EDUCATION FOR SOCIALISTS

5 INTRODUCING MARXIST ECONOMICS

REVISED EDITION

PART 1: VALUE, PROFIT AND EXPLOITATION

ECONOMICS CAN seem highly complex.[1] Much of the discussion in the business pages of the papers or in news bulletins focuses on the surface features of capitalism. It concentrates on the fluctuation of markets, the prices of key commodities such as oil, the latest GDP figures or the size of the deficit, movements of share prices or of interest rates. Sometimes it delves into more complex areas of finance, exploring strange sounding entities such as derivatives, securities, hedge funds, collateralised debt obligations, credit default swaps, and so on.

Mainstream economic theory, of the kind taught in schools, colleges and universities, suffers from similar defects. At a basic level it involves graphs depicting measures such as supply and demand that supposedly intersect at a certain point to tell you the price of a particular product. The type of model relied on by this approach was shown to be completely unrealistic time and again in the course of the 20th century. Yet it remains the starting point even for more advanced academic economics, which generally involves developing mathematical and computational techniques to grapple with the day to day movement of markets—usually with only limited success.

1: The degree to which people new to Marxism feel intimidated by the subject is part of the reason why we produced this revised edition of the educational pamphlet which, rather than simply presenting some articles on the question, attempts to guide people through the arguments step by step. It is divided into two parts so that it can be studied in two separate sessions if necessary.

The fact that these models have little purchase on the real world was revealed starkly when economic crisis erupted in 2007-8, leading one professor at the London School of Economics to remark that the training received by economists at universities over the preceding three decades “was a privately and socially costly waste of time and other resources”. Most theoretical innovations, he added, had turned out to be “self-referential, inward looking distractions at best. Academics tended to be motivated by the internal logic… of established research programmes…rather than by a powerful desire to understand how the economy works.”

The concerns of Marxist economics are quite different.

So too were the interests of the earliest pro-capitalist economists, especially Karl Marx’s predecessors, Adam Smith and David Ricardo. Whatever their limitations, those figures wanted to grapple with a system that was just beginning to take off globally and that held sway in only small pockets of the world. Rather than focus on the surface appearance of capitalism, Smith, Ricardo and their like tried to understand what it was that capitalism actually did.

Marx was critical of their “classical political economy” but he was able to take up certain of their insights and pursue them to their logical conclusion in order to understand the “laws of motion” of the system. He was able to achieve such insight in part because he viewed capitalism from the standpoint of workers, those whose labour creates the system’s wealth. For Marx, an account of capitalism was not aimed at personal enrichment or solving the day to day problems of the system. It was essential to understand the weak points of capitalism, why it goes into crisis and how it could be overthrown.

Marx’s understanding of capitalism

Economics, understood in the way Marx saw it, involves studying how production takes place in a particular society. The special role that economics plays in Marxism is often denounced as “reductionism”, but Marx was simply pointing out that humans must first feed, clothe and shelter themselves before they concern themselves with politics, philosophy or religion.

The economic base of society—how humans organise themselves to produce—places limits on and shapes the wider society they live in and how it changes through history.

Capitalism, the kind of society that exists on a global scale today, is characterised by a specific way of drawing people together to produce. It has two important features.

First, the majority of people who work under capitalism do not control the means of production. They work for a wage, provided by the capitalist by whom they are employed.

Many previous forms of society had involved a division between those at the top and those at the bottom. These relationships were often deeply, and clearly, exploitative. The slaves in ancient Greece or Rome could be under no illusions that they were being exploited by the slave owner who held a whip over them. The peasants in feudal Europe who were forced to work some of the day on their lord's land or surrender to them some of their produce must have been aware that wealth was being pumped out of them.

Under capitalism things are less obvious. Nonetheless, as we shall see, exploitation does take place. Wealth is pumped out of workers by capitalists—even if this process is hidden behind a wage packet and the illusion that the worker gets "a fair day's pay for a fair day's work".

Second, under capitalism production is for the market. Unlike in previous societies, people do not generally work in order to consume what they produce. The goods and services they generate are sold on the market. While markets might have existed in some earlier societies, they were relatively marginal to most people's lives. Today markets are a central fact of human existence.

