

# Post-large-scale industry: general intellect as the center of capitalist accumulation

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## Abstract

This paper is an attempt to establish a more rigorous Marx based approach to understand what is new in the world capitalist society. It starts showing how contemporary “macroeconomists” Marxists authors interpret the recent economic crisis as a crisis of capital accumulation by focusing their analysis on the levels of the profit rate within the national economies. In this sense, we explore David McNally's thesis since he enriched the macro analysis bringing even more concrete factors to explain the period after the 1980s. Although his main explanation of the recent crisis is due mainly to the over accumulation, he uses the financialization approach to explain why did it take a couple more years to the economy enter in a global slump. We shall see that those approaches are not enough to explain what is happening with the production process in the recent period of capitalism, neither to give an adequate political advising to the left, because they don't take into consideration the fact that capital subordinates production with a new intensity and in a brand new way, what have changed the very nature of subjection of work to capital, and along with this, the whole form of society reproduction. We follow Eleutério Prados's (2005) theory that shows that the last quarter of the XX century is a period when production is very dependent to the collective intelligence what gives again importance to the subjective side of the workers. Now, capital, in order to keep accumulating, becomes more oppressive than before, spreading its chains to the intellectual sphere and the whole life of the working class. Fact that also points the exhaustion of the mode of production itself as such.

**Key-words:** rate of profit's tendency to fall, financialization, large-scale industry, neoliberalism, class struggles, politics.

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## **I - Introduction**

Many contemporary Marxist authors interpret the recent economic crisis as a crisis of capital accumulation. Most of the time, Marxists give an overview of the new capital inflows and structural reforms that cause capitalism to recover from the crisis. However, these same authors do not sufficiently emphasize the internal links of capitalist production to explain the new ways in which capital subsumes production in order to continue accumulating.

Most authors limit themselves to presenting the new forms of subordination of labor to capital as part of capital's "new systems of work organization and work intensification (lean production), and new technologies" (McNALLY, 2009 , pg. 45). This brings erroneous theoretical results, as such as the overestimation of the contribution of Foreign Direct Investment in Asian countries as an explanation for over-accumulation and excess production capacity, and the excessive emphasis placed on interest-bearing and fictitious capital, largely ignoring accumulation at the center of the system and the internal bonds of capital to production.

I believe that a more complete explanation for what happened in the period should take into consideration the fact that capital today produces in a form that is not, in itself, structurally new, "but does so with an intensity and in a brand new way with the emergence of science-capital, of knowledge-capital." (PRADO, 2005, pg. 3).

To better develop this argument, we will seek to characterize the current period of capitalist development in a more rigorous way by resorting to the forms of subjection of labor to capital, "which bears relations both to a logical genesis [of categories] and to what is actually happening in the history of capitalism."(PRADO, 2005, pg. 60).

The relationship between internal forms of subordination of labor to capital and concrete history is complex. "There are both lines of continuity and discontinuity, which appear as we investigate the form and the material process of production."(FAUSTO, 2002, pg. 115). One will

need therefore to reintroduce the concepts of formal subjection inherent in manufacturing and real subjection inherent in large-scale industry, both of which are present in Marx's *Capital*, but also introduce the concept of intellectual subjection which has been explicitly derived from Marx's *Grundrisse* by Ruy Fausto, a Brazilian philosopher, in his book “Marx: logic and politics, Volume III” (2002). This latter type of subjection is characteristic of a logical (and historical) time entitled by Fausto (2002, pg. 128) as the “post-large-scale industry” period.

Although he did not make any predictions about the end of the historical period of modern industry, in the *Grundrisse* Marx foresaw the logical possibility of a mutation of the production process, in which labor would no longer be materially subordinated to capital. Today, one can say that the period of large-scale industry covers, roughly, only the first two thirds of the twentieth century and that, thereafter, capitalism entered a period of post-large-scale industry, i.e., the mode of production whose main productive force is collective intelligence. From this point of view emerges a broad and fresh perspective to applied research in political economy as well as to political recommendations.

## **II- The the tendency of the profit rate to fall's approach**

Many contemporary Marxist authors interpret the recent economic crisis by focusing their analysis on the levels of the profit rate within the national economies. To them, crisis is a problem of capital accumulation and if the profit rates are falling, then, the system is more subjected to enter in a crisis period.

This kind of approach is mostly based on *Capital's* part III of volume III entitled “the law of the tendency of the rate of profit to fall” (MARX, 2010, pg. 148-81). For Marx, this tendency was based on the rising of the organic composition of capital, i.e. the rising of the investment in constant capital (plant, equipment, raw material, etc) to that in variable capital (wages). This squeezes out the living labour (source of surplus) in relation to overall investment.

Marx, however, gave to this (social) law the character of a trend, "a law whose absolute action is checked, retarded, and weakened, by counteracting circumstances." (Marx, 2010, pg. 161). Because of this, Marx listed out some counteracting influences against the law, which cross and annul the effect of the general law. Among them are: the increasing intensity of exploitation of labour, the depression of wages below the value of labour-power, the cheapening of elements of constant capital, the relative over-population, the increasing volume of foreign trade, and the increase of stock capital (this is less obvious – that's because they yield a lower than average rate of profit). Even though some of them are logically almost the same thing, concretely one is different from another.

According to this approach, the immediate postwar period was a period of high rates of profit because the war has set in motion many of these factors against the law. On the one hand, the lives lost in war were "important" to reduce the relative over-population increasing the costs of the variable capital, but this was "offset" because the "war achieved a destruction and devaluation of constant capital even greater than that associated with the bankruptcies and depreciations of the Great Depression." (HOLLOWAY, 1995, p. 20).

At the work sphere, Second World War's discipline was decisive to put forth the kind of Fordist managerial changes introduced after the Crash of 1929 and to increase the production of surplus value without changing the magnitude of the constant capital employed. "In this, employers in all the major countries were helped considerably by the trade unions, which preached the subordination of class antagonism to the common goal of winning the war." (HOLLOWAY, 1995, pg. 20).

This situation was extremely favorable for the recovery of profitability, and for an unprecedented expansion of the state. The policies that were based on the balanced budget were temporarily forgotten. With the end of the war and the establishment of the United States of

America as a clearly hegemonic power, state intervention and monetary regulation were the basis of a model to be followed, which has reached an international dimension entirely impossible in the period between the world wars. If this scenario did not exist, it could be said that this “keynesian” world may not exist.

Thus, these new elements of capitalism that emerged in the developed countries during the postwar period have been incorporated by Marxists, who sought, in addition, updating the formula for calculating the rate of profit.

One of the first authors who looked in detail for this subject was Joseph Gillman in his book "The falling rate of profit"<sup>1</sup>. According to Gillman (1957, pg. 87), from the hegemony of the so-called monopoly capital, ie since the late nineteenth century onwards, the problem of realization of surplus value involved increasing internal costs for companies and governments.

Specifically, are the costs of non-productive workers and activities from capital's point of view, but which are essential for the reproduction of the system, which increased after the war. “Because these costs, by definition, do not produce value or capital gains, they can only be deducted from the values previously produced. According to Marx, the surplus value produced by productive workers.” (GILLMAN, 1957, p. 89 translated from a Portuguese translation).

