Chapter 8: Fixed Capital and Circulating Capital

Before proceeding, we would do well to remind ourselves of certain conceptual distinctions Marx made in volume 1.

Observing that capital, as it loses its monetary form, is split up and directed into different forms of existence and transformed into different elements of the production process, Marx distinguishes between two different parts of capital:

- **variable capital**: that part of capital which is transformed into labour-power, and which consequently undergoes a quantitative increase in its value in production.
- **constant capital**: that part of which is turned into means of production, and which undergoes no quantitative alteration of value in production.

Means of production can be further subdivided into:

- **objects of labour**: what is worked on in production.
- **instruments (or means) of labour**: those forces of production which, by interposing themselves between the producer and the objects of production, mediate the action of the former. They consist in tools, etc., and those other elements on which production depends, such as workshops, roads, canals, etc.

In the case of both instruments and objects of labour their original use-value form is lost in production only to be re-assumed in a new form in the use-value of the product. But they do not function in this respect in the same way. In the case of objects of labour, use-value vanishes from the substance of the original material only to reappear in the properties of the new product; they thus lose the independent form they had when they enter the production process. The instruments of labour, on the other hand, do not lose their form (indeed, their utility precisely depends on them not doing so): their use-value is consumed, rather, over the course of their working life, so that a machine which has a life of, say, \( t \) years, will lose \( \frac{1}{t} \)th part of its use-value, and pass on \( \frac{1}{t} \)th part of its value, every year.

Objects of labour are thus transformed in form by productive labour, and, in so being, their value departs the old material body and occupies the new one, that of the product. This is a process that occurs simultaneously to, and as a consequence of, the value-creating process performed by labour-power, as a natural property of it in action: the reproduction of old value at the same time as it creates new.

It is different with regard to instruments of production. What is consumed is not their value but their use-value. Their value is more accurately preserved than reproduced, and it is preserved not because of any operation they undergo in the labour process but by virtue of the fact that their exchange-value disappears and re-appears in the value of the finished product. What is produced is a new use-value in which old exchange-value appears.\(^2\) Thus instruments of labour enter constantly and directly into the valorisation process but only in parts into the labour process.

With these points in mind, we may now return to Marx's argument in volume 2

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1 The Formal Distinctions

1 Fixed Capital\(^3\)

Instruments of labour, unlike objects of labour, which are ejected from the production process and into circulation

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1 Objects of labour are further considered as those which experience no necessary alteration through labour previous to entering the production process, and those that do. These latter Marx denotes in volume 1 as raw materials.

2 Karl Marx, *Capital* vol. 1 (Harmondsworth, 1990) [hereafter C1.], p. 316.

3 Where I insert my own subheads they appear, as here, in sans serif type.
in commodity form, never leave the sphere of production once they have entered into it. Instruments of labour give up their value to the product in proportion to their loss of use-value: the extent to which they pass on their value to the product is an average calculation in function of the time from which they enter production to that when they are used up or worn out and need to be replaced. As the instruments are used up, one – steadily declining – part of their value remains fixed in the production process.

All capital value circulates, but the capital fixed in production in form of instruments of labour circulates in a particular way:

1. This part of capital circulates not in its use form, but rather as value.

2. In addition, it circulates only gradually, to the degree in which its value is transferred to the product, which circulates as a commodity.

3. As long as they continue to function, part of the value of instruments of production remain fixed in production, distinct from the products it helps produce.

There is another component of capital which, like instruments of labour, do not enter materially into the product, and whose value circulates as a part of the value of the product, a component we can group under the heading of ‘ancillaries’: power for machines, energy for lighting and heating, etc. But this component differs from instruments of labour in that it is completely consumed in every labour process they enter into, and, as such, do not preserve their independent use-form. They therefore do not form a part of fixed capital.

Now established the concept of ‘fixed capital’, Marx now examines a number of marginal cases.

1. Unlike objects of labour, which materially enter the product, instruments of labour can only be consumed productively: they do not enter into individual consumption. An exception to this is found in the case of means of transport, whose use-effect – change of location – may also enter simultaneously into private consumption.