Not only that, but markets involve competition between rival capitalists. They are united in their desire to retain control over the means of production and to pump wealth out of workers. But they are also divided among themselves over who will have the greatest share of the profits generated and the markets created. Their rivalry has important implications for how the system develops over time, as will be discussed in the second part of this pamphlet.

The labour theory of value

Capitalism involves commodity production. Things are produced to sell. One of the questions that Marx's predecessors, Adam Smith and David Ricardo, asked was: why do certain commodities have a certain value?

Today economists offer a range of reasons. The most common involve the concepts of supply and demand. If things are abundant and demand is low, they are cheaper; if they are scarce and in great demand, they are more expensive.

Marx understood that changes in supply and demand could affect the price of commodities. These lead to prices fluctuating on the market—rising and falling as demand and supply change. But this does not answer the question of what prices *fluctuate around*.

Smith and Ricardo, in different ways, identified the key question as one of labour. How much labour goes into producing a commodity? In other words, they had a *labour theory of value*. Marx developed their insights into his own, more consistent and revolutionary labour theory of value.

In his book, *Capital*, Marx points out that all commodities have what he called a *use value*. This is simply the thing that they are useful for. A loaf of bread is useful because it can be eaten. A nuclear submarine is useful because it can be used to threaten or murder lots of people. A chair is useful because it can be sat upon. These use values cannot be easily compared with one another. Yet commodities such as these also have an *exchange value*.[2] This is simply the ratio for which such commodities can be exchanged.

A chair might exchange for 100 loaves of bread. In monetary terms, we could say that a loaf of bread might cost £1, a chair £100. A nuclear submarine costs about £5 billion. It could exchange for five billion loaves of bread or 50 million chairs.

2: Like any scientific attempt to understand an aspect of the world, Marxist economics involves a certain amount of terminology. There is a brief glossary at the end of this pamphlet that readers can refer to in case they forget what any of the terms mean.

What is it that the different commodities have in common that allows them to be compared in this way? Marx argued that the thing they have in common is something that he called simply *value* and that the value reflected the labour time that went into producing them.

Each £1 of value reflects a certain duration of labour time put in by human beings in the production of commodities.

But, said Marx, it's not just any old labour time. Many of us would struggle to produce a chair. It would take a great deal of time. That fact wouldn't make the chair any more valuable than one produced by a skilled craftsperson who could do it faster. Marx argued that what we are interested in is *socially necessary labour time*—the amount of labour time required to produce a commodity under typical conditions with the usual degree of skill, intensity of work and equipment.

Marx does not set out to "prove" his labour theory of value. His point is, first, that this is what capitalism does: it draws labour together to produce commodities that are then compared on the market, and the only measurable thing they all have in common is the labour time they have embedded in them. Second, if we start to look at capitalism in this way, then the apparently highly complex workings of the system start to become clearer. That ability to understand the system, in a way that mainstream economics cannot, is the "proof" of his labour theory of value.

Living and dead labour

When he talks about the amount of labour time involved in the production of a commodity, Marx is interested in the *total* socially necessary labour time. This combines two types of labour. The first is the most straightforward. It is what he called *living labour*, the labour expended by workers in the here and now, for instance, the labour of the person putting a chair together.

To this should be added a certain amount of *dead labour*. This is labour expended in the past and embedded in the raw materials and machinery required to produce a final commodity. So in the case of a wooden chair, you would need to include the dead labour of wood, glue, nails, etc, each of which has a value that arises out of its own process of production. There is labour that goes into chopping down the trees and dividing their trunks into planks of wood, the labour involved in their transportation, and so on.

The tools and machinery used to produce the chair will, over time, wear out or become obsolete. As they do so, a portion of their value also passes over into the final product.

The value of the final commodity reflects all this. In the case of the chair, the values of all the inputs of raw material, a portion of the value of tools and machinery, plus the value added by the living labour of the worker.

