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**ON MARX'S CRISIS THEORY
IN THE ORIGINAL MANUSCRIPT
OF THE 3RD VOLUME OF CAPITAL**

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Abstract

The notion of *capital overaccumulation*, as constructed by Marx in Volume 3 of *Capital* on the basis of his “preliminary definition” of “absolute overproduction”, is considered in this paper as the key element of Marx’s crisis theory. Following what the author considers as the logic of Marx’s analysis, the paper concludes that economic crises shall be identified neither with the law of the tendential fall in the profit rate, nor with some supposedly intrinsic underconsumption of the labouring classes. Instead, crises shall be comprehended as the outcome of the fusion of a variety of factors which suppress the rate of profit. An economic crisis can be described, therefore, as a *conjunctural overaccumulation*, i.e. a conjunctural production of commodities (means of production and means of consumption) in such quantities and prices, that they temporarily hinder the accumulation process. In the last instance, all categories of factors affecting the value composition of capital and the profit rate are overdetermined by class-struggle, the main object of which is the (level of) exploitation of the labour force.

1. Introduction

Economic crises of capitalism constitute an immediately conceivable reality, with typical characteristics. This explains why Marx and Engels repeatedly referred to economic crises many years before Marx developed the theoretical system of the *Critique of Political Economy*. Until the publication of Volume 1 of *Capital*, in 1867, Marx had referred to the economic crises in a descriptive rather than a theoretical manner (Heinrich 1995).

The third Volume of *Capital* has always been regarded as one of the major texts where Marx's theses on economic crises are presented, as it deals with subjects like the *falling rate of profit* or *capital surplus*. However, the recently (1992) published original Manuscript of Capital III (MEGA II, 4.2) has made clear "that Engels made significant modifications to the manuscript, despite his own claim that he had restricted his role to one of faithfully presenting Marx's work. Changes to Marx's text include design of headings, insertion of sub-headings, and textual transpositions, omissions and insertions. The changes have real impacts on the text, especially in the area of crisis theory, the theory of credit, and the relation between capitalism and commodity production" (Heinrich 1996-97, p. 452). If one excluded the insertions made by Engels, the German version of the 3rd Volume would be "shrunk" to 580 from 860 pages! (Hecker 1998). Therefore, the study of Marx's elaborations (on economic crises) must, from now on, take also into consideration the original Manuscript of Capital III.

Marx refers extensively to economic crises of capitalism in the third section of Volume 3 of *Capital* (MEGA II, 4.2, Drittes Kapitel –or Part 3, Chapters 13-16, of the version edited by Engels), which bears the general title "The Law of the Tendential Fall in the Rate of Profit". A special emphasis on the subject is given in the section of Volume 3 which was labelled by Engels "Surplus Capital Alongside Surplus Population" (MEGA II, 4.2, pp. 324-333, Marx 1991, pp. 359-368).

Marx names economic crises "crises of overproduction", explaining: "*Ueberproduction von Capital* (= Plethora von Capital), nicht von einzelnen Waaren, (obgleich Ueberproduction von Capital stets Ueberproduction von Waaren einschließt) heißt doch weiter nichts als *Ueberaccumulation von Capital*" (MEGA II, 4.2, p. 325).¹ Furthermore he states that crises block the reproduction of the capital relation per se: "Aber es werden zu viel Arbeitsmittel und Lebensmittel periodisch producirt um sie als Exploitationsmittel der Arbeiter zu einer gewissen *Rate des Profits* functioniren zu lassen" (MEGA II, 4.2, p. 332).²

However, crises are only a temporary shaking or destabilisation of the capitalist expanding reproduction process and simultaneously a mechanism for re-establishing balance and restoring the profit rate level; "Crisen sind immer nur momentane Lösungen der vorhandenen Widersprüche und gewaltsame Eruptionen, um das gestörte Gleichgewicht wieder herzustellen" (MEGA II, 4.2, p. 323).³

According to Marx, therefore, crises are characterised by a "plethora of capital" (Marx 1991, p. 359, MEGA II, 4.2, p. 325), an overproduction of capital, both in the form of (invested) means of production and in the form of unsold (consumption and investment) commodities. This overproduction is never absolute –referring to social needs— but relative, determined by the social character of the capitalist mode of production. It always refers to the consumption capacity (of means of private consumption and means of production) of a specific capitalist society. Under capitalist conditions, the realisation of commodities must ensure a "*given rate of profit*" which corresponds to "the 'healthy' and 'normal' development of the capitalist production process" (Marx 1991, p. 364, MEGA II, 4.2, p. 329).

1. "Overproduction of capital and not of individual commodities – though this overproduction of capital always involves overproduction of commodities – is nothing more than overaccumulation of capital" (Marx 1991, p. 359).

2. "Periodically, however, too much is produced in the way of means of labour and means of subsistence, too much to function *as means for exploiting the workers at a given rate of profit*". (Marx 1991, p. 367, emphasis added, J. M.).

3. "Crises are never more than momentary, violent solutions for the existing contradictions, violent eruptions that re-establish the disturbed balance for the time being" (Marx 1991, pp. 357).

