Political economy inflection:
a Sraffian interpretation for the end of the Golden Age of capitalism

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Resumo: o presente artigo se propõe a apresentar um arcabouço teórico sraffiano e utilizá-lo para interpretar o fim da Era de Ouro do capitalismo ocidental, período de prosperidade que vai da Segunda Guerra aos anos 1970. Nesta interpretação, baseada na retomada da abordagem do excedente por Sraffa, Garegnani e seus seguidores, tal inflexão se justifica pela dinâmica da economia política, na medida em que as classes proprietárias induzem os governos a adotarem políticas econômicas menos expansionistas no intuito de desacelerar o produto, elevar o desemprego e mudar os parâmetros do conflito distributivo.

Palavras-chave: Economia política; História Econômica; Era de Ouro; Abordagem do excedente

Abstract: The present paper aims to present a Sraffian theoretical framework and use it to interpret the end of the Golden Age of Western capitalism, the period of prosperity that goes from the Second World War to the 1970s. In this interpretation, based on the resumption of the surplus approach by Sraffa, Garegnani, and their followers, such an inflection is justified by the dynamics of political economy, insofar as the capitalist classes induce governments to adopt less expansionist economic policies to slow down the product, raise unemployment and change the parameters of the distributive conflict.

Keywords: Political economy; Economic history; Golden Age; Surplus Approach

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1 – Introduction

This paper aims to present a Sraffian interpretation of the end of the period of prosperity that characterized Western capitalism after the Second World War. As will be demonstrated, this interpretation has a robust explanation in theoretical terms and is consistent with empirical data and historical facts, covering a wide range of factors from international geopolitics to the determinants of private investment.

The interpretation presented here is based on the so-called surplus approach, a line of theoretical development from Piero Sraffa's project to resume classical political economy. Based on his contribution, mainly regarding the theory of distribution and relative prices, Pierangelo Garegnani advances the research agenda, adding to the classical analytical framework (reviewed and developed by Sraffa) the theoretical contributions of Keynes and Kalecki to consistently use the principle of effective demand in the study of capital accumulation, beyond the determination of short-term output levels. More recently, Franklin Serrano added to this line of development his contribution, giving the analytical framework a formalization in terms of a growth model through the so-called Sraffian supermultiplier, on which this article will be based.

Specifically, regarding the study of the end of the Golden Age, this approach is exposed in the paper by Cavaliere, Gareganani, and Lucii called "Full employment and the left", presented at a conference in 1994 and published ten years later. In general terms, this interpretation attributed the economic inflection observed in the 1970s to a change in the balance of power between capital and labor, based on the endogenous dynamics of political economy observed after consecutive years of high employment levels in central capitalist societies.

In order to expose and develop such an interpretation, this article is divided into three more sections in addition to this introduction. Section 2 presents the theoretical framework of this school of thought to be used, in section 3, to analyze the end of the Golden Age of Western capitalism from the exposition of what happened in Germany, Japan, and, mainly, the United States. Finally, section 4 concludes the article.

2 – A surplus approach: the Sraffian supermultiplier

The theoretical approach here exposed, called the surplus or Sraffian approach, consists of a very specific line of research within the field of economic heterodoxy[3]. It dates back to the emergence of economics as a field of knowledge from classical political economy, begins to take shape with the resumption of this by Piero Sraffa, and is developed from the contributions of Pierangelo Garegnani and his followers.

Sraffa's book "The Production of Commodities by Means of Commodities", from 1960, is the genesis of different modern approaches that focus their analysis on the concept of surplus. In it, the author carries out a rigorous critique of the neoclassical theory, centered on the concept of capital, and proposes the resumption of the classic surplus approach, especially concerning the theories of value and relative prices.

The concept of surplus is central to this analytical edifice, being considered a common point of classical economists from William Petty to David Ricardo, passing through Adam Smith, and also adopted

[3] It is worth mentioning that there are divergences within the sraffian school, and that the present approach – of the sraffian supermultiplier – can be understood as one of the possible interpretations. For more on the internal debate within the school, see Trezzini (1995; 1998), Palumbo and Trezzini (2003), Trezzini and Palumbo (2016) and Moreira and Serrano (2019).

by Marx, a critic of classical political economy. The surplus would consist of the portion of the product, after discounting the means of production and subsistence of the working class, to be distributed among the different social classes, and the study of its determination and distribution was the central concern of these authors. For that, they took as given, exogenous to the core of the theory, the level and composition of the product, the production techniques, and a distributive variable (at the time, real wages), and from these variables, they determined the other distributive variable (the profits) and relative prices.

In the late 19th century, given the analytical difficulties of Smith, Ricardo, and Marx's labor theories of value and the political implications of classical political economy in general in a context of social tensions[4], classical economics would be eclipsed by neoclassical theory, which starts to be constituted from the advent of the marginalist revolution carried out by economists such as Menger, Jevons, and Walras.

> It was apparently the 'failure' of the labor theory of value to yield a consistent explanation of relative prices and hence of the rate of profits - the so-called problem of transformation - that was offered, at an analytical level, as the ground for abandoning the classical and Marxian approach to distribution. (BHARADWAJ, 1984, p. 1239)

Sraffa (1960) not only carried out a scathing critique of neoclassical theory based on the need for a homogeneous capital concept (which lacks logical consistency) and substitution mechanisms[5] but also explained the analytical difficulties present in the value theories of classical political economy (including that of Marx), proposing solutions to them. Such solutions consist of the simultaneous determination of the endogenous distributive variable and the relative prices, as well as the use of the so-called "standard good"[6].

Following the formulation of the classical authors, Sraffa understands that the supply side determines the long-term dynamics of prices. The so-called production price would thus be determined by the production costs of the dominant technique at the normal use of fixed capital and by a given distribution, and would already include an acceptable minimum level of profitability. This price, also known as the natural price, would be the lowest price to make production viable. Market prices, in turn, would be determined by the interaction between supply and demand and would gravitate around production prices.

The process of gravitating market prices around production prices is closely related to the classical concept of competition. This refers to the free mobility of capital that standardizes prices within sectors and levels the distributive variables of the economy.

