Many people beginning a study of marxism become bogged down in mastering preliminary concepts and never get to apply the theory to complex, economy-wide problems. Of course this is to some extent inevitable. Marxism is a science with a complex object; on top of this it has not been developed in as systematic a way as several of the other sciences. But the main difficulty is that most people come to marxism much later than they come to other sciences. Whether this first contact is through the labor movement or in a more conventional academic setting it remains true that a number of basic concepts have to be understood before anything very interesting can be said; we cannot rely on schools teaching about the use-value/exchange-value distinction in the way they explain the basic concepts of mathematics, physics and biology. This puts a special onus on those teaching marxism to connect the basic concepts with some more interesting results of the theory.

One way I have found of doing this is to discuss the theory of reproduction. This immediately leads into an examination of crises, the question most people want marxist economics to deal with.

The problem is that Marx's own approach here requires a great deal of working through to understand. Later marxists have perhaps been more systematic, but at the expense of a greater use of mathematical formalism which certainly hasn't made their accounts more accessible to beginners.

The approach I've followed is to use a series of diagrams to outline the main relationships. I am not claiming any originality for what is explained; enough will have been achieved if the theory becomes clearer in the process. This material has been used successfully both in schools for Communist Party militants and in university undergraduate courses. I hope ALR readers find it useful as well.

We start with a single commodity: something which is both useful in the sense that it can satisfy a need and which can also be exchanged for other commodities on the market. It is these two properties - use-value and exchange-value - that give the commodity its special character: we therefore represent a commodity showing both these properties, thus:

<table>
<thead>
<tr>
<th>Commodity</th>
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<tbody>
<tr>
<td>use-value</td>
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<tr>
<td>exchange-value</td>
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for example

- basket of fruit: satisfies hunger, used for food, ½ hour of labor time
- spear: used to hunt animals, 4 hours

machine lathe (fill in your own)
The exchange-value of a commodity is of course just the amount of socially necessary labor time required to produce it, as we have represented it in the diagrams.

The next step is to show an exchange, say between a fruit gatherer and a spear maker:

![Diagram of exchange between fruit gatherer and spear maker]

Note what we have shown here is an exchange of equivalents: that is, both you and I are parting with and receiving exchange-values equal to four hours of labor time. Neither of us has been cheated.

Of course, this sort of exchange is pretty inconvenient; it depends upon a fruit gatherer who wants a spear meeting a spear maker with a craving for fruit. This problem is solved, however, if a single commodity with an appropriate use-value is selected to serve as money, the universal equivalent. Thus:

1 ounce of gold
compact, durable, divisible, uniform
10 hours

becomes
1 ounce of gold
universal equivalent
exchange-value
10 hours

that is, money

This enables the fruit gatherer to sell her commodity to any available buyer for money and then subsequently to use this money to buy other desired commodities from owners who perhaps have no particular need for fruit but who can then use this money to buy other, desired commodities. Exchanges now look like this:

![Diagram of exchange with money as universal equivalent]

Or, if we add in the other buyers and sellers:

![Diagram of exchange with money as universal equivalent, involving multiple parties]

So far we have described the network of exchanges that take place in any commodity-producing society but we require one additional element to specify such a society as capitalism: the human ability to labor productively (and so produce commodities) must itself be a commodity, the commodity labor-power. Labor-power, like any other commodity, has both a use-value and an exchange-value, the latter being of course the amount of socially necessary labor-time to produce it. Thus:

![Diagram of labor-power]

The fact that the laborer can produce in a given period commodities greater in value than the value of the means of subsistence she consumes is the key to exploitation.
The capitalist as buyer of the commodity labor-power and hence the owner of the commodities produced when that labor-power is expended, appropriates the difference between these two quantities of value; this is the origin of surplus-value.

After this quick revision of the main concepts we are now ready to explore the way capital reproduces itself through the whole economy. We begin with the capitalist class, and within that class with one particular capitalist. For capitalist production to take place, what must this capitalist do? First, he must divide his capital (which we assume at this stage is in the form of money) into two parts: the first he exchanges for commodities that are suitable for use as means of production, the second part he uses to buy labor-power. Marx called the first part constant capital, C, and the second variable capital, V.

Next, these two are brought together in the labor process. Commodities are produced whose total value is greater than that of the means of production and labor power consumed; the difference is the surplus value produced, S.

The total product, C+V+S, now must be put on the market, and it is at this point that the picture becomes more complex since the total social product is in fact sold on a number of different markets. Thus while an individual capitalist may produce only means of production or only commodities that will be used as means of subsistence, the total product of the whole capitalist class is made up of both. Moreover, the ratio of means of production to means of subsistence is not arbitrary; for the simple system we are constructing to be sustained, this ratio must be C:V+S. These capital and consumption goods are then sold - the capital goods to other capitalists, which completes the upper circuit on the diagram. Note that we have shown two different sets of exchanges for consumption goods on the lower part of the diagram. The reason will become clear in a moment.

