

Part VI

Transformation of Surplus-Profit into Ground-Rent

Chapter 38. Differential Rent: General Remarks

In the analysis of ground-rent we shall begin with the assumption that products paying such a rent, products in which a portion of the surplus-value, and therefore also a portion of the total price, resolves itself into ground-rent, i.e., that agricultural as well as mining products are sold at their prices of production like all other commodities. (It suffices for our purposes to confine ourselves to agricultural and mining products.) In other words, their selling prices are made up of the elements of their cost (the value of consumed constant and variable capital) plus a profit determined by the general rate of profit and calculated on the total advanced capital, whether consumed or not. We assume, then, that average selling prices of these products are equal to their prices of production. The question now arises how it is possible for ground-rent to develop under these conditions, i.e., how it is possible for a portion of the profit to become transformed into ground-rent, so that a portion of the commodity-price falls to the landlord.

In order to demonstrate the general character of this form of ground-rent, let us assume that most of the factories of a certain country derive their power from steam-engines, while a smaller number derive it from natural waterfalls. Let us further assume that the price of production in the former amounts to 115 for a quantity of commodities which have consumed a capital of 100. The 15% profit is calculated not solely on the consumed capital of 100, but on the total capital employed in the production of this commodity-value. We have previously shown that this price of production is not determined by the individual cost-price of every single industrial producer, but by the average cost-price of the commodity under average conditions of capital in the entire sphere of production. It is, in fact, the market-price of production, the average market-price as distinct from its oscillations. It is in general in the form of the market-price, and, furthermore, in the form of the regulating market-price, or market-price of production, that the nature of the value of commodities asserts itself, its determination not by the labour-time necessary in the case of any individual producer for the production of a certain

quantity of commodities, or of some individual commodity, but by the socially necessary labour-time; that is, by the labour-time, required for the production of the socially necessary total quantity of commodity varieties on the market under the existing average conditions of social production

As definite figures are immaterial in this case, we shall assume furthermore that the cost-price in factories run on water-power is only 90 instead of 100. Since the regulating market-price of production of this quantity of commodities = 115, with a profit of 15%, the manufacturers who operate their machines on water power will also sell their commodities at 115, i.e., the average price regulating the market-price. Their profit would then be 25 instead of 15; the regulating price of production would allow them a surplus-profit of 10% not because they sell their commodities above the price of production, but because they sell them at the price of production, because their commodities are produced, or their capital operates, under exceptionally favourable conditions, i.e., under conditions which are more favourable than the average prevailing in this sphere.

Two things become evident at once:

First, the surplus-profit of the producers who use a natural waterfall as motive power is to begin with in the same class with all surplus-profit (and we have already analysed this category when discussing prices of production) which is not the fortuitous result of transactions in the circulation process, of the fortuitous fluctuations in market-prices. This surplus-profit, then, is likewise equal to the difference between the individual price of production of these favoured producers and the general social price of production regulating the market in this entire production sphere. This difference is equal to the excess of the general price of production of the commodities over their individual price of production. The two regulating limits of this excess are, on the one hand, the individual cost-price, and thus the individual price of production, and, on the other hand, the general price of production. The value of commodities produced with water-power is smaller because a smaller total quantity of labour is required for their production, i.e., less labour-in materialised form-enters into the constant capital as part of the latter.

The labour employed here is more productive, its individual productive power is greater than that employed in the majority of factories of the same kind. Its greater productive power is shown in the fact that in order to produce the same quantity of commodities, it requires a smaller quantity of constant capital, a smaller quantity of materialised labour, than the others. It also requires less living labour, because the water-wheel need not be heated. This greater individual productiveness of employed labour reduces the value, but also the cost-price and thereby the price of production of the commodity. For the individual industrial capitalist this expresses