> What competition, first in a single sphere achieves, is a single market value and market price derived from the various individual values of commodities. And it is competition of capitals in

[4] "By the seventies, capitalist relations in Europe had become pervasive and well-entrenched, and the major arena of conflict shifted to relations between capitalists and workers. Moreover, the conflict was not merely a matter of theoretical possibility, it had already assumed overt and militant forms. It appears that the intellectual confrontation with the theoretical system of political economy and the view of social relations it propounded had become immanent, and the new theoretical system was now more congenially received." (BHARADWAJ, 1976, p. 19)

[5] This issue generated intense debate between economists at Cambridge, such as Sraffa, Robinson and Garegnani, and at the Massachusetts Institute of Technology, such as Sollow and Samuelson, becoming known as the "capital controversy". In this regard, see Garegnani (2012).

[6] According to Fabio Petri, Garegnani would have found his own analytical solution, by determining the "(...) rate of profit as the relationship between surplus and capital in the vertically integrated wage sector, with prices measured in commanded labor (the value of the sector's surplus product, which consists of wages, is then a quantity of labour) and with capital represented as dated quantities of labour, each being multiplied by the unknown rate of profit for the corresponding period of time (the rate of profit, even introducing aggregates, remains the only unknown variable)" (Petri, 2000, p. 4). In this regard, see Eatwell (1982) and Serrano (2009).

> different spheres which first brings out the price of production equalizing the rate of profit in the different spheres. (MARX, 1967, p. 180)

If the market price were above the production price in a certain sector, this would lead to extraordinary profits. These would attract new entrants, expanding the supply of the goods or services sold in that sector, reducing its market price, eliminating such extraordinary profit, and leveling the economy's profit rates at the so-called normal profit rate. In the opposite case, in which the rate of profit is below normal, the producer would be induced – to adopt the dominant technique if it was not already adopted and, if the situation persists – to interrupt his production. This would reduce the supply of the good or service in relation to demand, exerting upward pressure on its market price.

Several authors would develop this research project. According to Roncaglia (2000), there would be at least three different lines followed from Sraffa's contribution: a "Ricardian", followed by Luigi Pasinetti; another "Smithian", developed by Sylos Labini; and a third, "Marxian", the result of the contribution of Garegnani and his followers. Although the analysis of this categorization is not within this paper's scope, the latter current will be referred to as the surplus or Sraffian approach.

Based on Sraffa's contribution, Garegnani (1962) sought to reconcile the analytical structure of the classical theory of value and relative prices (reformulated by Sraffa) with the principle of effective demand, as formulated by Keynes and Kalecki. After demonstrating, from neoclassical premises, that it is not reasonable to believe that the mechanisms of adjustment of real wages and interest rates would lead the economy to a position of long-term equilibrium, Garegnani opened the way for the determination of the product by the effective demand, not only in the short term (and independently of market failures) but also in the long term. While Keynes, focusing on the short-term analysis, demonstrated how investment determines savings through variations in income (caused by the dynamics of aggregate demand reflected in fluctuations in the degree of utilization for a given productive capacity), Garegnani sought to extend this analysis for the long term. As in this logical/time horizon, the productive capacity tends to vary, the determination of the savings by the investment must be given through variations in such capacity.

A level of investment below that given by saving at full capacity tends to generate a lower rate of accumulation (than that observed in the case where both levels were equal), resulting in lower future savings at full capacity.

> It follows then that the principle of the independence of investment from saving, which in the short period manifests itself in a shortfall of investment relative to the savings obtainable from the full utilization of productive capacity, can in the long period also manifest itself in a smaller expansion of productive capacity, and therefore in lower levels of full-employment saving. (GAREGANI, 2015, p. 4)

It would be a cumulative process: low investment rates (than full-capacity savings) would generate less productive capacity and potential savings in the future (so that this adjusts to investment), reducing possibilities of investment in the future.

> The loss to the community caused by even small deficiencies of investment with respect to full-capacity saving—that is, by even small margins of unutilized productive capacity—then becomes substantial. The loss in fact consists not only of the goods that could have been obtained with the capacity that was left unutilized during the period of deficient demand. It consists also of the goods that could have been obtained in the future from the expansion of the stock of productive equipment had the idle capacity been utilized to produce investment goods. Since this second component of loss, unlike the first, is not temporally limited but is cumulative, it takes on

> dimensions that surpass by far those of the first component of loss when we consider spans of time measured in decades, the intervals to which growth policy applies. (Ibid., p. 7)

Advancing his theoretical construct, the author discusses the determinants of investment. Among these, two stand out: the growth rate of final demand and technological innovations.

The final demand would be that which is not destined for the additional production of goods in the economy, encompassing the domestic demand for consumption and the one for exports. On the other hand, the demand for capital goods would meet the demand of other sectors, which in turn would respond to the final demand, being induced (albeit indirectly) by it. If there is an expansion (retraction) of demand, companies will accelerate (decelerate) the pace of investment to meet it, at the risk of losing market shares (or generating more idle capacity and facing increasing costs).

Technological innovations would be other determinants of investment. Although investment in innovations is generally seen as independent of demand, it often takes the place of induced investment. This is because investment in new processes, increasing productivity, tends to make old plants obsolete, while investment in developing new products can extinguish or reduce the markets for other goods. In these cases, the investment considered autonomous can replace, at least in part, the induced one so that, in terms of adapting capacity to demand, it assumes its characteristics. Even if this investment in innovations does not compete with the induced, it is reasonable to consider, as different authors do, that it exerts a stronger influence on the level of investment than on its growth rate (CESARATTO ET AL., 2003; MOREIRA AND SERRANO, 2018).

By defending the non-adoption of the rate of profit in new investments as one of its determinants, Garegnani argues that such a rate should not impact gross fixed capital formation independently of final demand and technical progress (which in turn would manifest their influences through the expected rate of profit). Without expecting demand or reduction of costs due to the increase in productivity, one should not expect an increase in profits in the new plants. An eventual real wage containment would also increase the expected rate of profit, but not in relation to the average current rate of profit – which would also rise –, a relationship that would be relevant for the level of investments (GAREGNANI, 2015, p. 11). Interest rates are also not listed as determinants of capacity investment as they mainly affect residential investments.

