

Class Conflict, Unemployment, and Income Distribution (Preliminary Draft)

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Abstract

This paper analyses the relationship between class conflict, unemployment and income distribution. It claims that there are two potentially opposite channels between unemployment rates and aggregate profitability: a discipline channel or effect and an effective demand channel. Whereas the discipline channel entails a positive relationship between unemployment rates and profitability, the effective demand channel brings forth an inverse relationship. Therefore, an unemployment rate that “maximizes” aggregate profit shares is likely to exist. Moreover, the existence of such unemployment rate implies a coordinated response of the capitalist class to changes in economic structure and institutions that affect the bargaining and purchasing power of workers. Finally, the paper provides evidence about the United States economy suggesting a stronger discipline effect for the post-II World War period.

JEL codes: E24, J64, J31

Key words: class conflict, unemployment, distribution, labor discipline, effective demand

1. Introduction

It is a well-known fact that involuntary unemployment is an intrinsic feature of capitalism. At any point of time, for a variety of reasons, a non-trivial fraction of the labor force cannot find a buyer for its labor power on a continuous basis. The unemployment rate varies cyclically with overall economic activity, but several other factors seem to affect the capacity of individuals to sell their labor power. As emphasized by Marx (1976), Bowles (1985, 1991), Bowles and Boyer (1988, 1992) and Sardoni (1987), following a Marxian-Kaleckian-Keynesian approach, the unemployment rate has important distributive implications. The central role played by unemployment in income distribution and capital accumulation is stressed in those accounts. Malinvaud (1978), working from a different perspective, has also shed light on those connections, claiming that there must be a minimum

profitability to avoid excessive unemployment, that is, unemployment depends on profitability levels. However, it can be argued that the distribution of income between profits and wages also depend on the unemployment rate, since it affects the bargaining power of the workers. As a consequence, we claim that it is possible to highlight the existence of two distinct channels that relate unemployment to income distribution: the effective demand effect (Keynes-Kalecki) and the labor discipline effect (Marx-Bowles-Stiglitz-Shapiro). In order to understand these relationships, it is important to highlight the centrality of profits in capitalism.

Our approach differs from the existing works in the following way. We seek to reach theoretical conclusions in terms of an optimum unemployment rate for a given socio-political-economic structure and the coordination problems associated with achieving this rate. We use a different profit equation in order to make the relationships more explicit. And we bring coordination issues to the forefront. Coordination problems matter because the capitalist class is homogeneous in terms of its role in the economy and ownership structure that makes it possible to refer to these individuals as a collective, but it is heterogeneous in terms of its economic and political interests. That is, there might be coordination issues involved in determining the employment levels compatible with their desired profit share of the national income.

The questions animating this inquiry are the following: What is the optimum unemployment rate from the point of view of individual capitalists? What is the optimum rate from the capitalist class as a whole? This paper attempts to provide a simple model to suggest answers to the above questions. It is organized in the following manner. In the next section, the labor discipline effect of unemployment is discussed. The third section brings forth issues of unemployment and aggregate or effective demand. The fourth section discusses the complete model and considers how it can help explain specific changes in policies, structures, and institutions, comparing it to existing alternatives. Next, the paper presents empirical evidence concerning the strengths of both effects for the post-second War US economy. The final section concludes the essay.

2. Unemployment and Class Conflict: Bargaining Power and the Labor Discipline Effect

A possible answer to the question is offered by Laramie and Mair (2007) in their discussion about the Kaleckian equilibrium unemployment rate:

“The ‘equilibrium’ we have in mind here is suggested by Kalecki (1943) in *Political Aspects of Full Employment*, in which he argues that businessmen will resist attempts to secure full employment by increased government borrowing and spending. The threat of full employment to business economic and

political hegemony results in a prisoners' dilemma situation in which there is a conflict of interest between business individually from reaping the higher profits of full employment against the collective threat to businessmen as a class from the loss of industrial discipline and political power consequent on full employment." Laramie and Mair (2007, p. 181)

However, the existence of a collective treat makes sense only in terms of lower profits, and full employment may reduce rather than increase profits, when full employment squeezes profits, for example. A prisoners' dilemma situation implies that there might be an unemployment rate for the capitalist class that it is achievable only through coordination, but the uncoordinated nature of production and accumulation decisions prevents capitalists from reaching it. But the equilibrium unemployment rate may still be the optimum one given the constraints faced by the capitalists in terms of the conflict with the workers. This is the unemployment rate compatible with a weak working class in terms of its bargaining power and political leverage. This rate is certainly above the full-employment level of output, as pointed out by Kalecki (1943) and emphasized by Laramie and Mair (op. cit.). This work seeks to show that, because of lack of coordination, capitalist economies tend to have higher than necessary or excessive unemployment rates. Changes in economic policy can temporarily correct such situation, but only if higher unemployment rates imply a level of political mobilization and organization among the working class able to challenge the capitalist rule. However, there is no way to know which unemployment rate, if any, will cause such upheavals¹. Economic losses and gains associated with changing unemployment rates are easier to estimate.