2. The distinction between object of labour and ancillary may become blurred in the case of the chemical industry, for example.4

3. In agriculture, soil-improving materials may materially enter the product as well producing their effect over a period of time greater than that of a single production process.

Thus:

The quality that gives a part of the capital value spent on means of production the character of fixed capital lies exclusively in the specific manner in which this value circulates. This particular manner of circulation arises from the particular in which the means [instruments] of labour gives up its value to the product, or acts to form value during the production process. This in turn arises from the special way in which the means of labour function in the labour process.5

Thus it is the function of a commodity in the production process as instrument of labour – viewed from the perspective of the circulation of capital and its turnover – and not its nature in itself, that makes it fixed capital.

Since it is the ‘durability’6 of labour that determines the size of the difference between the capital value fixed as instruments of labour and that given up in repeated production processes, the degree of fixedness of fixed capital is proportional to this durability of labour.

Means of production which are not instruments of labour but behave in the same way with respect to how value is given up in production (ancillaries, raw materials, semi-finished goods) are also, because of this, fixed capital.

4 Cf. C1, p. 288.
6 Dauerbarkeit.
Classical political economy’s essential error is the confusion of the categories of fixed and circulating capital with constant and variable capital; this error is compounded by the following:

1. The transformation of certain properties normal to the material existence of instruments of labour – immobility, for example – into intrinsic properties of fixed capital.

2. The confusion of formal economic characteristics arising from the nature of the circulation of value with the intrinsic properties of things.

What does not determine whether means of production is fixed capital or not is the length of time it remains in production: all capital that functions as productive capital is fixed in this sense to a certain extent in the production process.

The value of fixed capital acquires a dual existence: while one part remains tied to its use-form, another separates off eventually as money. Once the fixed capital is used up or worn out, this money is then reconverted into fixed capital. But the two processes – transmutation of value into money and transmutation of money into commodity – are separate. Before a machine is worn out, it does not need to be replaced, but its value circulates piece by piece as portions of the value of the commodities it produces. At the end of its life, it has been completely transformed into money, money which is accumulated, until the time comes to replace the machine, as a reserve fund.

II  Circulating Capital

All remaining elements of productive capital – ancillaries, objects of labour, labour-power (i.e. variable capital) – constitute, viewing production from the perspective of the circulation of capital and its turnover, circulating capital (sometimes ‘fluid capital’). What is specific to circulating capital is that

as far as circulation and hence the mode of turnover is concerned [...] [these elements] are completely consumed in the formation of their product, they transfer their entire value to the product [and] [t]his value is thus completely circulated via the product, transformed into money and from money back into the elements of production of the commodity. Its turnover is not interrupted [...] but passes continuously through the entire circuit [cycle] of its forms, so that these elements of the productive capital are constantly renewed in kind. [...] It is not only their value that continuously describes the whole circuit of metamorphoses, but also their material form; they are constantly transformed back from commodities into the elements of production of those commodities.8

III  Conclusions

The following conclusions can now be drawn.

1. The formal distinction between fixed and circulating capital arises from how the different elements of productive capital transfer their value to the product, which in turn arises from the different forms in which productive capital exists, in which one part is consumed entirely in the production of a given product, and another only gradually. Thus the opposition between fixed and circulating capital only exists for industrial capital in its productive form, and not in its forms of money and commodity capital. These latter forms are certainly capital in circulation contrasted with productive capital, but not contrasted with fixed capital.

2. The turnover period of fixed capital encompasses several turnovers of circulating capital. At the same time as a part of the value of fixed capital remains tied up in its use form, the product circulates the total value of the circulating component.

7 Marx uses the terms Zirkulierendes Kapital and flüssiges (more properly ‘liquid’) Kapital interchangeably.

8 C2, pp. 244-6. As we are here concerned with the turnover of capital, we are for the moment ignoring the creation of surplus-value.
The value of the fixed component of productive capital is cast into circulation all at once, but is withdrawn from circulation only incrementally through the realisation of the value portions that the fixed capital gradually adds to the commodity product. The transformation of money back into its original form of fixed capital only takes place at the end of its functional life; until this occurs no new outlay on the part of the capitalist is necessary.

