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Notes on Work Super-Exploitation: A Study on the Topicality of the "Tendency of the Rate of Profit to Fall"

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ABSTRACT: It is intended, into the scope of this work, to analyze the Marxian categories presented in the Capital, Volume III; and analyze the case of the mass dismissals occurred in the USIMINAS steel mill in Cubatão (SP) between 2015 and 2017 based on them. Marx argues that the price of the merchandise falls as the productivity grows (Tendency of the rate of profit to fall). This happens because only the living labor is able to add value to the merchandise. The fall in the rates of profit of the capitalists happens because, as the variable capital in the productive process diminishes, less value is created in the productive process; therefore, the unitary value of the merchandise falls. Marx presents some anti-cyclical measures that defer, for a while, this tendency of the rate of profit to fall. Among the six anti-cyclical measures presented by Marx, attention will be given to the two first: I) Elevation of the degree of exploitation of the work force: as the work hours are augmented and the rhythm of work intensified, the capitalist appropriates greater rates of surplus work and surplus value. II) Compression of salaries under their value. In the case studied, USIMINAS (Cubatão) has not offered a real salary increase since 2010. After the company has applied afore mentioned measures between 2015 and 2017, it has presented significant growth in its profit rates.

KEYWORDS: Tendency of the rate of profit to fall, countermeasures, work super-exploitation, value

The tendency and its countermeasures

Marx develops his exposition on the Tendency of the rate of profit to fall in 'the Capital', Volume III, Section III. The author argues that the price of the commodity falls as the productivity grows. This happens because only the 'living work' (performed by humans) is able to add value to the commodity. The capitalist's profit is due to the global surplus value accomplished: if there less work is put into the commodity, the constant capital (Kc) to variable capital (Kv) ratio increases, and thus the surplus value per unit commodity to be accomplished is smaller. That is, if the price of the unitary commodity falls, therefore the capitalists' rates of profit fall. In other words, as a consequence from the productive forces' development, there is a smaller amount of living work in each commodity, and thus both its value and price are lessened. As for the wear of the fixed capital, raw material and such (Kc), it only increases.

The growing development of the productive forces changes the organic composition of the capital: there is a constant elevation of the constant capital in relation to the variable capital, and that takes to the decay in the rates of profit. The decaying rate of profit happens because, as the material volume grows, the "amount value of the constant capital" also grows (Marx 1984, 163), that is, its production costs grow. The "steadfast growth of the absolute mass of surplus value or the appropriated profit" (Marx 1984, 171) is related to the increment in the volume of the business gains, which are crescent (as the productivity increases and the price of the commodity goes down). However, the expenses with the constant capital also grow; consequently, the rates of profit fall.

Marx presents some countermeasures which break, for a while, this tendency to fall of the profit rates. Among the six measures appointed by the author, this text sticks with the first two, which are following:

1) Increase in the degree of exploitation of the work force

As the work journey is extended and labour itself is intensified, capitalists take possession of a greater rate of surplus work and surplus value. That is, without changing the relationship between "(…) the work force employed and the constant capital it puts into movement" (Marx 1984, 177), the extension of the work journey is able to two increase the amount of surplus work itself. At the same time, in a certain way, it reduces the amount of living work in the production.

Marx ironically classifies the relative surplus-value as the "the properly said secret of the tendency of the rate of profit to fall" (Marx 1984, 178) and shortly exemplifies that it happens due to the decreasing employment of living work (variable capital) and increasing employment of constant capital (mechanized production). Another factor that temporarily inhibits the fall of the profit rates are the recurring innovations and inventios due to the constant capital. This happens because the surplus value extracted remains, for a short while, above the general level.

The increase in the surplus value rates is only possible with the reduction of the work force employed and the enlargement of the production mechanization; it that is true, the rates of profit will certainly fall. However, as the work journey increases, so does the absolute rate of surplus work. And with more living labour in the production, the only thing able to generate value and surplus value, the rates of profit tend to break their fall. The surplus value generated by all the variable capital is equal to the profit generated by it. If the degree of exploitation of the working force grows, so does the total amount of surplus value and its rate.

Even if the individual merchandise contains less living labor (work aimed), the relation between work paid and non-paid may change; i.e., the non-paid work may increase in relation to paid work even when there is less work aimed in the merchandise and thus, the capitalist raises their rates of extraction of surplus-value, absolute and relative.