Finally, the author also argues that retained or distributed profits should not be included among such determinants either, as they affect the economy's propensity to save in movements that will not necessarily impact investment. On the contrary, in an analysis very close to that of Kalecki (1971), he states that, in the aggregate, retained earnings are determined by the mass of profits and this by the level of investments.

Initially outlined by Garegnani, this investment theory would later be developed and formalized by Franklin Serrano (1995). The author would combine the effect of the accelerator or that of the capital stock adjustment (according to which investment in capacity is induced by final demand) with the Keynesian multiplier, elaborating the so-called Sraffian supermultiplier growth model[7] (SERRANO, 1995; 1996; 2001; FREITAS AND SERRANO, 2007; 2015).

Investment in the model is rigorously defined as the expenditure that directly generates productive capacity for the private sector. This definition excludes public and residential investments, which follow a logic other than the adjustment of productive capacity. Following the accelerator principle, long-term productive investment is induced by aggregate income. This, in turn, is composed, in addition to such

[7] Other authors have also arrived at supermultiplier models combining the accelerator and multiplier effects. This is the case of Hicks (1965), Kaldor (1971), and Bortis (1997).

investments, of induced consumption and autonomous expenditures (such as autonomous consumption, residential investment, public spending, and exports), so that income is given by the product of the supermultiplier[8] by the autonomous expenditures. In the long run, therefore, the economy's growth rate is given by the growth of such expenditures.

In this model, it is the investment rate that adjusts to the growth rate: whenever the degree of utilization is above (below) the normal level, the investment rate will increase (decrease), and the investment growth rate will be higher (smaller) than the growth rate of output, which will also increase (decrease).

In the long run, the degree of utilization converges to its normal or planned level, so the investment rate is determined. With this, the growth rate of investments is equal to that of the product, given by the growth rate of autonomous expenditures. Thus, the key point for the economic trajectory is the dynamics of investment, considered, in the long run, as being induced by demand. As for Garegnani, *"final demand plays a decisive role in the process of economic growth"* (GAREGANANI, 2015, p. 13).

> In the long period, all gross investment should be considered demand-led, although technological competition might explain the existence, in each period, of some 'unjustified investment', something that may raise the level of gross investment but not its growth rate. (CESARATTO ET AL., 2003, p. 50)

As, in the long run, the investment rate adjusts to the growth rate, which is determined by autonomous spending, studying these becomes crucial in understanding the trend of economic growth. In this sense, public spending and exports assume central roles in long-term trajectories, although the evolution of autonomous consumption and residential investment are also fundamental elements.

Exports are central to the dynamics of economic growth. Not so much because of their weight in aggregate demand (for the main capitalist countries in the middle of the 20th century), but because of their role in adjusting the balance of payments, given their character as a generator of foreign exchange. "*Exports in fact appear to have more importance for balance-of-payments equilibrium than they do as a means of increasing final demand*" (GAREGANI, 2015, p. 17). Any consistent growth process implies, given a certain income elasticity of imports, an increase in the goods and services imported by the country and, thus, in its need for foreign exchange. Although capital flows can give degrees of freedom to the balance of payments, inflows tend to reverse later with an increase due to interest and profits, so the balance of external accounts depends crucially on the foreign currency generated by exports. On the other hand, its weight in aggregate demand is low for the major capitalist countries, especially when discounting the import coefficients of exported products.

Public spending, in turn, is a key variable in economic growth. If, on the one hand, the government can stimulate autonomous consumption and private investments (through its tax, monetary and credit policy, for example), on the other hand, public spending is under the direct control of the government (even though it's subject to institutional restrictions and the influence of different interest groups in society). In addition to the direct impact of such expenditures on aggregate demand, amplified by the multipliers, public expenditures also assume a "lighthouse effect", signaling to economic agents the direction of the accumulation process to be pursued by the government.

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[8] The super multiplier has a form analogous to the Keynesian multiplier, but includes, in addition to the propensity to consume (which reflects the multiplier effect of induced consumption), the propensity to invest (that is, it incorporates the accelerating effect of induced investment).

Regarding fiscal policy, the surplus approach exposed here uses the functional finance framework developed by Abba Lerner (1943). In this view, the government must carry out its expenditures and tax policy to increase the level of product and the rate of growth of the economy, performing a discretionary control of aggregate demand through public spending and taxes, given the other expenditures that compose it. In addition, it would also be up to the government to adjust the monetary base and issue/destroy government bonds following the desired monetary policy. It should, therefore, adopt a pragmatic economic policy, aiming at defined objectives and not pre-judgments on the means adopted, without considering sound theories that support budgetary balance in an arbitrary period, such as a solar year.

> The central idea is that government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money, shall all be undertaken with and eye only to the results of these actions on the economy and not to any established traditional doctrine about what is sound or unsound. (LERNER, 1943, p. 470)

If the country issues its currency, the external restriction is the only technical limit imposed on a government to adopt a framework such as the one advocated by Lerner. This is because it makes no sense to speak of limits to government funding when it is in the currency it issues. What can happen is the lack of foreign currency that makes it impossible to reach the desired growth rates, under the risk of crises in the balance of payments. It follows, therefore, that the external scenario, expressed in international trade and the financial environment, is crucial in the sense of restricting or not growth trajectories. This is the first and most important constraint on the process of economic growth.

According to the present approach, the second constraint on growth is the political constraint. This originates in the Kaleckian concept of reversal of the economic cycle motivated by political reasons (KALECKI, 1943). The idea is that the maintenance of low unemployment rate scenarios tends to engender political and social changes, in addition to the economic ones, that bother the capitalist class.

In situations close to full employment, unemployment ceases to exercise its disciplinary role so that the working class is strengthened, increasing its union activity and bargaining power and starting strikes for better wages and working conditions. This tends to generate real wage gains and increases in the wage share of income. The longer the period in which the low unemployment scenario is maintained, the greater the capacity of the working class to influence the evolution of the political and institutional framework, structurally strengthening itself (STIRATI, 2001).