Overproduction of capital (over-accumulation), having as its counter-side the *retardation of effective demand* regarding production (underconsumption) and a *fall in the profit rate*, are concepts which aided Marx in describing the interrelated forms of manifestation of economic crisis. The crucial task is to distinguish which of these concepts constitutes the main, the decisive-structural relation of capitalist economic crisis. According to the answers given to this question, Marxist theorists were divided into three distinct theoretical streams: the underconsumptionist approach, the theory of capital over-accumulation and the approach of the tendentially falling profit rate, (all of which were formulated shortly after the death of Marx and Engels) (Milios 1994).

In the present paper I will attempt to undertake a “systematic reading” of Marx’s statements and elaborations on economic crises in the original Manuscript of Volume 3 of *Capital*, in an effort not only to systematise his concepts and ideas, but mainly to locate the “inner logic” of his analysis, and to comprehend to what extent a crisis theory is included in or related to his *theory of the capitalist relations of production*. To my opinion, the concept of *capital overproduction* shall be regarded as the key notion of Marx’s ideas, and this concept is more systematically discussed in Volume 3 of *Capital*, than in any other of Marx’s writings.

2. Internal-necessary and external determinations

On comprehending Marx’s approach to capitalist crises and the notion of capital overproduction, one is forced in one way or another, to confront the logic of *Capital*; that is the internal coherence and the organisation rules of the Marxian logical constructions.

Marx’s analyses of the capitalist socio-economic relations, (in *Capital*, as well as in his other 1857-1867 writings), are logically based upon the distinction between “internal” and “external” determinations. One understands *internal determinations* of (every) capitalist production process as the necessary relations, which remain unchanged and are constantly present, regardless of all the changes in historical development. These relations are present even though they remain hidden beneath the surface of everyday events and the changes of economic, political or ideological conjuncture. Internal determinations of capitalist relations of production constitute what Marx defined as the (capitalist) *mode of production*. On the contrary, the *external determinations* of capitalist relations of production constitute the variety of effects and events which do not originate from the unchanged structural characteristics of the given type of society (mode of production), but from the *changing mutual strengths* in the class struggle of the antagonistic classes, within one and the same type of class power. For example, capitalist exploitation and surplus-value extraction is an internal determination of social relations in every capitalist society. The fact that we are dealing with a capitalist society though, does not indicate that the working day will be 12, 10 or 7 hours, that the welfare services will be more or less extended, or that the workers’ trade unions will be strong or weak, etc. These last relations belong to the variety of external determinations (external to the structural connections that constitute the capitalist mode of production), which can take on many different forms in different countries, or in the different historical phases of a capitalist society (Dumenil 1978, Althusser/Balibar 1997).

What is most important in Marx’s elaboration, is his analysis of the way these two forms of social relations articulate with each other. He clearly showed that the external determinations do not constitute any violation of the economic laws arising from the internal determinations, nor are they acting restrictively or in contradiction to these laws. On the contrary, the external determinations act *only through* the necessary internal relations. Their action therefore, is mediated by the “economic laws”. To name the most characteristic example from Volume 1 of *Capital*, the formation of the value of the labour-force, is not the outcome of two independent factors acting separately from one another – namely the socially necessary labour time for the production of the workers’ means of subsistence on the one hand, and the historically-concrete political or trade-union strength of the working class on the other. These two factors do not produce any separate results which can then be added or mutually revoked. The relations external to the law (the concrete results of the class struggle)

act through the necessary internal relations. The strengthening of the working class causes an increase in the socially necessary labour time and therefore an increase in the value of the labour-force (Ioakimoglou & Milios 1993).

The presentation of the capital overproduction (over-accumulation) concept shall therefore be based on the distinction between internal-necessary determinations on the one hand (which constitute elements of the economic laws), and external determinations of the production process on the other.

3. The concept of absolute overproduction and the profit rate

The crucial point of Marx's analysis of *capital overproduction* is the definition of the "absolute overproduction". It can be regarded as a kind of preliminary definition which then leads to the definition of the "relative overproduction".⁴ The absolute overproduction refers to a boundary situation, which allows Marx to formulate a clear and comprehensible definition. (At this point, Marx adopts a methodology which is common in the natural sciences, e.g. the "boundary definition" of the "ideal gases"). We now follow Marx's definition:

"Es wäre eine *absolute* Ueberproduction von Capital vorhanden, sobald das zusätzliche Capital für den Zweck der capitalistischen Production = 0. Der Zweck der capitalistischen Production ist aber *Verwerthung* des Kapitals, d.h. Production von *Mehrwert*, von *Profit*, *Aneignung von Surplusarbeit*. Sobald also das gewachsne Capital in einem Verhältniß gewachsen wäre, zur Arbeiterbevölkerung, da weder die absolute Arbeitszeit, die diese Bevölkerung liefert, ausgedehnt, noch die relative Surpluszeit erweitert werden könnte (das letzte wäre ohnehin nicht thubar, in einem Fall, wo die Nachfrage nach Arbeit so groß, also Tendenz zum Steigen der Löhne), also das *gewachsne Capital* nur *ebenso viel* oder selbst *weniger Mehrwerth* – wir sprechen hier von der absoluten Masse, nicht von der Rate des Profits – producirte, als das Capital vor seinem Wachstum, so fände eine *absolute Ueberproduction von Capital* statt. D.h. das ursprüngliche $C + \Delta C$ producirte nur P (wenn dies die Summe des von C producirten Profits) oder gar $P - x$. In beiden Fällen fände auch ein starker und plötzlicher Fall der allgemeinen Profitrate statt, dieimal wegen eines change in der Zusammensetzung des Capitals, der nicht der Entwicklung der Productivkraft geschuldet, sondern einem Steigen im *Geldwerth* des *variablen Capitals* und ihrer entsprechenden Abnahme im Verhältnis der *Surplusarbeit* zu der im *variablen Capital* vergegenständlichten Arbeit" (MEGA II, 4.2, 325-326).⁵

