The Basic Structure of *Capital*

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Abstract: The paper demonstrates that Marx's *Capital* recognizes three spheres in modern capitalist society – bourgeois society, productive capitalism and finance capital, in each of which value appears differently. Further, that the sphere of productive capitalism is structured as a syllogism. The syllogism is immediate production of capital, and capital mediated by itself (circulation) synthesized in capitalist production in general.

It is shown that this structure allows the total value in an economy, including each of its components of variable, constant and surplus value, to be determined as the sum of the values for each unit of capital including the 'collective laborer' employed by each unit of capital, with the consequent limitation on the distribution of surplus described in Volume Three.

The paper further demonstrates that this overall structure is implemented by a sequence of 14 'simple determinations' as pre-figured in 'The Method of Political Economy' in the *Grundrisse*. This structure allowed Marx to critically reconstruct Political Economy.

1 The Overall Structure of 'Capital'

In Section 1, I will outline the three spheres of modern capitalism represented in *Capital*, and the syllogism of 'productive capitalism'. In Section 2, I will enumerate the 14 'simple determinations' or 'germ cells' that Marx used to reconstruct Political Economy.

The Immediate Production of Capital

The opening lines of *Capital* are:

> The wealth of those societies in which the capitalist mode of production prevails, presents itself as 'an immense accumulation of commodities', its unit being a single commodity. Our investigation must therefore begin with the analysis of a commodity. (Marx, 1867, Chapter 1)

In order to analyze the commodity, Marx investigates bourgeois society (*bürgerliche Gesellschaft* – literally, the townspeople), that social formation which first appeared in the towns in medieval times and in antiquity, in the interstices of the dominant sphere, and governed by a nobility. In bourgeois society, artisans and merchants exchanged the products of their own labor, using money as the universal commodity, but still in the absence of industrial capital. At no time in history has bourgeois society been a dominant sphere of society.

In historical bourgeois society, the prices of goods and the wages of journeymen and apprentices were set by guilds and courts, hours and conditions of work were strictly regulated and there was no labor market. Masters were prevented by law from hiring enough journeymen to turn themselves into industrial capitalists. Masters, journeymen and apprentices composed a single social class.

In the successive parts of Volume One of *Capital* Marx traced the conditions which led to the dissolution of bourgeois society as it came under the domination of industrial capital. Part I of *Capital* alone deals with bourgeois society, an analytical abstraction with a real social and historical basis, and the five following Parts of *Capital* introduced simple determinations characteristic of productive capitalism, a distinct sphere of modern capitalist society, which came to dominate bourgeois society and transformed it according to its own needs. (I adopt the term 'sphere' from Hegel).

Two of these moments are of significance for this Section 1: the unit of capital, introduced in Part II of *Capital*, and the 'collective laborer' introduced in Part V of Volume One.

In Part II of *Capital*, we meet Mr. Moneybags, who buys in order to sell more dearly, expressed in the abstract general formula M—C—M'. Marx calls Mr. Moneybags the embryo capitalist (*Schmetterlingsentfaltung*) which becomes a productive capitalist firm when he hires labor-power. The industrial capitalist firm is the universal form of capital. Being paid for the use of their labor-power only at its value, laborers must come to work again the next day in order to live. In this way, the industrial capitalist creates and recreates an essential condition for its own existence – a supply of impoverished laborers to exploit.

In historical bourgeois society, and in the analytical abstraction used in Part I of *Capital*, each single commodity is the product of some quantity of the labor-time of a single independent producer, and this relation makes it possible to define and ground the concept of and measure of *value* – abstract, social labor-time.

In Part V, Marx confronts the problem that, unlike the products of bourgeois society, in a capitalist firm each product of capital passes through many hands and cannot be said to be the product of any one worker. It is, however, a product of a specific unit of capital. Further, many of its workers are employed in the supervision of labor.

> The product ceases to be the direct product of the individual, and becomes a social product, produced in common by a *collective laborer*, *i.e.*, by a combination of workmen, each of whom takes only a part, greater or less, in the manipulation of the subject of their labor. (Marx, 1867, Chapter 16)

and

> In order to labor productively, it is no longer necessary for you to do manual work yourself; enough, if you are an organ of the collective laborer, and perform one of its subordinate functions. The first definition given above of productive labor, a definition deduced from the very nature of the production of material objects, still remains correct for the *collective laborer*, considered as a

> whole. But it no longer holds good for each member taken individually. (Marx, 1867, Chapter 16)

Just as the unit of bourgeois society is the 'single commodity' (1867, Chapter 1), the unit of productive capitalism is the capitalist firm, and labor of the entire workforce of the capitalist firm – the collective laborer – must be counted as units of variable and surplus capital and the entire product of the capitalist firm in a given period of time taken as the whole product and bearer of its value. In Marx's day, this analytical abstraction may not have been far from reality, with each factory pumping out a line of identical products every day.