According to the labor discipline theories, capitalists individually prefer a higher unemployment rate at the macro level: it will create a large pool or reserve army of disciplined workers, inducing more labor effort (productivity) among the employed workers given the fear of job loss, potentially compressed wages, which entails lower unit labor costs, and higher profits. Of course, a higher profit share does not imply that all capitalists will have an individual share compatible with their expectations. There might be redistributions at the level of the capitalist class determining 'losers' and 'winners'. But on the other hand, in order to profit from the high unemployment rates at the macro level the firm will have to keep a lower level of capacity utilization and the highest possible level of employment, in order to maximize the difference between wages and productivity. However, in order to achieve a higher unemployment at the macro level, each firm has to keep a positive level of unused

¹ The Great Depression is an example of high unemployment rates without corresponding political mobilization sufficient to challenge the legitimation of the economic structure (at least in the USA). But the New Deal can be seen as political response to avert potential political responses to the economic setback.

capacity, if it is assumed that all other firms will follow the same strategy. Yet, there is no way for firms to know the aggregate level of idle capacity that will produce the desired disciplinary effect.

If the unemployment rate at the macro level is high enough, besides the disciplinary effect of higher profits in terms of labor effort, it may affect the aggregate wage bill and aggregate demand, reducing sales and leading to higher levels of inventory accumulation in the context of higher productivity, and consequently lower profits. This may cause further declines in unemployment, in a self-reinforcing manner, as described by the traditional Keynesian spending multiplier. The equilibrium unemployment rate may be quite unstable. In this case the full employment may imply the higher profits suggested by Kalecki, but with the permanent threat of higher wages that undermine profitability. Full employment has economic benefits in the form of higher sales and reduced slack. But there are potential economic costs associated with increased bargaining power of workers. If the reductions in unemployment rate are associated with lower profitability, capitalists may respond by introducing more machines, as in the standard neoclassical models. The consequence might be a higher unemployment rate, at least in the short run. It is clear that there is a dynamic interdependency between supply and demand that causes multiple equilibria situations. When unemployment at the macro level is high, individual firms will have an incentive to keep its capacity utilization at higher levels, since their workers will work harder due the discipline of unemployment. However, higher unemployment rates may reduce sales and profits. When the macro unemployment is low, the firm will have an incentive to maintain a high level of capacity utilization if sales increase faster than the costs associated with full employment.

The most important variable in a capitalism economy is the profit rate. Below we provide a specific treatment of profits, assuming that the level of capital is given, such that profits and profit rates move in the same direction. Since labor effort and productivity can change, income is not constant. The profit and wage shares can also change over time.

The profit rate for a firm i at time t can be written as:

$$\text{Profit}_{it} = P_{it}(W_{it}) * [Q_{s_{it}}(W_t) / Q_{p_{it}}(N_{it})] * [Q_{p_{it}}(N_{it}) / Q_{it}^{\max}(N_{it}^{\max})] * Q_{it}^{\max}(N_{it}^{\max}) + r_{it} * A_{f_{it}} - W_{it} (Q_{p_{it}} / N_{it}, \varphi(U_t)) * N_{it} - C_{it}(\mu_{jt}, W_{jt}), j \neq i.$$

Where:

The pricing rule assumes a markup over wages: $P_{it}(W_{it}) = (1 + \mu_{it}) * W_{it} / (Q_{p_{it}} / N_{it})$ in which firm i can adjust its mark-up μ_i depending upon competitive conditions in product markets.

$Q_{s_{it}}(W_t)$ is the total quantity sold at time t . It depends on the overall level of wages in the economy. It is the firm's share of effective demand.

$Q_{p_{it}}(N_{it})$ measures current production as a function of N_{it} , the employment level at the firm i . The maximum output Q_{it}^{\max} occurs when employment is at the maximum level N_{it}^{\max} . On the other hand, N_{it} is a function of the ratio of sales to production. The relationship implies an endogeneity. Also, the population dynamics determines N_{it} and may affect the unemployment rate, but it is out of control of individual capitalists. As a class, they have an incentive to foster population growth because of increased demand and a larger pool of labor power available.

$Q_{s_{it}}(W_t)/Q_{p_{it}}(N_{it})$ can be interpreted as an index of inventory accumulation. The goal of the firm is to have this index close to 1 (or at least a satisfactory ratio).

$Q_{p_{it}}(N_{it})/Q_{it}^{\max}(N_{it}^{\max})$ is the rate of capacity utilization. Firms can control the level of employment and therefore 'unemployment' by varying $Q_{p_{it}}(N_{it})$ in response to changes in $Q_{s_{it}}(W_t)$.

W_{it} is a function of productivity $Q_{p_{it}}/N_{it}$ and the bargaining power of the workers, measured by $\varphi(U_{it})$ such that $W_{it} = \varphi(U_{it}) Q_{p_{it}}/N_{it}$. Firm may also have some discretion about wages (imperfect competition in labor markets), captured by φ . This parameter is strongly influenced by the aggregate level of unemployment U_t . It is possible to keep the same national income when wages drop by increasing profits proportionately via increases in markups with no change in taxes.

$U_{it} = N_{it}/N_{it}^{\max}$ is the 'unemployment' rate or the ratio of actual to potential employment at the firm level. It can also be measured approximately by the correlation with $Q_{p_{it}}/Q_{it}^{\max}$, with $U_{it} = 1 - Q_{p_{it}}(N_{it})/Q_{it}^{\max}(N_{it}^{\max})$.

Firms can also adjust profitability by engaging in speculation or managing the timing of cash flows. When profits related to production and sales drop, firms may invest in financial assets and boost earnings. The average return on financial assets is r_{ft} , and $A_{f_{it}}$ measures the value of financial assets held by the firm. Firms may also

Finally, C_{it} is the non-wage real and financial costs incurred by the firm. These costs also depend on the wages paid by suppliers of capital and raw materials, and therefore is indirectly related to the overall level of wages in other firms. It is also a function of markups in other firms and industries, μ_{jt} .