In 2013, USIMINAS laid off more than 6,000 workers, increased its working hours and increased production. The workers who stayed, had to do the work of four men each. In addition, between the periods of May 2014 and April 2015, there was a 4.48% increase in the production of crude steel, flat and pig iron (Sindicato dos Metalúrgicos e Sierúrgicos da Baixada Santista. Boletim N° 361).

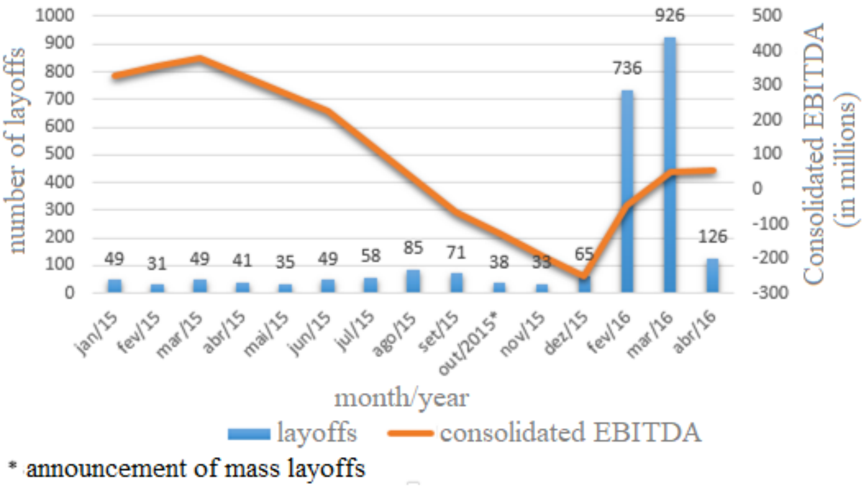

Figure 1: Relation between consolidated profits and layoffs in the year 2015 and the first quarter of 2016 (Sindicato dos Metalúrgicos da Baixada Santista 2017)

Throughout the year 2015, the company sacked 604 workers in total. Between February and April 2016 alone there were 1778 layoffs, almost three times as many as in 2015; totalizing 2,392 layoffs over a period of 16 months, as shown in Figure 1. In October 2015, the Cubatão unit operated with 4338 workers, after the period of mass layoffs, the company began operating with 1713 employees Santana (2017). That is, between 2015 and 2017, 60.6% of workers were dismissed. All these measures adopted by the company characterize the application of anti-cyclical measure I.

2) Reduction of the wage below its value

One of the calculations used by the capitalists to determine the price of their commodities is based on how much the labor force needs to reproduce itself, that is, the least salary the worker needs to survive, known as minimum wage. In Brazil, historically the work force has always been remunerated below its value. At present, according to the Department of Statistics and Socioeconomic Studies (DIEESE), the minimum wage required to live in Brazil is at the level of R$ 4,000.00 while the nominal minimum wage is R $ 954.00; that is, less than ¼ of the value needed for the reproduction of the Brazilian labor force. In European social democracies, since the postwar period, the rule was to pay the necessary minimum wage or even more, as was the case in the Scandinavian countries. However, since the beginning of the current economic crisis, wages have been falling steadily in both social democratic countries and around the world. In Marx's words, the compression of the wage below its value "is one of the most significant causes of contention of the tendency to fall in the rate of profit" (Marx 1984, 179). The Usiminas Steel Mill in Cubatão (SP) does not offer a real increase in the salaries of its workers since 2010. In 2016, there was not even the inflationary replacement. In Cubatão, the wage gap is 31% if we consider the readjustment of the minimum wage since 2002. Some dismissed workers were rehired at 60% lower salaries. The salary of a kiln operator, for example, is around R $ 5,800.00; the few operators rehired after the layoffs receive today about R $ 1,800.00. In the case of engineers, it was not different; those who received about R$ 15 thousand monthly were dismissed and replaced by professional hired for only R$ 6 thousand monthly. This characterizes that the company adopts Anti-cyclic measure II to raise its rates of profit, reducing the real salary of the workers.

The Contemporary Debate on the Tendency of the Profit Rate to Fall

Cassio Arruda Boechat in his postdoctoral project, "The contemporary debate about the existence of a crisis theory in the work of Karl Marx," seeks to understand whether the development of the productive forces leads to a decrease in the profits of capitalists in general. In order to do this, he seeks in several contemporary Marxist writers arguments that defend the tendency of rate of profit to fall examined by Marx and those who advocate in favor of the predominance of anti-cyclic measures. The author seeks differences and similarities between the arguments presented by the two groups.

