



Lesson: Labor, Capital and Rate of Profit

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Learning outcomes:

After you have read this chapter, you should be able to:-

- a) Distinguish between Use value and Exchange value
- b) Express fetish nature of the commodities
- c) Define Surplus Value
- d) Calculate value of the commodity, surplus value and ratios, given various components
- e) Interpret various ratios and describe the significance of movements in relevant components
- f) Explain how reserve army of participates in wage setting.
- g) Describe tendency of falling rate of profit.

I. Introduction

Marx postulated "Law of falling rate of Profit" which explains the phenomenon of decline in the rate of profit under capitalism. He explains that there are inherent tendencies in the capitalist system that will eventually lead to fall in the rate of profit. A capitalist has greed to accumulate capital and intends to constantly increase the capital or wealth. Along with capital accumulation, he exploits labor. Labor produces goods over which capitalist has entitled the right of ownership. The share of labor in the value of production is less than the value of production and the rest accrues to capitalist (as profit or surplus). Lower the share of labor, the higher would be the surplus and hence in order to extract surplus, he exploits labor. Since labor can revolt back the cuts in wages, he tends to replace labor by capital. In his attempt to let the laborer capture the bigger share out of value of production, he accumulates capital; which in turn proves a bane for the capitalist. This will be discussed in this chapter.

This chapter is broadly divided into **four** sections. Section one explains how value of commodity and commodity's fetishism is determined. Second section describes the components of total value and the process of creation of surplus value. In the third section labor's interaction with capitalists in the process of wage setting, is analyzed. In the last section, Marx's law of falling rate of profit is discussed in detail.

II. Understanding nature of commodities

Commodities under the capitalist mode of production are supreme of all and even social relations are beneath the veil of exchange of commodities.

II.1. Value of commodities

Commodities are valued for two reasons:

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First, Commodities are useful in themselves i.e. for direct consumption. Every good that an individual consumes possesses **use value**. Use value is an expression of a certain relation between consumer and object consumed. Use value is the utility that one derives from the object of consumption.

Second, Commodities so produced by one producer are exchanged with other producers for the goods that first producer needs and likewise, for every producer. It appears that exchange value is the relation between commodities only but underlying it, is the social relation between commodity owners or equivalently between the producers of the commodities. Each producer though doesn't have social relations with the rest of the producers but have economic relations. For ex, a farmer in South Africa may not know a person who buys cotton from South Africa and process it in Manchester and sells cotton apparels in the world including South Africa. The two producers have production relations, which are in a way, governed by the commodities exchange value. "The exchange of commodities is an exchange of the labor of individual producers."

Use value was prevalent in all forms of society. Monuments or sculptures construction's undertaking by the kings had use value. In contrast, today apartments so produced have exchange value and also the use value for the final consumers of it.

Commodities determine social relations since commodity is the product of labor. As use value relates to commodity, useful labor corresponds to labor. Useful labor refers to the special sort of activity or skills that are required in the making of the product. But when we say that '**value of commodity represents human labor**'; then labor here referred to is abstract labor and not useful labor.

Abstraction of labor reduces all sorts of labor to a common denominator so that all sorts of labor can be added, subtracted and compared. For ex, for weaving a pullover, knitting skills are required (useful labor) and it would take one week or 7*8 hours (abstract labor) and on the other hand, for making an earthen pot, one needs to know how to handle the wheel to be able to shape the pot (useful labor) and this requires 7 hours of human labor (abstract labor).

Abstraction of labor enables us to know the value of the commodities. The magnitude of expenditure of human labor determines the value of a commodity. Each commodity absorbs a part of society's total labor force. Like in our example, as of now it seems reasonable to argue that the value of a pullover is greater than a pot; the reason being that there is greater expenditure of human labor in making of a pullover.

II.2 Commodities Fetishism

Commodities fetishism means commodities subject the producers to its sway, commodity production makes reification of social relations possible and its exchange value creates a relation between producers in a defined system of division of labor. In short, commodities become supreme power that guides the actions of all men in capitalist mode of production.