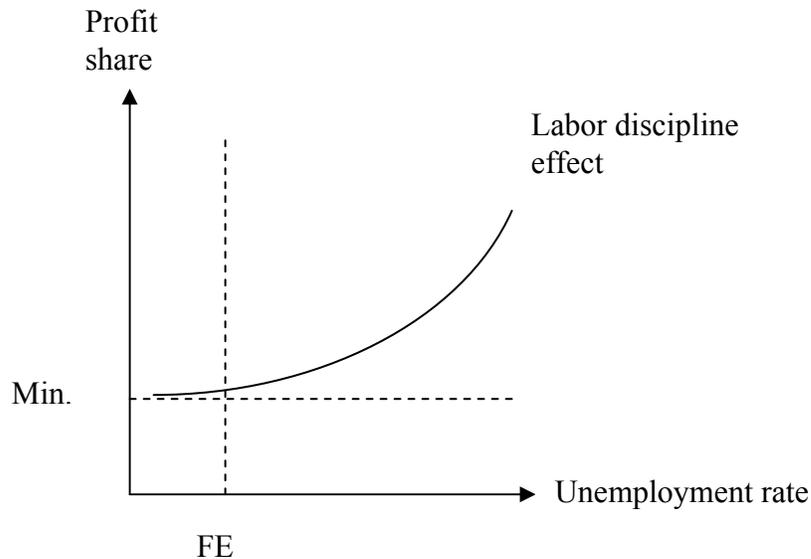
Rewriting the equation as a function of unemployment yields:

$$\text{Profit}_{it} = (1 + \mu_{it}) * (1 - \varphi(U_t)) * [Q_{S_{it}}(W_t) / Q_{P_{it}}(N_{it})] * [1 - (Q_{P_{it}}(N_{it}) / Q_{it}^{\max}(N_{it}^{\max}))] * Q_{it}^{\max}(N_{it}^{\max}) + r_{ft} * A_{ft} - W_{it} (Q_{P_{it}} / N_{it}, \varphi(U_t)) * N_{it} (Q_{S_{it}}(W_t) / Q_{P_{it}}(N_{it})) - C_{it}(\mu_{jt}, W_{jt}), j \neq i.$$

Profits are directly proportional to markups, sales, capacity, and financial returns. They are inversely proportional to the bargaining power of the workers, inventory accumulation, ‘unemployment’ at the firm level, wages paid by the firm and costs. Higher aggregate unemployment rates might have ambiguous effects on profits. They increase profits by inducing workers to accept lower wages $W_{it}(U_t)$ and mainly increase the level of labor effort, which increases $Q_{P_{it}}(N_{it}) / N_{it}$ and reduces φ , assuming countercyclical markups. In order to increase prices and profits, firms will have to adjust the markup in such ways that wages and costs will fall faster than prices and revenues. It can be assumed that wages will drop in other industries as well, but if markups are countercyclical non-wage costs $C_{it}(\mu_{jt}, W_{jt})$ may increase, offsetting some of the previous factors. This is the labor discipline or reserve army effect. However, higher aggregate unemployment also affects the overall wage level W_t , and may affect sales $Q_{S_{it}}(W_t)$ and inventory accumulation $Q_{S_{it}}(W_t) / Q_{P_{it}}(N_{it})$, leading to lower revenues and lower profits. This is the effective demand effect. Non-wage costs are likely to fall, compensating for the lost revenue. If wages in other industries do not fall as fast, sales may increase, but non-wage costs can also not increase as fast as other industries maintain relatively higher prices.

The labor discipline effect is consistent with the existence of a wage curve, as discussed by Blanchflower and Oswald (1994). High unemployment rates cause wages to go down by changing φ , and low unemployment rates will tend to be associated with higher wages. This goes against the neoclassical perspective, which assumes that higher wages are invariably associated with higher unemployment rates. To know the impact of unemployment on profits, however, we need to discuss the impacts of both effects simultaneously. Therefore, it is important to understand how these variables change over time. It is always a matter of comparing the strengths of the two effects. Yet, it is likely that full employment can lead to a profit squeeze if wages increase, productivity slows down given the increased bargaining power of the workers, and non-wage costs increase faster than markups, prices, and revenues.

Ignoring the heterogeneity of firms and industries, the profit equation may be aggregate to generate a macro relationship. The labor discipline effect can be represented a positive relationship between aggregate unemployment rates and aggregate profit shares:



Where FE represents full employment at time t . At very low rates of unemployment, the discipline effect is small and can be associated with lower profits overall (profit squeeze). The curve is almost flat, and a lower bound for profit shares at time t is determined. In order to increase profits, the firms will have to shed a large number of jobs. As discussed above, the coordination necessary to achieve a joint reduction in capacity utilization is unlikely. But the lower profits that likely to follow a long period of unemployment and the loss of discipline would cause firms to cutback on production. There might be built-in mechanisms causing the economy to move away from full employment. As the unemployment rate increases, the discipline effect gets stronger and stronger. The relationship is likely to be nonlinear, and profits get more sensitive to changes in unemployment as the unemployment rate increases². At very high unemployment rates, the curve becomes steep, and small changes in unemployment can cause large increases in profits. However, depending on how unemployment is distributed among different industries, it may not increase profits for all industries and firms. It is also possible that at certain point the curve can flatten out again, instead of keep growing. This possibility is not dealt with here. Finally, the minimum profitability accounts for the argument made by Malinvaud (1978) that a minimum profitability is required to create jobs and reduce unemployment. Of course, that minimum can vary over time and across firms, industries, regions, and countries.