Thus, for this approach, alongside the rising organic composition of capital, the increase in these costs could explain why in this post-war period, which includes the late 1940s until the late 1970s, profit rates in major economies declined.

Several Marxist authors have worked with this redesign proposed by Gillman (1957), among them are Fred Moseley and Anwar Shaikh. Shaikh (1978) was one of the first to suggest a mapping of conventional categories of national accounting to Marxian categories using the separation between productive and unproductive activities in terms of capital.

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<sup>1</sup> According to Shaikh and Tonak (1994), actually the first work that deals with this theoretical perspective was the book written by E. Varga entitled “The Decline of Capitalism”, 1928. But this work will not be explored here.

These works launched a research line that has been followed by many authors which had tried to verify the long-term trajectory of profit rate for different countries. Many works (MOSELEY, 2003; MOHUN, 2009; SHAIKH & TONAK, 1994) used data from the US economy to trace the trajectory of the profit rate of this country, but you can find studies that used data from other countries like Greece (MANIATIS, 2004), New Zelândia (CRONIN, 2001) and Spain (CÂMARA, 2007) to the same purpose.

From the profitability perspective, in every country one can see at least two distinct and different periods during the post war and a third period, which appears depending on the country and the author. The first period begun with the rates of profit on a high plateau, which lasts until the early 1960s, from then until the late 1970s and early 1980s profit rates fall in a downward trajectory. The second period is characterized by a partial recovery of the rate of profit over the 1980s and 1990s. Recent works written by Moseley (2003) and by Câmara (2007) suggest a further fall in the mid-1990s and a new partial recovery in profitability during the 2000s (which would be a third period). Mohun (2009), by contrast, sees the peak of the latest recovery in 1997 and, after that, a continuing trend of falling.

Anyway, some authors see the first period as a period that “has some elements of the classical period a la Marx” (Mohun, 2009, p. 1041), ie a period when increases in the organic composition of capital plus the rise of unproductive labor led to a sharp decline in profitability (although the rate of surplus has also increased). The second period, between early 1980 and 1997 was a period when recovery was due to a successful offensive of capital against labor, usually explained by an increased rate of exploitation and a stagnation of the (technical as well as the) organic composition of capital, as well as the rate of productive to non-productive work. The data show, however, that this recovery of profit rates was much more uneven and volatile than that which occurred during the early post-war years.

As a result of these approach, Moseley, for example, concludes that a return to the more prosperous conditions of the early postwar “golden age” is not very likely, because

“the postwar period of declining profitability and increasing debt will eventually be followed by a period of depression, characterized by significant and widespread bankruptcies which will eventually raise the rate of profit for surviving firms and eliminate much of the existing debt, thereby creating the conditions for another period of expansion and prosperity.” (MOSELEY, 2003, p. 12)

The social implications of his prediction is that “such a worsening crisis of global capitalism would inflict great suffering - loss of jobs, lower incomes, greater hunger and poverty, greater anxiety and desperation, etc. - on the world’s working population, especially in developing countries.” (MOSELEY, 2003, pg. 13)

From this point of view, as these economic tendency is inevitable, this would lead the working class into a reaction to maintain their living standards, so the political solution for the working class would be anything but a better economic system that could better satisfy our economic needs and wants. (MOSELEY, 2003, p 13)

A little like Moseley, Mohun (2009) ends his paper showing the exceptionality of this later period, questioning how can capitalism develops itself sustaining annual increases in labour productivity in the absence of capital deepening. But, more careful, he further suggests “the necessity of a more detailed disaggregated investigation of labour processes in order to understand better the decisive change in the balance of class forces that occurred at the end of the 1970s and its effects on the pattern of technical progress.” (MOHUN, 2009, p. 1041-2) That is what we will try to do in the last part of this paper. But, before, let's see another author who tried to present a new approach for the recent period.

### **III – McNally's complementary approach**

As many authors cited above, from the recovery of capital's profitability point of view, David McNally (2009, pg. 45 e 47) defends that the period just after the recession in the leading countries

(the occurred between 1974-5 and 1980-2) was characterized by a severe capitalist restructuration that generated a new wave of sustained and of extended scale capital reproduction.

Although he argues that the recent crises cannot be understood simply through a focus on the growing financialisation, he defends that the massive credit creation did underpin rates of growth, concentrating profound sources of instability in the financial sector, but, contrary to the called “financialisation thesis”, McNally don't explain the entire period after 1982 in terms of credit creation, only the period after 1997, which a decade long-credit explosion delayed the general crisis. To him, “because of underlying problems of overaccumulation that had first manifested themselves in 1997, this financial crisis triggered a powerful global economic slowdown.”(MCNALLY, 2009, p. 46)

But, as I said in the introduction, my focus in this article is not the financial Marxist explanation of the recent period of growth and crisis, but the analysis centered in the production sphere, the “real economy”.

Back to McNally's approach, he, more than the others cited above, exposed in a more detailed form how the counteracting factors of the law acted after the 1978-82 crisis.

First of all, like the immediate post-war period, this crisis involved significant destruction of capital because many plants were closed and many workers were sacked. Britain, for example, lost 25 percent of its manufacturing industry in 1980-84. Between 1973 and the late 1980s, the number of employed in manufacturing in the six old countries of Europe fell by a quarter. At the same period, in the US, more than 250 thousand jobs were lost at the the domestic steel industry as large mills were shut and downsized and new technologies and work-process introduced. (data from MCNALLY, 2009, pg. 47).

“Such process of downsizing, work-reorganization ('lean production') and technological revolution occurred in the midst of a concerted and increasingly successful offensive against the organized power of the working class. Union-density declined dramatically and persistently in the US, Canada, UK, france, Spain, elsewhere as capital pushed

down real wages, shed labour, broke down shop-floor organization of workers, sped up and intensified work-processes, and introduced robotics and computerised production-systems.” (MCNALLY, 2009, pg. 47).

The effects of this corroborates what those papers cited above established through the national account data from different countries: a significant increase in the surplus value rate and a reversion in the rising tendency of the organic composition of capital.

But McNally didn't limit himself in verifying only these two counteracting effects. To him, more than a sum of its parts (the national economies), capitalism is a world system. This perspective allowed him to enlarge the scope of the empirical investigation.

Much discussion of the neoliberal period has focused on a number of capitalistically developed nations – most frequently the US, Germany and Japan – and treated the world economy as largely an aggregate of these parts. This is both methodologically flawed and empirically misleading.” (MCNALLY, 2009, pg. 43).

Thus, McNally criticizes the analysis that focus only on the national economy data. In fact, accumulation has no frontier, i.e. it is at the level of the world-economy that the laws of capitalism are most fully and concretely enacted. National economies are very important as points for capital concentration but they cannot be the fundamental units of analysis.

