Reclaiming Marx's "Capital" A Refutation of the Myth of Inconsistency by Andrew Kliman; Lanham: Lexington Books; 2007; pp. 230; Paperback.

Reviewed by Ajit Sinha

In the 'Preface' of the book, the author claims that "The book seeks to reclaim Marx's *Capital* from the century-old myth of internal inconsistency." Then the reader is told that there exists a group of 'scholars' who claim that no such internal inconsistency exists. And therefore, according to Andrew Kliman, the author of this book, the conclusion follows: "The very existence of the TSSI [a name given to the interpretation of Marx's theory of value by this group of 'scholars'] carries with it two important consequences. First, the allegations of inconsistency are unproved. Second, they are implausible." Thus the reader has been strongly forewarned of the quality of reasoning s/he is expected to encounter in this book. To illustrate the case in point: since we all know that for a long time there exists a group of 'scholars' who argue that the claims of the theory of evolution against the Bible-story is false and that creationism is consistent with empirical evidence; it then, according to the author of this book, must carry with it the consequences that the claims of evolutionism are unproved and they are implausible! Same must be the consequences of the existence of a group of 'scientists' who question greenhouse effect and global warming!

When I started to read this book, I thought this must be a minor slip on the author's part. But to my great surprise, I found that this is the general norm of his method of reasoning —he simply shows no truck with the basic tenets of logic. Just to give the reader another example: On page 41ff., the author develops a critique of Dmitriev's valid argument that a fully automated production system which produces more outputs than it uses as inputs would have positive prices and profits without labor being an input in the system. The author's refutation of Dmitriev's mathematical proof of this proposition foallows thus: Let's say we are in one-good world with the input-output system given as: $5p = 4p + r(4p)$. Since it is a one-good system the price is always equal to one and the solution of the above equation gives

us the rate of profit r equal to 25%. The author of this book says, bunk! Why? Because he thinks that in this system 'p' should be zero and not one: "Yet he [Dmitriev] took for granted that the machine has a positive price. In other words, he assumed precisely what he needed to prove. If the machine is free, then p = 0, and it is impermissible to divide through by p as he did. Instead of finding that the rate of profit is positive, we find that the original equation becomes 0 = 0. The rate of profit is therefore undefined." (p. 43). It, of course, takes courage for somebody who obviously has little training in elementary mathematics to pretend to teach school level mathematics to a highly regarded mathematician such as Dmitriev! Dmitriev, however, did not need to "assume" nor did he assume positive prices. He knew well that in a one-good model, if price has any meaning, it is always equal to one. But what about the clause "*If* the machine is free"? But why should machine in the above equation be free? According to Kliman, "There is good reason to believe that the machine will indeed be free. Dmitriev's fully automated economy is able to generate an ever-increasing output of the machine, unconstrained by any natural resource limitations, and at *no additional cost*. It is thus quite plausible, at the very least, that the machine's price would quickly fall to zero." (p. 43). So we all learn a new lesson in economics! Positive prices could prevail only if there are diminishing returns in the system. If constant returns prevail, then prices would quickly fall to zero! For generations economists of all hues (orthodox as well as heterodox) have been building steady state growth models with constant returns assumption. Now Mr. Kliman tells them that they had not realized that in their growth models prices would quickly fall to zero! But why should the price of the machine in the above equation fall to zero? It positively costs four machines to produce 5 machines, so why should machines become free? Well, Kliman does not entertain such questions.

Let us move on. The purpose of this book is not to "reclaim" *Capital* in all its aspects but rather to argue that the dominant interpretation of Marx's theory of value, which he calls

'simultaneist', is a misinterpretation and the so-called TSSI is the correct one. So what is the problem with the 'simultaneist' interpretation according to Kliman? The charge is that the 'simultaneist' approach maintains that input prices are equal to output prices, which is supposed be a mistake. Kliman again takes the example of one-good corn model where 10 bushels of corn-capital after a year yields a harvest of 12 bushels of corn (p. 79ff.). Thus the rate of profit, according to the 'simultaneist' approach, would be 20%. Kliman claims that this is incorrect. He argues: "Assume that the price of corn is $156/bushels at the start of the year, so that $1560 is invested. Also assume that the price of the corn output is $156 if eleven bushels are harvested, falling to $143 if output is twelve bushels or $132 if output is thirteen bushels. In all three cases, sales revenue is $1716, profit is $1716 - $1560 = $156, and the rate of profit is constant at 10%. The rate of profit no longer depends solely upon physical quantities. It also depends upon the decline in the price (=value) of corn that results from the increase in productivity." (p. 80). At this stage or for that matter any stage, Kliman does not stop to ask the question: Where is the $ coming from? In a one-good world, why should anybody need $ to begin with?