Capitalist mode of production differs from all forms of society in history, for, in capitalist society **everything boils down to mere 'things'**. The division of factors of production into land, labor and capital was present even in other than capitalist mode of

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production but in capitalism each one is equated to a thing that produces an income for its responsive owner. Even labor power of the worker is treated different from worker and worker sells it for its true value in the market as he would have sold any other commodity.

Everyone in the system is mere commodity owner. This seems then that each one of them may it be landowner, capital owners and/or laborers are on equal footing. But in actual labor's lack of access to means of production implies that in the course of production he is being exploited for the benefit of have-classes (owners of means of production). In capitalist mode of production, though he is exploited but he is free to sell or not to sell his labor power. In case, worker feels that the true value is not paid to him and that exchange is not worthy, he can deny selling his labor power (compare serf's position under landlord).

As discussed in the last section, production relations between cotton grower in South Africa and cotton mill owner in Manchester; commodities impersonalizes production relations which again distinguishes capitalist society from other forms.

To conclude, we quote from Paul Sweezy's book, "If commodity production has fostered the illusion of its own permanence and hidden the true character of social relations which it embodies, it has at the same time created the economic rationality of modern times without which a full development of society's productive forces would be unthinkable. Rationality, in the sense of deliberate adaption of means to ends is the economic sphere..... Given this condition, the individual can proceed to plan his affairs in such a way as to achieve optimum result."

Commodities guide its men to act rationally and on the contrary, irrationality breeds in the behavior of the system as a whole. The system educates man to control his destiny (how to create profits) and at the same time it blinds him to exercise his power and takes him to his destructive path (falling profits and crisis). For all this, commodity fetishism is a prerequisite and especially so is the Marxian Analysis.

III. Surplus Value and it's components

In the simple commodity production (of capitalist) we assume that means of production are owned by capitalist and the work is performed by set of workers who have only labor power to sell to the capitalist. In this section, all analysis will be made within the ambit of simple commodity production.

III.1 M-C-M' Circuit-

Capitalist starts the commodity production process with money sum M , produces Commodities C and sells these to realize money sum M' . If money sum at the Beginning and at the end are same, then this whole process is useless. At the end, Capitalist would sell commodities for M' where $M' > M$ and the difference between M' and M denoted by ΔM is the surplus or profit generated by the capitalist. This M' Realization doesn't end the process and it is again invested to realize surplus repeatedly endless times. Capitalists aim at never ending process of surplus value creation.

III.2. Labor Power: Source of Surplus

Capitalist enter market with money, buys plant and machinery, raw materials and labor power (not laborer). He combines these means of production in process of production and gets entitlement to commodities produced and sells them in the market at equilibrium value and in this process of starting from money and realizing bigger sum at the end he generates surplus. The question, however, arises that what is the source of surplus?

Materials and Machinery are physically productive i.e. labor can produce larger product with these than without them. But labor is value productive. Laborer is paid wages that is minimum amount required for his subsistence. Assume a laborer has to work eight hours a day and he produces some value which is greater than what he would be paid i.e. labor value. Suppose for his subsistence he needs to put in labor for first 4 hours and latter 4 hours he produces to create surplus for capitalist. Worker/laborer creates value over and above that is necessary for his subsistence. This additional value created by laborer is surplus value.

Hence, working day can be divided into two parts: necessary labor and surplus labor. Product of necessary labor takes form of workers' wages and rest accrues to capitalist in the form of surplus.