“Another crucial point is that more and more capitalism is a world-system whose imperative is the unbounded drive to accumulate. So, one needs to recognize that capitalism it is vital to not to develop “national economies”. It invests to expand itself via the capture of shares of global surplus-value (although what individuals attend to are rates of return on total investment). But, the capture of surplus-value can – and does – happen in circumstances that are suboptimal from the standpoint of macroeconomic performance of national economies. So, interesting and important as such macroeconomics indicators may be for any number of reasons, they are not the measure of phases of expansion or crises of capital.” (MCNALLY, 2009, pg. 44)

McNally (2009, pg. 45) also sees the quarter-century postwar-boom as an exception, this period cannot be the only reference against which all other capitalist periods are deemed a “crisis”. It is not normal in capitalism history that wave of expansion with rising levels of output, wages and employment in the core-economies during the post-war period. And the absence of all these is not necessarily a “crisis”.

“It is utterly misleading to imagine that capital is in crisis every time rates of increase in world or national GDP fall below five or six percent per annum. Indeed, where wage-compression characterises a phase of capitalist expansion, this may be favorable to profitability while suboptimal in terms of the growth of consumer demand and annual rates of national economic growth. Yes, capitalist expansion under such conditions throws up limits to itself. But this is what we should expect of all capitalist 'regimes of accumulation'. The capitalist mode of production is inherently contradictory at multiple levels; every pattern of capital accumulation involves self-generated limits” (MCNALLY, 2009, pg. 45).

Thus, unlike the previous outlook, for McNally not only the rates of profitability of the dominant economies rised again after the crisis of the late 1970s. Another important part of the story was and has been a huge accumulation of capital, with high rates of profitability, held by large corporations in the world, especially in peripheral countries, at least until 1997.

Thus, besides the increased rates of exploitation and the decline in the organic composition of capital in advanced countries, another explanation for the resumption of accumulation was a large increase in the level of foreign direct investment (FDI) made by large corporations from core countries in developing countries. The Plaza Agreement, which forced the appreciation of the yen and the mark against the dollar, had an important role in changing the direction of foreign direct investments from Japan and Germany, for example.

“In the four years from 1985 to 1989 alone, FDI by Japanese firms tripled. From 1991 to 1995, manufacturing FDI rose another 50 per cent. [...] German-based capital pursued a similar strategy, with FDI by German firms quadrupling from 1985 to 1990 and doubling again by 1995” (OCDE, *Economic Survey on Japan e Economic Survey on Germany*, various years, *apud* MCNALLY, 2009, pg. 50).

According to McNally, this explosion in foreign investment is explained by the efforts by Japanese and German corporations to reduce costs and boosts profits by building production chains with Asian countries that offers lower labour-costs.

“By the 1990s, then, East Asia had become the center of a new burst of world-accumulation. In the space of six years, 1990-6, for instance, total capital formation in East Asia (excluding Japan) jumped by nearly 300 per cent. Over the same period, capital-formation increased by 40 percent in the US and japan and mere 10 per cent in Europe. A structural shift of immense importance was reshaping the world-economy.” (MCNALLY, 2009, pg. 51).

Together, with this capital movement, occurred a giant increasing in the working class of the world. “Across the quarter century 1980-2005, the world's 'export-weighted' global labour-force quadrupled” (MCNALLY, 2009, pg. 51).

A great amount of this labour force was absorbed by manufacturing. China, for example, had twice as many manufacturing workers (around 109 millions) than in the G-7 economies (BANISTER 2005 e *Bureau of Labor Statistics*, 2005, *apud* MCNALLY, 2009, pg. 51). China's GDP increased 12 times between 1978 and 2005. This same country rode a massive foreign investment and annual rates of capital formation that surpassed those of Japan, Taiwan e South Korea during their boom years.

“None of these would have been possible without extensive processes of 'primitive accumulation', as hundreds of millions of Chinese peasants have fled rural poverty and dispossession in search for wage labour. And these processes have by no means restricted to China. The neoliberal period has, in fact, been characterised by a dramatic decline in the number of people living on the land.” (MCNALLY, 2009, p. 52)

But, to McNally, from 1997 until now, the economic growth was due more to the increasing in fictitious capital than by the capital accumulation itself. That's because he sees the Asian crisis as reflexion of the pressures of over-accumulation of capital.

“The investment-boom in East Asia created enormous excess-capacity in computer-chips, autos, semi-conductors, chemicals, steel, and fiber-optics. 'A persistent trend to overcapacity', observed the World Bank at the time, had induced 'price wars and intense competition'. (McCNALLY, 2009, p. 62)

The growth in the financial sphere, specially the rising in fictitious<sup>2</sup> capital, was responsible to maintain the ongoing accumulation all-around, and induced more invest, mainly in China. This investment-boom had exacerbated the problems of global overcapacity.

According to the Chinese government's National Development and Reform Commission, China's steel industry had developed an annual capacity of 470 million

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<sup>2</sup> McNally defined this Marx's concept in a precisely form: “First, fictitious capitals are paper-claims to wealth that exist alongside the actual means of production, stocks of goods and reserves of labour-power that capitals mobilise. Yet, they can be bought and sold many times over, as if they were wealth itself: this is why the prices of stocks can come to bear an absurdly inflated relation to the actual value and profitability of a firm. Secondly, fictitious capital lay claim to future wealth, that is, to shares of profits or wages that have not yet come into existence. (MCNALLY, 2009, p. 66)

metric tons at a time when actual output equalled only 350 million metric tons. This excess capacity of 120 million metric tons was greater than the total real output (112.5 million) of the world's second-largest steel producing country, Japan. Even worse, problems of overaccumulation haunted the iron-alloy industry, where capacity-utilization had slumped to a mere 40 per cent by 2005. And significant overcapacity plagued the auto-, aluminium-, cement- and coke-industries. Detailed studies suggested, for example, that by 2005 China's home appliance market had overcapacity-rates of 30 per cent in washing machines, 40 per cent in refrigerators, 45 per cent in microwave ovens and a mind-blowing 87 per cent in televisions. ” (McCNALLY, 2009, p. 64)

This overcapacity weighing down profit rates, together with the credit bubble forming in the US and other economies left the capitalist world economy into a vulnerable path until it collapsed.

McNally summarizes the actual situation as it follows:

“We are, in sum, into the second stage of a profound systemic crisis of neoliberal capitalism. The first stage involved a staggering financial shock that toppled major banks and elicited a multi-trillion dollar bailout of the global financial system. The second stage will entail the collapse, merger, and/or effective nationalisation of major corporations – especially in the auto- and electronics- industries and knock-on slumps in the service sector. Unemployment will ratchet higher – much higher. And the ongoing collapse of sales and profits will topple (or lead to the nationalisation of) more financial institutions.” (McCNALLY, 2009, p. 76)

Based in this theoretic and empirical framework, he ends his work trying to do some political suggestions for the left. A main one is to claim the left to act now, because now is the moment to highlight the systemic failure and to put the need of a radical alternative. But the recommendations is too abstract as we can see in this stretch:

“True, the left must be able to do this in a meaningful and accessible language, by way of formulation concrete socialist demands and strategies that speak eloquently and powerfully to real and compelling needs and interests of oppressed people. And this will certainly involve fightings for specific reforms – to save jobs, build social housing, cancel Third-World debts, invest in ecologically sustainable industries, feed the poor. But, as Rosa Luxemburg pointed out more than a century ago, while Marxists have a duty to fight for social reforms, they ought to do so in a way that builds the revolutionary capacities of the world's workers to remake the world.” (McNALLY, 2009, p. 79)

As adopting a global perspective, this author enriched the analysis focused on the trajectory of the profit rate bringing even more concrete counteracting factors to the surface during the period of the 1980s, than the ones already stressed by the other works cited above, like the rising in the

relative over-population and the increasing volume of foreign trade.