Firstly, there is a distinction to be made in the above definition. In this case, of absolute capital overproduction, the fall in the profit rate is *not the result of a development in the labour-force's productive capacity* (with a subsequent increase in the organic composition of capital –at a higher rate than the increase in the surplus-value rate). This argumentation

4. "Die wirkliche Ueberproduction von Capital nun ist nie identisch mit der hier betrachteten, sondern ist gegen sie betrachtet nur eine relative" [Now the real overproduction of capital is never identical with the one we consider here but, compared with it, it is only a relative one] (MEGA, II, 4.2, p. 329).

5. "There would be an absolute overproduction of capital as soon as no further additional capital could be employed for the purpose of capitalist production. But the purpose of capitalist production is the valorisation of capital, i.e. appropriation of surplus labour, production of surplus-value, of profit. Thus as soon as the capital has grown in such proportion to the working population that neither the labour-time that this working population supplies nor its relative surplus labour-value can be extended (the latter would not be possible in any case in a situation where the demand for labour was so strong, and there was thus a tendency for wages to rise); where, therefore, the expanded capital produces only the same mass of surplus-value as before, there will be an absolute overproduction of capital; i.e. the expanded $C + \Delta C$ will not produce any more profit, or will even produce less profit, than the capital C did before its increase by ΔC . In both cases there would even be a sharper and more sudden fall in the general rate of profit, but this time on account of a change in the composition of capital which would not be due to a development in productivity, but rather to a rise in the money value of the variable capital on account of higher wages and to a corresponding decline in the proportion of surplus labour to necessary labour" (Marx 1991, p. 360).

is related to the fact that in previous sections of the third volume of *Capital*, (MEGA II, 4.2, p. 285-324), Marx had already formulated and analysed the law of the tendential fall in the rate of profit as a *ceteris-paribus* outcome resulting from a development of the productive capacity of the labour-force –under the presupposition that the technical composition of capital increases faster than the productivity of labour.

In the definition of absolute overproduction Marx makes it clear, therefore, that he refers to a fall in the profit rate determined by factors other than in the case of the law of the tendential fall. In the case of absolute overproduction, it is “the decline in the proportion of surplus labour to necessary labour” [“Abnahme im Verhältnis der *Surplusarbeit* zu der im *variablen Capital* vergegenständlichen Arbeit” (op. cit.)]. In other words, the determining factor in the fall of the profit rate is now the *decrease in the surplus-value rate*.

For reasons arising from the history of the labour and communist movement, this Marxian argumentation has not been seriously considered by Marxists, who tend to think that almost every fall in the profit rate is a result of an increase in the value (organic) composition of capital. Furthermore, many Marxists consider every increase in the value (organic) composition of capital to be an outcome of the increase in labour productivity due to technical change (law of the tendential fall). However, as we will discuss later, Marx considers the value (organic) composition of capital to depend also on other factors (“Oekonomie in Anwendung des constanten Capitals”, “Preischwankungen des Rohmaterials”, MEGA II, 4.2, S. 110-178 –Marx 1991, Ch. 5 & 6, pp. 170-234).

In any case it is apparent that the profit rate depends on two “variables”: the surplus-value rate on the one hand, and the value composition of capital on the other. One should note at this point, that the definition of Marx quoted above, seems to take into consideration only the surplus-value rate, that is the relation between surplus labour and necessary labour. However, this “one-sided” analysis is not due to an omission or a theoretical mistake. It is connected with the application of an *analytical method* widely used in the natural sciences and well-known to Marx. This method is the study of the change of a specific quantity under the influence of the change of another quantity, taking into account that all other factors remain constant. The definition of capital overproduction allows Marx to study the influence of changes in the surplus-value rate (i.e. the rate of exploitation of labour by capital) on the profit rate, while all other factors, including the value (organic) composition of capital, are regarded as constant.

The question that now arises is in what way does Marx study the *combined effect of value (organic) composition* –which does not depend only on the increase in labour productivity due to technological change— *and surplus-value rate* on the profit rate? Considering the profit rate to be the dependent variable (R), then the exploitation rate (m/v) and the value (organic) composition of capital (C/v) will be the independent variables, according to the following relation:

$$R = \frac{m}{C + v} = \frac{m/v}{(C/v)+1} \quad (1)$$

where m stands for surplus-value, v for the variable part of capital (value of labour-force), and C for constant capital (value of the means of production); m/v is then the exploitation rate (surplus-value rate).

As mentioned, Marx studies the influence of (m/v) on R by considering (C/v) as a constant quantity (MEGA II 4.2, pp. 324-340, or in section 3, chapter 15 of Volume 3, as it was edited by Engels, Marx 1991, MEW 25), where he defines over-accumulation. On the contrary, when he studies the “nature of the law” of the tendential fall in the profit rate (MEGA II 4.2, pp. 285-301, or chapter 13 of Marx 1991 -MEW 25), he initially considers (m/v) as a constant quantity. Therefore, *it seems* that he successively studies the influence of the independent variables on the dependent one, in an effort to cover all possible cases and factors that determine the change of the dependent variable.