III.3. Aggregates and ratios in surplus value

(i) Total Value

Value of any commodities has three components viz **first**, value of materials and machinery used in the process of production, its value doesn't alter during production process and hence called 'constant capital' denoted by 'c'. **second**, labor value denoted by 'v'- variable capital. It is termed variable capital since it can vary in the sense that laborer produces value for its own and surplus value and the value of the two can change. **Third**, surplus value denoted by 's'

Symbolically,

$$\text{Total value} = c + v + s$$

(ii) Rate of surplus value

Rate of surplus value, also known as rate of exploitation is the ratio of surplus labor to necessary labor.

$$\text{Rate of exploitations}' = s/v$$

A worker can be exploited or his productivity can be raised to increase the rate of surplus value. Consider the following three cases: **first**, increasing the length of working day increases the absolute surplus value as in additional hours he can produce extra for both himself and the capitalist. **Second**, lowering real wage would increase relative surplus value. **Third**, increasing productivity leads to again rise in relative surplus value.

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(iii) Organic composition of capital

The ratio of constant capital to total capital is called organic composition of capital

$$Q=c/c+v$$

Organic composition of capital varies directly with lower rate of real wages, higher productivity, better technique of production and higher capital accumulation in the past.

(iv) Rate of profit

Rate of profit is the ratio of surplus value to total capital expenditure.

$$\text{Rate of profit, } p = s/c+v$$

In today's time, rate of profit is the profit on total investment and not just capital used up ($c+v$) in the process of production. To put two things at par, assume that life of capital or investment is just one year, so used up capital is equivalently total investment.

To form an understanding of falling rate of profit, consider following manipulations with the rate of profit:

$$\begin{aligned} P &= s/c+v = s/v * v/c+v \\ &= s/v (1+v/(c+v)-1) \\ &= s/v (1+(-c)/c+v) \\ &= s' (1-q) \end{aligned}$$

The above calculations show that the rate of profit depends directly on rate of exploitation. Higher exploitation of laborer yields greater rate of profit.

(v) What varies and what is fixed

Rate of surplus value is the same in all the branches of industry and in all firms in each industry. For this to hold, labor must be homogeneous transferable and mobile. Secondly, that no producer is an exception in the employment of level of technique and that each one use same level of technique.

Rate of profit is also assumed to be constant across firm in an industry and also across industries. Again, for the rate of profit to be the same, there has to be mobility of labor and same level of techniques employed. If both rate of surplus value and rate of profit are equal, then it follows that even organic composition of capital is constant.

Rate of profit can be assumed to be constant as otherwise there would be movement of labor and capital from industry/firm with higher rate of profit to one

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with lower rate of profit and the equilibrium is restored till rate of profits in the two are equated.

In case of same organic composition of capital, one can agree reasonably that it is equal between firms but is undoubtedly questionable in case equality between industries, if assumed.

But Borkeiwicz provided a sound proof to Marxian assumption of equality of organic composition of capital across industries. He starts with the argument that at the sole motive of capitalists is the search for profit. In pursuit of profit making, he would exploit labor (when c assumes higher value) and would reduce ' v ' in such a manner that organic composition of capital would be same across the industries. It would be valid even when size, direction and technique of production varies across industries.

IV. Labor's and capitalist's interaction

IV.1. Capitalist's urge to accumulate capital

Capitalist buys constant capital out of surplus instead of consuming his entire surplus. He adds to the stock of constant capital. **Capitalist deprived of his capital is nothing.** The amount of capital that the capitalist commands determines his position, status, power and prestige. Capital accumulation is enlivening force for -and essence of- capitalism.

The dividing line between quantitatively and rupee measured capital and qualitatively expressed honor and power in the society gets blurred and the two are supposed to move parallelly in the same direction. The capitalist in his desire to extend his control/empire wishes to accumulate capital. His desire of accumulating capital and relatively larger than other capitalists is endless. This greed for capital accumulation in capitalism is in no way different from motives of empire building and /or becoming large and powerful landlord in previous forms of society.

Orthodox theories emphasized 'abstinence' and 'waiting' theories. According to abstinence theory, it is painful for the capitalist to abstain from consumption in order to accumulate and hence interest on capital is reward for such abstinence. Marx explains that creating wealth has pleasures attached to it as consumption does. According to Alfred Marshall's waiting theory, capitalists want to consume everything they own. And if they don't do it in present, they will in future (by accumulating). Ricardo rightly remarked that consumption adds to our enjoyments, accumulation to our power and they equally promote demands.