Just as each producer of bourgeois society was independent, every capitalist firm in productive capitalism is taken as an independent producer in Volume One. This is why Marx labels Volume One as the 'direct (or immediate) production of capital'. In the case of Part I, there is no capital, so this characterization covers only Parts II to VII, but still, the entirety of Volume One concerns the direct production of *value*.

What is significant about this is that the values of the products of independent producers, each working on distinct products, side-by-side can be arithmetically added – each contributes some labor-time and these can be added. Equally, the workers in bourgeois society sell their entire products to one another. By contrast, the value of the products of each employee of a capitalist firm cannot be arithmetically added because the workers in a capitalist firm are all using the same constant capital, all working on the same product.

This leaves the value of the single commodity which is a product of capital formally indeterminate. This is as it should be, because the capitalist firm (generally) does not produce single commodities, rather a daily quantity of some definite product.

Volume One concludes with Part VII representing the wealth of modern capitalist society, once an 'immense accumulation of commodities', now transformed into accumulated capital, leaving the majority of the population in misery. This is followed by Part VIII, which reviews the historical origins behind this structure, and makes it intelligible.

The limits of Volume One

A central achievement of Volume One, therefore, is the determination of the total constant, variable and surplus value in the economy in terms of data formally available from individual firms, namely the sum of the each component of value from each unit of capital. Nothing in the remaining two volumes changes these values. The syllogistic structure of the treatment of productive capitalism explained below is the chief means by which Marx achieved this.

This in turn required determination of the logical sequence in which the concepts of Political Economy were introduced into the synthesis. Just like in Hegel's Logic, each new concept had to be introduced such that all the necessary concepts for its elaboration were already established. There is a small amount of arbitrariness in the sequence – the daily wage could have been introduced earlier, for example, but Marx had a mind to history as well as logic in planning *Capital*, and I believe he found little room for discretion in most cases.

The defect of the analysis so far is that the units of capital put money into circulation and withdraw it from circulation at a profit, but the re-creation of the conditions of its investment is not part of this unit – workers ready to work again, materials, disposables and machinery available for production and a renewed demand for its product – all these Mr. Moneybags takes for granted. It is not the business of a capitalist firm to recreate all the conditions for the existence of capitalist society. All the capitalist can do is put his capital back into circulation and draw it out again. Renewing the social fabric of capitalist society is described in Volume Two, on circulation, and that is not the business of Mr. Moneybags. But units of value which appear in multiple mutations in circulation are not additive.

The work of recreating all the conditions for the continuation of the production of capital includes all the functions of society – specifically the distribution of capital between production of means of production and production of the means of personal consumption. Once the individual capitalist firm puts its product back into the market, it loses all control of it. Circulation is a process in which capital is mediated by itself – every product of every industrial capitalist becomes the property of commercial capitalists, other industrial capitalists and innumerable private individuals in turn until the original capital is recovered for reinvestment by the capitalist which made the initial investment. No expansion of value takes place between the completion of the labor process and the return of the capital invested to Mr. Moneybags' pocket.

For the process described in Volume One, the processes described in Volume Two must *already* be in action. For example, Mr. Moneybags puts money into circulation and then withdraws it at a profit, but this is only possible because a wide variety of conditions have been brought about through the circulation of capital. He can withdraw from local markets endless supplies for his factory and find endless merchants ready to sell his products. But these conditions are taken for granted. This caveat is not applicable for the first six Parts of Volume One each successively modifying the formation in both the logical and historical sense.

The direct process of production of capital and the mediation of capital by itself take place simultaneously, both logically and historically. There is no historical or logical development from immediate production of capital to circulation of capital. They are two simultaneous premises of a syllogism. There never was nor could be direct production of capital without circulation of capital.

Volume Two of *Capital* must do the work which was taken for granted in Volume One. The first unit of Volume Two is a *circuit* of capital through different units of capital, whereas Volume One was composed entirely as if every unit of capital was *independent* of every other unit of capital. In Volume One, the subjugation of bourgeois society by capital is described with a series of distinct units. Volumes Two and Three continue with this structure which is described in full in Section 2 of this paper. However, the relation between the three sections of productive capitalism – direct, reflected and concrete – is a distinct logical form, a syllogism, quite different from the step-by-step introduction of new units elaborated in Section 2 below.

The Syllogism of Productive Capital

The outcome of the synthesis of the immediate production of capital and the mediation of capital by itself, i.e., other units of capital, is capitalist production in general – the concrete forms in which productive capitalism appears on the surface. Marx explicitly describes the structure uniting the three volumes of *Capital* as a three-fold structure:

> In Volume One we analyzed the phenomena which constitute the *process of capitalist production* as such, as the immediate productive process, with no regard for any of the secondary effects of outside influences.
>
> But this immediate process of production does not exhaust the life span of capital. It is supplemented in the actual world by the *process of circulation*, which was the object of study in Volume Two.
>
> In the latter, namely in Part III [of Volume Two], which treated the process of circulation as a medium for the process of social reproduction, it developed that the capitalist process of production taken as a whole represents *a synthesis of the processes of production and circulation*.

and Marx continues:

> Considering what this third Volume treats, it cannot confine itself to general reflection relative to this synthesis. On the contrary, it must locate and describe the concrete forms which grow out of the *movements of capital as a whole*.
>
> In their actual movement, capitals confront each other in such concrete shape, for which the form of capital in the immediate process of production, just as its form in the process of circulation, appear only as special instances.
>
> The various forms of capital, as evolved in this book, thus approach step by step the form which they assume on the surface of society, in the action of different capitals upon one another, in competition, and in the ordinary consciousness of the agents of production themselves. (Marx, 1894, Chapter 1)

Marx here describes what Hegel called the *syllogism of necessity*: the immediate mediated by its reflection in another, synthesized in the actual. In the *Science of Logic,* the syllogism of necessity is the final category of the Subject. In its general form however, it includes the syllogism which structures the whole of the Logic, namely: (1) The immediate, or Being; (2) Reflection, or Essence; (3) The Concept, or the truth of Actuality. The same structure is found in the Logic Essence: (1) Identity, (2) Appearance, (3) Actuality. It is also found in the Concept Logic: (1) Subject; (2) Object; (3) Idea.

Hegel's definition of self-consciousness in the Subjective Spirit has the same form:

> all consciousness of an other object being as a matter of fact also self-consciousness. The object is my idea: I am aware of the object as mine; and thus in it I am aware of me. (Hegel, 1830. §424)

The will was a basic concept for Hegel's *Philosophy of Right*, and he began by defining property as follows:

> I as free will am an object to myself in what I possess and thereby also for the first time am an actual will, and this is the aspect which constitutes the category of property. (Hegel, 1821, §45)

In the above instances, all of them very fundamental to Hegel's key works, the structure of the syllogism is the same: the immediate, mediated through an other becomes actuality.

Let's examine Marx's own outline of the syllogism. The first premise is the '*immediate process of production*'. The second premise is circulation, in which the product of one unit of capital is transformed into components of *other* units of capital, and again and again, until it returns to the same form of capital ready to begin a new cycle. The conclusion of the syllogism is the 'actual' movement – its 'concrete shape' to be outlined in Volume Three.

The form of syllogism – immediate, reflected, actual – appears throughout Hegel's *Encyclopedia* from which I have offered but five examples.

No new value is created in circulation; value distributes itself and is realized, but at a *cost* to surplus value; value is not expanded in circulation. Further, as prefigured in the above quotation from Marx, the action of every unit of capital upon every other continues in Volume Three, specifically in shaping capitalist production through the capital market. Just as in the commodity market discussed in Part I, the capital market does not create new value, but does move value from one sector of industry to another.

Consequently, at the conclusion of Volume One in consideration of the accumulated capital of numerous independent units of capital, the total constant, variable, and surplus value can be precisely calculated as the arithmetical sum of that of each of the units of capital with their 'collective laborer'.

In summary, the values created in Volume One by distinct and independent producers, whether in bourgeois society or in productive capitalist firms, can be added to determine the total value in an economy.

In Volume Two, the units are circuits of capital in which one and the same product passes from being a part of one capital to being part of another, repeatedly. Thus, if I were to add up the values as they appear in Volume Two, there would be extensive double counting. This would be the case wherever circulation were to be introduced. Volume Two distributes and *realizes* the total value, but it does not change its magnitude, already set in Volume One.

In Volume Three, the total value is recovered not by adding circuits but 'shaping' it, reconstructing the totality of social labor, and there is no double counting.

The syllogistic structure is what makes this possible.

Capitalist Production as a Whole

The first four Parts of Volume Three resemble the first seven chapters of Volume One in that the remaining *units* of productive capitalism are introduced, but now under conditions when a capital market exists and the

units of capital are now no longer independent. Part V introduces a new sphere of capitalist society – finance capital, and its antique predecessor, traditional landed property.

Marx's manuscript broke off at the end of the Chapter entitled 'The Trinity Formula' (Marx, 1894, p. 826) in which Marx cited Adam Smith (1776): 'Wages, profit and rent are the three original sources of all revenue as well as of all exchangeable value', (However, in his capacity of editor of Marx's unfinished manuscripts of Volumes Two and Three, Engels added another five chapters and a Supplement of his own. This obscured the significance of this juncture). This confirmed that Marx saw this Volume as concluding the conceptual reconstruction of capitalism which he had begun with its simplest determination – the commodity form of value.

The extended quote from Marx cited above however, constitutes the overall structure of Marx's representation of productive capitalism, and it is a syllogism. – the Hegelianism which the Young Marx had mocked in his 1843 *Critique*:

> In his development of the rational syllogism all of the transcendence and mystical dualism of his system becomes apparent. (Marx, 1843, Chapter 5)

It is remarkable that the Marx of 1867 had given such a central place to a syllogism, a logical form he made such a sport of mocking as a youth. His 1845 *Theses on Feuerbach* marked the beginning of the mature Marx, the Marx who wrote *Capital*, who sought to appropriate Hegel's insights without 'the illusion of conceiving the real as the product of thought concentrating itself' (Marx, 1858).