Although the main explanation of the recent crisis is due mainly to the over accumulation even in the China's economy, McNaly (2009) uses the financialization thesis to explain why did it take a couple more years to the economy enter in a global slump. So, the increase of financial crises is generated due to the insatiability of finance, since interest-bearing capital has the propensity to require from the economy more than it can provide, what intensify the capitalist value-logics but through the medium of a more unstable and volatile forms of money. “This has given the neoliberal globalization a number of distinct characteristics and a propensity to enormous credit-bubbles and financial meltdowns of the sort that we are witnessing at the moment.” (MCNALLY, 2009, p. 57)

Since the world cannot returns to the post-war path, or it can, but only with making the workers “live with nothing but the air”, the logical ending of this approach is the option between socialism or barbarie. He ends his paper stressing that if there is a moment to “highlight the systemic failings of the capitalism, the moment is now”. (MCNALLY, 2009, p. 79)

I think that neither him, nor the others that were explored above gave enough recommendations or light to the action, and I think that is because of the limits of their macro approaches to analyses this recent period after the early 1980s. So, to go beyond this, one needs to put enough evidence in the internal links between capital and work in order to explain more accurately what is happening on the floor and to stress in what we need to pay attention to do the strategic fight.

#### **IV – Internal links in evidence. The post-large-scale industry approach.**

As I sad in the introduction, I believe that a more complete explanation for what happened in the recent period should take into consideration the fact that capital subordinates production with a new intensity and in a brand new way. This brings profound implications in the ways that the whole

society reproduces itself on many aspects as well as brings a more accurate political perspective to bring forth the fight for a superior system. For this, the analysis should not limit itself to macroeconomics. It must be, instead, as close as possible to Marx's complex approach.

To better develop this argument, I will follow Prado's (2005) approach in his book “A desmedida do valor: crítica da pós-grande indústria” (The demesure of value: critique of the post-large-scale industry). To do this one needs to characterize the current period of capitalist development by resorting to the forms of subjection of labor to capital, “which bears relations both to a logical genesis [of categories] and to what is actually happening in the history of capitalism.”(PRADO, 2005, pg. 60). We will need therefore to reintroduce the concepts of formal subjection inherent in manufacturing and real subsumption inherent in large-scale industry, both of which are present in Marx's Capital, but we also need to introduce the concept of intellectual subsumption. This latter type of subsumption (or subjection) is characteristic of a logical (and historical) time entitled by Fausto (2002, pg. 128) as the post-large-scale industry period.

Although he did not make any predictions about the end of the historical period of modern industry, in the Grundrisse Marx foresaw the logical possibility of a mutation of the production process, in which labor would no longer be materially subordinated to capital. Today, one can say that the period of large-scale industry covers, roughly, only the first two thirds of the twentieth century and that, thereafter, capitalism entered a period of post-large-scale industry, the name of the mode of production whose main productive force is collective intelligence.

#### ***IV. 1 – The succession of the three forms of subjection***

The engine of this succession process of three forms of subjection (formal, real and intellectual) is the constant class struggle between capital and labor; a polarization that, on one hand the capital seeks to increase the exploitation rate (absolute and relative surplus value) and on the

other, workers seek to resist, either individually, or collectively, to exploitation.

As previously stated, the endless quest for self-valorization makes capital to overcome the barriers that he puts before it through the penetration of science and technology in production processes.

In the period that Marx appointed as manufacturing, a transitory period, “the production of use-values do not change its general nature because it is undertaken for the benefit of the capitalist or under his control” (Marx 1971, p. 201-202, translation from Portuguese). Capital just puts at its service workers by providing them the means of production and raw materials in exchange for a salary, and putting them under his command.

But the activity of workers shifts a little. Before manufacture, they sold their products to the commercial capital, and now, because workers are dispossessed of the means of production (with the provision of means of production by capital - capital that becomes productive - and with the wage labour relation), workers will now be formally subsumed to capital.

The worker, in order to survive, has no choice but to opt for depends economically on the capitalist. In earlier forms of subjection, such as slavery and servitude, coercion was based on social relations imposed by the political sphere. The worker, now “free”, is subsumed to capital because it lacks the means of production and therefore falls under this condition because they must sell their labor power to the owner of working conditions, ie the capitalist.

The capitalist who is now coordinating the work process assumes the head of the production process, but the work itself, albeit increasingly parceled out by the division of labor in the manufacturing workshops, holds a fundamental characteristic of the handicraft, as it requires the commitment of the subjectivity of workers in productive activity. The working tool is, at this stage, simple mediator that serves the worker. Therefore, in manufacturing, the work process must be adapted to the worker.

“Is this [the subjective principle], then, that has mobilized the technological knowledge in production, which still belong to his world of social and cultural life. While this principle exists, it hampers or prevents the entry of scientific knowledge in manufacturing processes” (PRADO, 2005 p. 60-61, brackets mine, translation from Portuguese).

From a logical point of view, formal subjection is only compatible with the extraction of absolute surplus value.

From a historical and logical standpoint one can say that manufacturing will be overcome by large-scale industry. Unlike manufacturing, where the labour-process depends directly on the worker, in large-scale industry, there is a tendency for capital to replace human labour expended directly in the production for machinery “activities”. In this way, capital robs from the worker the control of the work process that now is installed on the machine system. The division of labor is no longer governed by a subjective principle and pass to be guided by an objective principle. Workers who employed the tools, are now "employed" by means of production, ie they become an appendix of the machine system.

The mechanical driving force derived from the steam engine, for example, replaced the human physical strength. Because of that, productivity grew rapidly. The cooperation that previously took place between the workers was replaced by the cooperation of the machine system. It, thus, replaced the division of labor based on the worker specialization. The production goes on to give large-scale productive forces and achieve a high degree of socialization. The production by production becomes a necessary condition for continued production.

Now the work process is transformed to meet the objective needs of the capital through a more appropriate way. Thus, a new form of subjection emerges, the material subjection. "The loss of the organic body by the worker is not only formal but also material. His instrument and its object is no longer his, not only formally but also materially. "(FAUSTO, 2002, pg. 120-121).

For Marx, therefore, the subjection of labor to capital, is formal and material, and also real in

large-scale industry, because,

“At the same time that factory work exhausts the nervous system to the uttermost, it does away with the many-sided play of the muscles, and confiscates every atom of freedom, both in bodily and intellectual activity. The lightening of the labour, even, becomes a sort of torture, since the machine does not free the labourer from work, but deprives the work of all interest. Every kind of capitalist production, in so far as it is not only a labour-process, but also a process of creating surplus value, has this in common, that it is not the workman that employs the instruments of labour, but the instruments of labour that employ the workman. But it is only in the factory system that this inversion for the first time acquires technical and palpable reality.” (MARX, 2010, p. 282)

In the large-scale industry, the technique is separated from the worker as a technology controlled by the capitalist. The application of science initially materializes itself in the system of machines, but from the monopoly period ahead, it invades the organization of capitalist enterprise as a whole and extends to the offices of the factories. “The real subjection is reproduced, therefore, through the appropriation of science by capital which revolutionizes the process of work based on the adoption and diffusion of labor-saving technological innovations, mainly.” (Prado, 2005, pg. 61).