IV.2. Importance of reserve army of labor

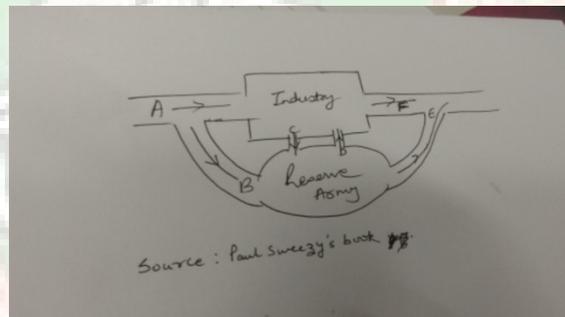
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In expanded reproduction scheme, capitalist's surplus is not entirely consumed rather is broken down into three parts: consumption by capitalist, addition to constant capital and addition to variable capital. Instead of consuming entire of his surplus, he accumulates capital for the reasons discussed in the last section. He adds to the stock of constant capital and simultaneously to the variable capital to work with newly added constant capital.

When capitalist accumulates capital, he demands labor to work on with expanded capital. This may lead to excess demand for laborer and hence puts a pressure on wages to rise. But wages rise can never reach to a level at which it may threaten the system itself.

But Marx's solution to it is: introduction of **labor saving machinery**, which capitalist would introduce so as to keep a check on the rise in wages and to economize on total wage bill. Displaced labor and other unemployed pool of laborers comprise of what Marx calls 'Reserve army of Labor'. When such machineries are installed, workers are displaced and increase Reserve Army of labor. **Reserve army of labor exerts a downward pressure on wages.**

In case of opening up of a new market or industry, rapid burst of capital accumulation is inevitable which depletes Reserve Army of labor and the check on a rise in wages is removed. If wages rise above surplus value, then the difference between labor value and value of commodity that he produces diminishes i.e. surplus on which capitalist thrust to accumulate capital rests is reduced. When surplus reaches to too low, then smaller part of surplus is capitalized, accumulation lags are witnessed and again check on rise in wages is received. The theory of Reserve Army of Labor can be shown by following diagram,



'A' represents stream of workers looking for job for the first time, 'B' represents lot of persons who could not find jobs and adds to Reserve Army of Labor. 'C' are displaced by machinery and 'D' are absorbed from Reserve Army into the industry. 'E' are those who have given up looking up jobs and joins the stream of retiring workers. i.e. 'E'.

V. Falling tendency of rate of profit

V.1. Formulation of Law

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Rate of profit can be expressed as a function of organic composition of capital and rate of exploitation/ surplus value as follows:

$$P = s'(1-q)$$

If s' is assumed to be constant then capital accumulation by capitalist causes organic composition of capital to rise which then leads to fall in the rate of profit.

Critics of the law maintained that with the capital accumulation rises the productivity of labor. Rate of surplus value, s' is increasing in productivity of labor. So, fall in rate of profit has been provided a check.

Rewriting and manipulating the rate of profit for the purpose discussed below:

$$P = s'(1-q)$$

$$P = s'q' \quad (\text{where } q' = 1-q)$$

$$Dp = s'dq' + q'ds'$$

Change in the rate of profit would be negative if

$$s'dq' + q'ds' < 0$$

This amounts to saying that the rate of profit falls if $s'dq'$ (which is negative) is greater than $q'ds'$ (which is positive). This can also be expressed as:

$$|ds'/s'| < |dq'/q'|$$

If the above inequality in case holds, rate of profit falls. If increase in s' does not compensate or over compensate increase in q , then there is the possibility of fall in the rate of profit. Hence, one can conclude that there is at least a tendency for rate of profit to fall; as capital accumulation is inevitable in the case of capitalist system.