Finance Capitalism

Part V of Volume Three opened a new sphere of modern capitalist society, finance capital, with the introduction of a new unit, M—M' (1894, Chapter 21).

The first sphere is defined by: C—M—C', the commodity exchange mediated by money. The second sphere by: M—C—M', buying in order to sell more dearly. The third sphere is defined by: M—M'. Interest is charged for the *use* of the capital-commodity without alienating it, placing a cap on the general rate of profit formerly accruing to the productive capitalist who owned the capital he managed:

> the industrial capitalist, as distinct from the owner of capital, does not appear as operating capital, but rather as a functionary irrespective of capital, or, as a simple agent of the labor-process in general, as a laborer, and indeed as a wage-laborer. (1894, Chapter 23)

Under Finance capital, capital is now divorced from the productive process. The borrower must pay the interest irrespective of whether the capital is used to make a profit.

The central part of *Capital*, productive capital – spanning from pre-capitalist bourgeois society now effectively reduced to production of one commodity alone, labor-power, to finance capital destined to reduce the industrialist to the status of wage-laborer – has the distinct character of a syllogism, a logical form which is otherwise not used as an organizing principle in Marx's *Capital*.

The three spheres: C—M—C', M—C—M', and M—M' all co-exist intricately intertwined with one another in daily life in bourgeois society.

Value

Value is defined as the measure of social labor. *Social* labor is labor which produces a use-value, the substance of wealth, distinct from *private* labor, which is on my own behalf or that of my dependents or in fulfillment of traditional obligations.

Volume One describes how industrial capital transformed bourgeois society into essentially suppliers of labor-power at cost for capital while remaining the only source of value in modern capitalist society. The limiting amount of labor-power in an economy is given by the total population, the available number of working days, and the labor-time necessary for its reproduction, and the level of workforce participation. This value, the total labor-power applied to commodities, is composed of variable capital paid to workers for the subsistence and surplus value appropriated by the capitalists, plus the whole weight of the product of past labor invested in means of production which must be maintained in circulation (constant capital) while gradually consumed.

This total corresponds to the value available for redistribution in the capital and commodity markets in Volume Three. In addition to new value every year there is an ever-growing quotient of constant capital carried over from labor-power applied in previous time periods and invested in each commodity.

The total value in an economy is important because, even though prices are determined by cost-price plus profit without any reference to value, the total amount of value available for redistribution by the capital and commodity markets is limited by this total. Wealth can grow in a healthy capitalist economy, but *value* is limited.

The total value can be computed by the arithmetical addition of the variable, surplus and constant components of value contributed by all units of capital with their 'collective laborer' and capital expenditure.

The Total Value and the Overall Structure

The central structural feature of *Capital* is the representation of capital in three spheres – bourgeois society, productive capitalism and finance capital – and the representation of the sphere of productive capitalism as a syllogism. The consideration of process of production of capital initially as *direct*, i.e., unmediated production, makes possible the determination of the total variable, surplus and constant capital which may be shared by capitalists, as considered in Volume Three, completing the conceptual reconstruction of the actuality of modern capitalism.

The distribution of this value is intelligible only by treating the circulation of capital separately before synthesizing it with immediate production in the capital and commodity markets, and by recognizing that commodities, are exchanged at value only in bourgeois society, prior to its subordination by capital, reducing bourgeois society to production of labor-power.

The role of value in the life of an independent producer, whether an individual artisan, a capitalist firm or a national government, remains just as it was

analyzed in Volume One. The producer must put their mind to the deployment of its 'collective laborer' as the only source of value he has at his disposal. But the price in which a value appears is subject to 'outside influences', according to the sphere in which it is realized.

It is only in Volume Three that prices can be determined according to cost-price plus profit norms applicable under productive capitalism, now subject to the capital market. Further, the total value in an economy places limits on the redistribution of capital in the commodity and capital markets (Moseley, 2016) – a conclusion possible only thanks to the syllogism structure of the sphere of productive capitalism.

Volume Three

Volume Three of *Capital* is, according to Marx, the 'synthesis of the processes of production and circulation' (1894, Chapter 1). This is a startlingly prescient characterization of present-day capitalism. Consider, for example, the problems which Trump confronted when he tried to build a tariff wall along the US-Canadian border. This border cut not just trading relations, but right through the very process of the North American car manufacture.

Furthermore, it is on the basis of *circulation* that commercial capital arose, initially as an extension to manufacture, and transformed into finance capital, Finance capital – *pure* capital – is now the dominant sphere of modern capitalist society and Marx clearly saw finance capital as the institution through which conscious social control of production would come. For example:

> The credit system accelerates the material development of the productive forces and the establishment of the world-market. It is the historical mission of the capitalist system of production to raise these material foundations of the new mode of production to a certain degree of perfection. At the same time credit accelerates the violent eruptions of this contradiction – crises – and thereby the elements of disintegration of the old mode of production.
>
> The two characteristics immanent in the credit system are, on the one hand, to develop the incentive of capitalist production, enrichment through exploitation of the labor of others, to the purest and most colossal form of gambling and swindling, and to reduce more and more the number of the few who exploit the social wealth; on the other hand, to constitute the form of transition to a new mode of production. (Marx, 1894, Chapter 27)

It seems that Marx saw workers' control of the economy arising not from the factory floor, but from the floor of the shareholders' meeting.