What Kliman does not understand is that the 'simultaneists' do not claim that input prices are equal to output prices in the sense he understands it. Let us assume that the corn-capital market is perfect, so that the rate of interest is equal to the rate of profit. Now, if I lent you a ton of corn at the beginning of the production period then I must receive 1.2 tons of corn at the end of the production period. Thus my 1 ton of corn at the beginning of period 0 exchanges against 1.2 tons of corn at the beginning of period 1. Therefore, in this sense, the input prices are not equal to the output prices. The rate of profit is the discount rate for the input prices over periods of time. Now if we move from one-good to n-good world and maintain the stipulation that the rate of profits is uniform across the sectors—a stipulation that Marx maintains for his 'prices of production' and Kliman concurs with it—then the exchange

ratios of the commodities in period 0 and period 1 must be the same. However, if the rates of profit were not uniform across the sectors then, of course, the discount rates (or the own rates of profit) for different goods would be different and therefore the exchange ratios of commodities in period 1 would not be the same as the exchange ratios of the commodities in period 0. The point that needs to be understood here is that when an economist says 'prices' s/he means exchange ratio of commodities in terms of one particular money-commodity, say gold or silver. So we have one set of prices or exchange-ratios of commodities against gold for period 0 and another set of prices or exchange-ratios of commodities against gold for period 1. If these two sets of ratios are one-to-one equal then by definition of prices the prices in period 0 are equal to the prices in period 1. This does not mean that corn in period 1 is the same commodity as corn in period 0—they are two different commodities. Now, it should be obvious that if the discount rate applied to all the prices in period 0 was uniform, then the ratios between all commodities would remain the same irrespective of whether the system is in equilibrium or not. Thus whether the relative input prices are equal to the relative output prices depends upon whether the rate of profits is uniform or not. Thus Kliman evinces lack of understanding of elementary economic theory when he writes, "Okishio and Roemer not only assume, along with Marx, that rates of profit are equalized after innovation is adopted. They also take the liberty of equalizing input and output prices." (p. 117). Kliman's whole critique of 'simultaneism' is rooted in his misunderstanding of what economists mean by 'price'.

At this stage it may be useful to clarify another misunderstanding of Kliman, which runs through one end of his book to the other. Kliman consistently argues that if the economy or a particular sector is experiencing rise in labor productivity then output 'prices' would be lower then 'input' prices and that would mean the economy or the sector may experience losses even though physically it is producing surplus. Since Kliman's examples in terms of one-good corn model are theoretically weak, I'll try to present his case in a stronger manner.

Let us suppose that we are in n-good world and there is a sector X which produces a non-basic good and does not use itself as an input. Let us also suppose that there is continuous increase in labor productivity in this sector; whereas in all other sectors (including gold sector) the labor productivity remains constant. In this case the price of the commodity X would continuously fall. Let us suppose that the commodity-capital worth $100 in terms of gold was used as inputs (including wages) in time 0, which produces 100 units of X in the beginning of period 1. Let us suppose that in period 0 the price of X was $1.2/X. However, since the capitalists have introduced more productive technology in period 0, the price of X falls to $1/X in the beginning of period 1. Kliman argues that this means that capitalists in the sector X have made zero profits. But this is simply not true. Since in period 1 the capitalists would need only 80% of the inputs that they used in period 0 to produce the same 100 units of X, they can continue their business as usual at the same level and pocket $20 as profit. In his examples of continuous technical changes, Kliman forgets that even if prices of inputs remain the same and the price of output is falling, it does not imply that the rate of profit must fall; because the quantity of inputs needed to produce the same amount of output must also continuously shrink due to rise in labor productivity. If the sector X was a basic sector, then a continuous rise in labor productivity in this sector would have a complicated effect on all prices. Okishio (1961) showed that in this case the prices must change in such a way that the uniform rate of profits in the system rises. Kliman, on the other hand, has no theory of prices. He simply takes arbitrary prices at two different periods and concludes: Voila! 'I proved Okishio wrong!' But Kliman has a problem, which Okishio does not. As I show in our example above, Kliman's reasoning suggests that the capitalists in sector X are making zero profit but still we find that they can run their business as usual at the same level and yet pocket $20 for their enjoyment. Where from do they get this $20?