Surplus value, profit and exploitation

Assuming the capitalist can sell the commodity produced at its value, they will recoup the amount they spent obtaining raw materials and the relevant portion of the value of machinery, tools, etc, used to produce the commodity.

On this dead labour they have purchased, the capitalists make neither profit nor loss. What about the living labour, which is added to the value of the finished product by the worker?

Here things become more interesting. The capitalist hires labour power, the worker's capacity to labour. Let's assume they hire the worker for an eight-hour working day, and the worker in that time adds eight hours' worth of value to the finished product. How much does the capitalist have to pay the worker for their day's work? There is no reason why the worker would have to be paid eight hours worth of value. The worker simply requires enough value to get them back to work the next day, fed, clothed and with enough relaxation to refresh their labour power.

This amount of value might be far less—two hours worth, three hours or four hours, say. Regardless of the exact amount, the capitalist will certainly not tap the worker on the shoulder and tell them, at a certain point in the day, that they have covered the cost of their wage and that now they are working purely for the capitalist's benefit. The process is hidden behind a wage packet, but is, nonetheless, exploitation.

Marx called the gap between the value created by living labour and the amount the workers receive *surplus value*, the value created by *surplus labour* time.

It is this surplus value that forms the basis for the profit generated by capitalists. Indeed, for Marx, all capitalist profit ultimately derives from the pumping of surplus value out of workers. This is why Marx sees capitalism as a system founded on the exploitation of workers.

Capital

Capital is value that is set in motion in order to expand, to generate profit. As we have seen, capitalists purchase dead labour and hire living labour to work for them, and out of the resulting process of exploitation obtain a profit.

Seen from the point of view of the capitalist, Marx divided capital into what he called *constant capital* and *variable capital*. By constant capital he meant raw material, machinery, etc, purchased by the capitalist. This is another way of looking at dead labour. The reason he called it constant was that its value neither grows nor diminishes during the production process. Its value simply passes into the finished product. By variable capital he meant the value advanced to hire workers. This is variable because it *does* give rise to new value for the capitalist during the production process—surplus value.

Nonetheless, from the point of view of the capitalist, it seems as if all of his or her capital is creating profit, even if the reality is that it is only the labour hired by variable capital that does so.

There are also, as Marx recognised, groups of capitalists who derive profits in other ways. For instance, in the second half of this pamphlet we will discuss those who run banks, which are often highly profitable. But their profits, and those obtained in many other areas of the economy that don't produce goods and services or the creation of surplus value, involve groups of capitalists grabbing a share of the total surplus value created within production. In other words, the degree to which surplus value is pumped out of the whole class of wage labourers determines the total profit that is then fought over by different capitalists.

Class struggle

Because the ultimate site of profit generation is the workplace, capitalists devote a great deal of time and energy to making sure that their workers do work long and hard. The reality of exploitation ensures there are struggles over questions such as the length of the working day or the degree of intensity of exploitation. Exploring such battles fills a great deal of the first volume of Marx's *Capital*.

The wage—the amount workers receive to reproduce their labour power—is not a fixed amount. There is, as Marx put it, a "moral and historical" component brought about by struggle, past and present.

The reality of exploitation and the resulting battles over it show how class struggle between capitalists and workers is an inherent part of capitalist society—not simply something that blows up at particular moments. Indeed, Marx talks about the class struggle as being "sometimes hidden, sometimes open". Even in the most difficult circumstances workers find ways to resist, through go-slows, sabotage or simply grabbing an extra few minutes toilet break or for their lunch.

As they resist, workers can become aware of the power they hold. And this power is considerable. Unlike with other forms of oppression, such as racism and sexism, the exploitation of workers is actually a source of power. The ability of workers to go on strike, withdrawing their ability to labour, or to occupy their workplace, is a power over the profits generated by their bosses. As we will see in the second part of this pamphlet, those profits are the very lifeblood of the system itself.

PART 2: CRISIS AND ACCUMULATION

MARX DEFINES capitalism as a combination of “tyranny in the workplace” and “anarchy in the marketplace”. In the first part, we looked at the first of these aspects—the exploitation that generates profits within the workplace. Now we have to look at how capitalists compete.