As Kalecki notes, rising employment and wages increase effective demand and higher rates of realized profit. In this interpretation, the discomfort caused in the capitalist class occurs for political and social reasons and not for economic aspects. Although the author does not go deeper into these reasons, he cites the indiscipline of the working class and the political instability resulting from its strengthening.

> Indeed, under a regime of permanent full employment, 'the sack' would cease to play its role as a disciplinary measure. The social position of the boss would be undermined and the self-assurance and class consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tension. It is true that profits would be higher under a regime of full employment that they are on the average under laisser-faire; and even the rise in wage rates resulting from the stronger bargaining power of the workers is less likely to reduce profits than to increase prices, and this affects adversely only the rentier interests. But 'discipline in the factories' and 'political stability' are more appreciated by the business leaders than profits. Their class instinct tells them that lasting full employment is unsound from their point of view and that unemployment is an integral part of the normal capitalist system. (KALECKI, 1971, p. 140-141)

Even if profits are crashing due to real wage gains without respective productivity gains, entrepreneurs will continue to invest in the face of growing effective demand, at the risk of losing market shares. In this sense, the change in this uncomfortable situation for the capitalist class requires a change in the economic policy carried out by the government since it will not result from an endogenous reduction in the investment rate, much less from an investment strike planned by the propertied class, since "(...) *capitalists do many things as a class but they certainly do not invest as a class*" (KALECKI, 1971, p. 152).

Faced with a situation less favorable to capitalists due to the maintenance of low unemployment rates, they induce the government to adopt a more orthodox policy to slow down the economy, generate unemployment and reverse the political and social changes that had taken place. Here is a crucial point: this economic inflection occurs through changes in the government's economic policy and not through contractions in private investments. As shown in the next section, this process is at the heart of the surplus approach interpretation towards the end of the Golden Age of Western capitalism.

3 – The end of the Golden Age according to this approach

Before analyzing the economic inflection that marks the end of the Golden Age in the major economies of capitalism, it is necessary to contextualize the period in terms of global geopolitics. As has been argued, the main constraint to economic growth in an open economy is the external constraint. Therefore, it is necessary to explain why such restriction does not represent, in this interpretation, a determining factor in the analyzed inflection. The examination of the external conditions of this period of high growth also points, at the internal level, to the situation that made possible the postponement of the political limits of growth through a distributive agreement between social classes.

Firstly, it is important to emphasize what is meant by the central economies of 20th-century capitalism. The criterion used here is based on the share of the global product, so the United States stands out as the largest economy by far, accounting for more than a fifth of global production throughout the second half of the 20th century. Then there is the Japanese economy, responsible, in the same period, for something between 7% and 8%, and the German economy (West Germany), accounting for between 4% and 6% of the planet's GDP (MADISSON, 2001). More than the weight of these countries in the global economic dynamics, the option to have them as an object is justified because they are significant examples of what happened in different economies.

Next, it is important to explain why the external restriction did not limit the economic growth of such countries. In the case of the United States, this is not a relevant issue since, as a global currency issuer, it does not face such restrictions by definition[9]. The action of this country within the logic of the Cold War meant that the shortage of foreign currency did not constitute a problem for most capitalist economies in the third quarter of the 20th century.

After the Second World War, the expansion of socialism led by the Soviet Union was observed as a counterpoint and an alternative to capitalism. As a result, the United States became interested in stimulating the rapid growth of other market economies to contain the spread of the competing mode of production. For this purpose, within the framework of Bretton Woods, the North Americans provided a

[9] From the end of the Second World War to the beginning of the 1970s, the dollar was convertible to gold and the exchange rate was fixed, so that the country could not incur persistent current account deficits. However, when the accumulation of external deficits began to generate discomfort in the countries with surpluses, the USA simply ended, in 1971, the convertibility of the dollar to gold. Since then, the country has issued, without coverage, the currency of global course.

period of abundant liquidity until the end of the 1970s. According to OECD data, between 1954 and 1973, the nominal interest on North American long-term public bonds, with a ten-year maturity, recorded an average of 4.65%, while inflation remained at around 2.5% per year. Moreover, the US subsidized the rapid development of some specific nations, such as Germany and Japan, to create a "health barrier" of economic prosperity against socialist expansion. In this context, the privileged access to international financing and the North American market granted to these two countries (among others) provided a very comfortable situation in their respective balances of payments (MEDEIROS AND SERRANO, 1999).

The analysis of the reasons that relaxed the external restrictions of the major capitalist economies raises another fundamental element in understanding the economic performance of the period. While, at a global level, the need to legitimize the capitalist mode of production generated an environment conducive to accelerating the growth rate of market economies, when analyzed at a national level, it is observed that such a need implied full employment policies and the expansion of the welfare state. While at the international scale, the United States enabled (and in some cases fostered) the development of other capitalist economies (albeit potential competitors), at the national level the bourgeoisie of these countries did not oppose the continued action of the state in the economy, generating low rates of unemployment, strengthening of the working class and increasing its share in the national income, in addition to the constitution of a wide network of social security. It is as if, similarly to what happened at the international level by relaxing the external restriction, there was, within the nations, an agreement that relaxed the political restriction on growth (BOWLES ET AL., 1986; PANITCH AND GINDIN, 2012).

The counterpart of the capitalist class's acceptance of this scenario was the working class's commitment to moderate its union activism, both in claims for better wages and working conditions and in eventual pretensions to overcome the capitalist system. This commitment involves several dimensions, and its dismantling is a key point for the end of the post-war period of prosperity (SERRANO, 2004). Therefore, a more detailed analysis is necessary.

First, it should be noted that the prosperity generated in the post-war period was the main incentive for the moderation of the labor movement. For a generation that had gone through the critical situation observed after the 1929 crisis and the catastrophic scenario of war, the period of peace and economic development registered after the end of the conflict represented a significant improvement. The rapid productivity growth allowed real wage gains to be obtained without putting pressure on inflation, while the growing productive structure was directed towards the production of consumer goods, allowing the improvement of living standards, and towards capital goods, following the logic of productive expansion. And in an integrated way with the expansion of markets, the state was building an extensive social security network. It was a virtuous cycle that, improving the lives of the working class, diminished its impetus in the dispute for larger portions of the surplus produced or even its inclination to overcome a mode of production that seemed to work well. These were the incentives generated by the specific form of operation of the capitalist system at that historical moment.