itself in a lower cost-price for his commodities. He has to pay for less materialised labour, and also less wages for less living labour-power employed. Since the cost-price of his commodities is lower, his individual price of production is also lower. His cost-price is 90 instead of 100. His individual price of production would therefore be only $103 \frac{1}{2}$ instead of 115 ($100:115 = 90:103 \frac{1}{2}$) The difference between his individual price of production and the general price of production is limited by the difference between his individual cost-price and the general cost-price. This is one of the magnitudes which form the limits to his surplus-profit. The other is the magnitude of the general price of production into which the general rate of profit enters as one of the regulating factors. Were coal to become cheaper, the difference between his individual cost-price and the general cost-price would decrease, and with it his surplus-profit. Should he be compelled to sell his commodities at their individual value, or at the price of production determined by their individual value, then the difference would disappear. It is, on the one hand, a result of the fact that the commodities are sold at their general market-price, the price brought about by the equalisation of individual prices through competition, and, on the other, a result of the fact that the greater individual productivity of labour set in motion by him does not benefit the labourer, but the employer, as does all productivity of labour, that it appears as the productiveness of capital.

Since the level of the general price of production is one of the limits of this surplus-profit, the level of the general rate of profit being one of its factors, this surplus-profit can only arise from the difference between the general and the individual price of production, and consequently from the difference between the general and the individual rate of profit. An excess above this difference presupposes the sale of products above, not at, the price of production regulated by the market.

Secondly, thus far, the surplus-profit of the manufacturer using natural water-power instead of steam does not differ in any way from any other surplus-profit. All normal surplus-profit, that is, all surplus-profit not due to fortuitous sales or market-price fluctuations is determined by the difference between the individual price of production of the commodities of a particular capital and the general price of production, which regulates the market-prices of the commodities produced by the capital in this sphere of production in general, or, in other words, the market-prices of commodities of the total capital invested in this sphere of production.

But now we come to the difference.

To what circumstance does the industrial capitalist in the present case owe his surplus-profit, the surplus resulting for him personally from the price of production regulated by the general rate of profit?

He owes it in the first instance to a natural force-the motive power of the waterfall-which is found readily available in Nature and is not itself a product of labour like the coal which transforms water into steam. The coal, therefore, has value, must be paid for by an equivalent, and has a cost. The waterfall is a natural production agent in the production of which no labour enters.

But this is not all. The manufacturer who operates with steam also employs natural forces which cost him nothing yet make the labour more productive and increase the surplus-value and thereby the profit, inasmuch as they thus cheapen the manufacture of the means of subsistence required for the labourers. These natural forces are thus quite as much monopolised by capital as the social natural forces of labour arising from co-operation, division of labour, etc. The manufacturer pays for coal, but not for the capacity of water to alter its physical state, to turn into steam, not for the elasticity of the steam, etc. This monopolisation of natural forces, that is, of the increase in labour-power produced by them, is common to all capital operating with steam-engines. It may increase that portion of the product of labour which represents surplus-value in relation to that portion which is transformed into wages. In so far as it does this, it raises the general rate of profit, but it does not create any surplus- profit, for this consists of the excess of individual profit over average profit. The fact that the application of a natural force, a waterfall, creates surplus-profit in this case, cannot therefore be due solely to the circumstance that the increased productivity of labour here results from the application of a natural force. Other modifying circumstances are necessary.

Conversely. The mere application of natural forces in industry may influence the level of the general rate of profit because it affects the quantity of labour required to produce the necessary means of subsistence. But in itself it does not create any deviation from the general rate of profit, and this is precisely the point in which we are interested here. Furthermore, the surplus-profit which some individual capital otherwise realises in a particular sphere of production-for deviations of the rates of profit in various spheres of production are continually balanced out into an average rate-is due, aside from fortuitous deviations, to a reduction in cost-price, in production costs. This reduction arises either from the fact that capital is used in greater than average quantities, so that faux frais of production are reduced, while the general causes increasing the productiveness of labour (cooperation, division of labour, etc.) can become effective to a higher degree, with more intensity, because their field of activity has become larger; or it may arise from the fact that, aside from the amount of functioning capital, better methods of labour, new inventions, improved machinery, chemical manufacturing secrets, etc., in short, new and improved, better than average means of production and methods of production are used. The reduction in cost-price and the surplus-profit arising from it are here the result of the manner in which the functioning capital is invested. They result either

from the fact that the capital is concentrated in the hands of one person in extraordinarily large quantities (a condition that is cancelled out as soon as equal magnitudes of capital are used on the average), or from the fact that a certain magnitude of capital functions in a particularly productive manner (a condition that disappears as soon as the exceptional method of production becomes general or is surpassed by a still more developed one).