2. The 14 'Germ Cells'

The overall structure outlined above must be represented by concepts which are simple and meaningful in the life-form supporting this economy. Marx uses scientific concepts such as 'constant capital' and 'rate of surplus value' in the course of his analysis in the same way a physicist uses tensors and fields as part of the analysis of a problem in modern Physics. The conditions and conclusions must however be represented in terms of the ordinary human beings who must

run experiments and take measurements. This is what is meant by 'simple determinations'. Essentially, these 'simple determinations' are countable nouns rather than abstractions or process nouns, though the language does not always provide a suitable word. As countable nouns there are usually many of them in an economy. A unit is a 'product of analysis' whereas a word expressing a movement or process implicitly references a non-identity between states; likewise, 'value' is an abstraction, a valid scientific concept, but a product of *synthesis* rather than analysis. Hegel provides more than 50 examples of units in his *Encyclopedia*, and familiarity with the *Encyclopedia* makes it clearer what is meant by a 'unit'. I will elaborate on how each unit qualifies as I take them one at a time below.

In the *Grundrisse* (1858), in what is widely recognized as his interpretation of Hegel's Logic, Marx outlined the process whereby the capitalist economy could be conceptually reconstructed as follows. Following the determination of its basic concepts by Political Economy:

> … I would then, by means of further determination, move analytically towards ever more simple concepts, from the imagined concrete towards ever thinner abstractions until I had arrived at the *simplest determinations*. (Marx, 1858, p. 100)

The writing of *Capital* begins here:

> From there the journey would have to be retraced until I had finally arrived at the population again, but this time not as the chaotic conception of a whole, but as a rich totality of many determinations and relations. … The concrete is concrete because it is the concentration of many determinations, hence unity of the diverse. It appears in the process of thinking, therefore, as a process of concentration, as a result, not as a point of departure, even though it is the point of departure in reality and hence also the point of departure for observation and conception. Along the first path the full conception was evaporated to yield an abstract determination; along the second, the abstract determinations lead towards a reproduction of the concrete by way of thought. (*ibid,*)

A careful examination of *Capital* reveals that Marx allocated one Part for each of the fourteen such simple determinations, making up the 'fine structure' of *Capital*. I have already mentioned three of these determinations, namely, the commodity, the capitalist firm, and the collective laborer employed by a capitalist firm, The other 4 Parts of *Capital* play a different role.

In each case, Marx identifies the logically, often historically, most primitive form of the relation, and then generally identifies the form which plays the *universal* role as an organic part of the capitalist system. Marx conceptually reconstructs the structure of capital on the basis of the developed, or universal, forms of these germ cells.

Nowhere does Marx explain this procedure. It has to be deduced from the text. Hegel, however, does explain the method, albeit in arcane language in 'The Idea of Cognition' in *The Science of Logic*.

In this passage, Hegel says that the conceptual reconstruction of a phenomenon must

> The progress, proper to the Concept, from universal to particular, is the basis and the possibility of a synthetic science, of a system and of systematic cognition. The first requisite for this is, as we have shown, that the beginning be made with the subject matter in the form of a universal. In the sphere of actuality, whether of nature or spirit, it is the concrete individuality (*die konkrete Einzelheit*) that is given to subjective, natural cognition as the prius (*das Erste*); but … the prius must be on the contrary something simple, something abstracted from the concrete, because in this form alone has the subject matter the form of the self-related universal or of an immediate based on the Concept. (Hegel, 1816, p. 800)

It is on this basis that Marx makes his beginning from the commodity, but as Hegel outlines, the analytical and synthetic process of cognition does not end there, but moves from universal to particular, In each division of the subject matter, a new 'germ cell' is selected from among those given to 'natural cognition'.

The fourteen 'germ cells' in *Capital* are as follows.

I. The Commodity (Vol. One, Part I)

Marx's *Capital* begins with the *commodity*, 'the simplest social form in which the product of labor presents itself in contemporary society' (Marx, 1881), its 'economic cell-form' (Marx, 1867, Preface). The commodity is the foundation of the whole work in the sense that the whole of *Capital* is concerned with the transformation and distribution of value in a series of different forms, thus enabling the reconstruction of Political Economy as a systematic science. The concept of 'value' is thus concretized by the identification of these successive forms, beginning with the commodity. As Hegel proposed, Marx begins with the commodity and not 'value', because the prius must be a 'simple something', a 'concrete individuality' given to 'natural cognition'.