² This nonlinearity is not captured by the general profit equation discussed above. And we can assume that the sensitivity of the profit to unemployment varies over time and across countries. The weaker the working class, the steeper the labor discipline curve.

This effect may also depend on the division of the labor force into skilled and unskilled workers, that is, the degree of heterogeneity in the labor force (Strand, 1987). The more skilled the labor force, the higher the bargaining power of the workers, and the flatter is the curve. In this case a large change in the unemployment rate is necessary to produce a small change in profitability. Education, knowledge and experience all increase the bargaining power of the workers, making the curve flatter. For some sectors the complementarities between labor and capital may be so large that the labor discipline curve becomes flat and downward sloping, representing a ‘capital discipline’ curve for a short period of time. Also, an increase in international labor mobility or rapid demographic growth may have the opposite effect. An increase in international capital mobility will reinforce the labor discipline. If these speculations are correct, there might be an acceptable full employment level for a capitalist class: one characterized by low wage sectors, without unionization. Why? Accepting poor jobs with poor pay can also be a punishment for workers (Moene and Wallerstein, 1997). For lack of space these cases are not considered in this paper.

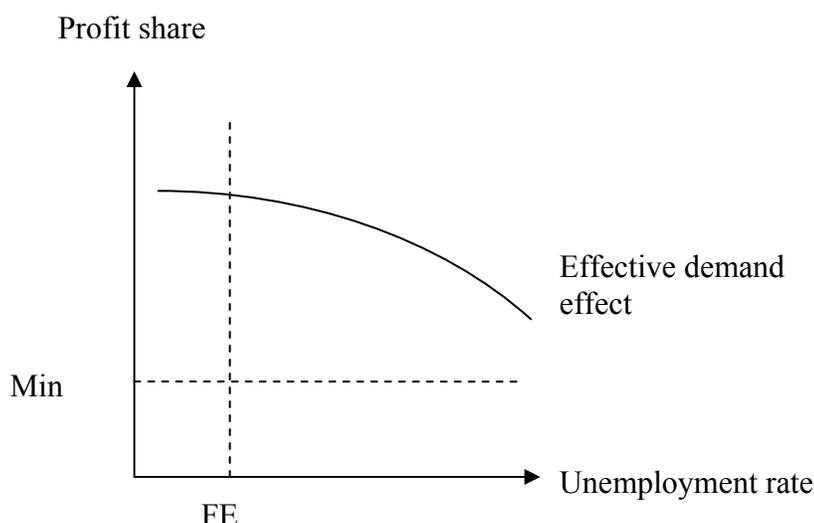
By shifting the labor discipline effect curve up, profits are higher for every unemployment rate. This means an increase in the amount of discipline, with workers working harder and wages not adjusting quickly to productivity gains. It is equivalent to a reduction in the bargaining power of the workers. Lower real minimum wages, anti-labor and anti-union laws, changes in the composition of the labor force such as the introduction of highly skilled immigrant workers with relatively lower compensation are examples of forces shifting the curve in that direction. On the other hand, by shifting the curve down reduces profits for every unemployment rate. In this case the effects are reversed, with the workers seeing an increase in their bargaining power.

3. Unemployment, the Revenue Constraint, and the Aggregate Demand Effect

Aggregate unemployment may also affect aggregate profits negatively via $Q_s(W_t)$ and reduced capacity may affect profits via $Q_p(N_t)$. Lower wages reduce costs, but also sales, since consumption is the single most important component of effective demand (at least in wage-led regimes). The propensity to consume is higher for wage earners. Higher unemployment rates may reduce profits by reducing aggregate expenditures and individual sales faster than the decrease in wage and non-wage costs and increases in markups, implying some redistribution of profits. Again, the uncoordinated nature of decentralized decisions is behind these results. Of course, sales are not only a function of wage income, but also of prices and the price level, non-wage income, credit, and foreign purchasing power. It is assumed that wages are the most important component of effective demand and that luxury goods are a negligible fraction of total output. But as unemployment increases, wages are likely to fall,

reducing sales and costs. If sales decline faster than costs, then firms may experience lower profits. Production can be reduced as a response, increasing the idle capacity and putting more pressure on the unemployment rate. Lower aggregate and individual unemployment rates will have the opposite effect, causing profits to rise if higher wages cause sales, aggregate expenditure, and individual markups to increase faster than wage and non-wage costs.

The negative relationship between unemployment and profits entailed by the aggregate demand effect is as follows:



The curve is downward sloping because it is assumed that increased unemployment reduces aggregate and individual sales faster than the decline in output and costs and the increased markups³. At very low levels of unemployment, firms produce large quantities of commodities and employ huge volumes of labor power, that find an outlet in the increased consumption proportioned by rising wages. Small changes in employment are not likely to cause large changes in profits. The curve is almost flat, and establishes the upper bound for the profit share at time t . As the unemployment rate increases, the aggregate purchasing power of the working class goes down as the unemployment insurance is less than the previously earned income, and so goes their bargaining power. At very high unemployment rates, the purchasing power is reduced considerably, with a considerable decline in sales. Profits are likely to decline rapidly.