V.2. Counteracting causes

There are six counteracting causes, which makes general law of falling rate of profit null and void leaving it to barely a tendency. Marx mentioned these six; but for our discussion we will restrict ourselves to five. These five can either be resulting into fall in q or rise in s' .

First, cheapening of the elements of constant capital (q falls)-

If labor could be made more productive so that they rigorously utilize the machinery, then value per unit of constant capital will be lowered down. With a greater increase in q , lowering of value of per unit of constant capital would act as its own corrective.

Second, Raising of intensity of exploitation (s' rises)

With the lengthening of working day or what we call 'speed up' or 'stretch out'. Lengthening of working day would keep necessary labor intact and increases surplus value by increasing surplus labor and surplus value along with rate of profit. Speed up and stretch out compresses necessary labor to shorter time

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keeping working hours constant and increasing the portion of working day for our surplus labor.

Third, depression of wages below their value (s increases)

Cut in wages though seems merely a possibility but is not always an option with capitalist as prices and wages are market determined. Marx mentioned this cause in passing but if possible can cause to depress v and henceforth increase in s' .

Fourth, Relative overpopulation (s' increases)

Labor set free due to excessive use of machinery becomes attractive proposition and provide boost to new capitalist to open up new industries with cheap labor and lower organic composition of capital. This action on part of new capitalist translate into higher rate of profit in these industries which when are ragged with low rate of profit of old industries result into increased overall rate of profit.

Fifth, Foreign trade

Cheaper capital can be obtained from foreign markets which lower q and also cheaper necessities of life can be imported which can lower variable capital (which was kept at subsistence level) which means higher s' . So, this counteracting cause has twin inputs to raise the rate of profit.

V.3. Critique of law

To conclude, law of tendency of falling rate of profit, Marx's focal point was increase in organic composition of capital that lead to fall in the rate of profit and explained few counteracting causes like cheapening of elements of capital and relative overpopulation etc. to counteract fall in the rate of profit but treated them separately. Critics of this law mentioned that these causes should be integral part of the law. The argument continues as follows.

Increase in use of machinery raises organic composition of capital and simultaneously causes labor productivity to soar and assuming rate of surplus value constant would be wrong because in face of constant rate of surplus value would mean that this increase is equally shared by labor and capitalist. Though it does not seem reasonable and capitalist would give a smaller portion of benefit of increased productivity to labor. So, if real wages never rise proportionally to the productive power of labor, then rate of profit rises.

Also, displaced labor (due to capital accumulation) would create reserve army of labor which keeps a check on wages and henceforth v falls and s' rises and then so does the rate of profit. Now if the rate of surplus value is variable then it would amount to two variables: q and s' working in opposite directions. The direction of rate of profit is then indeterminate. As discussed in section IV. 1, direction of rate would be determined by comparing percentage changes in variable to total capital and in rate of surplus value.

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But this not does not negate the tendency of rate of profit to fall. Increased machinery means more men to work with and hence higher demand for labor and hence wages. Capitalist are continuously sailing (by introducing labor saving machinery) against the winds of tendency for fall in the rate of profit. Capitalist's temptation to bring the cut in the wages is indicative of the fact that capitalist must be doing this to offset the fall in the rate of profit.

There are factors other than Marx's counteracting causes that could depress or elevate the rate of profit. They are as follows:

a) Trade unions (p falls)

Trade unions unite and strengthen the workers so that they strive to not let capitalist suppress wages and rather trade unions demand wages hike.

b) state action designed to benefit labor (p falls)

state can intervene in the capitalist production process by placing legal restriction on working hours per day providing unemployment insurance and legislation aimed to safeguard the right of collective bargaining.

c) Employer's organizations (p rises)

Such organizations help to improve the bargaining position of capital vis-à-vis labor and exert upward pressure on the rate of profit.

d) Export of capital (p rises)

Capital export prevents accumulation from having its full depressing effect on the rate of profit.

e) Formation of Monopolies (p rises)

Capitalists collude with other firms or otherwise create monopolies to increase the rate of profit.

f) State action designed to benefit capital

State impose tariffs which benefit capitalist and help not let rate of profit fall.