The commodity is a particular kind of social labor, its use value for others, and its magnitude, exchange value — abstract labor-time, the socially necessary time required for the production of the given use value. Value is more fundamental than price, which is but the *appearance* of value, affected by a multiplicity of social conditions manifested only when the commodity is exchanged. The substance of value is therefore abstract labor-time, whatever the form of value.

Marx shows that the *universal* commodity is the *money-unit*, the universal form of appearance of value in modern capitalist society, universal because it is universally exchangeable, functions as a means of exchange and store of value. The money-unit is the necessary but insufficient condition for all that follows.

II. The Embryo Capitalist (Vol. One, Part II)

The embryo of capital is an *individual capitalist* who buys in order to sell more dearly.

> Our friend, Moneybags, who as yet is only an embryo (*Schmetterlingsentfaltung*) capitalist, must buy his commodities at their value, must sell them at their value, and yet at the end of the process must withdraw more value from circulation than he threw

> into it at starting. His development into a full-grown capitalist must take place, both within the sphere of circulation and without it. These are the conditions of the problem. (1867, Chapter 5)

Capital appeared historically at first in the particular forms of the usurer and the merchant. The *universal* form of capitalist firm is the industrial capitalist, which appropriates surplus value by the exploitation of labor-power, rather than by merely standing between seller and buyer. The industrial capitalist emerged out of bourgeois society after centuries during which bourgeois society prevented its development. The accumulation of large masses of capital via colonial trade, slavery and enclosures, and a large mass of unemployed labor, eventually broke down the resistance of bourgeois society and opened the way for modern industrial capital.

III. Unpaid Labor-time (Vol. One, Part III)

The surplus value acquired by an industrial capitalist through the employment of wage-labor is the *unpaid labor-time* worked every day by the laborer over and above the time necessary to produce the equivalent of their wage, their subsistence needs for the day. This surplus value is appropriated by forcing the laborer, one way or another, to work unpaid labor time.

Chapter 10 on The Working Day is almost 10% of Volume One. The struggle for the 8 or 10 hour day was raging in the 1860s as Marx wrote. The 8-hour struggle had begun in Melbourne, this author's home town, in 1856 and brought the organized labor movement in Australia into being. If the subject matter of *Capital* were the workers' movement, then the Working Day would have to be the germ cell, the workers' union, the unit. However, the subject matter is not the workers' movement but *capital*. The writer's choice of germ cell depends on the creature whose development is being studied. In relation to the accumulation of surplus value, the working day is insignificant, with the only exception that the working day has absolute limits. The section on 'Senior's Last Hour' makes it clear that the capitalist is well aware of the concept of 'unpaid labor-time.'

Like all the units in *Capital* which reference *time*, 'unpaid labor-time' refers to a discrete portion of a day. Thus it qualifies as a 'simple something' 'given to ordinary consciousness' and was reflected in the transformation of the notion of time and the technology of time during the Industrial Revolution.

All the surplus value accrued by the total social capital and redistributed among the various sectors of the capitalist class, and subsequently shared with landowners and finance capitalists, is equal to the total of unpaid labor time of all the workers involved in the cooperative production process.

It appears that surplus value may be acquired by other means – intensification of labor, the use of machinery, etc. However, Marx shows that if all the ingredients of the product are paid for at value, it is only unpaid labor-time that is the universal form because workers are paid at value, not robbed.

In Part III, Marx also defines second-order units which are the three component parts of capital: constant, variable and surplus value. These concepts, however, belong to Marx's analysis and are not parts of Political Economy itself.

IV. The Necessary Labor- time (Vol. One, Part IV)

The *necessary labor-time* is the portion of time generally required by each worker to produce the equivalent of their daily needs. This is paid by the capitalist to the worker. Its significance is that the progressive development of the productive forces by productive capital continuously reduces this necessary labor-time, which constitutes the share of the total social labor which accrues to the working class.

In their endeavors to increase their profits by increasing the productivity of labor, thus reducing the necessary labor time, the capitalists collectively reduce their investment in wages, the portion of capital which generates their profit.

Marx chose the necessary labor-time as unit, rather than the subsistence wage at the given moment which is the *appearance* of the necessary labor-time, in order to continue building systemic science based on daily labor-time. These various time concepts figure as *units* because they represent finite portions of one day's labor.

V. The Collective Laborer (Vol. One, Part V)

Marx identifies the unit of the *collective laborer*. Marx says that 'it is no longer necessary for you to do manual work yourself; enough, if you are an organ of the collective laborer' (Marx, 1867, Chapter 16). Marx argues that insofar as labor is necessary to produce a use-value, then it is productive, so the entire workforce of a unit of capital, insofar as it is necessary for production, must be taken as the productive unit, along with the constant capital consumed by the whole labor process. Units of capital, do not essentially produce single commodities; rather they produce a daily output, which can be divided up subsequently, just as its labor costs are distributed among individual parts of the collective laborer.

There is a strong sense in which the workforce of a single capitalist firm, its collective laborer, is *more real*, more stable, than the individual atoms who come and go week by week. The collective laborer has its own collective consciousness in its labor unions and its alienated consciousness in the firm's management structure. Its activity and its product are minutely recorded in the firms' accounts. The collective laborers of the various units of capital are the real units of the working class.

