40 years or so of inequality in income and wealth in the advanced capitalist economies. Seeing this as a return to normal developments after a prolonged blip for part of the 20th Century, especially in the long boom of post-war years up to the mid-1970s, Piketty has gone back to the principal preoccupations of the classical political economists and Marx with the long-term aspects of distribution and growth. He argues we now have so much more data to draw on. So he and his collaborators have assembled long periods of data, mostly from tax returns (including estate duty data) from a number of advanced economies — a list they are continually expanding as more countries assemble such data. Though his reading of the inferences of the theories of his predecessors leads him to pronounce them all wrong after events unfolded, he nevertheless follows their lead by trying to establish long-term laws of development (if not of motion) in modern economies.

It has to be said that his readings of Ricardo, Malthus and Marx are not always accurate — he thinks Ricardo's thought experiment account of the approach to the stationary state is descriptive analysis rather than a horrible warning of what could happen if the corn laws were not repealed. And he dismisses Marx's account of the origin of profits in the sphere of production and the determination of the size of profits, both there and in the sphere of distribution and exchange, by hardly mentioning them. Calling Malthus 'Thomas' rather than

‘Thomas Robert’ or ‘TR’ is akin to the ghastly American practice now of referring to ‘John M. Keynes’. Nevertheless, Piketty is inspired by their example, and in more modern times by Simon Kuznets, to try to do for the 21st Century what they did for their times.

In his comments in early chapters on how we should ‘do’ economics, he could be writing the blueprint for the admirable French and other undergraduates now campaigning for pluralist approaches from their teachers (not exactly supported by last year’s Nobel Prize equivalent winner, Jean Tirole). But the main theoretical sections in his book with which he wishes to explain the Kaldor-like stylised facts his data have revealed is his use of an aggregate production function model which he attributes to Bob Solow (but not Trevor Swan). He forgets Solow’s (and Trevor Swan’s) careful provisos about the method and what it can and cannot achieve, and the Harrod-type problems it was designed to tackle. However, before I discuss the limitation of the aggregate production function approach, I must mention that one of his reasons for using it was to make himself heard and understood by the mainstream whose approach of choice it still is.

In order to use the approach he has to conflate his concept and measurement of wealth with those of capital in his theoretical arguments, the inappropriateness of which he is explicitly rather uncomfortable. Wealth in his reading includes land, housing, financial asset holdings as well as capital goods in the more usual sense of their presence in an aggregate production function.

Piketty’s principal explanation of his findings is presented as three ‘laws’: 1) the rate of profits is greater than the rate of growth; 2) the capital-to-income ratio tends to rise; 3) the share of profits in income tends to rise. Together, he argues, they imply greater and greater concentration of wealth amongst relatively fewer people, a cumulative causation process which is leading to the reestablishment of what Jayati Ghosh (2014) astutely names ‘the resurgence of patrimonial capitalism’, a feature of the 18th Century, and Lance Taylor (2014), ‘The triumph of the rentier’, as opposed to Keynes’s desire for, and prediction of, that class’s euthanasia.

Here, as several reviewers have pointed out, Piketty runs into serious difficulties. In essence, his theories, when properly worked out, do not imply inferences that necessarily match his main findings, in John Rentoul’s graphic phrase about Thatcher’s Britain, the move from a world of Haves and Have Nots to one of Haves, Have Nots and Have Lots. Amongst other requirements for his results to be rigorously established within his framework, is that the value of the elasticity of substitution between capital and labour be greater than unity. He claims this to be not unreasonable but most empirical studies suggest otherwise, that it is usually less than unity. (Even if it were unity, that is to say, Cobb-Douglas, that would not predict his findings.) The source most to go for this is Bob Rowthorn's note in a 2014 issue of the *Cambridge Journal of Economics*, both for the empirical findings and the theoretical argument.

So what of the use of the aggregate production function and, by implication, of the marginal productivity theory of distribution to explain the systemic distribution of income which, in turn, leads to the unequal accumulation of capital and, more widely, of wealth? Piketty is aware of the polemical debates between the two Cambridges about capital theory, initially placed in an aggregate production function setting by Joan Robinson's 1953/54 *R.E. Studs* article, 'The production function and the theory of capital. But his reading of the issues and the outcome is wrong on at least two counts. (Jamie Galbraith points this out in his critical but well informed review article of the book, Galbraith (2014).) First, Piketty does not correctly identify the theoretical and empirical issues at stake. Secondly, his claim that MIT eventually won is wrong — at a theoretical level MIT lost, as Paul Samuelson handsomely and graciously admitted in the 1966 Symposium on capital-reversing and reswitching in the *Quarterly Journal of Economics*. Alas, like the priest and the Levite, the profession has subsequently chosen to pass by on the other side.

The most serious theorists have moved onto a different terrain — can the initial results vitiate the most rigorous form of mainstream theory, general equilibrium heterogeneous goods models associated with MIT, especially with *DOSSO* (1958)? The final answer is not yet in, but my reading of what has happened so far (I must admit that the formal aspects of the exchanges often pass way over my head) is 'Yes' — see, for example, Andres Lazzarini's very careful analysis in the recent symposium on the issues involved in the *Review of Radical Political Economics*.