The cause of the surplus-profit, then, arises here from the capital itself (which includes the labour set in motion by it) whether it be due to the greater magnitude of capital employed or to its more efficient application; and, as a matter of fact, there is no particular reason why all capital in the same production sphere should not be invested in the same manner. On the contrary, the competition between capitals tends to cancel these differences more and more. The determination of value by the socially necessary labour-time asserts itself through the cheapening of commodities and the compulsion to produce commodities under the same favourable conditions. But matters are different with the surplus-profit of an industrial capitalist who makes use of the waterfall. The increased productiveness of the labour used by him comes neither from the capital and labour itself, nor from the mere application of some natural force different from capital and labour but incorporated in the capital. It arises from the greater natural productiveness of labour bound up with the application of a force of Nature, but not a force of Nature that is at the command of all capital in the same sphere of production, as for example the elasticity of steam. In other words, its application is not to be taken for granted whenever capital is generally invested in this sphere of production. On the contrary, it is a monopolisable force of Nature which, like the waterfall, is only at the command of those who have at their disposal particular portions of the earth and its appurtenances. It is by no means within the power of capital to call into existence this natural premise for a greater productivity of labour in the same manner as any capital may transform water into steam. It is found only locally in Nature and, wherever it does not exist, it cannot be established by a definite investment of capital. It is not bound to goods which labour can produce, such as machines and coal, but to specific natural conditions prevailing in certain portions of land. Those manufacturers who own waterfalls exclude those who do not from using this natural force, because land, and particularly land endowed with water-power, is scarce. This does not prevent the amount of water-power available for industrial purposes from being increased, even though the number of natural waterfalls in a given country is limited. The waterfall may be harnessed by man in order to fully exploit its motive force. If such exists, the water-wheel may be improved so as to make use of as much of the water-power as possible; where the ordinary wheel is not suitable for the water-supply, turbines may be used, etc. The possession of this natural force constitutes a monopoly in the hands of its owner; it is a condition for an increase in the productiveness of the invested capital that

cannot be established by the production process of the capital itself; ^[33] this natural force, which can be monopolised in this manner, is always bound to the land. Such a natural force does not belong to the general conditions of the sphere of production in question, nor to those conditions of the latter which may be generally established.

Now let us assume that the waterfalls, along with the land to which they belong, are held by individuals who are regarded as owners of these portions of the earth, i.e., who are landowners. These owners prevent the investment of capital in the waterfalls and their exploitation by capital. They can permit or forbid such utilisation. But a waterfall cannot be created by capital out of itself. Therefore, the surplus-profit which arises from the employment of this waterfall is not due to capital, but to the utilisation of a natural force which can be monopolised, and has been monopolised, by capital. Under these circumstances, the surplus-profit is transformed into ground-rent, that is, it falls into possession of the owner of a waterfall. If the manufacturer pays the owner of a waterfall £10 annually, then his profit is £15, that is, 15% on the £100 which then make up his cost of production; and he is just as well or possibly better off than all other capitalists in his sphere of production who operate with steam. It would not alter matters one bit if the capitalist himself should be the owner of a waterfall. He would, in such a case, pocket as before the surplus-profit of £10 in his capacity as waterfall owner, and not in his capacity as capitalist; and precisely because this surplus does not stem from his capital as such, but rather from the control of a limited natural force distinct from his capital which can be monopolised, is it transformed into ground-rent.

First, it is evident that this rent is always a differential rent, for it does not enter as a determining factor into the general production price of commodities, but rather is based on it. It invariably arises from the difference between the individual production price of a particular capital having command over the monopolised natural force, on the one hand, and the general production price of the total capital invested in the sphere of production concerned, on the other.