Profits can be regained if financial assets are added, or if credit is extended to workers – both employed and unemployed. So, financial profitability may make the curve flatter. A steeper curve

³ A similar relationship, although not completely exploited theoretically, is presented in Palley (2007).

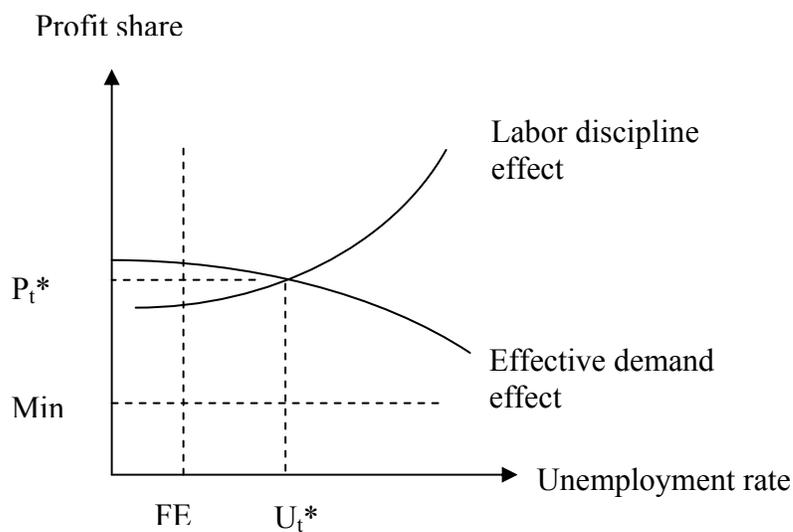
means an increased sensitivity of profits on consumption financed out of wages. Firms can adjust $Q_{p_t}(N_t)$ by changing their asset composition in terms of real and financial assets. By accumulating more financial assets they reduce output. And given that other firms may issue liabilities to speculate, there is no necessity of an aggregate employment-neutral accumulation of financial assets in the sense that an asset does not necessarily corresponds to a liability used to fund productive investment that merely redistributes employment across sectors. On the other hand, if the number of firms with the same ‘financialized’ strategy grows, it is possible to have low unemployment rates and rapid accumulation of financial assets simultaneously. On the other hand, under conditions of intense competition, firms would like to keep $Q_{p_t}(N_t)$ close to $Q_t^{\max}(N_t^{\max})$ if financial profit rates and industrial and commercial profit rates are not very different. If all firms work under this pressure, an unlikely condition, the aggregate economy will be very close to full employment, with very high profit shares.

If the effective demand curve shifts up, there are increased profits for every unemployment rate. This might be explained for example by the role of exports in effective demand or an exchange rate depreciation that changes the role of domestic markets in the generation of revenues, or by anti-labor and anti-union laws that compress wages, lower minimum wages, or an expansion of credit. If the curve shifts down profits fall for every unemployment rate. Higher bargaining power for the workers, legislation favorable to workers and unions, living wages, an exchanger rate appreciation, and higher unemployment insurance compensation financed through higher taxes on corporate profits could all explain this effect.

It is clear that policy options and structural and institutional changes may have the opposite effects on profits depending on how they affect the unemployment rate. If the two effects are considered simultaneously it is possible to suggest what the probable net effect is. This is carried out in the next section.

4. Labor discipline, aggregate demand, and income distribution

Given the two contradictory effects of unemployment on profits, now it is necessary to understand how the interaction of both will determine the unemployment rate that maximizes profits for a given political configuration, economic structure and institutional setting. The model highlights the existence of upper and lower bounds to profits’ share of national income and the shape and stability of the functions will determine the stability of these shares. The interaction of both effects can be seen in the graph below:



Now it is possible to evaluate how changes in the economic structure and in economic policy can affect unemployment and profits. The model reflects the existence of a fundamental problem of coordination amongst capitalists. The solution to this fundamental conundrum may require macro strategies that involve the necessity of government intervention and political decision-making. Shifting the labor discipline curve to the left may yield higher profits in the short run, but it also may get the economy too close to full employment, and it cannot be sustainable. Shifting the effective demand effect curve to the right also increases profits, but increases the unemployment rate and is likely to generate political pressures on the part of the workers, which may end up hurting profits via higher taxes. Therefore, the optimum unemployment rate is not likely to be a stable one, and it should vary over time as a consequence of class conflicts. A few situations are considered below.

The introduction of living wages, higher minimum wages, or basic income guarantees can affect profits and unemployment rates in different ways. It is likely that this policy will reduce the cost of job loss and the discipline over the workers. Firms will have to offer higher wages to retain workers, and a higher unemployment rate is necessary to keep the same profit share. LDE shifts down. Of course, higher pay may induce higher productivity and shift the LDE curve up, and the two effects may cancel out. On the other hand, higher average wages mean higher purchasing power for a given average markup. If sales increase faster than costs, absorbing the increased productivity, unemployment rate will fall and profits will not be affected. EDE shifts down. The final net effect depends on the strengths of the shifts in the curves. Jeannette Wicks-Lim (2005) discusses the existence of ripple effects associate with higher minimum wages. In this case if the ripple effect is

strong, the effective demand effect will be dominant and felt across different sectors. Unemployment rate will fall and profits will decline, mainly in exporting sectors.