However, in the last case (the “nature of the law” of the tendential fall in the profit rate), he only considers changes in C/v due to technological change. In addition, his first assumption, that an increasing labour demand due to the capital accumulation (“Sobald also das gewachsne Capital in einem Verhältniß gewachsen wäre, zur Arbeiterbevölkerung, da...” – “as soon as capital has grown in such proportion to the working population that ...”, op. cit.) will lead to a falling rate of surplus-value and subsequently to a fall in the profit rate and to (absolute) capital over-accumulation, is also *one-sided*: His argumentation with regard to changes in the surplus-value rate, is that this is due to the lack of additional workers (very low unemployment rate) and to subsequent increases of real wages. However, the surplus-value rate depends also on *other factors*, which Marx does not seem to feel obliged to explain. The *absolute labour time*, on the one hand, does not depend exclusively on the number of workers, but also on the length of the working day. On the other hand, the *relative labour time* (i.e. the rate of exploitation) does not only depend on the wages, but also on the increase in labour productivity. These “omissions” by Karl Marx concerning the definition of capital over-accumulation can be explained as follows:

* The length of the working day is purely an external relation with regard to the examined internal economic determinations, as explained above.

* The labour productivity is regarded as an unchangeable factor, exactly like the value (organic) composition of capital.

Therefore we are not dealing with omissions in Marx’s analysis, but with his scientific method of abstraction. The economic law does not refer to the concrete capitalist relations in a given society. It refers to their “kernel”, or inherent elements of their specific structure, having excluded:

a) all the multiple external determinations, which occur in one form or another, and depending on the changing economic, social and political conjuncture in a given society, may not even exist.

b) all determinations which are considered *temporarily* constant, so that the effects of each “independent variable” on the “dependent variable” become separately apparent.

It is obvious, for instance, that in the case of a concrete analysis of a concrete reality, the assumptions of a constant labour productivity or value composition of capital shall be abandoned. This means that when the decrease in the exploitation rate is being compensated for by an even higher decrease in the value composition of capital, the profit rate will rise instead of fall.

The following question shall be now posed – Under what circumstances does a change in the rate of exploitation, (as Marx described it in *Drittes Kapitel*, [section 3, chapter 15], volume 3 of *Capital*, MEGA II, 4.2, p. 324-340) lead to a decrease in the profit rate and to an economic crisis? Marx deals with this problem in a section of Volume 3 of *Capital* which precedes the formulation of the law of the tendential fall in the profit rate.

4. Factors affecting the value (organic) composition of capital

Let us follow then the methodology of Karl Marx. This time we will consider the surplus-value rate (m/v) as a constant quantity and deal with the relation between the value composition (C/v) of capital and the profit rate (R). One could argue that this problem is stated and solved by Marx principally in the *Drittes Kapitel* of Volume 3 of *Capital* (MEGA II, 2.2, pp. 285-324 –or in part 3 of Volume 3 as it was edited by Engels, and more precisely in chapter 13). Here he deals with the famous law of the tendential fall in the profit rate, claiming that the increase in the productive force of labour, due to technical innovation, causes (under certain presuppositions) an increase in the organic (value) composition of capital and a subsequent decrease in the profit rate. However, the value composition of capital depends on a series of factors other than technological change, which are considered here (*Drittes Kapitel*) as constant quantities. For this reason, our analysis shall focus its attention on the *Erstes Kapitel* of Volume 3 of *Capital* (part 1, –chapters 1-7).

Let the following relation guide us:

$$\frac{C}{v} = \frac{C}{Y} \cdot \frac{Y}{v} = \frac{C}{Y} \cdot \frac{(m+v)}{v} = \frac{C}{Y} \cdot \left(\frac{m}{v} + 1 \right), \quad (2)$$

which means that:

$$R = \frac{m/v}{C/Y[(m/v)+1]+1} \quad (3)$$

where Y is the net product, that is the sum of surplus-value and value of labour force (variable capital).

The above relation (2) shows that the factors influencing the value (organic) composition of capital (C/v) can be analysed to the factors that influence the surplus-value rate (m/v), on the one hand, and those that influence the quantity (C/Y), on the other.⁶

This last quantity expresses the value of constant capital which is necessary for the production of one unit of product. The increase or decrease of this quantity illustrates, therefore, the ability of capitalists to spare or economise on constant capital (or to purchase it in favourable prices). Marx himself devoted a significant part of his analysis to this subject (“Oekonomie in Anwendung des constanten Capitals”, but also “Preißschwankungen des Rohmaterials”, “Freisetzung und Bindung, Wertsteigerung und Entwertung von Capital”, MEGA II, 4.2, S. 110-207 –chapters 5 and 6 in the version of Volume 3 which was edited by Engels).⁷ In this part of Marx’s text we find the enumeration of all factors related to the ability of capitalists to economise on constant capital, or to lower its price.

Once again, Karl Marx follows the abstraction method we described above. He considers that the surplus-value rate is “given” (i.e. constant), which “is a necessary assumption, if we are to investigate the situation in its pure form” (Marx 1981, p. 171, p. 200).⁸ He then describes the factors which ensure or restrict economy in the use of constant capital.