Market competition

While markets existed long before capitalism became the dominant economic system, they generally played a minor part in people’s lives. Under capitalism, though, the market’s role is central. Almost everything that most workers require—goods ranging from food and clothing, through to televisions and computers, or services such as bus travel or a trip to the cinema—will be obtained in exchange for money, through the market. The same is true of capitalists, who buy machinery and raw materials, and hire labour power through the labour market.

But the market is not just a place where goods are exchanged for money. It is also the site of intense competition between capitalists. Marx described the capitalist class as a “band of hostile brothers”, with a shared interest in exploitation of the working class, but also at war with one another to determine who will obtain the greatest share of the profits generated by squeezing workers.

This battle of competition is fought primarily through the cheapening of commodities. Capitalists try to outdo their rivals by cutting the prices of the goods and services they sell below those of their competitors.

The cheapening of commodities

How do capitalists cut the price of the commodities they sell without fatally undermining their own profits? Generally, price competition involves raising the productivity of labour power: introducing new techniques and in particular new technology that allows particular goods or services to be created with a smaller overall labour time. In other words, innovations can reduce the total socially necessary labour time embedded in each particular commodity.

We can illustrate this with a very simple example.[3] Imagine if I own a printing company. I employ a single worker (not particularly realistic but it will make the calculation more straightforward). She works for ten hours a day and she is paid five hours worth of value.

Let's say, for simplicity, that one hour of labour time is worth exactly £1. In that case, her wages must be £5 a day and the total new value created by my worker (the living labour I employ) is £10. But, as we discussed in part one of the pamphlet, some dead labour will also be consumed in this process. Let's say that the dead labour consumed per day is £15—this includes a portion of the value of the printing press, plus raw material such as paper and ink.

So the total value of the product is £25. Now, during a day it turns out that I can produce 25 copies of a book. So each copy is sold for £1. We will assume that I am using the typical techniques and machinery employed by all other capitalists in the print industry, who each also sell their books for £1 each.

How can I outdo my rivals? The answer is to take some of the profits I have built up over time and invest them in a new, more advanced and powerful, printing press. Say, for the sake of argument, that this new press is so expensive that I must pay £45 a day in dead labour—three times as much as before. This represents a portion of the much more expensive press I've bought and a greater mass of ink and paper it can turn into books during a day. But now I find I can produce 100 books each day.

3: This simple numerical example, which we return to a number of times below, is also summarised at the end of the pamphlet.

I am still only employing one worker to operate the press (the amount of living labour harnessed, wages paid and surplus value generated are unchanged).

So the total value now produced each day = £45 + £10 = £55.

Each of my 100 books now ought to cost 55p; that is the new value contained in each copy. But there is no reason for me to sell my books at 55p, because my rivals are still selling theirs for £1. I could choose to sell mine for 95p. In the short term I will make massive profits by selling my books above their new value but below the price charged by my competitors.

Eventually, any capitalist who does not introduce the technology will be driven out of business. They will be unable to compete with me. This spurs all capitalists to, at the very least, replicate my investment and, if possible, outdo me by bringing in even more advanced technology. In the process, the competition to cheapen commodities continues, until the battle of cost-cutting means the price begins to approach the new value—55p per book.

Accumulation

This highly simplified example shows how capitalists compete. But this competition requires investment and the investment, in turn, is paid for out of profits. In other words, capitalists are compelled to transform some of their profits into new investment. Marx called this process *accumulation*.

In order to accumulate you have to exploit workers, pumping surplus value out of living labour, and you have to compete. Any capitalist who doesn't do this gets driven out of business. Imagine a printer trying to use presses from 100 years ago; how long would they survive in the industry? There is no such thing as ethical capitalism. Either you stop being ethical or you stop being a capitalist. This means the system is, at a very basic level, out of control—not just for workers but for capitalists too. The capitalists are compelled to behave in a certain way by the logic of their own system.