These innovations, such as the control of time and motion (Taylorism) and mass production and massification of products (Fordism), allow capital to reduce production costs. The form of extraction of surplus value is mainly through the expansion of relative surplus-value, although at the early days the rising of absolute surplus-value has prevailed.

From the large industry, production mode becomes specifically capitalist. Scientific knowledge is appropriated by capital and invested in the construction of automated mechanical systems consisting of many machines coordinated, which operate under the administration of the capitalist. The division between manual work and intellectual work deepens, with the majority of workers been “alienated from the technology and lowered, becoming mere automata unconscious conscious elements, which have their own lives because they are animated by the process of self-expansion.” (Prado, 2005, pg. 62).

Workers are now mere appendages of machines and production systems, "prisoners" caught

between the machines in factories, real "prisons" that suck with the "soul of the vampire capital" work necessary for its perpetual self-expansion.

But capital, according to Marx, because evolve endlessly, tends to erode the foundations of its own domination. Holloway (1995) is one of the few contemporary writers who demonstrated how large-scale industry collapsed by itself. The exchange of good wages for boring work, the crystallization of the labour process based on a hierarchical structure, as well as the raising in the technical composition of capital would result in the flattening of profit rates, what degenerated in the crisis of the 1970s. To solve those problems some new paths had to be pursued by capitalist dynamics. In its place emerged what Fausto called (2002, pg. 128-140), based on Marx's Manuscripts, the post-modern industry, a new momentum of the historical development of capital.

A first difference is that until in the large-scale industry, the mass of labour time, the quantum of labour is the key, in the post large-scale industry that time cease to be, increasingly, the "measure of motion" (FAUSTO, 2002, pg. 129). This point is based on the following passage from the Marx's Grundrisse:

“(...) to the degree that large industry develops, the creation of real wealth comes to depend less on labor time and on the amount of labor employed than on the power of agencies set in motion during labor time (...)” (MARX, 1973, p. 704-5).

The process of extraction of surplus labour would be less the crystallization of a quantum of time, depending more to what happens over time, ie, the socially necessary labour time to the production and reproduction of wealth (in the form of goods) has reduced its importance both in terms of quantitative as well as qualitative in so far the use of science in manufacturing processes continue to expand and intensify. Science now that is more and more embodied primarily in the fixed capital in general.

Prado (2005, p. 102) draws attention first to the quantitative changes in this period as it “increases labour productivity, and so, a few labour time passes to produce a large quantity of use

values.” In other words, on one hand the relative surplus value rises dramatically and, on the other hand, the organic composition of capital tends to drop due to the decrease of the values of constant capital.

Concomitant to this quantitative difference appears also a qualitative difference. “The working time becomes less important in relation to science itself in terms of wealth creation” (PRADO, 2005, p. 102).

The consequence is that the socially necessary labour time (the contents of value), the real abstraction that society makes to compare the various types of labour work labour products, shall cease to be the appropriate measure of wealth production in capitalism (that appears in the form of goods). The value becomes more and more qualitative, as it starts to depend more on the qualities of this labour than the time spent during the labour period. The “powerfull efectiveness”, says Marx, “[...] is itself in turn out of all proportion to the direct labor time spent on their production, but depends rather on the general state of science and on the progress of technology, or the application of this science to production”. (MARX, 1973, pg. 704-5).

So, the measure of the value “no longer provides a basis for regulation (through the producer price) of the anarchic workings of the capitalist mode of production, ie for the allocation of resources and the formation of market prices.” (PRADO, 2005, pg. 102).

If this basis is corrupted, the relationship of any two goods in this period can no longer be thought of as an exchange of equivalents. “The market anarchy, therefore - that Marx did not say, but it is a possible inference - tends to turn in a open sphere to the use and abuse of economic power and thus corruption and social chaos.” (PRADO, 2005 , pg. 102-3). This logical possibility of deregulation has practical implications for social reproduction and in the economic, political and ideological formation of the most recent period.

When the labour time itself is no longer the major source of wealth, the extraction of surplus

value, the robbery of labour time has become a miserable base.

“The *theft of alien labour time, on which the present wealth is based*, appears a miserable foundation in face of this new one, created by large-scale industry itself. As soon as labour in the direct form has ceased to be the great well-spring of wealth, labour time ceases and must cease to be its measure, and hence exchange value [must cease to be the measure] of use value. The *surplus labour of the mass* has ceased to be the condition for the development of general wealth, just as the *non-labour of the few*, for the development of the general powers of the human head.” (MARX, Grundrisse, 1973, p. 702)

The historical task of the capitalist mode of production is to develop large-scale industry and this development depends crucially on the value. The value is a social relation that ultimately governs the remuneration of constant and fixed capital, and consequently their allocation, when transformed into prices of production. Moreover, the fixed capital is the expression par excellence of capital's domination over living labor. According to Marx “[...] the quantitative extent and the effectiveness (intensity) to which capital is developed as fixed capital indicate the general degree to which capital is developed as capital, as power over living labour, and to which it has conquered the production process as such.” (Marx 1973, p. 699)

Throughout the historical period of large-scale industry, socially necessary labour-time constitutes the value that anchors the prices of intertemporal production. Thus, the labour-time continues to be a good measure of actually produced wealth. “Nevertheless, this regularity gives capitalism a certain rationality, despite its irrational periodic crises. The mode of production continues to fulfill its historical task of developing social productive powers.” (Prado, 2005, pg. 103) But if there is a disruption of this regulation, ie if there is a value demesure that regulates the previously advanced allocation and remuneration of capital, "then this shows that the rational point of capitalism was left behind. This is what Marx indicates with the expression miserable foundation“. (Prado, 2005, pg. 103)

Prado (2005, pg.103) therefore advocates that the very development of large-scale industry will violate the law of value as a regulation law which transforms average labour-time (socially

necessary) at production prices, ie, “the match between production relations and productive forces will cease to exist historically.” The consequences of this recent inadequacy of the basis of the law of value is to make the capitalist social relations (based on ownership of the means of production and the surplus-value appropriation) to enter in contradiction with the explosive forces of production both **quantitatively** and **qualitatively** transformed.

For Fausto (2002, pg. 132) “technological change produces no internal contradictions in the system, it causes the explosion of their bases. The result is the revelation of what is true wealth.”

What should be noted is that in this new period – whose immense wealth depends less on the theft of alien labour and more on the development of human sociability, the evolution of science and technology (which Marx designated by the name of collective intelligence) – the contradiction mentioned becomes explosive because, in spite of this immense development of productive forces, social relations remain capitalist, ie, relations of private ownership and therefore "narrow and petty."