More precisely, the factors affecting the value composition of capital can be sorted in the following categories:

A) Those factors which are related to the time and intensity of the means of production utilisation, *at a given technology of production and technical composition of capital*:

– *Lengthening of the workday or workyear*: „Der Umfang des Theils des constanten Capitals, der aus *fixem Capital* besteht, bleibt derselbe, z.B. Fabrikgebäude, Maschinerie u.s.w., ob 16 oder 12 Stunden damit gearbeitet wird. Die Verlängerung des Arbeitstags erheischt keine neue Auslage in diesem, dem kostbarsten Theil des constanten Kapitals” (MEGA II, 4.2., S. 111).⁹

– *Economy on the conditions of work at the expense of the workers*: „Ihrer widersprechenden und gegensätzlichen Natur nach geht die capitalistische Produktionsweise dazu fort, *die Verschwendung mit dem Leben, der Gesundheit des Arbeiters, die Depression seiner Existenzbedingungen selbst zur Oekonomie in der Anwendung des constante Capitals*

6. A change in factor C/Y can be the result of either a change in (Y/N) or/and in (C/N), since: C/Y = (C/N)(N/Y), where N is the number of workers, (Y/N) is the “apparent labour productivity”, assuming that the length of the workyear is constant, and (C/N) is the “capital intensity”.

7. “Economy in the use of constant capital” and “The effect of changes in price”, (Marx 1991, pp. 170-234).

8. “Bei dieser Untersuchung (...) gehn wir davon aus, daß Mehrwerth und Rate des Mehrwerths gegeben ist” (MEGA, II 4.2, 1110-11). “Es wird in diesem Paragraphen, wie in dem frühern, vorausgesetzt der *Mehrweth als constant*; jedenfalls vorausgesetzt, daß kein *Wechsel* in der *Rate des Mehrwerths* stattfindet. Diese Voraussetzung nöthig, um den Fall in seiner Reinheit zu untersuchen“ (MEGA, II 4.2, 164).

9. “The volume of fixed capital (factory buildings, machinery, etc.) remains the same, whether work continues for 16 hours or for 12. The extension of the working day requires no new expenditure on this, the most expensive portion of the constant capital.” (Marx 1991, page 170).

zu zählen und so als Mittel zur *Erhöhung der Profitrate*“ (MEGA II, 4.2., S. 120).¹⁰

B) Those factors which are related to the skills and the concentration of the collective worker, or, in other words, to the possibility of increasing labour productivity *without any change in the technical composition of capital* –or the technological status of the production process:

– *Socially combined labour (concentration and cooperation of workers, social character of labour)*: “Durch die Concentration der Arbeiter und ihre Cooperation auf grosser Stufenleiter wird einerseits constantes Capital *gespart*. Dieselben Baulichkeiten, Heizung, Beleuchtung u.s.w. kosten weniger verhältnißmassig, wenn auf grosser als wenn auf kleiner Produktionsstufe angewandt. Ebenso wächst die Kost eines Theils der Maschinerie etc, z. B. Dampfkessel steigt nicht im Verhältnii ihrer Pferdekraft. Obgleich ihr absoluter Werth steigt, fällt ihr *relativer*, im Verhältnii zu der Stufenleiter der Production und der Grösse des variablen Capitals, das in Bewegung gesetzt oder der Masse der Arbeitskraft, die exploitirt wird. Die Oekonomie, die ein Capital in seinem eignen Produktionszweig, z. B. der Spinnerei anwendet, beruht direkt auf *Oekonomie der Arbeit*, d. h. möglichst wenig bezahlte Arbeit seiner eignen Arbeiter; die eben erwähnte Oekonomie beruht dagegen darauf, diese *möglichst größte Aneignung fremder unbezahlter Arbeit* in der möglichst ökonomischen Weise, d. h. auf der gegebenen Stufenleiter mit den möglichst geringen Kosten zu bewerkstelligen“ (MEGA II, 4.2, S. 116-117).¹¹

– *Economy designated by the experience of the collective worker*: „Endlich aber entdeckt und zeigt erst die Erfahrung des combinirten Arbeiters, wo und wie zu ökonomisiren, wie die bereits gemachten Entdeckungen praktisch am einfachsten auszuführen, welche praktische Frictionen bei Ausführung der Theorie – ihrer Anwendung auf den Productionsproceß – zu überwinden u.s.w.“ (MEGA II, 4.2, S. 116-117).¹²

– *Economy as a result of the appropriate education of the collective worker and his subordination to the factory despotism*: „Daß nichts umkommt; that there is no waste und die Produktionsmittel nur in der durch die Production selbst erheischten Weise are consumed etc, hängt theils von der Dressur und Bildung der Arbeiter ab, theils von der Disciplin, die der Capitalist über die combinirten Arbeiter ausübt“ (MEGA II, 4.2, S. 117-118).¹³

C) Those factors which are connected with an *increase in labour productivity due to technical innovation* and/or increase in the technical composition of capital. Only in this case we are dealing with forms of “economy in the use of constant capital” also affecting the profit rate in ways studied in Marx’s law of the tendential fall in the profit rate:

– “the concentration of means of production and their employment on a massive scale”, (Marx 1991, p. 172-175, MEGA II, 4.2, p. 112-116); – “economies that arise from the continuous improvement of machinery”, “the reduction of wastage” (Marx 1991, p. 195-199, MEGA II, 10. “The contradictory and antithetical character of the capitalist mode of production leads it to count the squandering of the life and health of the worker, and the depression of his conditions of existence, as itself an economy in the use of constant capital, and hence a means for raising the rate of profit” (Marx 1991, p. 179).