This makes capitalism the most dynamic economic system ever. It innovates and introduces new technology, repeatedly transforming conditions of human existence, far more rapidly than any previous society. In doing so it creates the potential for humanity to eradicate scarcity, hunger and want. But it also fails to realise that potential. The drive to accumulate also makes capitalism the most destructive society ever. It is destructive because it must rip apart any obstacle to accumulation—safety at work, the rights of workers, the environment, and so on. It is also an unplanned system, in which there can be a frenzied burst of accumulation, explosive growth, and then a collapse as markets clog up with too many goods and capitalists strive to out-compete each other.

In a general sense, this means that there will always, under this system, be a cycle of boom and bust, something that has existed as long as capitalism has. Though the precise cause of each crisis differs, there will always be crises because of the nature of the system. It might be triggered by the overproduction of certain commodities that the market cannot absorb or by the frenzy of financial speculation as people gamble on the capacity of a boom to go on forever, or any other of a myriad of problems that periodically afflict the system. But what is not possible is a capitalism without crises.

Getting deeper

But alongside this general pattern of boom and bust there are long-term trends that tend to make the busts worse and the booms weaker. The most important is what Marx called the *law of the tendency of the rate of profit to fall*.

To see how this works, we can go back to the example of the book printing industry that I gave earlier. I showed how in the short term I could make super-profits by slightly undercutting my rivals after I bring in new, more powerful technology. What happens when all my surviving rivals innovate in the same way? Eventually the price of the books falls to its new value, 55p.

Consider what has happened to profits during this process.

Before I bought my new printing press, I was getting £5 profit each day (the unpaid portion of the new value created by my worker) based on £20 of investment (wages and the dead labour used in production). As a capitalist, I am not so much interested in the amount of my profit as the *return on my investment*. How many pounds profit did

I make for each pound I invested? This figure—my profit divided by my investment—is what Marx called the *rate of profit*.

Initially, my rate of profit was 5/20 = 1/4 = 25 percent.

What happens after the new kind of printing press has become general across the whole industry? Now I still get £5 profit each day, because I still have one worker who creates £10 of new value and receives £5 in wages. But my total investment is £50.

The rate of profit is now just 5/50 = 1/10 = 10 percent!

In other words, I might have, in the short term, made huge profits. Yet in the long run the rate of profit has been undermined across the industry.

Now, consider this kind of process taking place across the capitalist system as a whole. Over the very long term, investing in a greater and greater mass of dead labour, relative to living labour, across the entire system, puts pressure on profit rates. They tend to fall in the long run.

As Marx argued, the tendency under capitalism is to drive out the very thing that creates new value—living labour. An ever greater mass of investment chases a pool of profit which is limited in scale by the size of the working class and the amount of toil it performs.

One of the absurdities of capitalism is that capitalists, as we've seen, are compelled to accumulate, but, as they do so, they unleash processes that, in the long run, tend to undermine profit rates. And that, in turn, tends to make further accumulation more difficult. If, over the course of a year, your rate of profit is 50 percent, you can simply squirrel your money away for two years and then use it to double the size of your business. If it is 10 percent, it will take you ten years. If it is 1 percent, it will take you a century.

This long decline in profitability, which undermines the capacity of the system to expand, tends to exacerbate crises and make recoveries weaker.

Raising profit rates

If that were all there was to the picture, capitalism would long since have collapsed. Marx recognised that things were not so simple. So along with his law of the tendency of the rate of profit to fall, he also talked about *countervailing tendencies* that slowed or even reversed this process.

Two of these are particularly important. The first is that the capitalists can simply squeeze living labour more. Imagine if, in my example, I stopped paying my worker £5 a day and cut her wage to £4 a day. I would immediately raise my rate of profit. But there are limits to this. Even if I cut wages to £0 a day, I can't squeeze more than £10 a day out of my worker. And long before I cut her wages to nothing, she would, presumably, leave her job or go on strike! The wage has to be sufficient to reproduce the worker's ability to labour and, along with the basic physical requirements such as food, clothing and shelter, there is, as was mentioned in part one, a "moral and historical" element to the wage forced out of capitalists by workers' struggles past and present.