Boechat begins its analysis by the title "Tendency of the Rate of Profit to Fall". He argues that the fact of being a trend already eliminates any "mechanistic" criticism. i.e., the contradictory idea that an increase in the organic composition of capital, expressed by an increase in the rate of constant capital (Kc) over variable capital (Kv), may or may not incur in the fall of the profit rate. Boechat's argument makes explicit that capital narrows its source of surplus value by diminishing variable capital because constant capital does not, in itself, produce surplus value. Moreover, because of the "equalization of the rate of profit", the larger capitals end up requiring a greater part of the average profit, precisely because they are bigger shareholders. In the eyes of individual capital, the increase in the organic composition of capital proves to be beneficial in the market dispute "(...) with other capitals by larger masses of profit, although the same competition tends to equate the profit rates, reducing them (Boechat 2016, 6). According to Boechat, concentration and centralization of capital operates in the direction of balancing profit rates, lowering the rates of more profitable areas and raising those of less attractive areas, excluding capital markets of very low profitability.

According to Boechat, several authors defend the predominance of counter-measures in the face of the Law of the Trend Fall of the Profit Rate. Roman Rosdolsky notes in his work, Genesis and Structure of Karl Marx's Capital, that Marx concludes section III of his book III with a theory of the overthrow of capitalism, which he said was obstructed by Social-Democratic revisionism after the First World War. Paul Sweezy, in his book Theory of Capitalist Development, argues that it is not credible to say that the organic composition of capital grows more than the rate of surplus value. Therefore the Law of the Falling Trend of Profit Rate is not very persuasive. In the same line of thought, Okishio's theorem (1961) reiterates the imprecision of the Marxian theory of Law of the Tendencial Fall of the Profit Rate (LTFPR) and argues that the substitution of variable capital by constant capital does not cause a fall in the rate of profit. Moishe Postone argues that as the global productivity of capitalism lowers, the rate of profit is also low. Economist Luiz Carlos Bresser-

Pereira argues that the new technologies that save constant capital in the productive process prove that countermeasure measures invalidate the Law of the Trend Fall of the Profit Rate.

The British Marxist David Harvey, according to Boechat, joins both the perspective that alleges the invalidity of the Law of the Trend Fall of Profit Rate and that which indicates the effectiveness of counter-tendencies. For Harvey, the introduction of new technologies into the production process aims to save labor and the means of production. However, he points out, such measures of capital as the third counter-measure reaffirm the consistency and predominance of counter-tendencies.

Cássio Boechat reports that Andrew Kliman organizes a resounding criticism of Okishio's theorem. The American economist criticizes the fact that theorem is anchored in common sense and advocates a directly proportional relationship between increased productivity and increased profit. But the economists Gugliemo Carchedi and Michael Roberts criticize Kliman himself when they argue "that LQTTL [LTFPR] would not be a prediction of the dynamics of crises, but a long-term explanation" (Boechat 2016, 12).