Unemployment insurance may have a similar effect, but it depends on how the program is funded, either by taxes on consumption or incomes. If it is financed using taxes on consumption, there is a redistribution of income from employed workers to unemployed workers, and the total impact on effective demand may be negligible. If financed out of profits, the results are likely to be the same as in the case of living or minimum wages. The same is true about the existence of strong trade unions or collective bargaining institutions (Iversen, 1999). Unions set wages considering purchasing power and employment (Carlin and Soskice, 2005). They set wages that yield a high purchasing power, strengthening the effective demand effect, creating the self-fulfilling conditions for increased employment. At the same time, the increased bargaining power of the workers also reduces the labor discipline effect.

If firms pay efficiency wages, they expect the gains in productivity to offset the increased wage costs. $Q_p(N_t)$ grows faster than W_t , increasing profits. On the other hand, it is more costly to lose jobs, and the discipline effect is strong. The discipline effect curve shifts down, increasing the unemployment rate. On the other hand, with higher wages, the purchasing power of the workers increases, but not to the point of matching the increased productivity. It is likely that a fraction of additional output will remain unsold, leading to cutbacks on output and employment. If the sales increase faster than costs, there is a net increase in aggregate demand, shifting the effective demand curve down. This raises doubts about the neoclassical perspective, which assumes that higher wages are unequivocally associated with higher unemployment, despite the evidence about the existence of a wage curve. But the effect on unemployment is undetermined, unless one knows the relative strengths of each effect. If the changes in productivity are derived from technological innovation that causes structural unemployment, the labor discipline effect is increased. But if the employed workers earn part of the increased productivity, the aggregate demand effect may compensate and reduce the impact on the unemployment rate, further increasing profits.

On the other hand, if there is an open economy with capital mobility and labor migration, the impact of foreign trade and investment depends on whether the regime is a wage-led or export-led one. Increased foreign competition imposes pressure on sales and output, leading to higher unemployment rates and lower profits. The effective demand curve shifts down. The lower cost of raw materials may offset some of the lost sales to imports. On the other hand, exports increase sales and production, with lower unemployment rates. But the effective demand becomes less dependent on domestic income. Similarly, the existence of outsourcing represents a major source of labor discipline, causing

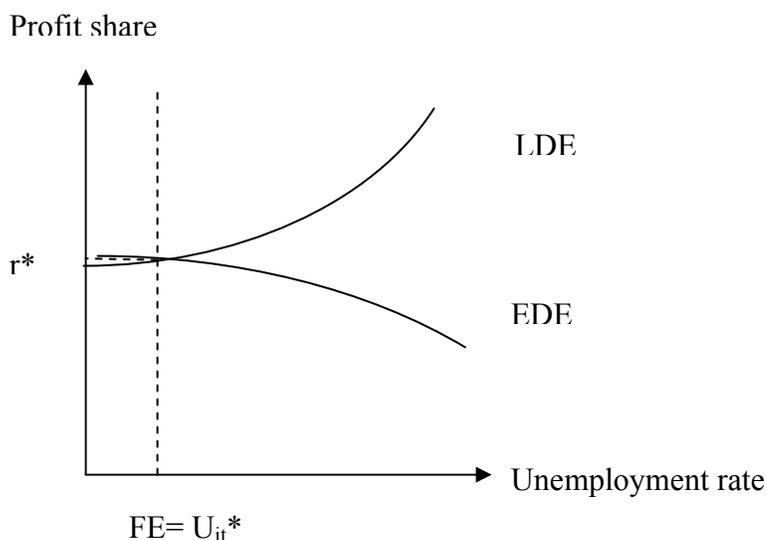
unemployment increase as a way to keep profits. But the reduced income generated domestically can lead to lower profits for the domestically-based firms, cancelling out the first effect.

Expansionary monetary policies and easy credit can break the connection between wage income and effective demand. It has the same effect as expansionary fiscal policy (discussed below), generating additional demand for a given level of unemployment. But it can generate financial fragility if the additional demand does not create enough jobs and income to pay the debt service.

It is clear that structural and institutional changes, as well as policy options, will have uncertain effects on unemployment and profits. There are two major channels relating the two variables, and many different forces affecting these channels. There is not way to predict how given changes will affect employment, unemployment, and income distribution without knowing the precise impacts that each effect will have.

Besides policy changes, we can also examine how the proposed model is related to existing perspectives about the role of unemployment in capitalism. Of course, from a Marxian standpoint, an optimum unemployment rate above the full employment is something that should be expected. However, in this economic writings Marx considered mostly the industrial reserve army effect and its relationship with exploitation, rather than with realization. As exposed by Marx, the existence of an industrial reserve army is a way to keep pressure on wage demands, and therefore reflects the labor discipline effect. In terms of the optimum unemployment rate, increased labor discipline increases exploitation, but could reduce realization, that is, the effective demand effect. From his political perspective, though, an optimum unemployment rate with zero profits cannot be a plausible feature of a capitalist economy and requires a different mode of economic organization in which those variables do not exist.

On the other hand, Keynes considered the possibility of full employment under capitalism, implying very low unemployment rates compatible with positive profits. He proposed using fiscal policy to achieve full employment. Here the nature of fiscal policy is to fix insufficient capital accumulation (government spending), but also to replace lost purchasing power (unemployment insurance), or to minimize the discrepancy between income and productivity growth (other types of transfers). The first two affect the effective demand effect, whereas the third one affects the labor discipline effect as well. The Keynesian optimum unemployment rate with positive profits is depicted below.