Now, let us examine the claim of internal inconsistency and see how Kliman 'rescues' Marx from it. The internal inconsistency argument is rooted in a long-standing problem in capital theory since the time of Ricardo. Since Adam Smith political economists have maintained that in a competitive capitalist economy the rate of profits should be uniform across sectors because of the tendency of capital to seek the highest rate of return. The problem is that capital goods are produced in the system and are heterogeneous in nature such as different kinds of raw materials, machines, buildings, etc. Thus to measure the rate of profits on capital investments one needs to homogenize the heterogeneous capital-goods. This calls for a theory of price or 'value'. If we know how prices are determined, then we could measure all capital goods in terms of their price-unit. Now suppose one comes up with a theory of price that claims that prices are determined by the ratio of total direct and indirect labor-time needed to produce the commodity and the chosen money-commodity. This is what Marx proposes in volume one of *Capital*. If this proposition is correct, then we can reduce all capital goods to its price as prices are determined solely by the techniques of production in use. But as Ricardo had noticed, there is a problem with the above theory of price. Let us suppose that a bag of wheat and a bottle of wine take equal amount of direct and indirect labor-time to produce the two goods but the capital locked in producing a bag of wheat gets released after a year but the capital locked in a bottle of wine takes five years to be released. Thus if one bottle of wine exchanges against one bag of wheat then the same amount of capital invested in wheat production would make much larger profits in five years then the capital invested in wine production. This is simply because the rate of interest on capital accrues on *compound* rate. Thus the condition of equal rate of profits on equal capital requires that a bottle of wine must exchange against more than a bag of wheat. The simple labor theory of value is therefore not a correct theory of price and a measure of capital in terms of labor-values would be an incorrect measure of capital. The problem is that one needs the rate of

profits to determine the prices and prices are needed to determine the rate of profits. Ricardo (1821) had articulated the problem but was unable to break through it. Marx was well aware of the problem through Ricardo and had tried to break through it by developing his ingenious theory of surplus-value. He argued that his theory of surplus value allowed him to determine the rate of profits independently of prices and thus he could use the rate of profits to determine the prices that Ricardo was searching for. The problem with Marx's solution is that he determines his measure of capital for the determination of the rate of profits on the assumption that prices are determined by labor theory of value. Thus if this hypothesis is incorrect, as Marx agrees that it is in general incorrect, then his rate of profits would be an incorrect rate of profits and so would be the solution for the 'prices of production'.

Kliman, on the other hand, argues that Marx's procedure of determining the 'prices of production' is logically sound. The argument rests on the claim that Marx did not define commodity value as total direct and indirect labor-time needed to produce a commodity. According to Kliman, Marx's labor-values should be calculated by adding direct labor-time to market-prices of capital goods at the time they were purchased. Here 'market-prices' of capital goods are taken to be available historical data. But how does one add labor-time to an ounce of gold (say a $ stands for an ounce of gold)? We are told: "If each hour of socially necessary labor adds $60 of new value, as in example above, the MELT [monetary equivalent of labor-time] is $60/hr." (p. 25). But how do we know the answer to "if"? You would know the answer to "if" only if you not only claim to know the prices of the inputs as historical data but also the price of the output. So suppose that capital investment was $100 (including wage payments) and the direct labor-time was 10 hours which produced an output that sold for $150, then from this data you can compute that 10 hours of labor adds $50 of "new value" and therefore $1 must represent 0.2 hours of labor. Now, from here we go back to plug the labor-value of $100 capital investment as 20 hours of labor and add 10 direct hours to it to arrive at

30 hours of labor as Kliman's measure of the value of the commodity produced. Whatever this calculation of 30 hours may represent, it is clear that the exercise is meaningless as far as the determination of the rate of profit or the input or the output prices are concerned. Since both the input prices and the output prices have to be taken as given to arrive at the value figure and the rate of profit can be directly calculated as \$50/\$100 = 50% without any help from the value measure.

Kliman does not show any awareness of this problem. He interprets his own statement quoted above, "If each hour of socially necessary labor adds \$60 of new value, as in example above, the MELT is \$60/hr", as an arbitrary assumption of a conversion factor. Throughout the book he arbitrarily assumes either \$1 = 1 hour of labor or 1/3 hours of labor. Thus if total capital investment in terms of money was \$100 and 10 hours of direct labor-time is spent in the production process to produce a unit of commodity x, then according to Kliman's calculation the value of x would be 110 hours of labor, if he chose the value of MELT to be \$1 = 1 hour of labor; but it will be 43.33 hours of labor if he chose the value of MELT to be \$1 = 1/3 hours of labor. So would this arbitrary assumption of the conversion factor (MELT) make any difference to the determination of the rate of profits and the prices in the system? Of course, it would. But Kliman does not entertain such questions.

But the matter gets even worse. I have interpreted Kliman's \$ as an ounce of gold above but Kliman's \$ do not show up in any of his equations. Not only that! His assumed conversion rate (the MELT) remains constant even when all the techniques, prices, rates of profits, rates of surplus value etc. are continuously changing. It is a curious ghost of the theory, which remains unexplained throughout the book.