11. “By the concentration of workers and their cooperation on a large scale, constant capital is spared. The same buildings, heating and lighting equipment, etc. cost relatively less for production on a large scale than on a small scale. The same holds for power and working machines. Even if its value rises absolutely, it falls relatively, in relation to the increasing extension of production and to the size of the variable capital or the mass of labour-power that is set in motion. The economy that a capital makes in its own branch of production consists firstly and most directly in economizing on labour, i.e. in reducing the paid labour of its own workers; the economy previously mentioned, however, consists in the greatest possible appropriation of unpaid alien labour in the most economical fashion; i.e. in operating at the given scale of production with the lowest possible costs” (Marx 1991, p. 175).

12. “Finally, however, it is only the experience of the combined worker that discovers and demonstrates how inventions already made can most simply be developed, how to overcome the practical frictions that arise in putting the theory into practice -its application to the production process, and so on” (Marx 1991, p.p. 198-199).

13. “If nothing is to be lost or wasted, if the means of production are to be used only in the manner required by production itself, then this depends partly on the workers’ training and skill and partly on the discipline that the capitalist exerts over the combined workers” (Marx 1991, p. 176).

4.2, p. 146-150), –productivity increase in sector I, (which produces means of production): “Es ist die Entwicklung der Productivkraft der Arbeit in einem Foreign Department, in dem Department, das ihm Productionsmittel liefert, welches hier *die Profitrate des Capitals erhöht* (weil es den Werth des von ihm angewandten constanten Capitals, relativ, wenn auch nicht absolut, füllt? (senkt.)” (MEGA II, 4.2, p. 116).¹⁴

What is most important here to note, is that *Marx considers the possibility of technical changes in the production process, which cause opposite effects to the value composition of capital and the profit rate, as those considered in his famous “law of the tendential fall”*. Marx formulated the “*law of the tendential fall in the profit rate*” by taking into consideration only the effects of technical innovation on the organic composition and the profit rate, under the assumption that *the technical composition of capital changes faster than labour productivity* (an assumption which he described –in Volume 1 of *Capital*, Ch. 11-13– as the “specifically capitalist production methods” –“die spezifisch kapitalistischen Produktionsmethoden”, see also Stamatis 1977). His purpose was to interpret theoretically what seemed to constitute then *an empirical reality*, namely the coexistence of technical progress and a declining profit rate. He was however aware of the fact, that there could exist *forms of technological innovation* and of subsequent increases in labour productivity, which *reduce the value composition of capital* and, therefore, *increase the profit rate*:

“Abstrakt betrachtet, kann bei dem Fall des *Preisses der einzelnen Waare* in Folge der vermehrten Productivkraft der Arbeit und daher der gleichzeitigen Vermehrung der *Anzahl* dieser lower priced commodities die Profitrate *dieselbe* bleiben, z. B. wenn die Vermehrung der Productivkraft der Arbeit gleichmässig und *gleichzeitig* auf *alle* Bestandtheile der Waaren wirkte, so daß der *Gesamtpreii* der Waare in demselben Verhältnii fiele, wie sich die Productivität der Arbeit vermehrte, andererseits das *Verhältnii* der verschiedenen Preiibestandtheile der Waare *dasselbe* (constant) bliebe, *fallen*, wie in dem bisher Untersuchten, steigen, wenn mit der Erhöhung der Rate des Mehrwerths eine bedeutende Depreciation der constanten Capitaltheile verbunden wäre” (MEGA II, 4.2, p. 319).¹⁵

An increase in labour productivity through technological innovation may foster, therefore, economy in the use of constant capital.

D) All factors causing an *appreciation* or *depreciation* of the components of constant capital, which are *not* related to economy in the use of constant capital or technological change, i.e. they are not the outcome of changes in the production process, but stem from changes in prices, and more precisely from the fluctuations in the price of raw material (MEGA II, 4.2, pp. 164-207, Marx 1991, pp. 200-234).

“Bei sonst *gleichbleibenden Umständen füllt und steigt die Profitrate daher im umgekehrten Verhältnii wie der Preii* des Rohmaterials (...) Man begreift daher die grosse Wichtigkeit für die Fabrikanten von Aufhebung oder Ermässigung von Zöllen auf Rohstoffe“ (MEGA II, 4.2, p. 166).¹⁶

14. “Here it is the development of labour productivity in its external department, the department that provides him with means of production, which causes the value of the constant capital applied by the capitalist to fall relatively and the profit rate therefore to rise” (Marx 1991 p. 175).