Kalecki raised doubts about the stability of this equilibrium. The effect of fiscal policies to stimulate aggregate demand depends on how it is financed (Laramie and Mair, 2007). A profit tax levied to finance unemployment benefits, for example, will reduce the labor discipline effect and reduce profits, at the same time generating additional demand. But it requires a higher unemployment rate, above the full employment level. Also, the size of government spending matters. The bigger the size of the government in the economy, the lower the effective demand effect will be. But how does government finance its increased expenditures? If through taxes on profits, the impacts on profits can be the same as before. If taxes are based on wage income, the line becomes flatter, and a big change in unemployment would cause only a small change in the rate of profit. Of course, the possibility of underconsumption due to wage squeeze is less important when the state can stimulate aggregate spending. Nevertheless, as stated by Laramie and Mair, capitalists, or at least a segment of the capitalist class if one takes into account the coordination issues involved, is likely to resist to full employment achieved through increased government spending. How capitalists can resist full employment and increased deficits? It is clear that they can resist politically. But they can also do it economically, by accumulating more financial assets issued by the corporate sector. And financial liabilities do not necessarily represent more investment on the part of issuers, since funds can be used to speculate or merely to transfer property. Whatever the issues, it is possible to claim that there are ample possibilities of cross-fertilization that have been successfully exploited by Kalecki, Bowles, Boyer, Sardoni, and others.

In terms of other existing theories of unemployment, the relationship between unemployment and profits can be stated indirectly in terms of the relationship between unemployment and inflation.

The Phillips curve implies a conflict view of inflation in terms of the relationship between wages, mark-ups, prices and profits. It is consistent with the effective demand effect, in which high unemployment rates reduce wages and may reduce prices if markups are not adjusted, thus reducing inflation. An inflationary spiral may result from increased effective demand that causes unemployment to drop and sales to increase. But lower unemployment can cause money wages to increase, putting pressure on profits. Firms can increase markups and prices to keep the same profit, leading to a wage-price spiral (Rowthorn, 1981). On the other hand, low unemployment rates increase wages and prices, causing inflation to increase. If firms adjust markups in a countercyclical way, stagflation can be the result when unemployment rates increase.

The original Phillips curve was more in the spirit of the effective demand effect, showing the relationship between change in unemployment rate and changes in money wages. But the Phillips curve does not seem to have room for a labor discipline effect in which high unemployment rates reduce wages but not profits. With some modifications the Phillips curve can be transformed into an effective demand effect curve effect. All that is necessary is to lay explicitly the connections between profits and inflation via wages, prices, and markups.

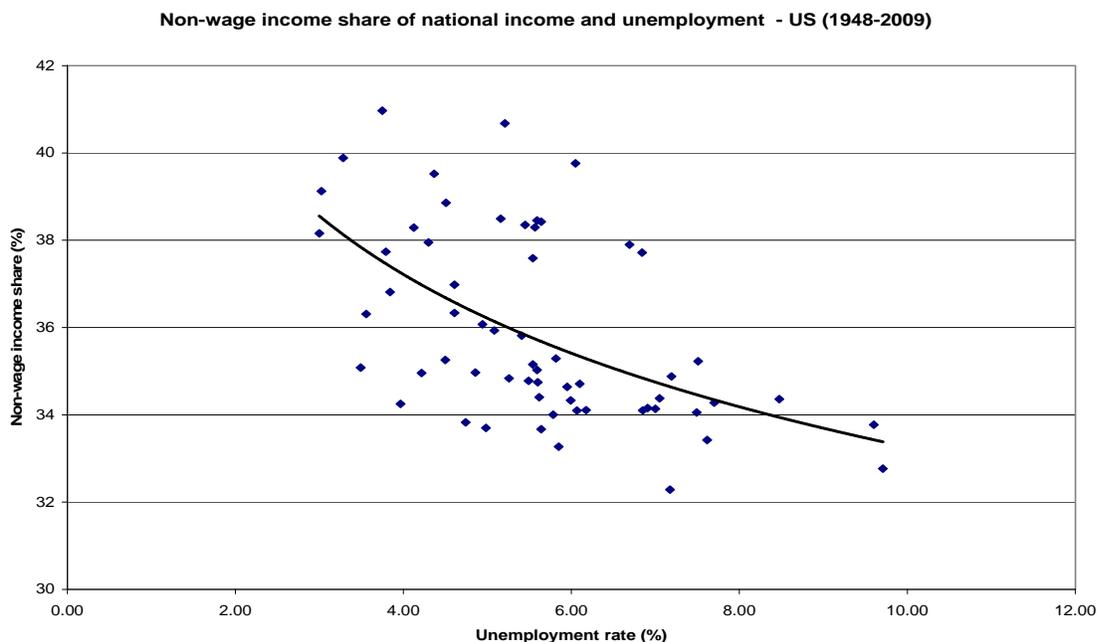
The existence of a wage curve was addressed above. It is consistent with the labor discipline effect. Low unemployment rates increase wages and can reduce profits if prices if firms adjust markups. High unemployment rates may increase wages and prices if markups are countercyclical. But it does not seem to address the effective demand effect.