The second mechanism is the cheapening of investments. The very process of price competition I have outlined also impacts upon the price of the raw materials and machinery, including new investments, that capitalists purchase. So, to return to our example, if the newfangled and highly advanced printing press I bought fell in price, and raw materials such as ink and paper also cheapened, so that the total amount I was investing in dead labour actually fell rather than rising, I would expect the rate of profit in the industry to rise.

In principle, there is no reason why this couldn't happen. But in practice, things under capitalism tend to work out rather differently.

New technologies tend to start off expensive. But there are, as we see from our example above, massive advantages to being the first capitalist to exploit a new technology, even if it is expensive, provided it allows me to undercut my rivals. It may be that the price of that new technology falls later, but that does not necessarily help me. Imagine if I've invested £10 million in a new printing press. It doesn't help me if its price in a year's time is just £1 million. In fact that simply helps my rivals to further undercut me, reducing my own profits.

In practice, over long periods of time, the picture does seem to be one of rising investment relative to profit, and hence of a long-term decline in profitability.

So how can profit rates actually be restored in an effective way?

Crisis and destruction of capital

The most important method of restoring profit rates is what Marx called "the destruction of capital" and it happens during a crisis itself. During a crisis two things tend to happen. The first is that workers take a hit, through unemployment and declining wages. This can provide a short-term boost to the system.

Even more importantly, during crises failing companies dump their goods on the market at a fraction of their real value or go bankrupt, allowing themselves or some of their assets to be obtained cheaply by rival firms. The firms that survive and grab these cheap investments below their value see their profits rise relative to their investment—and also receive a boost from the attacks on workers. This very process of destruction and devaluation, taking place across the capitalist system as a whole, can provide a sufficient restoration of profitability to lead the system to boom once more.

The scale of the destruction can influence the scale of the boom that follows. The reason why the post-war boom that began in the late 1940s got off to such a powerful start reflected the scale of the destruction of capital in the preceding period—the slump of the 1930s and the Second World War that followed it.

Centralisation and concentration of capital

The process through which capitalism, in the long run, escapes from its own tendencies towards crisis is through destroying part of the system. But that process becomes more perilous over time. The reason is to do with the way that system changes as it ages.

The capitalism Marx analysed was a capitalism of small firms run by individual capitalists. As the system develops the process of accumulation leads to what Marx called the *concentration of capital*—value amasses in the hands of capitalists to an ever greater degree as they pump profits out of workers. Accompanying this is a second process, the *centralisation of capital*, as successful capitalists take over their rivals leading to ever-larger companies.

These mechanisms create a world of giant interlocking firms. During the late 19th and early 20th century this combined with another tendency, for the state to play an increasingly active role in the economy, to create a world of "imperialism"—one of giant firms, locked together with their respective national states, which sought to carve up between them their influence over the global economy, using military means alongside economic methods.

Because of the scale of the units of capital, those presiding over states, and their friends in the wider ruling class, can fear allowing the crisis to bring down the giant firms making up the system. They face the real danger of capitalism entering a slump which they cannot drag it out of. That means that they can sometimes intervene to stop the crisis fully taking hold, for instance by bailing out failing companies and propping up banks. But paradoxically, this very intervention can stop crisis clearing out the system and lead to long periods of low profitability.

Finance and speculation

One additional feature of capitalism helps to complete this basic overview. Finance has, from the outset, been a feature of the system. Banking plays an important role in helping to drive accumulation.

At any particular moment there will be capitalists who are sitting on profits who have nothing to do with them, and there will be capitalists who need money to invest but have not yet made sufficient profits to do so. Banks allow capitalists to deposit idle funds and earn some interest. They also lend money to capitalists who want to invest, in return for interest payments received by the bank.

The interest payments made by capitalists to the banks are a potion of the surplus value they pump out of workers. Of course, banks engage in other functions too, allowing workers to deposit their earnings, making loans for people to buy things to consume, and so on. But the basic function of the financial system, of lubricating the process of accumulation, of "driving capitalism beyond its limits", as Marx put it, remains important.