Second, there was strong repression of the labor movement. In the United States, the government used all available means to repress unionism, from changes in legislation to the use or threat of coercive force, not only by the police but also by the army[10], in addition to a fierce ideological crusade symbolized in the infamous "witch-hunt" for communists (PANITCH AND GINDIN, 2012, p. 83). This situation was reproduced in all capitalist countries, whether to a greater or lesser degree, as observed, respectively, in

[10] One example was the 1946 railway strike, which ended with the president's threat to send the army to administer the railways (PANITCH AND GINDIN, 2012, p. 83).

Japan and Germany. It was the disincentive or punishment of the labor movement for the divergence from the terms of the distributive agreement.

In addition to these two central points that influenced the adherence of the working class to such an agreement, other issues presented themselves at different intensity levels depending on the country. Points such as external constraints and their impact on the dynamics between growth and distribution, and even the threat of coups d'état, had enormous relevance for many countries, especially those in more peripheral positions in the system (SERRANO, 2004).

Once exposed the terms of the distributive agreement between the social classes, which made possible a situation of rapid growth and high levels of employment without the development of tensions that threatened the process, it is necessary to analyze the dynamics of the distributive conflict through which this agreement collapsed. This process, in the Sraffian approach, aligns with that described by Kalecki (1943) and, to some extent, with the Neo-Kaleckian and Marxist explanations for the end of the golden age (MARGLIN and BADHURI, 1991; DUMÉNIL AND LEVY, 2004; 2005), although the outcome is different.

In line with the theoretical process in the previous section, the reduction of post-war unemployment directly impacted the working class. With the threat of unemployment dissipated, its strengthening was observed and reflected in the increase in union activity for better wages and working conditions.

> Other expressions of the greater strength of wage workers in society, when they are no longer in thrall to the fear of unemployment, can be seen in working times and rhythms, physical conditions on the job and, in general, the capacity of workers to bargain on those conditions. And all these factors also have their effect on the profit rate through what economic theory calls the technical conditions of production. (CAVALIERI ET AL., 2009, p. 351)

This process intensified throughout the 1960s. In the various capitalist countries, there was an increase in the growth rate of nominal wages and prices, in processes that fed back into each other, as nominal wage increases were passed on to some extent to prices, whose increases also tended to be incorporated into wage claims.

In addition to this direct impact on the bargaining power of the working class, the maintenance of a low unemployment situation for years has strengthened it structurally, as it started to shape institutions such as unions and parties, influencing more over the public budget and changing legislations, gaining more and more social rights.

This general movement presented its specificities in terms of magnitude and temporality in different countries. In addition to real salary gains and increases in the share appropriated by the working class, there were also several extra-economic gains, with a generalized intensification of the political activity of social movements, symbolized in the protests that spread across several countries from 1968 onwards.

> (...) the Golden Age of the post-war years stands out as a period during which the position of wage earners in distributive conflicts was stronger than ever before. Increased organizational capacity in unions and left-wing political parties, as well as the generally high demand for labour, contributed to strengthening their position. As a result, the functional distribution of income was changed in their favor, with the share of wages showing an increasing trend and profits becoming squeezed. In the 1960s and 1970s widespread conflicts flared up, such as the events in France in May 1968, the 'hot autumns' in Germany and Italy, and the prolonged miners' strike in Britain in 1973-74. These developments appear eventually to have led to a reconsideration of conflict strategies. (KORPI, 1991, p. 334)

It is essential to emphasize that both the escalation of this feedback process between wages and prices[11] and the increase in social unrest started in the 1960s and intensified at the turn of this decade to the next and therefore preceded the oil shocks[12]. These only accentuated a tendency that preceded it.

> (…) the drastic increase in oil prices in 1973, to which, as we noted, the wages and prices explosion is often traced, simply accentuated an inflationary tug-of-war begun in the preceding five years, and which can therefore be seen clearly as a result of the long period of full employment policies in the capitalist world's leading countries. (CAVALIERI ET AL., 2009, p. 352)

The productivity dynamics from the end of the 1960s and, especially in the following decade, began to contribute less and less to alleviating the intense distributive conflict. However, it should be noted that in the present approach, technical progress does not play an active role in the accumulation process. According to the Kaldor-Verdoorn law, the rate of productivity growth is determined by the pace of expansion of the economy, not the other way around. This goes against explanations that attribute the end of the Golden Age to changes in the technical conditions of production. It was not a new way of producing, with less need for labor, that was imposed on a weakened working class and generated unemployment; on the contrary, its strengthening required policies that slowed down the growth of the product (and thus of productivity) to cause unemployment.

While at the turn of the 1960s to the 1970s, productivity slowed in Japan and Germany, it accelerated in the US. However, in the three countries (and even more sharply than before in the first two), the pace of productivity expansion fell from 1973 onwards with the reduction in the output growth rate. Comparing the period before and after the first oil shock shows how before, with policies of full employment and rapid growth, productivity grew much more than after the shock in the three countries and the capitalist world as a whole (MADDISON, 2001).

While in Japan and Germany real wages grew more than productivity at the turn of the decade, in the US, productivity continued to grow a little more than the former (HALLET, 1973; ARMSTRONG AND GLYN, 1986; CAVALIERI ET AL., 2009). But in the three countries, sooner or later, there was a fall in the observed rate of profit. From this point, the Sraffian interpretation diverges from Neo-Kaleckian and Marxist ones. While in these views, the fall in the rate of profit would have directly implied a fall in investments (MARGLIN AND BADHURI, 1991; DUMÉNIL AND LEVY, 2004; 2005)[13], in the Sraffian approach, the fall in profits was just another element to be added to the list of discontents of the capitalist class. However, since, in this interpretation, investment is induced, in the face of an effective demand heated, there was continuity in the investment pace, albeit at decreasing profit rates. This point needs to be further clarified.