The law as a trend

Jorge Grespan argues that the organic composition of capital increases as capital becomes more involved in the productive process in relation to abstract labor. That is, the less variable capital, the lower the value. In this, the unit value of each commodity falls and, consequently, the quantity of abstract labor falls. According to Grespan, Marx exposes that the rate of profit falls because labor becomes more productive and not vice versa. In this, the increase in labor exploitation, represented by the upward trend of the surplus value, occurs simultaneously with the trend fall in the rate of profit. Increasing labor productivity by replacing the labor force (Kv) with state-of-the-art technology (Kc) reduces the unit value of each commodity "(...) and consequently also the time required to reproduce the value of the labor force, raising the rate of surplus value "(Grespan 1996, 210).The author justifies that in order to understand what Marx calls "law" it is necessary to get rid of the notion of logical-formal thinking that there will be no contradiction between phenomena. Otherwise, the reader creates hope that the rate of profit falls continuously and unconditionally. In this same sense, the author ponders that for Marx the contradictory relation between the rise in the rate of surplus value and the fall in the rate of profit is what makes the law itself a "law." In other words, contradiction is what unites phenomena. Jorge Grespan states that the fall in the rate of profit, effected by certain causes, is regulated by these same causes. Capital, to slow down and even increase its rates of profit, may adopt certain measures, for example: the intensification of the exploitation of the labor force in the industrial sector, the cheapening of the elements of constant capital, among others. The author argues, citing Marx, that countermeasures do not invalidate the Law of the Falling Trend of Profit Rate, but rather make it operate as a trend. That is, even with counter-measures acting in the opposite direction, the "law" is only temporarily delayed. In the long run, profit rates fall again. In addition, Grespan argues that if there is greater productivity in the industry that produces the "elements" of constant capital compared to the sector that produces the workers' livelihoods "(...) organic composition does not rise so much" (Grespan 1996, 220). This is because, according to Marx, in order for capital to reduce the price of the labor force, the productive forces in the industrial sectors that produce the necessary goods for the worker must be more developed. In any case, Grespan argues that it does not make any difference, in the eyes of capital, to lower the prices of livelihoods or means of production. What matters to the capitalists is to intensify labor productivity to extract relative surplus value in ever greater proportions. Countermeasures, according to Grespan, reaffirm themselves in opposition to the fall in the rate of profit, which gives the "law" the peculiarity of being a "trend". In addition, Grespan states that even with the fall in the rate of profit, there is no end to the valorization of capital because one of the measures to return to its recovery is the reduction of the price of constant capital elements. For him, "(...) it is impossible to say that the fall in the rate of profit falls to a point where the continuity of the valuation process is not possible; that is, that capital reaches the insurmountable limit for the accumulation movement (Grespan 1996, 24). Therefore, it is wrong to say that the "crisis" is the final limit of the capitalist mode of production.

The organic composition of capital and the class struggle

Guido Mantega, in his introduction, exposes that the Law of the Tendencial Fall of the Profit Rate, for one of the groups presented in the article, is essential for the understanding of the dynamics of capital. In this group, that is, the defenders of the validity and actuality of the law, are: Paul Mattick, David Yaffe and Mario Cogoy. Already advocates for an update of the law are: Paul Baran, Paul Sweezy, Joan Robinson, Josef Steindl, Geoffrey Hodgson. Mantega points out that the "reformulating" current is characterized by denying not only the Law of the Falling Rate of Profit, but also a part of the Marxist laws of accumulation (Mantega 1976, 29).The author argues that with the development of material productive forces, the volume of variable capital (Kv) is decreasing in the production process. The volume of constant capital (Kc) and consumption of inputs and raw materials are increasing. In other words, the increase of constant capital and the diminution of variable capital is called by Marx: an increase in the organic composition of capital. The technical composition of capital expresses labor productivity. The organic composition of capital grows the greater the social productivity of labor. Such productivity lowers the value of constant capital because with the increase of the rhythm of production the constant capital transfers its value faster to the produced goods. In other words, the increase in the organic composition of capital is the cause of the drop in profit rates (Mantega 1976, 30). Mantega believes that the increase in labor productivity, coupled with the reduction of the labor required, can, even with the growth of the organic composition of capital, raise profit rates. However, as much as the capitalists increase the rates of exploitation of absolute surplus value (obviously with the limit of 24 hours a day) and reduce the worker's production costs (such costs can not be less than zero), at some point rates of surplus value surpass these limits and thus, the rates of profit will fall again. The author shows that in the process of capital accumulation, the increase in the rate of surplus value raises the rates of profit. The reduction of the quantum of variable capital, in production, causes them to fall. Thus, "(...) the law of the fall of the rate of profit is not expressed in an absolute way because along with the causes that cause it, align forces align against its fall. For this reason, general law will manifest itself, most of the time as a simple tendency (Mantega 1976, 31). Guido Mantega argues that the second Anti-cyclical measure - "Compression of wages below its value" - can be applied in two ways. The first one, when work becomes more productive, it leads to unemployment and, consequently, the increase in the supply of the labor force in the market, which diminishes wages. The second occurs when workers are in a political situation in which the correlation of forces is disadvantageous. The author argues that "in the face of the counterbalancing forces, the tendency of the rate of profit to fall should manifest itself as a simple tendency, since these forces tend to prevent its emergence" (Mantega 1976, 32).

Mantega ponders that, paradoxically speaking, the increase in the organic composition of capital, which pressures downward profit rates, is the same as that which allows the growth of labor productivity, which raises the extraction of the surplus value and, consequently, raises the rates of profit. The rise in the average organic composition of capitalism stimulates the fall in average profit rates, but the investment of individual capitalists in state-of-the-art technology in production raises their individual rate of profit. This is because the capitalists in question is are able to win the market and beat the competing companies because he is more productive; he has the possibility to sell his products below market prices but above the costs of his production. However, over time, competing companies also adopt the new technologies in their respective production processes and, with this, they are able to be competitive again in the market with the pioneer company and depending on investments in research and state-of-the-art (Kc) companies may, at another time, take the lead in the market.