If the production process be continuous, circulating capital is as ‘fixed’ in it as fixed capital is: the distinction lies in the fact that fixed capital is neither renewed as long as it lasts nor is repeatedly purchased.

The conceptual distinction between, on the one hand, constant and variable capital, and, on the other, fixed and circulating capital, may be appreciated diagrammatically like this:

2 Components, Replacement, Repairs and Accumulation of the Fixed Capital

1 The lifespan of the instruments of labour

Various elements of fixed capital in a given investment will, naturally, have different lifespans, and hence different turnover times. Different factors influence the lifespan – the effects of ‘wear and tear’ – of given elements, for example:

1 Simple use.

2 Spoilage occasioned by the effect of natural forces.⁹

3 Moral deterioration. Marx notes that the progress of industry itself revolutionises the instruments of labour; as a consequence, instruments of labour are replaced, rather than in original form, in revolutionised form. From this arises the following contradictory interplay of forces: while, on the one hand, the very lifetime of the instruments of labour themselves impedes the introduction of improved instruments, the effect of competition forces the replacement of existing instruments before their ‘natural’ time.

⁹ Marx cites the effects of weather on railway sleepers; indeed, this whole section is informed by citations from official reports on the railway industry.
II Depreciation
Depreciation (excepting moral depreciation) refers to the portion of value that fixed capital gives up to the product according to the average degree of the loss of its use-value. Certain elements of fixed capital require wholesale replacement;\textsuperscript{10} others permit partial and piecemeal replacement. This fact helps to blur the distinction between the replacement of fixed capital and the expansion of production: if the transformation of fixed capital into money is gradual, then the money thus accumulated, but not invested, is not accumulation properly understood – the transformation of surplus-value into capital – independently of whether or not it may be used to extend production.

III Maintenance Costs
In part, maintenance of fixed capital is effected through use; in part, it requires specific outlays of \textit{additional} labour. Capital expended to this effect is, despite being so outside of the normal production process, insofar as it pertains to the day-to-day running of production, circulating, rather than fixed, capital; moreover, such capital outlays are additional to the cost of replacement of the fixed capital in question. In addition, such outlays, although passed on in the price of the commodity in \textit{average} form, are realised as and when necessary, and suppose additional costs (in the form of specialist employees and resources, etc.).

Additional to these costs is \textit{insurance}, which, insofar as it is concerned with destruction caused by extraordinary natural events is made good from surplus-value. Clearly, for society to have the means of production necessary to make good destruction caused by accidents and natural forces production beyond that necessary for the reproduction and replacement of existing wealth is necessary. In fact, the greater part of the capital necessary for repair and replacement comes from the extension of production itself, rather than from the money reserve fund.

While repair and replacement costs are determined on a social scale, and the additions to price arising from them as an average, at the individual level considerable unevenness exists; this further occludes the true nature of surplus-value and its accumulation.

IV Replacement Costs, Money and Credit
While a considerable degree of replacement actually occurs incrementally, in the form of repair, it is still the case that each individual capitalist needs an amortization fund for that part of fixed capital that reaches its point of reproduction after a fixed and extended period; an accumulation of money, and money in a given quantity, is necessary before fixed capital is replaced. In volume 1,\textsuperscript{11} we saw, one, how, once the metamorphoses of sale and purchase are interrupted, money is precipitated out of circulation in the form of a hoard; and, two, that as commodity production develops, hoards develop at all points as a reserve for the commodity-producer while she makes her living, or for emergencies, such that all capitalists to some degree have to sell without buying.

Here we can see that the proportion of money existing in the form of hoards and that in circulation are subject to constant changes: large quantities of hoarded money will be thrown into circulation by the capitalist at one go to purchase fixed capital to be then divided up into means of circulation and hoard again. The significance of the credit system is to facilitate that this hoarded money functions not as a hoard, but as \textit{capital}; but this lies outside our concerns at the moment.

\textsuperscript{10} ‘A horse cannot be replaced bit by bit, but only by another horse.’ C2, p. 250.
\textsuperscript{11} C1, p. 227. We are here disregarding the credit system.