In the Sraffian approach, investments are an increasing function of the expected final demand, not the profit rate. Even if this were taken into account in the analysis of the determinants of those, the

[11] This process was called called "vicious spiral of prices and wages" by Kalecki (1991, p. 361), “inflationary spiral” by Rowthorn (1977, p. 236), and “wage-price spiral” by Okishio (1977, p. 23).

[12] According to Korpi (1991, p. 345), “(…) as the OECD has amply documented, influential policymakers saw the prevailing full employment as causing wage inflation as well as a profit squeeze sometime before the first oil shock”, and according to Herbert Stein, a member of the “Council of Economic Advisors” of the Nixon government, “[e]ven without the oil crisis the inflation rate, as represented in the actual and the expected behavior of wage rates, was worrisome” (STEIN, 1996, p. 569).

[13] It is worth noting that this theoretical interpretation implies an endogenous tendency towards the reversal of full employment that is similar to marxist formulations such as those of Goodwin (1982) and Goldstein (1999), but which moves away from Kalecki's (1943) idea of a “political business cycle” that supports the sraffian interpretation.

applicable rate of profit would not be the one observed, but the one obtained when using the normal level of productive capacity.

> The entrepreneur who invests capital in a factory cuts the factory's size to fit expected demand for the product, so that, to the extent that he may decide and foresee, the factory will function at its 'normal' level, which he will reckon as being the most profitable long-term level taking account of normal oscillations in demand. The profit rate he will expect from the investment is thus the one that corresponds to normal use of capacity. What the effective use of capacity will in fact be, he is in no position to predict and, if he were capable of any better prediction, it would influence the level of capacity to be created and, hence, the magnitude of the investment rather than its profitability. And the profit rate is relevant, i.e., has a sense, only when a decision is taken to create new productive capacity. (CAVALIERI ET AL., 2009, p. 350)

It is worth mentioning that the understanding that the relevant rate of profit in the investment process is the normal one excludes the possibility of a collaborative system between social classes in which such rate of profit and real wages walk in the same direction. Once the utilization level is fixed, there is necessarily an inverse relationship between the rate of profit and the real wage.

Of course, for investments to take place, the normal rate of profit must be above a minimum level, but the concept of effective demand is already defined considering production prices. These prices cover the production costs of the dominant technique (at the normal utilization level) and an acceptable minimum level of profitability. Thus, even if the normal rate of profit were falling, investments would continue to expand if necessary to adjust productive capacity to the trend of effective demand. This is precisely what happened at the turn of the 1960s to the 1970s: maintenance of the investment rate and the pace of accumulation, even with the fall in profit rates – something neither the Marxist, Neo-Kaleckian, nor Regulation school interpretations can explain. Therefore, the end of the Golden Age in the Sraffian interpretation requires an inflection in the pace of expansion of autonomous spending.

As explained above, autonomous spending is strongly influenced by the government's economic policy through its fiscal policy (which directly determines public expenditures), monetary (which largely affects autonomous consumption and residential investment), and industrial and foreign exchange policy (exports). However, it is always necessary to point out that such an economic policy is subject to restrictions concerning the international context and the internal political dispute. The change in these two constraints is fundamental in understanding the inflection processed in the 1970s.

On the external front, the dissolution of the Bretton Woods system in 1971, determined unilaterally by the US due to its external imbalances[14], and the deregulation of international capital flows that followed removed degrees of freedom from national governments in the formulation of their respective economic policies.

> (…) the Bretton Woods agreement had enabled governments to control cross-border capital flows, something that gave them considerable leverage in relation to national capital interests and possibly steering economies to maintain full employment. After the dissolution of this system in 1971, from the mid-1970s to the mid-1980s (…) there was a wave of deregulations of capital movements. Governments thus came to lose a major tool for full employment economic policies.

[14] In the post-war period, the US accumulated large external deficits that began to bother the countries with surpluses (in Europe and Japan). They began to pressure the United States to devalue its currency, reduce its internal absorption or transfer gold reserves. The US response was the unilateral decision, in 1971, to end the gold convertibility of the dollar, ending the Bretton Woods system.

> The result was a globalization of capital, a globalization that affected national relations of power in favor of capital and limited the scope of government policy making. (KORPI, 2002, p. 393)

As the capitalist sphere reorganized, socialism began to lose strength as a political and economic system. After the accelerated Russian industrialization in the most adverse conditions from the 1920s onwards and the rapid expansion of the socialist bloc in the immediate post-war period, there was an inflection from the 1960s onwards, with a deceleration in the growth rates of socialist economies[15] (MADDISON, 2001). This relative weakening in the economic sphere had its counterpart in the political one, with the spread of strong anti-authoritarian sentiment on both sides of the Iron Curtain. The 1968 protests were the clearest face of this process.

> (…) by creating a deep division between the experience of 'Realized Socialism' and the strongly anti-authoritarian young Left that emerged around the 'French May', the former's faltering attraction played a significant role, at least in Europe. It favoured the exit from the compromise of full employment in the direction of the restauration of traditional capitalism. (CAVALIERI ET AL., 2009, p. 357)

Internally to the countries (although disseminated around the globe), the process of inflationary acceleration that started in the mid-1960s and worsened after the 1973 oil shock provided the justification for the implementation of contractionary measures and reduced its consequent electoral impacts. Thus, in the different countries of Western capitalism, it was decided to reduce the pace of expansion of spending and raise interest rates, slowing the economy and generating unemployment, understood as the bitter remedies for the instability expressed in the acceleration of inflation, in the fall of profits and social unrest[16].