Finally, there is the NAIRU or natural rate of unemployment. Assuming there is a NAIRU, it can be interpreted as a situation in which both curves shift up by the same amount, increasing profits but keeping the same unemployment rate *at a given time*. This requires an increase in markups. Lower unemployment causes wages to increase, but by less than the markups. There must be an increase in markups, and the price level increases, leading to higher cost-push inflation. At the same time, the ED effect means a reduced purchasing power of wages, with higher profits for every level of employment. This means increased demand-pull inflation. In both cases a higher inflation rate is compatible with a particular optimum unemployment rate. The same is true if both curves shift down by the same amount, decreasing profits and inflation but keeping the same unemployment rate. In this case, however, real wages must go up. This second possibility is not feasible, and it highlights the NAIRU as a specific case. The NAIRU does not necessarily maximize the capitalists' share of national income, since there is an equilibrium unemployment rate that is an attractor, implying that the LDE and EDF

curves must always shift by the same proportion. It is likely that expectations play a major role here, but are not considered in the model. Since the NAIRU is simply an average, the unemployment rate is considered stationary. Effective demand and accumulation prevents unemployment rates to achieve high levels. Labor discipline requires that the unemployment rate is above the full employment equilibrium. In this regard, is unlikely that there should be a consensus about the NAIRU (Pollin, 1998). Inflation and unemployment are variable and depends on the conflicts between workers and capitalists, and redistributions among both classes. Laramie and Mair (op. cit.) propose the term ‘distribution-neutral rate of unemployment’ or DNRU to explain this possibility. Of course, inflation may be good for some capitalists if individual markups and prices grow faster than the average price level, and it cannot hurt all the workers, mainly if they have a strong bargaining power position. So, NAIRU may not be a stable equilibrium.

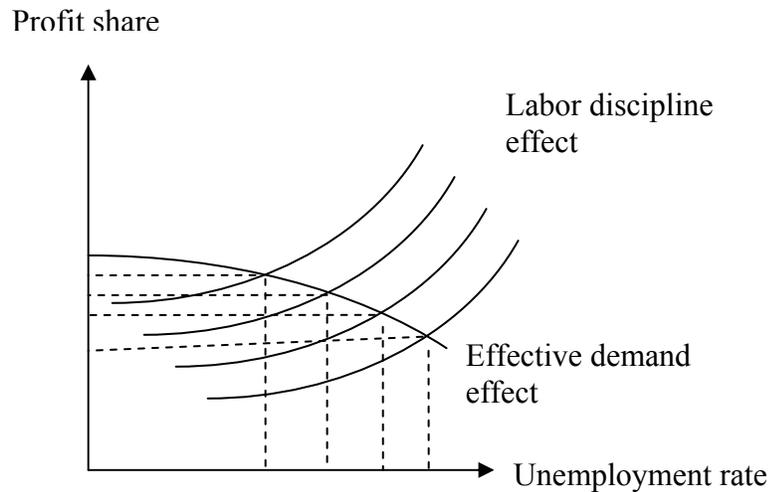
5. Empirical evidence: The Post-War US Economy

It seems that all the previous relationships can be considered specific cases of the more general case implied by the optimum unemployment rate. A final question concerns the existence of any empirical evidence showing a possible relationship between income distribution and unemployment rates. The figure below suggests the existence of a wage-led regime where the effective demand effect predominates. There is an inverse relationship between the non-wage share of the national income and the unemployment rate for the period 1948-2009.



Elaborated by the author. Source: Flow of Funds Accounts. Table F.7 and BLS Series ID 14000000.

A possible interpretation for this pattern is that the optimum unemployment has increased over time and the profit share of capitalists has become more sensitive to changes in unemployment rate associated with declining aggregate demand. The labor discipline effect has shifted to the right along a stable effective demand curve, according to the figure below:



There are of course several other possible explanations. Another possibility is the role of globalization, with increased foreign competition driving firms out of business, depressing domestic profits and increasing the unemployment rate. The problem is that this would presume that the unemployment rate is always optimal from the point of view of capitalist, but this implies no excess unemployment. Whatever the interpretation of the postwar experience, it seems that the unemployment rate may be seen as the optimal response of capitalists to changing economic conditions, not as the optimal response of workers to the evaluation of wages and leisure. It is worthy observing that the data have a strong asymmetry. For the period 1948-1971, the relationship is almost nonexistent, with a slightly downward sloping line. Most of the slope of the line is influenced by the period 1972-2008, in which there is strong inverse relationship between non-wage income share and unemployment.

6. Conclusion

This paper suggests the existence of two potential forces relating unemployment and profits. The model proposed an analysis of unemployment and profits based on conflict and the uncoordinated

nature of production and exchange relations under capitalism. There are potential pitfalls in the model that need a more profound treatment. We could mention the static nature of the model trying to interpret an essentially dynamic relationship. The optimum unemployment rate is not fixed, but it is necessary to understand the dynamic forces causing the rate to change. That is, the leads, lags, and sequential shifts of the forces behind the curves, instead of simultaneous movements, need better discussion. Equally important, out of equilibrium unemployment rates have not been considered. The stability of the optimum unemployment rate is also missing. Moreover, there are important endogeneity issues involved in the empirical measurement of the optimum unemployment rate that have not been addressed in the paper. Finally, expectations were not taken explicitly into account. Despite these relevant shortfalls, and many others could be pointed out, we believe that the model can help shedding light on several contemporaneous debates, including the desirability of cutting the minimum wage, implementing living wages ordinances, outsourcing jobs, unionization, and reforms of unemployment and retirement benefits. And all these measures have always to be considered in the light of two contradictory effects that reflect how capitalists change the levels employment in the light of economic, political, social, and technological transformations: the impacts on labor discipline and the impacts on the purchasing power of wages

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