It is a limitation of Piketty's understanding, given his excursions into the history of our trade and his use of a title for his book that suggests that a latter day Marx is now amongst us, that he has not taken on board that the principal issue at stake here is not the measurement of capital (that is a corollary of the main issue) but the meaning of capital — i.e., what 'vision' of the economy has the analyst in mind. There are two main claimants: the mainstream Arrow-Debreu, Irving Fisher ‘vision’ whereby the consumer queen is the driving force of development over time with all other agents (ugh) and institutions serving to help her achieve her aim of maximising her expected life-time utility by her periodic allocation of income between consumption and saving over her lifetime. The other ‘vision’ arises from the classical political economists and Marx: in it the ruthless and swashbuckling capitalist class (all three, industrial, commercial and financial) rule the roost and the other classes in the economy and its institutions dance to its tune as it endeavours to achieve the behavioural requirements of money making and accumulation as ends in themselves, a way of life.

In the non-formal parts of Piketty’s discussion there is some awareness of this background but, despite his disclaimers and honest setting out of limitations, this is vitiated by the chosen formal structure. The economists actually involved in the debates were clearly aware of this distinction and indeed Bob Solow tried to overcome the puzzles thrown up by the measurement of capital by developing Irving Fisher’s concept of the social rate of return on investment both theoretically and empirically in his 1963 de Vries Lectures, *Capital Theory and the Rate of Return*. That he was not successful has been argued by both Joan Robinson (1964) and Luigi Pasinetti (1969), (1970). The economists on the Cambridge UK side, as it were, who early on perceived what was at stake include Amit Bhaduri (1969) and Anwar Shaikh (1974). Anwar wrote his PhD dissertation at Columbia on these issues and published a classic paper on the Humbug production function (1974) to draw on his theoretical discussion to criticise the arguments and practices of Solow’s 1957 article in the *Review of Economics and Statistics* which spawned the huge literature on the relative contributions of deepening and technical progress to the growth of overall productivity.

As to the measurement and aggregation aspects of the debates, as well as Bhaduri’s and Shaikh’s external critique from a Marxist standpoint, there have been internal — i.e., within the mainstream approach — critiques, especially by Franklin Fisher, on how stringent the conditions are for aggregation and how inappropriate such an endeavour is anyway because the empirical specifications in this literature really are manipulation of identities. This has been extensively argued over many years by John McCombie and Jesus Felipe (who has also collaborated with Fisher), culminating in their comprehensive and definitive book, Felipe and McCombie (2013). Their book contains the history of the arguments from go to whoa and presents conclusions, which, because they cannot be refuted, are mostly ignored by the profession: if something is uncomfortable follow the economist's practice and assume it does not exist.

By using the marginal productivity theory of distribution in its aggregate form, Piketty has attached himself to a Say's Law world over the long term. This rules out any place there for the insights of Marx, Keynes and Kalecki to be brought to bear on past and present historical events and findings. A number of economists have based their criticisms of Piketty's approach around this and have brought in, for example, Keynes's analysis in *The General Theory* and Pasinetti's contributions which incorporate classical, Marxian, Keynesian, Kaleckian, Sraffian and Kaldorian insights into his own highly original system building. This is especially true of Lance Taylor's fine paper, Taylor (2014), which is the core paper of a symposium on these issues in the Canadian journal, *The International Journal of Political Economy*. Taylor shows that, properly worked out, Piketty's own model and approach may result in the euthanasia of the rentier (more involuntarily than voluntarily), a steady state or the triumph of the rentier, Piketty's main claim. When Keynes and Pasinetti are brought into the act, a more rich and relevant analysis makes more sense of Piketty's findings, especially of the last 40 years or so.

My own take on this is complementary to Taylor's arguments. Keynes has shown us that there is no automatic tendency for capitalism, left to itself, to attain and sustain full employment — involuntary unemployment is always a distinct possibility. Marx's analysis reinforces this when he argues that the capitalist class will always take steps to make sure there exists a reserve army of labour, so as to be able to 'discipline' the wage-earners by making the sack an effective weapon.

This argument was brought into the modern era in 1943 by Michal Kalecki in his classic article, 'Political aspects of full employment'. Tommy Balogh and Nicky Kaldor both pointed out in the 1970s that Monetarism was 'the incomes policy of Karl Marx', Balogh 1982, 77, that the shift in economic, political and social power from capital to labour over the long boom ceased to be tolerated by the capitalist class the world over. Add to this the inexorable rise of large multinational oligopolies which dominate markets (and governments) around the world and we may understand the events of the 1970s and 1980s as a concentrated attempt to create worldwide, cowed and quiescent work forces (beneath the guise of controlling inflation). This would allow a large increase in the sphere of production of the potential surplus available for accumulation in the sphere of distribution and exchange.