> The conflict-of-interest or political hypothesis thus suggests that the post-1973 resurgence of unemployment to a considerable extent was a result of strategic choice by governments. The new international economic situation initiated by the OPEC decreased the electoral risks of allowing unemployment to increase and tempted many governments into using unemployment as a cure for inflation, the profit squeeze and political unrest. (KORPI, 2002, p. 336)

The analysis of this deceleration in the light of the supermultiplier model reveals that the decrease in the growth rate of autonomous spending occurred on different fronts. In the first place, public spending has slowed down, generating amplified impacts on aggregate demand, given both the multiplier effects on income and the "lighthouse" indicator of economic policy on agents' expectations. In the case of the USA, for example, the average real growth rate of public spending on consumption and investment fell from 4.19% per year between 1950 and 1973 to 2.05% between 1974 and 1996, according to data from the Bureau of Economic Analysis. In turn, by raising interest rates, monetary policy adversely affected credit-financed autonomous consumption and residential investment growth rates. As a result, between the same periods, the average real growth rates of these two autonomous expenditures fell in the US: that of

[15] The space race symbolizes very well what happened: initially led by the Soviets, it would be dominated by the USA from the end of the 1960s.

[16] This option was also supported by international organizations like the OECD that, in the report "Inflation, the present problem" of 1970, "(…) pointed at the role of high labor demand for increasing the share of wages and salaries in the national product while decreasing the corporate share. In its conclusions, the OECD argues for 'the urgent need to give higher priority to price stability,' making the key observation that 'the problem of inflation arises in part from the very success of post-war economic policies in other directions—notably in achieving high levels of employment.' (…) To restore price stability, the first recommendation of the OECD is that 'excess demand should be eliminated and governments should be prepared, where necessary, to accept a temporary reduction in the rate of activity until there are signs that better price stability has been achieved'" (KORPI, 2002, p. 392).

consumption of durable goods from 5.85% to 4.24%, and the one of residential investment from 5.05% to 2.36% per year.

Finally, with a smaller impact on aggregate demand, there was a reduction in the pace of expansion of exports, given the deceleration of the global economy. This last element had a small weight in the aggregate demand of the central countries of capitalism in the middle of the past century, a weight that would increase in the following decades, becoming particularly relevant for West Germany[17]. Its attribute as a foreign exchange generator, by its turn, would gain importance from the turn of the 1970s to the 1980s, with the reversal of the scenario of an abundance of international liquidity. After this inflection, the external restriction became the main motivator for the abandonment of post-war expansionist policies for several countries, especially those in more peripheral conditions.

While the material bases for the inflection from a regime of high growth and high levels of employment to moderate growth and higher unemployment rates were given, internally and externally, economic theory also adapted to (and adapted the) new reality. The monetarist approach, which emerged in the 1960s, not only seemed to have a precise diagnosis for the macroeconomic framework attributing instability to Keynesian policies but also proposals for overcoming it. Among them was the subjection of fiscal policies that were previously aimed at full employment to the strategy to combat inflation, which was mainly focused on a monetary policy subject to clear rules that would prevent its discretionary use for political purposes and increase the credibility of the monetary authority.

The 1970s were a period of transition. In terms of distributive conflict, the working class reached the height of its power, reflected in the largest appropriated share of the national income. In geopolitical terms, the Soviet Union and socialist regimes also reached their political and economic peak, declining sharply from then on (MADDISON, 2001). And in macroeconomic terms, the progressive adoption of monetarist prescriptions slowed down the product without curbing the increase in cost inflation, which by definition would not be contained with gradualist policies to slow down demand.

In the case of an inflationary spiral arising from a heated economy in which nominal wage gains translate into price increases that again lead to wage increases (to restore real wages), inflation can only be quelled by containing the power of bargain of one of the parties (generally the worker) or by some kind of agreement between them. The first case can be achieved by a strong demand shock that generates unemployment and weakens the working class, which usually happens, or with repression by the government through force, as observed in the Brazilian dictatorship established with the military coup of 1964. On the other hand, in the case of an agreement, it is necessary to "develop a mutual consensus" between workers and capitalists, which, in turn, would require a role of the state as an intermediary, with the introduction of cooperative industrial relations, and possibly a centralized bargaining process, to develop effective income policies in the fight against inflation (CORNWALL, 1994; SETTERFIELD, 2006). Several countries have tried this last option, such as France, the Netherlands, Canada, and even the United States, but the Nordic countries have more effectively implemented it.

In the 1970s, in the context of accelerating inflation, the oil shocks represented opportunities to implement and deepen the monetarist agenda to resolve the distributional issue. According to Korpi (2002,

[17] According to Maddison (2001, p. 361-362) exports represented 6.2% of Germany's GDP in 1950, 23.8% in 1973, and 38.9% in 1998. In the same period, between 1950 and 1998, exports would increase from 2.2% to 13.4% of GDP in Japan, and from 3% to 10.1% in the US. The average growth rate of the volume of exports fell in the three countries: from 12.4% a year between 1950 and 1973 to 4.4% between 1973 and 1998 in Germany, from 15.4% to 5.3% in Japan, and from 6.3% to 6% in the US.

p. 368), "*(...), oil shocks appear not as major causes but instead as catalysts providing opportunities for changing key parameters of long-term distributive conflict in Western societies*".

While at the beginning of the decade, the adjustment of real wages took place through the acceleration of inflation, as the decade progressed, and especially in the following decades, unemployment began to play the role of an instrument to moderate nominal wage increases and with that inflation. In what Korpi (2002) calls the Kalecki-Rehn hypothesis[18], it was a clear change in the balance of power.

> The high unemployment rates after 1973 partly reflect attempts by business and conservative interests to reshape relations of power and patterns of distribution prevailing during the full employment era into more favorable ones from their point of view. Instead of being the major problem, unemployment thus comes to be seen as a solution to other problems now considered more serious. (KORPI, 2002, p. 397)

The gradual adoption of monetarist prescriptions throughout the decade changed the balance of power between social classes. Fiscal policy became less and less expansionary, and monetary policy reduced the rate of expansion of liquidity. While full employment as a goal gave way to the natural rate of unemployment, liberalizing institutional reforms were sought, which, under the pretext of lowering this rate, weakened the bargaining power of the working class. That was the case of reinterpretations and changes in labor laws (in a negative way to the working class), the encouragement of industrial deregulation, the end of income policies, the reductions and obstacles to obtaining unemployment insurance, the repression of unions, etc. (POLLIN, 2002; SETTERFIELD, 2006; PHILLIPS-FEIN, 2009; PALLEY, 2012; BARROS, 2018).