15. “Viewed abstractly, the rate of profit might remain the same despite a fall in the price of the individual commodity as a result of increased productivity, and hence despite a simultaneous increase in the number of these cheaper commodities - for example if the increase in productivity affected all the ingredients of the commodity uniformly and simultaneously, so that their total price fell in the same proportion as the productivity of labour increased, while the ratio between the various ingredients of the commodity’s price remained the same. The rate of profit could even rise, if a rise in the rate of surplus-value was coupled with a significant reduction in the value of the elements of constant capital, and fixed capital in particular” (Marx 1991, pp. 336-37). Engels added to this text the following phrase, which *is not to be found in Marx’s original manuscript*: “In practice, however, the rate of profit will fall in the long run, as we have already seen”. (See also MEW, Vol. 25, pp. 239-240). For the differences between Marx’s manuscript and Volume 3 of *Capital* as edited by Engels see Jungnickel 1991, Heinrich 1995, Heinrich 1996-97.

16. “As long as other circumstances are equal, the rate of profit falls or rises in the opposite direction to the price of raw material (...) We can thus understand how important for industry is the abolition or reduction of import duties on raw materials” (Marx 1991, pp. 201-202).

Marx combines directly these price fluctuations with the outbreak of economic crises: “Heftige Preisschwankungen im Rohstoff bringen daher Unterbrechungen u.s.w. grosse Collisionen und Catastrophen im Reproductionsprozeß hervor” (MEGA II, 4.2, p. 188).¹⁷

He summarises his analysis as follows: “Es ist aber im Allgemeinen hier – wie bei dem fröhern case – zu bemerken, daß wenn die Variationen hervorgehend, sei es aus *Oekonomie in Anwendung des constanten Capitals*, sei es aus *Preisschwankungen des Rohmaterials*, stattfinden, *ohne irgend wie das Salair* zu afficiren (also die *Rate und Masse des Mehrwerths*), sie dennoch die *Profitrate* afficiren, one way or the other“ (MEGA II, 4.2, p. 164-65).¹⁸

It is obvious from the above presentation that Marx considers the value composition of capital (and consequently the profit rate –the fall of which designates a conjuncture of crisis) to depend on a wide variety of factors.¹⁹ It is, therefore, insufficient to comprehend increases in the value (organic) composition of capital merely as results of the process described by Marx as “the law of the tendential fall in the profit rate”.

Crises do not emanate from a single, constantly acting cause, such as the “the law of the tendential fall”,²⁰ or underconsumption of workers,²¹ as some Marxists thought. (See also Milios 1994). On the contrary, a crisis can be described as a *conjunctural overaccumulation* –conjunctural production of commodities (means of production and means of consumption) in such quantities and prices, that they temporarily hinder the accumulation process. Which factors determine the outburst of each specific crisis is a matter of a concrete analysis. That is why Marx, after stating that “to understand what this over-accumulation is, we have only to take it as an absolute” (Marx 1991, p. 359), he postulates that “*the closer analysis of crises belongs to the study of the appearing movement of capital*”, a thesis which has been excluded by Engels from the text of Volume 3 of *Capital*.²²

17. “Violent fluctuations in price thus lead to interruptions, major upsets and even catastrophes in the reproduction process” (Marx 1991, pp. 201-202).

18. “Here too, as in the previous case, it should be noted that, like those variations that result from economy in the use of constant capital, variations resulting from fluctuations in the price of raw material also always affect the rate of profit, even if they leave wages, and thus the rate and mass of surplus-value, completely undisturbed” (Marx 1991, p. 200).

19. To these factors Marx adds also the feedback effects created by the credit system, which “lead to a regular plethora of money capital at certain phases of the cycle” (Marx 1991, p. 640, s. also MEGA II, 4.2, p. 586).

20. Characteristic in this context is the case of Grossmann, who argued that “the law (of the tendential fall in the profit rate, J.M.) itself is in reality an obvious consequence of the labour theory of value, in the event that accumulation takes place on the basis of a continuously higher organic composition of capital (...) With a further increase in the organic composition, there must be a time when any continuation of accumulation will be impossible. This is the Marxian law of collapse” (Grossmann 1971, p. 28-29). In reality, Marx relates the falling tendency in the profit rate to a situation where capitalist competition allows, for some time, the (monopolistic) use of new technologies by certain individual capitalists, before these technologies become universal: “No capitalist voluntarily applies a new method of production, no matter how much more productive it may be or how much it might raise the rate of surplus-value, if it reduces the rate of profit. But every new method of production of this kind makes commodities cheaper. At first, therefore, he can sell them above their price of production, perhaps above their value (...) His production procedure is ahead of the social average. But competition makes the new procedure universal and subjects it to the general law. A fall in the profit rate then ensues (...)” (Marx 1991, pp. 373-74, see also MEGA II, 4.2, pp. 337-338, MEW 25, p. 275).

21. According to all underconsumptionist approaches, the *necessary and constantly present* hysteresis of wages in relation to capital accumulation makes “it not possible to compensate for the falling-off personal consumption with increasing reproductive consumption” (Moszkowska 1935, p. 15). Capitalist expanded reproduction is thus only made possible due to the existence (inside the structure of really existing capitalist countries), of “third persons” alien to the two characteristic classes of capitalist mode of production, which (temporarily) compensate for the lacking demand of capitalists and workers (Milios 1994).

22. “Um zu verstehn, was diese Ueberproduction ist (die nähere Untersuchung darüber gehört in die Betrachtung der *erscheinenden Bewegung des Capitals*, wo Zinscapital etc Credit etc weiter entwickelt) hat man sie nur *absolut* zu setzen“ (MEGA II, 4.2, p. 325). See also Heinrich (1995).