“The exacerbation of this constitutive contradiction of the process of capital accumulation is at the root of the deregulation of the world, its increasing rationality and of the social and ecological damage.”(BENSAID, 2003a, p. 33 *apud* PRADO, 2005, pg. 104).

The distinction proposed by Ruy Fausto (2002) between the material subjection of large-scale industry and intellectual subjection of post-large-scale industry is key to understand this historical change. “In the first case, the subordination focuses on the body and manual activity and in the second case, the subordination focuses on the intellectual activity of workers.” (PRADO, 2005, pg. 104/105). These two forms are not mutually exclusive but complement one another, as it continues to exist and enlarge itself the contingent of workers who remain subject to the old (material) form of subjection.

This change in the form of subsumption/subjection (from material to intellectual) is essentially linked to the decisive change in the material support of fixed capital. In the large-scale

industry science was incorporated into the factory system, most decisively in the machinery and engineering systems. Science and intellectual labour was separated from most of the workers and science was seen as a force within capital. In the post large-scale industry, “science itself is fitted into information and controls systems which are presented directly in the form of capital - more specifically as a privileged form of fixed capital.” (Prado, 2005, pg.105)

One must look more closely to this point. The nature of the machinery changes, the automatic machines “are mere operational instruments of the operational objectified science in information systems that do not operate according to mechanical logic, but [...] as the cybernetical<sup>3</sup> logic. (PRADO, 2005, pd. 105). Workers also change themselves, they are now participants in these cybernetic systems "that constitute a form of organization closer to the organization of living beings that possesses mind and brain." (PRADO, 2005, pg. 105). According to Fausto (2002, pg. 130), the principle of the labour process is again subjective, but unlike manufacturing, the middle term between the worker and the labour process is no longer the instrument, not the artificial object (machinery), but "natural process that has become an industrial process."

The development of this new form of production requires the worker to become an intellectual worker indeed. Fausto (2002, pg. 136) "risks" the new concept of **intellectual subordination** of labor to capital. This subordination is also real, as in large-scale industry. The post-large-scale industry is when and where those “spaces outside the work are 'invaded' formal or even materially by the work process” (FAUSTO, pg. 137), ie the subjection must also occur outside of labour time.

From this new kind of subjection (or subordination) come out two consequences. The first is linked to an extreme change in the form of surplus appropriation by capital. The second emerges from the first and is associated with change in the very superstructure of the system. I will deal, then

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<sup>3</sup> “Mechanical logic reasons always as a relation of cause and effect, assuming a world shaped by forces governed by deterministic regularities that are expressed in simple and uniform laws. The logic of cybernetics reasons based on recursion relation, assuming a world shaped by heterogeneous interactions of heterogeneous elements of which result from emergent properties, complex and uncertain.” (PRADO, 2005, p. 105.)

with the first consequence.

#### *IV.2 – The financial form of surplus-value extraction.*

The application of science in production now, can not appear more as a productive force of capital that is separate from the labour power.

“In contrast, as the worker ceases to be an organic appendix of the factory system and starts to act as a 'system builder' and a 'problem solver', there must be an explicit recognition that the productive power of capital tends to depend crucially on the productive labour power. The first one, consisting in a generic form as science capital, (science capital that became the form of and has received the legal form of intellectual property right), appears in cheap literature of business administration and political economy so as fetishistic as 'intellectual capital'. Already the productive labour power, whose head accumulate shares of social knowledge, is called in this literature, in such a way as well mystified, 'human capital'” (PRADO, 2005, pg. 106).

The change in the subjection of labor to capital also changes the form of its appropriation of the social surplus and the private property form. This is because the scientific and technological knowledge content can exist socially (and politically<sup>4</sup>) in two forms: as pure freely available knowledge (the mathematical theorems, the law of gravity, literature, music, binary system, art, culture, free software, etc..) or as private property (patents on drugs, proprietary software, patents of genetically modified seeds etc.).

“In this second case, it [the scientific and technological knowledge] becomes objectified knowledge in the means of production or means of consumption or it can stand as knowledge directly attached as intellectual property. In the capitalist mode of production, the scientific and technological knowledge must necessarily accumulate in fixed capital, since the fixed capital is the instrument par excellence of the subordination of workers and thus an indispensable means of reducing necessary labour-time and expanding surplus labour-time.” (PRADO, 2005, pg. 106)

In the large-scale industry knowledge tends to be more free and its influence on production, although central, is more indirect, as the focus of this period is the development of machinery systems and the huge factories planning. This is the basis for creating surplus time and for

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<sup>4</sup> The decision to put knowledge or information in one or another form is, in its limits, political. As Michel Callon wisely puts (1994, p. 399): “A code might be more or less widely shared, more or less easy to break. [...] The choice of a code for which many hold the key, itself constituted of a public good, is not a necessary feature of science: it's a decision, not an inevitability.”

increasing subordination of labor to capital or reducing the work required in favor for increase relative surplus-value. In the post-large-scale industry, science and technology, when objectified socially, tend to assume increasingly the form of capital. Capital now wants to appropriate the called “general intellect” or the “forces of nature”. And to appropriate social-labour, capital “needs to to appropriate directly scientific and technological knowledge as such, removing them from free to put it in the form of private property. "(Prado, 2005, p. 107).

Differently from the large-scale industry, where the main means of production which constitute the matter of fixed capital can be exchanged like goods (machinery and equipment, vehicles, facilities, etc.), through the first metamorphosis of the commodity, M – C, the same does not apply to scientific and technological knowledge made fixed capital . Due to its high production cost (which also tend to decrease due to the advent of the "economics of mass collaboration") and its near-zero cost of reproduction, to become fixed capital, capitalism will change their form of exchange, ie, their business models.

“The capitalist can not sell the knowledge as a commodity, but must transfer the right to use it through a contract that protects its own property right through certain legal safeguards, ie it must considers knowledge as interest-bearing capital. In other words, one must necessarily regard it as interest-bearing capital. Consequently, to make knowledge subject matter of capital relation it is absolutely necessary to restrict the private property to monopoly property. "(PRADO, 2005, p. 107.)

This point is crucial because it shows how a change in the way of labour subjection leads to a drastic change even in the form of trading the commodities, ie, in the form that capital receive its amount. The traditional way of direct sale of goods is increasingly replaced by the right to use goods, which makes it works more and more like interest-bearing capital, which is paid with interest, i.e. transfers the use values but remains with the property of the value of the goods.