As well as driving capitalism beyond its limits, though, finance can also help to spread and exacerbate crisis. During a crisis banks can panic about loans they have made and whether they will ever be repaid. Debts can be called in suddenly, driving troubled firms into bankruptcy. Or a bank can go under, pulling down even relatively healthy firms that have deposited their money with it.

Not only that, but the financial system also includes activities that extend beyond simple borrowing and lending. As capitalism develops it sees the emergence of markets in what Marx called *fictitious capital*.

One example is the stock market. Firms issue shares, which are bought by investors. These shares may represent a say in the running of the company and generally earn a dividend—a portion of the profits made by the company. But they are not capital in the Marxist sense. The money the company makes when it sells the shares, which it can convert into machinery or use to hire labour, is real capital. The shares, by contrast, are simply pieces of paper giving the holder certain rights over the company. But the shares do have a price attached to them and earn a stream of income—so they have the appearance of capital, hence *fictitious capital*.

When capitalists invest in fictitious capital they are either trying to get their hands on a stream of income from production that they expect to happen in the future or they are simply speculating, buying the shares in the hope that their price will rise and they will be able to sell them on at a profit. Either process entails risks for the investor.

Some of these kinds of financial market have grown hugely complex. But what links them all is that their activities do not directly generate any new value. They are a place where capitalists use some of their wealth to try to make a paper profit by swindling one another, like a giant casino.

However, these markets are ultimately connected to the world of production. While things seem to be going well, the price of shares and other examples of fictitious capital often lose touch with the ability of the system to generate new value. This is what is meant by a *financial bubble*. But such a situation cannot last indefinitely. Eventually crisis violently forces the financial system back in line with the reality of what capitalism can deliver. Sometimes share prices fall suddenly with only a limited impact on the wider economy, but at other times these kinds of financial upheaval help to announce and trigger wider crises in which underlying problems in the capitalist system begin to emerge.

Our numerical example[4]

We assume throughout (in order to simplify our calculations) that £1 is equal to one hour of socially necessary labour time.

The initial situation

There is one worker. She works ten hours and is paid £5 a day. In addition £15 of raw material and machinery are consumed each day. And I produce 25 books.

So:

- Dead labour used up = £15
- Living labour added = £10
- Wages = £5
- Investment = dead labour + wages = £15 + £5 = £20
- Value of output = dead labour + living labour = £15 + £10 = £25
- Value per book = value of output / books = £25 /25 = £1
- Surplus value = living labour added – wages = £10 - £5 = £5
- Rate of profit = surplus value / investment = £5 / £20 = 1/4

After everyone has introduced the new technology

There is still one worker. She still works ten hours and is paid £5 a day. But now £45 of raw material and machinery are consumed each day. And now I produce 100 books.

So:

- Dead labour used up = £45
- Living labour added = £10
- Wages = £5

4: The numerical example used throughout the second half of the pamphlet is based on a very simplified model of what happens under capitalism. Although useful in exploring how capitalist competition takes place and how it ultimately tends to undermine profits, it shouldn't be taken too literally. In particular, Marx shows in volume three of *Capital* how surplus value is redistributed between capitalists in such a way that the price of the commodities no longer simply reflects the value contained within them. Many of the books listed under further reading explain how this process takes place. The overall result is that the tendency described here applies not to a particular capitalist or a particular industry, but to the system as a whole.

- Investment = dead labour + wages = £45 + £5 = £50
- Value of output = dead labour + living labour = £45 + £10 = £55
- Value per book = value of output / books = £55 /100 = £0.55p
- Surplus value = living labour added – wages = £10 - £5 = £5
- Rate of profit = surplus value / investment = £5 / £50 = 1/10

Glossary

Many of the concepts used by Marx have been subject to frenzied debate over several decades. Here we have sacrificed scientific clarity for simplicity as befits a basic introductory text! For more rigorous definitions, readers should consult the recommended further reading.

Accumulation

The process by which *surplus value* pumped out of workers during the production process is ploughed back into investment. Competition between capitalists compels them to accumulate *capital*, Marx argues.