If the 1970s represented this transition, the interest rate shock initiated in 1979 in the US marks its end. According to St. Louis Federal Reserve, US short-term interest rates jumped from 11.1% in 1979 to 16.3% in 1981 in nominal terms, which represented an increase, in real terms, from zero to 5.2% in the same period. Under the pretext of showing the monetary authority's commitment and anchoring expectations to fight inflation, North America and the world economies were thrown into recession. This definitely changed the balance of power in the distributive conflict.

> Fundamentally, the Volcker shock was not so much about finding the right monetary policy as shifting the balance of class forces in American society. Inflationary "expectations" (the economists' buzz word at the time) could not be broken without shattering aspirations of the working class and its collective capacity to fulfill them. (PANITCH E GINDIN, 2012, p.171)

Unemployment, which had already been rising throughout the 1970s in the US, reached 9.7% in 1982, the highest level observed after the war. This fact, combined with the institutional changes, represented a severe blow to the working class in that country. Inflation would be quelled, but growth rates would never be the same as in the immediate post-war period in the US and the world.

The rise in US interest rates forced other countries to raise their respective interest rates under the risk of capital flight in the context of liberalization of international flows. In addition to the consequent economic slowdown, this process inaugurated a phase of lower global liquidity. Thus, from the 1980s onwards, the external constraint would represent a strong limitation to the economic growth of several countries, especially those in a more peripheral position. The greater the scarcity of foreign currency, the

[18] The Swedish economist Gösta Rehn was critical of the abandonment of full employment policies and advocated social agreements to circumvent the problem of inflation. His view can be seen in Rehn (1987).

greater the need for contractionary policies aimed at reducing internal absorption and the urgency of stimulating exports in a world that grew at lower rates, consequently decreasing the pace of trade expansion.

It follows, therefore, that the resolution of the instability observed in the 1970s due to more than two decades of high employment levels took place through a strong economic slowdown. This process occurred similarly, although not uniformly, in different countries, but it was definitively imposed on the capitalist orbit by its hegemonic power from the reversal of the context of an abundance of liquidity that marked the decades that followed the Second World War. Faced with weakened socialism, capitalism no longer needed to make conceptions to the working class, either externally or internally. As a result of changes in the economic policy guidelines of the various countries, a period of low growth and income concentration was inaugurated, even though inflation was controlled. The Golden Age had come to an end.

4 – Conclusion

Throughout the paper, it was sought to expose the Sraffian theoretical framework, based on the proposal made by Sraffa and developed by Garegnani and his followers to resume the classic surplus approach, as well as to use it in the interpretation of the end of the Golden Age of Western capitalism.

The adoption of this theoretical framework in interpreting the end of the Golden Age reveals conclusions that differ from other interpretations. For example, the instabilities of the 1970s are not understood as being generated by the discretionary use of fiscal and monetary policies as advocated by monetarism, and the reduction in output growth rates does not mechanically result from the fall in the investment rate from a process of profit squeeze as in Regulationist, Neo-Kaleckian, and Marxist approaches. Instead, the Sraffian interpretation is based on the political economy dynamics reflected in the economic policy change carried out by the US and other countries in the capitalist orbit.

A period of high growth and income distribution was observed in the post-war period. The increase in production with productivity gains enabled high profit rates and real wage gains, which fed back aggregate demand, in a virtuous cycle. The presence of the state is central to this performance, with policies aimed at obtaining and maintaining full employment and providing public goods and an entire social safety net.

The maintenance, for many years, of low unemployment rates engendered social changes in favor of the working class. In addition to the conjunctural elevation of bargaining power given the high level of employment, the continuity of this scenario generated a structural strengthening in the bargaining power of such class, as institutions (such as parties and unions) were shaped and strengthened, increasingly influencing more in legislation and public policies. These changes gradually accumulated discomforts in the capitalist class.

This process escalated from the 1960s onwards, resulting in increasingly higher salaries in relation to productivity gains. This cost increase generated rising inflation, even before the oil shocks, and compression in profit rates. Such compression, however, did not imply a drop in the investment rate as demand continued to expand rapidly. Instead, the inflection in the pace of growth required deceleration in autonomous spending, resulting from changes in economic policy.

The political protests that spread worldwide from May 1968 onwards were added to the rising inflation scenario. Inflation accelerated with the intensification of distributive conflict and cost shocks (such as that of oil in 1973). Gradual policies to contain demand failed to control inflation and slowed down output. It was a perfect setting for an inflection in the balance of power.

Several factors help compose the context in which the regime of accumulation of the Golden Age collapsed. First, at the international level, real socialism began to lose strength as an alternative to capitalism, while the latter was reorganized after the end of the Bretton Woods system. At the national level, the bourgeoisie of the various capitalist countries accumulated dissatisfaction with the conjunctural and structural strengthening of the working class due to the maintenance of low unemployment. Finally, within the scope of economic theory, monetarism presented a simple diagnosis for the stagflation scenario and proposals to overcome it.

The 1970s represent an inflection. As the monetarist framework began being gradually adopted worldwide, governments started reducing the pace of expansion of their spending and money supply. The shock of American interest rates at the end of the decade decelerated the capitalist world economy even more. As a consequence, wage inflation would be effectively quelled with the increase in unemployment and the relaxation of labor laws, but at the cost of lower economic growth and income concentration. The balance of power indisputably shifted in favor of the capitalist class.

The analysis carried out throughout the paper points to an interesting conclusion. The political bias of both the rise and fall of the Golden Age indicates that a regime of higher growth rates and income redistribution is society's choice. It was possible after the war due to the strengthening of socialism as an alternative. However, with its weakening, this situation was reversed, and the capitalist system observed slower growth, higher unemployment rates, and institutional reforms unfavorable to the working class.

The material conditions for a more prosperous and just regime are in place. There is no shortage of workforce, physical resources, or technical capacity. But the adoption of economic policies influenced by monetarism (focused on a rigid monetary policy and relegating to fiscal policy a minor role) resulted in the macroeconomic performance observed from the 1980s onwards: low growth rates and income concentration.

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