The author points out that the most preponderant factor for understanding the trend decline in the rate of profit is competition in the market among capitalists. Mantega shows that there is a tendency to equalize the rates of profit of different capitals because they withdraw from the fields of lower productivity. This is because the different productive sectors do not all work with the same organic composition of capital. That is, some sectors set in motion larger amounts of constant capital than others. In this, different masses of surplus value and, consequently, distinct profit rates are created among such productive inter-competitive branches. Thus, the less productive capitals are being phagocytosed by the more productive ones, and "(...) it is these constant migrations of capital that produce the tendency to level the rate of profit" (Mantega 1976, 51).Guido Mantega argues that, in the struggle between individual capitals to win market, they reduce their production costs. For example, by implementing new technologies in the productive process, as these reduce the amount of socially necessary work in the confection of goods and, therefore, their unit value falls. The author understands that the monopoly phase of capitalism is characterized, among other points, by the constant technological progress. The objective is "to improve products in the face of competition, or even to seek higher profit rates" (Mantega 1976, 55). Moreover, at this stage, the development of the productive forces is increasingly guided by the function of monopolies to concentrate and centralize capital. The author argues that, in the monopolistic stage, another important cause of the tendency of the rate of profit to fall is the increasing spacing between production and realization of the value of commodities. In addition, capital spends part of its mass of surplus value with increasing commercial capital (unproductive labor) to realize the value of the commodities produced and thus obtain their profit rates. In other words, "commercial capital has become one of the factors that prevails in the reduction of the rate of profit" (Mantega 1976, 56).

Mantega ponders that in the upper phase of capitalism, the emergence of cartels and multinational corporations has the prime intention of raising the rates of profit of companies that have headquarters in imperialist countries. In underdeveloped countries, these enterprises can use smaller organic compositions and thereby increase the level of exploitation of the labor force, reduce the wages of these workers further, and at the same, time obtain raw materials and cheaper inputs for production. In addition to cheaper labor force and levels of subsistence well below of central capitalist countries; the underdeveloped countries commonly have authoritarian governments or even weak democracies that hinder and repress the political and trade union organization of workers and end up weakening their accumulation of forces in the class struggle against capital for improvements in working conditions and wages. The author argues that the class struggle is an important element for the development of the productive forces and, therefore, influences the rates of profit. In countries where the working class has a greater degree of political-syndical organization and, therefore, a greater bargaining power vis-a-vis capital, both wages and the organic composition of capital tend to be higher. In short, Guido Mantega shows that the incessant development of the material productive forces leads to an increase in the organic composition of capital, that is, more and more constant capital and less and less variable capital in the productive process. In this, since only living labor generates value, by increasing productivity, the quantity of socially necessary labor is lowered, and consequently the unit price of each individual commodity falls. Thus, the capitalist increases his mass of profit, that is, the amount of money raised with the increase of productivity. However, with the increase in productivity, consumption and wear and tear of constant capital, ie, inputs, machinery, facilities, etc., are also increased. Therefore, with increased production the mass of profit grows but the rate of profit falls.

Conclusion: The Theory and the Profit

After massive layoffs between 2015 and 2017, and the intensification of production, USIMINAS presented considerable growth in its earnings before interest, taxes, depreciation and amortization (EBITDA), which corresponds to what Marx called "mass of profit".

In the quarterly presentation of Usiminas to its investors, available on its website, it is possible to appreciate that its profits grew considerably between the periods of 2014 and 2017. Its gross profit in 2014 was R$ 1.037 billion and reached R$ 1.635 billion in 2017. As for the net profit , it went from R$ 208 million in 2014 to R $ 315 million in 2017. This evolution is illustrated in Figure 2. In short, after the application of countermeasures I and II (mainly) the company managed to brake its falls in the profit rates and increase profit.