#### *IV.3 – Post-large-scale companies*

Prado (2005, pg. 108-9) sees, from this new form of capitalist reproduction, the emergence

of two types of post-large-scale industry, the first one would be a limit model of capitalist enterprise, or as he calls it, "industries without factories ":

"[...] industries that concentrate only financial activities and research, creation of cultural, scientific and technological goods activities, that is, those use values the, under the form of commodities, can receive the form of interest-bearing capital. The assets of this kind of company consist, then, only in money, private and public bonds, stocks, as well as intellectual property rights. Strictly, this company does not produce or sell commodities directly in an ordinary way: it sells the right to access their patents, copyrights, trademarks, designs and processes, products etc., which are nothing more than commodities that act as capital". (Prado, 2005, pg. 108-9)

This first type is no longer financial capital as perceived by Lenin (merger of bank capital with industrial capital). Prado (2005, pg. 109) sees instead, "another form of productive capital subordination – while an impassable moment of the accumulation process – to the logic of finance capital". Now is the essence of finance capital that appears and not the appearance of this form of interest-bearing capital that remains. "This is how in the 'information age' comes the company totally *rentier* capable to get interest, dividends, extraordinary surplus from monopolies, as well as speculative income." (PRADO, 2005, pg. 109) The need for capital accumulation now raises companies fully rent seeker, "even if in this kind of business can be generation of value (and surplus value) – unmeasured due to denial of labour-time as a sole determinant of value." (PRADO, 2005, pg. 109 )

The second type of post-large-scale industries are those that still have the goal of producing and selling commodities. These companies remains just with the typical post-large-scale industry's works and try to transfer to smaller companies with little bargaining power, the operations typically industrial, "so placing to a subordinate position all activities that are still based in the theft of labour-time "(PRADO, 2005, pg. 110).

It is worth mentioning, as an example, the recent change in IBM's worldwide strategy, which, in selling its hardware factory to China's Lenovo, from one of the largest hardware vendors in the world becomes one of the largest consulting and strategy services company of the planet, now

selling "solutions". Passing to the form M-C-M (seller of goods), to the form M - C ( $\Sigma k'$ ) -  $\Sigma d'$  = D' (seller of access to knowledge, knowledge rental, financial form of accumulation).

But this change of capital's form of reproduction is not unique to the post-large-scale industries that produces use values where the cost of reproduction is null (such as music, computer programs, electronic games etc.), but spreads by the whole economic system changing relations between companies and between them and consumers. Even companies that produces traditional goods that have high costs of reproduction (such as durable goods, equipment, machinery and facilities etc.) choose the same form of commercial practice to try to raise the return on capital employed. It is also very common that large retailers prefer to sell their goods to run than by sight, since they get with it an extra gain.

Although in a different form, capitalism in post-large-scale industry inherits from the monopolist stage of large-scale industry the central role that monopolies, in various forms, assumed in the dynamics of accumulation. Monopoly rents, whether from the land, or from the reserve of labor or technology emerged in history in various ways: from the private property of land, from the productivity advantage held by some capitals, by lowering the price paid for the labour force, from the purchase of cheap raw materials, and from unequal relations between center and periphery capitalist through unequal exchange and charge of financial technological rents. "Now, these last two ways of extracting surplus value from major capitals plays a decisive role when the large-scale industry is gradually replaced by post-large-scale industry." (PRADO, 2005, pg. 124)

It's the extraordinary form of surplus-value, without discarding the relative and absolute forms, the adequate means of obtaining monopoly profits under the form of technological and financial income<sup>5</sup>.

Any productive post-large-scale industry's organization, due to its technological monopolies, will seek, therefore, to extract extra gains from relationships with clients, whether businesses or

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<sup>5</sup> This without mentioning the rising unpaid overtime.

consumers. It will also seek to consolidate their gains flattening the profits of suppliers who, in turn, will explore their own workers more brutally. The rate of return on capital employed will no longer depend, therefore, of a convergence between the rates of profit and competition among capitals, as in large industry; this amount now increasingly depends on the monopoly power the firm holds.

“As this power is associated with intellectual property, one can say of it what Marx said of the monopoly on land ownership, it founded the capitalist venture gain because 'exactly constitutes a barrier to capital investment and to the arbitrary valuation of it.'” (PRADO, 2005, pg. 110)

Behold that, the second counteracting factor of the tendency of the profit rate to fall - the reduction of wages, so little explored by the papers exposed above – is no longer a theoretical possibility to become reality. This counteracting effect is due to a monopoly power that a certain capital establishes today. Power that overcome the workers to Pre-World War II exploitation condition. The story recycles itself, therefore, through new forms. The the law of the tendency of the profit rate to fall formulated by Gillman (1958) and Marx's itself are, for this reason, subject to spheres that are beyond the economic sphere.

This kind of enterprise no longer follows the typical logic of capitals competition between large-scale industry in its competitive stage, which sought to obtain competitive efficiency and extract their profits and super profits by producing a given amount of product while minimizing the labour-time, the rotation period of fixed capital and the costs of raw materials. While there is generation of surplus value through the activities developed in the second type of post-large-scale industrial company, to extent that this value is the result of intellectual labour, it remains qualitative, unmeasured and increasingly depends on the **company's social power**.

#### *IV.4 – World unmeasured (unregulated)*

One can derive serious economic and social consequences of this transformation of the productive forces that increasingly incorporates the intellectual dimension. In the more general, the

dominance of capital expands enormously, surpassing the traditional barriers to advance on social life as a whole.

“As this is the [intellectual] mode through which capital subordinates, emerges a tendency to turn everything into commodity, as well as science capital and technology, education, art, culture etc. become the field of capital investments and subject to the logic of accumulation.” (PRADO, 2005, pg. 112).

As the post-large-scale-industry requires the enclosure of a use value - the knowledge, that in itself is not disputable - capital, to make knowledge a commodity that acts as commodity-capital, imposes a logic of privatization in society that becomes extensive and devastating, "the genome, the human body itself, the products of the soul, everything must become the object of private property. Privatize wherever is possible, is not the first commandment of neoliberalism "(PRADO, 2005, pg. 113)

It may be mentioned, albeit briefly, the transformation of religion in explicit commercial practice and the transformation of elections in political markets, to demonstrate empirically how certain non-market spheres are increasingly subjected to the commercial logic of raising revenue.

This the transformation of the productive powers also directly affect the “information age” workers. Due to the nature of intellectual work, the increasing difficulty of dominating the complexity of the body of employees interactions, as well as their relationship with the economic and social environment leads companies to create strategies to try to subsume the maximum of the workers the company's procedures and strategies, creating an internal environment where the work takes shape as "a new ideology, a new religion. " The "post-modern" company subjects its employees to the maximum stress and psychological exhaustion, so diseases such as addiction to work, chronic fatigue and depression become increasingly widespread in the workplace that are being created there. (WARD, 2002, apud PRADO, 2005, pg. 114)

Despite the working time as such no longer be crucial to increase productivity, the labour-hours can be considered total. Capitalism becomes, therefore, schizophrenic because companies that

present themselves on the ideological level, increasingly, as a supportive, participatory, cooperative, ethical, were never been so centralized, competitive and unrestrained in the pursuit of profit, not hesitating to submit the labour power for their purposes 24 hours a day.

The consequences for the rest of the population are even more disastrous because, despite an increasing proportion of the population being drained to the relation of wage labor, post-large-scale industry has become increasingly unable to offer full-time long period employment and employment for the less skilled workers. And it happens everywhere.

For the Third World countries were left subordinate enterprises of large-scale industrial era, that were brought to them by the logic of post-large-scale industry. But even in the First World countries is developing a range of industrial, commercial and service occupations that require little or no qualifications and labour relationships tend to be informal and precarious.