Let us leave the problem with MELT behind and go along with Kliman in assuming any arbitrary conversion factor he chooses and see how he solves the problem of transforming values to 'prices of production'. On page 163ff. Kliman takes an example of two sectors. The

total capital investment in commodity 1 is $200 (including wages) and total direct labor-time is 8 hours of labor. Kliman assumes $1 = 1/3 hours of labor. Thus $200 capital investment is converted to 66.66 hours of labor and Kliman's value of the commodity is calculated to be 74.66 hours of labor. Kliman also assumes that the wage bill is equal to $8, thus in labor terms 2.66 hours of labor. Thus the surplus value in labor terms would be 5.33 hours of labor. For commodity 2, the corresponding figures are $40 for capital investment and 16 hours of direct labor. Using the conversion factor $1 = 1/3 hours of labor, we get Kliman's value of commodity 2 equal to 29.33 hours of labor and surplus value equal to 10.66 hours of labor. If the two commodities exchanged one for one then the 'value rate of profit' in sector 1 would be 5.33/66.66 and in sector 2 it will be 10.66/13.33. Since the two 'value rates of profit' are different, Kliman argues that the two goods would not exchange one for one. The transformation of those values so obtained into 'prices of production' requires that we equate the rate of profits in the two sectors. This is done by adding up the surplus values of the two sectors to 16 hours of labor and dividing it by total capital investment of 80 hours of labor. This gives us a rate of profit for the aggregate system as a whole to 20%, which should be applied to both the sectors. When we apply 20% rate of profits to both the sectors, then their respective prices of production turns out to be (74.66x1.2) = 89.592 hours of labor and (13.33x1.2) = 15.996 hours of labor. Using the conversion factor of labor into $ Kliman claims that the commodity 1 would sell for $269.776 and commodity 2 should sell for $47.988. Since Kliman does not specify the techniques in use for producing the two goods, the reader will have to work out an input output system of his/her own to confirm that in this procedure, in all likelihood, input prices would be different from output prices if we start with any arbitrary input prices. Kliman thinks that this is the strength of his transformation procedure.

Now let us suppose that the system keeps repeating itself exactly at the same level with same techniques. Since Kliman's output prices are different from the input prices and the capital in every next cycle of production must be reckoned at the new output prices the reader can immediately work out that both prices of the two commodities as well as the equal rate of profits itself would be changing from one period to another. This fact itself should give an immediate alarm that something is logically wrong with this exercise. If all the parameters of price determination are kept constant, then why should prices change? If the reader keeps iterating the same exercise by equating the rate of profits in every cycle and using the output prices as input prices for the next cycle, s/he would find that eventually output prices would become equal to input prices and the rate of profits would equalize and stabilize. Interestingly those prices and rate of profits would be exactly the same if the two production equations were simultaneously solved for relative prices and the rate of profits. What Kliman describes is a well known crude method of solving a simultaneous equation problem. You can start with any arbitrary prices, impose the condition of equal rate of profits and keep iterating the system of prices till you get to a position that no further iteration brings about any change in the variables (Shaikh (1977) suggested that Marx perhaps was using this method of solving the simultaneous equation problem but left it after one iteration). Problem with Kliman's procedure, however, is that he interprets what must go on inside a calculating machine to what must go on in real historical time in the real economy.

The illogicality of his argument becomes apparent when we look at his MELT from the other side. Let us assume with Kliman that \$1 = 1/3 hours of labor. Then it must imply that 1 hour of labor = \$3. Let us call it labor equivalent of money (LEM). If we apply our LEM to Kliman's example of the two sectors above, the \$ price of commodity 1 must be \$200 + (8x3) = \$224 and the \$ price of commodity 2 must be \$40 + (16x3) = \$88. But his output

prices are different. Therefore, MELT is an irrational measure of conversion from labor to $ or $ to labor.

This is the long and the short of the so-called theoretical arguments of this book by which the author claims to "reclaim" Marx from century old 'myth' of inconsistency. It is surprising how a book with so many obvious theoretical mistakes could get published. I wonder if the publisher uses a referral process. I suspect anyone with a good quality undergraduate education in economics would drop this book only after a few pages. However, a so-called defense of Marx's theory of value from the so-called 'bourgeois' attacks has a tendency to attract Marxists of all hues. The highly repetitive and bombastic rhetoric of the author is perhaps designed to carry the non-economist Marxists—the sole endorsement of the book on the back cover by a non-economist Marxist, Bertell Ollman, is a case in point.

References

Okishio, N. 1961. 'Technical Changes and the Rate of Profit', *Kobe University Economic Review*, 7, 85-99.

Shaikh, A. 1977. 'Marx's Theory of Value and the "Transformation Problem", in J. Schwartz (ed.) *The Subtle Anatomy of Capitalism*, Santa Monica: Goodyear Punlishing.