Secondly, this ground-rent does not arise from the absolute increase in the productiveness of employed capital, or labour appropriated by it, since this can only reduce the value of commodities; it is due to the greater relative fruitfulness of specific separate capitals invested in a certain production sphere, as compared with investments of capital which are excluded from these exceptional and natural conditions favouring productiveness. For instance, if the use of steam should offer overwhelming advantages not offered by the use of water-power, despite the fact that coal has value and the water-power has not, and if these advantages more

than compensated for the expense, then, the water-power would not be used and could not produce any surplus-profit, and therefore could not produce any rent.

Thirdly, the natural force is not the source of surplus-profit, but only its natural basis, because this natural basis permits an exceptional increase in the productiveness of labour. In the same way, use-value is in general the bearer of exchange-value, but not its cause. If the same use-value could be obtained without labour, it would have no exchange-value, yet it would retain, as before, the same natural usefulness as use-value. On the other hand, nothing can have exchange-value unless it has use-value, i.e., unless it is a natural bearer of labour. Were it not for the fact that the various values are averaged out into prices of production, and the various individual prices of production into a general price of production regulating the market, the mere increase in productivity of labour through utilisation of the waterfall would merely lower the price of commodities produced with the aid of this waterfall, without increasing the share of profit contained in these commodities. Similarly, on the other hand, this increased productivity of labour itself would not be converted into surplus-value were it not for the fact that capital appropriates the natural and social productivity of the labour used by it as its own.

Fourthly, the private ownership of the waterfall in itself has nothing to do with the creation of the surplus-value (profit) portion, and therefore, of the price of the commodity in general, which is produced by means of the waterfall. This surplus-profit would also exist if landed property did not exist; for instance, if the land on which the waterfall is situated were used by the manufacturer as unclaimed land. Hence landed property does not create the portion of value which is transformed into surplus-profit, but merely enables the landowner, the owner of the waterfall, to coax this surplus-profit out of the pocket of the manufacturer and into his own. It is not the cause of the creation of such surplus-profit, but is the cause of its transformation into the form of ground-rent, and therefore of the appropriation of this portion of the profit, or commodity-price, by the owner of the land or waterfall.

Fifthly, it is evident that the price of the waterfall, that is, the price which the landowner would receive were he to sell it to a third party or even to the manufacturer himself, does not immediately enter into the production price of the commodities, although it does enter into the individual cost-price of the manufacturer; because the rent arises here from the price of production of similar commodities produced by steam machinery, and this price is regulated independently of the waterfall. Furthermore, this price of the waterfall on the whole is an irrational expression, but behind it is bidden a real economic relationship. The waterfall, like land in general, and like any natural force, has no value because it does not represent any materialised labour, and therefore, it has

no price, which is normally no more than the expression of value in money terms. Where there is no value, there is also *eo ipso* nothing to be expressed in money. This price is nothing more than the capitalised rent. Landownership enables the landowner to appropriate the difference between the individual profit and average profit. The profit thus acquired, which is renewed every year, may be capitalised, and appears then as the price of the natural force itself. If the surplus-profit realised by the manufacturer using the waterfall amounts to £10 per year, and the average interest is 5%, then these £10 represent the annual interest on a capital of £200 and the capitalisation of the annual £10 which the waterfall enables its owner to appropriate from the manufacturer, appears then as the capital-value of the waterfall itself. That it is not the waterfall itself which has value, but that its price is a mere reflection of the appropriated surplus-profit capitalistically calculated, becomes at once evident from the fact that the price of £200 represents merely the product obtained by multiplying a surplus-profit of £10 by 20 years, whereas, other conditions remaining equal, the same waterfall will enable its owner to appropriate these £10 every year for an indefinite number of years — 30 years, 100 years, or x years; and, whereas, on the other hand, should some new method of production not applicable with water-power reduce the cost-price of commodities produced by steam machinery from £100 to £90, the surplus-profit, and thereby the rent, and thus the price of the waterfall, would disappear.

Now that we have described the general concept of differential rent, we shall pass on to its consideration in agriculture proper. What applies to agriculture will also apply on the whole to mining.

Notes

33. Concerning extra profit, see the Inquiry [into those Principles, Respecting the Nature of Demand and the Necessity of Consumption, lately advocated by Mr. Malthus, London, 1821. — *Ed.*] (against Malthus).

From: <http://www.marxists.org/archive/marx/works/1894-c3/ch38.htm>

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