These consequences, however, are not new in themselves. Marx already had advanced it in the Capital's chapter on the general law of capitalist accumulation. What should be emphasized is the deepening of this trend described in the law, now on a planetary scale, in such a way interconnected and total. There is the growth of workers called "excluded", an increasingly significant contingent of labour-power that cannot be more effectively used to capital's accumulation, counterpart of the enormous concentration of income of the post-large-scale industry development, which is based on the rentier exploitation of subaltern business forms of organization and on the hegemony in the world of finance over the world of production.

“[This world] is based on the one hand, in the super intensive use of part of the workforce and on the other hand, the way of a demonic counterpart, the complete exclusion of that part of the population that is minimally qualified in their own terms. As science enters the agricultural production and reduces the number of workforce needed in rural areas, more also the world becomes urbanized. The cities, especially the Third World ones, then, become deposits of surplus population to the capital, developing there not only a culture of insecurity, but a culture of barbarism (but also, perhaps, revolution).” (PRADO, 2005, pg. 116)

#### *IV.5 – Neoliberalism and alternatives*

Along with the changes in the forms of subjection emerges, politically, the Neoliberal State, an economic agent actively passive, that

“[...] actively creates the conditions of the accumulation of capital, that protects monopolies from economic crises, that weakens the power of labor unions, that deprives workers of social security, that privatizes government companies, that transforms the supply of public goods (such as roads, ports etc) into paid services; finally, that not only removes obstacles to the functioning of the markets and companies, but is capable of creating the conditions to them to operate profitably.” (PRADO, 2004, pg. 11).

Neoliberalism is not a return to classical liberalism, a doctrine of minimalist State. It is a new historic step where the State inherits the role played in social liberalism, taking on the complementary economic functions of business (through investment banks or sectors of production in basic or strategic industries), but using a new form, ie not through own companies, but preferably awarding the complementary economic activities, through management contracts to private companies.

“Nevertheless, when this is not possible, as in the case of monetary management contracts, neoliberalism defends functional privatisation (i.e., management is placed in the hands of a technocratic elite that acts as a de facto agent of the private sector). With neoliberalism, the State becomes directly committed to the recovery and maintenance of the profit rate at a level adequate for the continuity of capitalism” (PRADO, 2004, pg. 12).

The new forms of knowledge appropriation by capital such as patents and other intellectual property rights, for example, although effective, are more fragile and depend on a direct legal protection because "collective intelligence is a force that can not be appropriated as a whole, it necessarily exists in a decentralized form; it forms an extremely complicated system and is in a permanent process of reconstruction "(PRADO, 2004, pg. 13).

Still, this productive power together with the rest of the social labor does not cease to produce wealth and therefore value and surplus value in capitalism. And although it exists in such a way dispersed in society, although the conditions of certain works are in the minds of workers,

capitalists, as a class and as individuals, continue to own the means of production. The enigma now is different, the old commodity fetish materialized in the factory loses force in society. The new reveals itself “when one perceives that the form of the relationship of capital appears **on the side** of the propertied class, but that the material that this form harnesses emerges property inherent in the productive force of the dispossessing class” (Prado, 2004, pg.13-4).

Because of this mismatch between the content that supports the capital, i.e. knowledge, and the form capital, and between the labor force that mobilizes this knowledge and its exploitation, the domination of the capital,

“far from being softened, has to become intransigent and totalizing, extending its reach not only over the time at work, but beyond this, to the worker's life as a whole. This latter, then, must become a laborer in hock body and soul to the capitalist company [...] capital [...] reveals its essence, because it represents a way of sucking the wealth generated by social activity [...]” (PRADO, 2004, pg. 14)

Or Neoliberalism appeals to ideology, or in the presence of great difficulties for the accumulation, it uses the police force and punitive power of the private property and of the State.

An example is the recent persecution of the main responsible for the site that “leaks” confidential information from states, the “Wikileaks”. Even the “leak” itself can be seen as an empirical proof of the shift in the paradigm, because a pillar of the collective knowledge is transparency and access to information, and not even secret information from States are protected.

After the disclosure of information has hurt political interests, mainly from U.S., the so called “liberal democracies” want to close the site at all costs. The irony lies in the fact that the Secretary of State, Hillary Rodham Clinton made a large-scale speech in 2009 about the freedom of the Internet, interpreted as a response to the cyber attack of China against Google. “Even in authoritarian countries', she said, 'information networks are helping people to discover new facts and making governments more accountable.’” (ERLANGER, 2010).

The Neoliberal State should act without shame as an agent to promote capitalists interests.

Neoliberalism has become the choice of capital in relation to their fragility in the sphere of production. A conservative choice in relation to the collapse of social liberalism and state socialism, but maybe an option that also point the exhaustion of the mode of production itself as such.

Like the major struggles pointed out by McNally (2009), local struggles and new modes of production can put some real pressure on the systems structures. Democracy in the work, solidarity economy, all kinds of internet struggles (like the free internet or the fight for keeping the web's neutrality), free software, the independent circuits of social reproduction, creative commons, free culture, the reduction of working hours, the fight against medicine and seeds patents, the agroecology, familiar agriculture, minimum income programs etc. altogether forms a mosaic that can be considered as a viable threat, putting in the horizon a possibility of overcoming the relationship based on capital.

So, from all this, what is new? Let's see the conclusions.

## **V – Conclusions**

The first analyses explored here, which has a focus on the national (social) accounts is an inheritance from the post-war period, when economies were more turned inwards; see, for example, the process of industrialization through import substitution that occurred in Brazil. Of course that the future of capitalism depends mainly on the future trend of the rate of profit. But the rate of profit itself is not an indicative of anything more than the class struggle and the new ways that capital subsumes labor.

McNally's approach, in this sense, has the merit to show that the postwar period was an exceptional period in the history of capitalism and, in doing, so, he expanded the analysis in time as well as in a geographical sense. But, unfortunately, his long run ends in 1997, the date from where financial capital starts its pranks and put pressures in the reproduction of the system. The postwar period would never return, and, because the accumulation is getting harder, the contradictions is

exposed. That's why he ends his paper claiming that the time to fight is now.

But, from the perspective presented here, the exacerbation of financial capital after the crisis is not an abnormality, but a rational response to irrational demands of the development of capital beyond their limits.

From Brazil's perspective, for example (but it could be from the whole Latin America, China and India's), the economy is doing fine, and despite the fact that we are (almost) the most unequal country in the world, a social revolution here is far from the agenda.

But, as McNally, I think that now is the time to fight, but because every time is the time and every place is the place to. And this is because capitalism is getting more and more dependent to collective intelligence, what expands and strengthens the social character of production, the subjective principle is very important now, as it can potentially shake capitalism's bases.

So one can say that capitalism gets out from the 1970-1980s crisis **not** because there was a political rational choice in favor of the financial market, it got out because there was an objective necessity of the accumulation process to keep itself strong, as pointed out McNally by (2009). It's true that the changes had to pass through the political sphere, but this capital's necessity to assume those new forms of exploitation presented above [in the post-large-scale analysis] is intrinsic of its position as a subject and not as something that society had rationally decided and that could regret.

As we can see, the post-large-scale industry is not an attempt to draw another post-modern approach to explain the recent changes in the economy, I think it is a way to establish a more rigorous Marx based approach to understand what is new in the world capitalist society.

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