VI. The Daily Wage (Vol. One, Part VI)

The industrial capitalist pays the *daily wage* to the worker for the use of their labor-power for an entire working day. In historical bourgeois society, the wages of journeymen and apprentices were set by the guild or by a court – there was no labor market. As capital took over command of bourgeois society, labor-power was converted into a commodity and its value determined by the labor market.

The value of the use of a day's labor-power is the labor-time necessary for the production of a day's labor-power. Marx isolates this unit to analyze the various particular forms of payment which serve to disguise the nature of the value of the worker's labor-power. The daily wage is the universal form of wage because labor-power is produced by the day, even if it is used by the hour.

Parts VII and VIII of Volume One are not units.

This completes the immediate production of capital, *i.e.*, one unit of capital at a time. Up to this point, the conceptual reconstruction can be imagined as a successive modification of bourgeois society. This process is concluded in Part VII of Volume One, in which wealth has transformed from an immense accumulation of commodities into an immense accumulation of capital, alongside poverty.

As has been already noted, throughout Volume One, in each Part, the relevant producer is taken as if in isolation from every other. For example, though Mr. Moneybags must put his capital into circulation, he has no part in its circulation. Were the process whereby Mr. Moneybags' produce is transmuted into money and back into capital to be included in the unit, then the relevant value forms are no longer addable. If Mr. Moneybag's daily product were presumed to compete on price or quality with the products of other capitalists, then the whole validity of the argument would break down.

Thus, at the end of Volume One, the total value of commodities and surplus value is determined by arithmetical addition, but the interaction of capitals and commodities on the relevant markets are still to be taken account of. As pointed out, the correction of this defect in Volume Two has a different logical form, but can still be taken as a successive conceptual reconstruction.

VII. The Circuit of Capital (Vol. Two, Part I)

The basic unit of Volume Two is the complete circuit of a commodity from money-capital to productive capital to commodity-capital and back to money-capital, ready for reinvestment in expanded magnitude. This is a necessary condition for Mr. Moneybags' continued existence, and Moneybags is counting on his investment returning to him with profit, but he has no control of it. This *universal* unit is interlaced with the *particular* units – the circuit of commodity-capital and the circuit of productive capital. The circuit of capital exists in the hopes and expectations of every capitalist, and as a participant in circulation, he must consciously participate in the realization of value in circulation. In a sense, a circuit of capital is an imaginary unit because nothing material unites the product which leaves the factory with the money paid by some consumer to some merchant which ends up back in Moneybags' pocket. But like value itself it is a *real abstraction*.

The circuit of a single capital is the germ cell of an entire capitalist economy, now looked at from the point of view of circulation with production itself being merely one link in a circuit.

Each individual capital plays a part in ensuring the conditions for the renewal of each circuit of capital in the absence of any overall plan.

VIII. Turnover (Vol. Two, Part II)

The conception of circulation is incomplete without the element of time. *Turnover* is the time taken for a unit of capital to complete its circuit and return to capital in the same form. The turnover time, widely varying from one kind of commodity to another, makes the denominator in the determination of the rate of profit. The need to put capital into circulation and pull it back out as fast as possible forces the capitalist to reduce the turnover time.

Part III of Volume Two (not a unit)

Part III of Volume Two is not a unit, but the *completion* of the syllogism mentioned above. Volume Two sets out from a mass of accumulated capital, and Part III concludes the process of capital mediating itself by the allocation of a portion of capital to production and a portion to personal consumption. It is an outcome, not a germ cell. For this outcome to be realized, the action of each capital upon another through the capital and commodity markets must be analyzed. The unit of capital is still the single capitalist firm, but it is *no longer taken in isolation*. The conditions set by bourgeois society which determined that commodities are exchanged at value are no longer applicable as the producers are not single laborers producing single commodities, but capitalist firms employing collective laborers to produce a daily quota of products.

Similarly, in Volume Three, Marx produces the outcome of the conceptual reconstruction, concluding in Part VII with the division of wealth into the three sources of revenue – land, interest and labor – the configuration which the Political Economists set out to explain.

IX. Cost-price and Price of Production (Vol. Three, Part I)

The cost-price is the portion of the total value of a commodity which is accounted for by the total capital invested, irrespective of its division into constant capital and wages. The price of production is the cost-price plus profit on the total capital invested. In reality, this profit will vary according to innumerable factors, which Marx enumerates in this Part. The *universal* relation is established in the next Part with the general rate of profit.

This unit is unusual in that Marx specifies two distinct concepts; price of production is the cost-price plus profit. What is indeterminate at this point, however, is profit, the difference between the cost of production and price demanded for the product.

Cost-price and price of production are both *appearances* and do not correspond to objective needs of society for its reproduction. This is the *appearance* of the economic categories under the rule of capital, and value plays no part in the thinking productive capitalists. As was the case with necessary labor-time, value exerts itself only through the combined action of all units of capital together.