Of course, an unintended consequence of these actions was often sluggish overall demand (as Taylor noted). 'Animal spirits' were dimmed so that the potential surplus was not realised because of sluggish rates of accumulation, or was only realised if governments stepped in with increased government expenditure. The actual outcomes of these factors at work in conjunction with Taylor's analysis constitutes a much more plausible narrative with which to interpret Piketty's findings, than does his own narrative trapped within the neoclassical fairy tale.

My reading of Piketty is that he is a progressive social democrat who wants, like Keynes, to save capitalism from itself. He says that he is not a member of any political party, that he is first and foremost a scholar deriving evidence-based accounts of the motions of society and suggesting, for others to take up, positive policies with which to tackle malfunctions uncovered. (His suggestion for a wealth tax evidently went down like a dead duck with François Hollande and his party in the last French election.) In the book, he advocates a world-wide wealth tax and/or for individual countries, progressive income taxes, measures any non-militant progressive would heartily agree with. But they would also agree with their proponent that, in the current political climate of much of the world, they are rather utopian proposals. Still Piketty does also point out that major historical reforms have not come about primarily by well-trained technocrats in civil services designing them, that often wars and revolutions were the necessary impulses needed to get them off the ground, and that people like Piketty have at least to start the debates going.

His admirable highlighting of the extent and causes of growing inequalities the world over have, because of its timing, struck a responsive chord, resulting in his rise to mega star status, with reviews of his book by many leading economists and, recently a (no doubt widely read) symposium in the *Journal of Economic Perspectives* (2015), in which Piketty himself defends his major themes but does have some second thoughts. There have been as well many discussions in media outlets around the world, with attacks from both the left and the right on what he has provided: all told, not bad for an economist in his early 40s. His data base and the very full accounts of its sources and limitations, within the book and on his website, are major contributions of enormous help to like-minded researchers.

I close with some comments and criticisms, including limitations associated with his data sources. First, as I noted, his concept of wealth includes not only houses and land but also financial assets. Because of double entry bookkeeping, financial assets reflect real capital goods which are also included in the totals, and of necessity valued at market prices. Does this mean that double-counting may be part of the overall totals?

Secondly, if the distribution of income is to be explained by the use of 'capital' and 'its' marginal product, this requires that 'capital' be measured in a unit that is independent of distribution and prices. But outside an all-purpose one commodity world — the 'corn' model of classical political economy — valuation is required and the prices used of necessity include profits and rate of profits components, so leading to arguing in a circle. This point was put most succinctly in Piero Sraffa's 1962 comment on Roy Harrod's review in the *Economic Journal* of Sraffa's 1960 classic, 'What good is a quantity of capital … which, since it depends on the rate of interest, cannot be used for its traditional purpose … to determine the rate of interest[?]' (479). This is not a failure, as is sometimes claimed, of Sraffa (and also Joan Robinson) to understand the nature of mutual and/or simultaneous determination, but reflects the core distinction between determining factors and determined outcomes.

Thirdly, there are limitations associated with use of taxation reports and the impact on them of historical cost accounting conventions and procedures. This issue was discussed in the 1960s to 1980s. In 1965, let me immodestly say, I published an article in *Oxford Economic Papers*, 'The accountant in a Golden Age'. In it I showed that if an accountant were to be let loose in a Golden Age where expected and actual rates of profit coincide because expectations are always realised, nevertheless the accountant, using his/her tools, could give very misleading answers as to what the rates of profit were. Depending upon the shape of the quasi-rents associated with each investment, the method of depreciation used, whether growth was occurring or not and, if so, how fast, and on the ratios of financial to real assets in the balance sheets of individual companies, so the discrepancies between the accountant's measure and the true figure could be very large indeed.

In the early 1980s Fisher and McGowan (1983) used the same argument much more elegantly expressed to testify on whether IBM was or was not making monopoly profits. As there are no rough rules of thumb to correct for these effects in the figures, we can only take Piketty's findings on trust, which I am happy to do so.

Finally, though Piketty realises that much of the extreme inequality is associated with the obscenely large salaries and bonuses of CEOs and managers, rather than the profits of traditional capitalists, he does not refer to the two classic volumes that started this literature, Robin Marris's *The Economic Theory of 'Managerial' Capitalism* (1964) and Edith Penrose's *The Theory of Growth of the Firm* (1959). Of course, he does improve greatly on (or at least, my) knowledge of the French literature on the issues that he analyses, so I should not complain too much.

To sum up: Deirdre McCloskey goes far too far in her negative evaluation and, I would add, her asymptotic approach to a Panglossian view of the merits of capitalism even when it is red in tooth and claw. I think the profession and countries world-wide are much in Piketty's debt for raising in a most readable way fundamental issues facing the modern world and providing much of the necessary empirical material for others to use in alternative approaches to understanding what has been discovered and what is likely to happen as the 21st Century unfolds. So *Capital in the Twenty-First Century* cannot be classed as a light that failed but as vital illumination for us all to get on with it.

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