Capital

Capital is value that is set in motion by capitalists in the attempt to generate a *profit*. If someone simply has money, it isn't necessarily capital. But if, for instance, they use that money to open a factory, hire labour and attempt to make more money, it is.

Commodity

Something, which can be a material good or a service, that is produced in order to sell it.

Constant capital

By constant capital, Marx meant *capital* invested in machinery, raw material, etc, used in production.

Dead labour

Another way of thinking about *constant capital*. Those things produced by labour in the past and then used in production, such as machinery and raw material.

Exchange value
The ratio with which one *commodity* exchanges with another, based on the amount of *value* they each contain. So we can say, for instance, that the exchange value of a car is 20,000 loaves of bread. Because money too is a commodity, we could also say that its exchange value is £10,000 (if a loaf of bread is 50p).

Exploitation
A process in which unpaid labour is pumped out of labourers. Under capitalism this takes the form of capitalists pumping *surplus labour* out of the workers they employ.

Fictitious capital
Paper claims over a potential stream of income, such as bonds or shares, that trade according to their own particular laws of motion, and are indirectly linked to the underlying process of production.

Interest
The income earned by money-lending capital. In the case of interest paid by capitalists to banks and other lenders, this is a portion of the *surplus value* the capitalist obtains from the *exploitation* of its workers.

Labour power
The ability to labour. The capitalist hires the labour power of a worker when they employ them. After the work is complete, the worker has to replenish their labour power if they are to hire it out anew.

Living labour
The workers employed by the capitalist who, through their labour, create new *value*.

Market price
The price actually paid for a *commodity* in money terms.

Profit
That portion of the *surplus value* pumped out of workers that remains with the capitalist (as opposed to, say, *interest* paid to bankers or rent paid to landowners). Strictly speaking, Marx calls this “profit of enterprise”.

Rate of profit

The ratio between *surplus value* and total investment in *constant* and *variable* capital. The return on investment.

Socially necessary labour time

The time required to produce something using the prevalent degree of skill, intensity, technique and technology in society.

Surplus labour

The labour performed by workers beyond that necessary to produce enough *value* to cover the cost of reproducing their *labour power*.

Surplus value

The *value* created by workers beyond that which covers the cost of reproducing their *labour power* (their wage), which the capitalist obtains. The value created by *surplus labour*.

Use value

The particular use to which a *commodity* can be put to meet a human need.

Value

The amount of *socially necessary labour time* embodied in a *commodity*.

Variable capital

The capital invested in *living labour* when a capitalist hires workers for a wage.

Sample questions for discussion

- Marx's analysis of capitalism involves a "labour theory of value". How would you respond to someone who claimed that prices depend on how scarce or plentiful a given commodity is?
- How effective can government action be in eradicating crises?
- How would you answer someone who told you that the problems of capitalism are an expression of humans' natural greed?
- Can robots be exploited?

Further reading

Karl Marx's account of capitalism, the three volumes of *Capital* and his various other writings on the subject, are available in many different editions and are on the Marxist Internet Archive (www.marxists.org). The most accessible is the text *Value, Price and Profit*.

Joseph Choonara's *Unravelling Capitalism: A Guide to Marxist Political Economy* is an introduction to the economic ideas of Marx and their application to capitalism. Chris Harman's longer work *Zombie Capitalism: Global Crisis and the Relevance of Marx* explores the historical development of capitalism in greater detail. Both books are available from Bookmarks. So too is Alex Callinicos's *The Revolutionary Ideas of Karl Marx*, which contains a useful chapter on capitalism.

For those wanting to read *Capital*, David Harvey has written *A Companion to Marx's Capital* (Verso) which explains Marx's argument chapter by chapter. Ben Fine and Alfredo Saad Filho's *Reading Marx's Capital* (Pluto) is another good guide.

A tiny selection of the more difficult works dealing with the complexities of capitalism and the arguments within Marxist theory includes David Harvey's *The Limits to Capital* (Verso), Andrew Kliman's *Reclaiming Marx's Capital* (Lexington) and Guglielmo Carchedi's *Behind the Crisis* (Haymarket).