X. The General Rate of Profit (Vol. Three, Part II)

The *general rate of profit* is a product of the totality of economic conditions at the time; it appears in the mind of the capitalist through his familiarity with trading conditions, interest rates and the welfare of his fellow capitalists. The *average* rate of profit, the total social surplus divided by the total capital invested over a year, if known at all, is merely one of the appearances of the general rate of profit. As ineffable as it is, the general rate of profit is a reality of industrial capitalism. Like 'value' it is known only through its appearances. As Marx demonstrates, in line with capitalist norms, this rate is *generalized* by the joint action of the commodity market and the capital market, and applies to all units of capital whether productive or commercial.

The rate of profit can be equalized only if industries which are inherently more profitable effectively *cross-subsidize* those sectors that have a large quota of constant capital to sustain. This happens by commodities being sold *above or*

below their value and by the movement of capital on the capital market in the capitalists' pursuit of maximization of their profit.

XI. Accumulated Fixed Capital (Vol. Three, Part III)

Marx demonstrates that the drive to increase the productivity of labor inevitably leads to a disproportionate increase in the mass of material and machinery which the capitalist has accumulated and which must be put back into circulation. Therefore, with the increase in the rate of surplus value, the absolute value of profit grows, but its proportion to capital advanced, the rate of profit, tends to decline.

Accumulated fixed capital appears as an *outcome* of past activity. Marx is interested here, however, in a new process which he sees unfolding in the historical development of capitalism – the falling rate of profit. So, 'accumulated fixed capital' is a germ cell in relation to this historical crisis of capitalism. The capacity of this unit to continue as the bearer of invested capital is increasingly brought into doubt.

XII. The Commercial Capitalist (Vol. Three, Part IV)

The *commercial capitalist* is a capitalist firm which buys in order to sell more dearly, but deals solely with forms of credit arising in the circuit of commodity capital. Originally, the commercial capitalist provides a necessary component of the realization of the surplus value extracted by the industrial capitalist, but nonetheless, it must be paid for as a cost to surplus value.

The activity of commercial capital in its *pure* form is speculative, however, and does not contribute to the creation of the social surplus. The universal form of commercial capitalist is the finance capitalist.

XIII. The Finance Capitalist (Vol. Three, Part V)

The *finance capitalist* is a capitalist firm which *loans* money-capital without releasing ownership of it, and charges interest for its use. This is the *universal* form of finance capital; *particular* forms of finance capital include those firms that hire out the use of infrastructure such as warehouses or roads or platforms like Facebook or Google Earth on the same basis.

In finance capital, *function is divorced from ownership*. The interest of finance capital in the expansion of credit serves as a burden on the back of productive capital and the source of a new class antagonism.

XIV. The Private Landowner (Vol. Three, Part VI)

The *private landowner* is a unit of the structure of modern capitalism which plays no part in production whatsoever, but charges a levy on productive capital by means of its monopoly control of land. The private landowner is a redundant class, surviving only on the basis of an inherited monopoly of the land.

Part VII of Volume Three is not a unit, but simply completes the immanent critique of political economy, as Marx's original manuscript breaks off in Chapter 48, citing the words of Adam Smith (1776): 'Wages, profit, and rent are the three original sources of all revenue, as well as of all exchangeable value'.

In concluding this section on units, it is important to note that the *sequence* of units in *Capital* was derived by Marx from his analysis of political economy

beginning from the commodity – a category of social labor, *not* a logical category. The *method* is logical, but the *content* is drawn from the units appropriated by Marx from political economy in the light of economic history, the logic of the subject matter itself.

Qualifications

Marx wrote at a time when it was possible to treat the British economy in abstraction from the world economy of which it was a part. That is no longer possible as all national economies are deeply embedded in a global economy. However, that is beyond the scope of this study. Marx was also able to abstract from the role of the State in the economy, something which is quite untenable today. The state and civil society have distinct historical origins, and just as the significance of the traditional landowner has faded, the significance of the state has expanded, especially since World War II. All those features of twenty-first century capitalism which Geert Reuten (2019) introduced under 'manifestations of capitalist accumulation' would need to be approached on the basis of Marx's *Capital*, as a fourth sphere of activity, challenging finance capital for dominance. But that would take us beyond the scope of this study. Finally, the rise and dominance of network-enabled businesses in present-day capitalism present new challenges, but I believe that Marx's *Capital* remains a sound basis to confront these challenges.

Conclusion

Marx's *Capital* is one of richest texts of modern times. It has *not* been my intention to summarize it, but I believe that the depth of the book and its many byways can best be understood if its basic structure is first grasped.

As I have shown, this structure is made up of three spheres of economic activity – bourgeois society, productive capitalism, and finance capital. Productive capitalism is treated as a syllogism – immediate production of capital, circulation, and capitalist production as a whole. This overall structure is built from a series of fourteen 'germ cells' or 'units', all well-known concepts of Political Economy, which Marx critically examines in turn, reconstructing the complex whole such that its inner dynamics are laid bare.

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