5. Capitalist expanded reproduction and its overdetermination by class-struggle

The factors affecting the value composition of capital, and consequently the profit rate, belong to the external determinations of the capitalist production process (length of the working day, concentration, education and experience of the collective worker, type of technical progress inflicted through capitalist competition or class-struggle,²³ etc.). The same is true for the factors affecting the rate of exploitation.

In order to study a conjuncture of crisis, all factors affecting the profit rate shall be taken into account. For instance, an increase in the prices of raw materials or a fall in the exploitation rate is transformed into a fall in the profit rate only in the case where it is not compensated for by economies in the use of constant capital. On the contrary, a large increase in the factor illustrating the use of constant capital (factor C/Y) over a certain period (i.e. a fall in the “constant capital efficiency” Y/C) may lead to a fall in the profit rate and an over-accumulation crisis, even in the instance of a constant or slightly increasing exploitation rate.

Crises constitute a fusion-condensation of all forms of contradictions induced by these external relations, in a way that a fall in the rate of profit and a holdback or even a halt of the capitalist expanded reproduction process occurs. They appear as an outcome of the totality of contradictions characterising capitalist expanded reproduction, *at a given conjuncture of class- struggle*. It is this plurality of contradictions overdeterminating the capital relation which allows us, to my opinion, to speak of *class-struggle as the “absent cause” of crisis*; a “cause” which cannot be “isolated” and “eliminated” (Milios 1994).

Once a crisis breaks out, it develops its own dynamics on nearly every aspect of social life. For instance, as I argued in previous sections of this paper, and as it becomes clear by the fact that in many cases consumption increases during the whole period preceding the outbreak of the crisis, underconsumption of workers shall not be considered as the cause of economic crises. It constitutes, however, one of its major effects, which then produces its own effects in respect to the profit rate. The whole process takes on the form of a “vicious cycle”: As the crisis itself unavoidably results in a fall or deceleration in demand, it thereby leads to an increase in the unemployed production capacity, that is an increase of the so-called capital intensity (C/N) of the capitalist economy.

The point that I would like to stress here, as a conclusion of the whole analysis, is that *all forms* of external relations affecting the profit rate (i.e. not only those directly affecting the rate of surplus-value) are overdetermined by class-struggle, the main object of which is the (level of) exploitation of the labour force. That is why Marx introduces *the concept of overproduction (over-accumulation) crisis* by referring to a fall in the exploitation rate (“to understand what this over-accumulation is, we have only to take it as an absolute”, Marx 1991, p. 359, s. also footnote 22), and explains that crises indicate the (temporary) inability of the capitalist class to exploit labour “at a given level of exploitation” (Marx 1991, p. 364).²⁴

In this trend of thought Marx shows that the ability of the capitalist class to economise on constant capital is not a “technical aspect” of the production process, but an outcome of the social relation of forces, that is a result of class- struggle. Increasing economy in the use of constant capital presupposes an increasing power of the capitalist class over the production process itself. It is often connected with a deterioration of the workers’ economic and social status, as Marx showed. He repeatedly denoted that the ability of capitalists to economise on

23. “It would be possible to write a whole history of the inventions made since 1830 for the sole purpose of providing capital with weapons against working-class revolt” (Marx 1990, p. 563, see also MEGA, II, 5, p. 357).

24. “Overproduction of capital never means anything other than overproduction of means of production – means of labour and means of subsistence – that can function as capital, i.e. can be applied to exploiting labour at a given level of exploitation; a given level, because a fall in the level of exploitation below a certain point produces disruption and stagnation in the capitalist production process, crisis and the destruction of capital” (Marx 1991, p. 364. MEGA II, 4.2, p. 330).

constant capital (thus reducing the value composition of capital and raising the profit rate), depends mainly on the skills and attitudes (towards capitalist exploitation) of the collective worker. He wrote: "Von aller Oekonomie dieser Art gilt zum Theil, was von der andern Art bemerkt worden ist, dai sie nur anzuwenden vom *combinirten Arbeiter*, oft zu ihrer Anwendung Arbeiten auf noch grösserer Stufenleiter, also noch grössere Combination von Arbeitern unmittelbar im Productionsproceß erheischt (...) Jene Entwicklung der Productivkraft kann in letzter Instanz immer reducirt werden auf den gesellschaftlichen Charakter der Arbeit, die angewandt wird; auf die Theilung der Arbeit innerhalb der Gesellschaft; auf die Entwicklung der geistigen Arbeit. (Naturwissenschaft etc)" (MEGA, II, 4.2, p. 115 & 116).²⁵

If ensuring of the „normal“ levels of capital profitability can always be reduced in the last analysis to promoting capitalist exploitation and discipline, it is comprehensible why the capitalist way out of economic crises is always connected with the declaration of a class-war against the working class, its collective forms of organisation, its social rights. The analysis of Marx reveals the objective background of bourgeoisie political strategies.

25. "For all economies of this kind it is largely true once again that this is possible only for the combined worker and can often be realized only by work on a still larger scale (...) This development in productivity can always be reduced in the last analysis to the social character of the labour that is set to work, to the division of labour in society, and to the development of intellectual labour, in particular of the natural sciences" (Marx 1991, pp. 174 & 175).

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