However before the diagram becomes more complicated, it might be worthwhile following through the upper, capital goods circuit. The exchange that occurs within the circuit is of course between different capitalists. In this sense the circuit does not really have a beginning or an end. Or rather, the end - the fact that there are capital goods on the market - is as necessary as the beginning we posited - the fact that there are capitalists with money capital who want to buy means of production. By the way, we should also note that this exchange is an equal one - the exchange value on both sides is equal to C and that after it takes place a quantity of money (again equal to C) has returned to where it began.
So far we have accounted for how capital goods come to be on the market; we now must do the same thing for labor power. The picture, with the circuit of labor power included, looks like this:
The rest of the diagram has the same meaning as before but we have not marked in all the detail so what has just been added stands out more clearly.

Again, this is a circuit so it does not matter where we begin: let's start with the box marked "wages". Following the arrow downwards we come to an exchange: wages in the form of money are exchanged for consumption goods on the market - we have just seen how these got to be there. Next, these commodities are combined with unpaid household labor within the family to produce the commodity labor power. As we follow the arrow upwards and across to the right we come to a second exchange: this time the laborer sells her/his labor power to a capitalist and receives in return - wages - where we began. Again we should note that both the exchanges in this circuit are exchanges of equivalents: the exchange value involved all the way round is V. An implication of this is that the unpaid labor in the home that transforms the consumption goods purchased with the wage into labor power does not add to the exchange value of labor power.

To finally complete this picture we need to add one more factor: capitalists' consumption. This takes the form of an exchange between some of the augmented value now in the hands of the capitalist class and those consumption goods not purchased by the working class. (This is why we at the beginning showed two exchanges for consumption goods but only one for capital goods).

The first thing we note is that all the circuits have been closed and everything balances. For instance, look at the box marked "Capital", which as we mentioned at the beginning represents value (in the form of
money) held by the capitalist class at the start of the process. This starts off as C+V which is then expended on means of production and labor power. But at the end of the cycle, after all the capital goods and consumption goods produced have been sold an amount of money equal to C+V+S returns to this box (that is, the sum of all the incoming arrows on the left hand side). At the same time an amount S is spent unproductively by the capitalists on their own consumption (the arrow leaving the box at the bottom) leaving a total of C+V, ready to begin again.

Next, we should emphasise that in a society embodying these relationships one class, the capitalists, are able to consume part of the product without taking part in production despite the fact that all exchanges between laborers and capitalists (and between capitalists too, of course) are equal exchanges. Exploitation is built in; it is not a question of cheating.

Finally, the diagram we have constructed shows how the system reproduces itself but it also shows that this happens under certain conditions:

1. All commodities produced find a market so long as the ratio of capital goods to consumption goods produced is C:V+S; otherwise part of the product will remain unsold.
2. The capitalists consume the whole of the surplus, S. This means that production begins again on the same scale; total investment at the beginning of the second cycle is still C+V. This is the situation Marx called simple reproduction. In fact capitalists in general do not consume the whole surplus, part of it is reinvested and the scale of production thus expanded.
We have assumed that instead of consuming all the surplus, capitalists reinvest some fraction of it, \( a \) (where \( a \) is between 0 and 1). This has a number of consequences:

1. At the end of the first cycle the total product is still \( C+V+S \) but the way it is divided between capital goods and consumption goods must change. These are no longer in the ratio \( C:V+S \) but now in a new ratio, \( C+aS:V+(1-a)S \). In other words, the value of capital goods produced has been increased by a factor \( aS \) and the value of consumption goods produced decreased by the same amount. Without this restraint the system does not balance.

2. Capitalists' consumption has fallen from \( S \) to \( (1-a)S \).

3. There are now two factors that determine the rate of accumulation of capital: the actual size of the surplus, which in turn depends on the rate of exploitation, and \( a \), the proportion of the surplus applied to new investment.

At this point we have nearly reached the limit of the usefulness of this diagrammatic approach since a series of closed looks cannot adequately represent an expanding system.

For example it leaves open the question of how the investment in the second circuit takes place: is the new investment divided between means of production and labor power in the same ratio as last time (that is, preserving what Marx called the the organic composition of capital) or does the capitalist channel this investment into new plant to perhaps gain an advantage over his competitors?

Nevertheless even this simple approach does permit us to draw some conclusions. Most important is that capital accumulation can proceed at any rate within limits ultimately determined by the rate of exploitation: in other words, by the class struggle. Cutting working class living standards is not an impossibility for the capitalist class; it will not drive the system into a crisis of underconsumption. On the contrary, it is highly desirable from the capitalists' point of view; all it requires is an adjustment in the composition of output, by a shift away from producing consumption goods to producing more capital goods.

This is why appeals by labor movement leaders for a boost to living standards in order to promote economic recovery do not cut much ice with governments or Arbitration Commissions. And it is also why the government's own pronouncements do to some extent describe what is going on in the economy, though in a sort of Alice-in-Wonderland way. What the capitalist class wants is an increase in the rate of exploitation, but in the process it must increase the proportion of capital goods produced at the expense of consumption goods - hence Fraser's "investment led recovery". Since as we have shown, both are equivalent movements, isn't this more palatable than talking about increased exploitation?

A NOTE TO CONTRIBUTORS

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We ask that all manuscripts be typed, double-spaced, on paper no larger than quarto size.

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