Summary

- Commodities have use value and exchange value. Behind its exchange value, magnitude of abstract labor that is absorbed in its production, lies hidden.
- 'Commodities' assume special importance in capitalist society to the tune that rationality in the initial phases of capitalism is taken over by commodities' fetishism and world of commodities subject the producers to its sway.
- Capital accumulation is at its root of capitalism; since it provides and extends the control of capitalist. Capitalist in lure of profits exploit labor. Labor's working day is divided into two- necessary labor and surplus labor. Worker works for himself called necessary labor and for the capitalist called surplus labor.
- Labor is given wages equal to equilibrium in the market and is given its true value which is necessary for his subsistence. He produces a value which is less than its own true value.
- Marx proposed that there tendency for rate of profit to fall. Since capitalist accumulate capital, this lowers rate of profit on increasing capital. But he discusses counteracting causes- cheapening of elements of capital, relative overpopulation, foreign trade, increasing exploitation, reducing wages below value- which counteract fall in rate of profit.
- The tendency for rate of profit to fall though can't be completely ignored but critics maintain that counteracting causes should be integral part and not subordinating it from outside law. Also, they illustrate few other factors like export of capital, state's role, monopoly formulation etc. that influence rate of profit.

Exercises

Q1. What is the source of surplus value under capitalism? Explain how.

[hint: labour]

Q2. Write essential characteristics of capitalism that distinguishes it from other forms of society.

[hint: commodity fetishism, M-C-M', capital accumulation, free labor and given its true value etc.]

Q3., Explain Marx's law of falling rate of profit.

Q4. "Marx's law of falling rate of profit is nothing more than a tendency". Comment.

Q5. Critically examine Marx's law of falling rate of profit.

Question Number	Type of question
6	True or False

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Question

- | |
|---|
| a) Source of surplus value is necessary labor. |
| b) M-C-M' is a circuit specific to capitalism only. |
| c) Commodity production started with capitalism. |
| d) Reserve army of labor is set of unemployed people and hence, don't participate in determining wages. |
| e) Increasing capital surely raises both capitalist's prestige and profits. |

Correct Answer / Option(s)

- | |
|----------|
| a) False |
| b) True |
| c) False |
| d) False |
| e) False |

Justification/ Feedback for the correct answer

- | |
|---|
| a) Necessary labor is that part of working day in which labor works for his own subsistence and its surplus labor that creates surplus for the capitalist. |
| b) In the societies previous to capitalism produced commodities but the circuit was C-M-C. They produced for consumption and money was only medium of exchange. In the capitalist system enlargement of money takes place (surplus generation). |
| c) Commodities were produced in all forms of societies but for their use value. In the capitalism commodities are produced for their exchange value. |
| d) Reserve army of labor though not directly set wages but higher the number of unemployed lower would be the wages. |
| e) increasing capital raises capitalist's prestige but profits can fall if rate of exploitation is constant. |

Glossary

- **Abstract Labor:** The abstraction of labor implies indifference to the forms of labor and boils down to a common denominator say, in number of hours employed in the production process.
- **Surplus Value:** Surplus value is the difference between money sums at the ending (M') and beginning (M) of M-C-M' circuit.
- **Rate of surplus value:** Rate of surplus value is the ratio of surplus value to variable capital or equivalently, surplus labor to necessary labor. It is also known as the rate of exploitation.
- **Organic composition of capital:** Organic composition of capital is the ratio of constant capital to total capital. It is indicative of the extent to which labor is furnished with materials and machinery in the productive process.
- **Rate of profit:** Rate of profit is the ratio of surplus value to total capital. It is also the product of rate of exploitation and ratio of variable to total capital (q'). It varies directly with rate of exploitation and inversely with the organic composition of capital.

References

1. P. Sweezy, The theory of Capitalist Development, Monthly Review Press, 1942, Chapters 2, 4, 5 and 6.