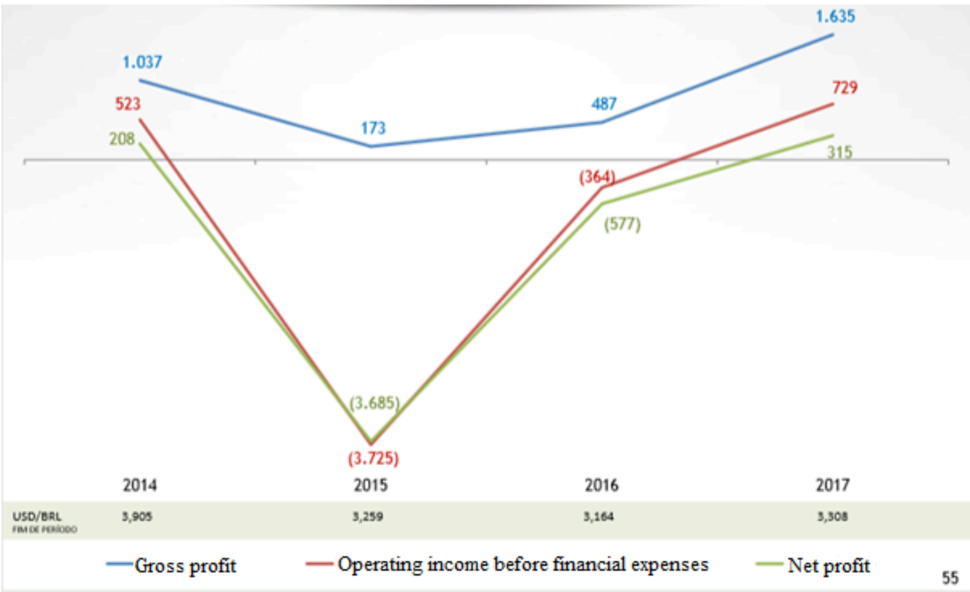

Figure 2: Consolidated gross, operating and net income for the period 2014 to 2017 - amounts in millions of R$ (USIMINAS 2018a)

It is also possible to identify the successful application of anti-cyclic measure II by the company in Figure 3 (extracted from the aforementioned presentation). In Figure 3 (General and Administrative Expenses) it is possible to verify that, since the 3rd quarter of 2017, expenses have been falling in relation to the company's net income. Despite the increase between the 3rd and 4th quarters of 2017, the first quarter of 2018 registered the lowest rate of expenses, 3.2% of the net income, compared to the rate of expenses at the beginning of 2017, which was 4.0% of the net income.

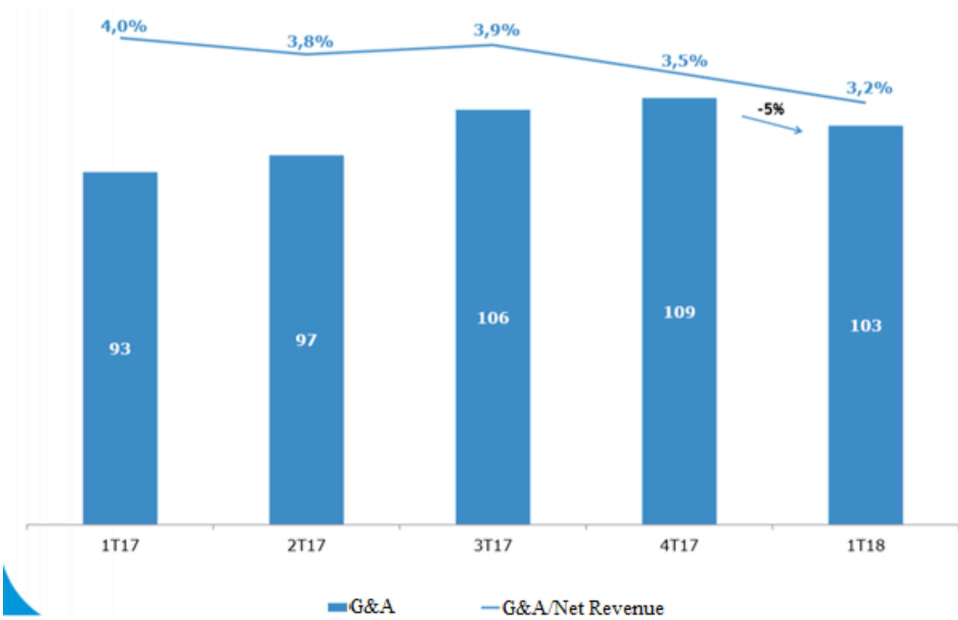

Figure 3: Consolidated General and Administrative Expenses in the year 2017 and the first quarter of 2018 - amounts in millions of R$ (USIMINAS 2018b)

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