

# Instability of capitalism inflation, unemployment, and business cycles\*

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## Abstract

*This paper investigates the instability of capitalism defined as a condition under which capitalism creates inflation, unemployment, and business cycles. Great economists such as Marx, Veblen, and Schumpeter have examined this problem, concluding that capitalist instability will transform capitalism. A model is developed in this paper to investigate instability, and the finding is that the basic cause behind instability is the conflict on income share: wages and profits. The fluctuations in the share of profits create inflation, unemployment, and business cycles. This generalization has been verified by using data from the American economy for the 1970s, 1980s, and the 1990s. Over this period, the paper concludes, when the profit share is high, moderate inflation and employment were generated, and when profit share is low, inflation, unemployment, and business cycles have appeared.*

**Key words:** *Business Cycle, Instability of capitalism, Conflict on income share, Profit inflation, Unemployment, Planning and competitive sectors, Power, Innovation, Surplus value*

**JEL classification:** *E31, E32*

## 1. Introduction

A modern capitalist economy such as the American economy consists basically of the planning (fix price) and the competitive (flex price) sectors [Galbraith 1973]. The planning sector is fully dominated by the existence of large corporations and the concentration of production and capital. In contrast, the competitive sector is

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characterized by the existence of small firms whose capabilities in affecting the supply and the price of output are null. Moreover, these small firms use labor intensive techniques, having no power to dictate the growth of the economy.

Logically, any problem of economic instability such as inflation and the business cycle must be initially investigated in the planning sector. The inflationary phenomenon is initiated in this sector when its prices are raised for achieving more profits, or what Keynes [1930] termed, profit inflation. These increases in prices will be spreading throughout the economy, leading eventually to a general rise in price level. The increased price level, inflation, erodes the purchasing power of workers and other social groups—a redistributive mechanism. To counter the increases in price level, these social groups demand either higher money wages or inhibit productivity growth—labor militancy—through their trade unions or any form of collective power. If they succeed in raising their money wages or in inhibiting the productivity growth, capitalists will realize that their income (profit) share is relatively deteriorated. To stabilize their income (profit) share, the capitalists increase their prices by even larger percentages than the initial increases in money wages or the decreases in productivity.

In addition, the capitalists release workers in order to save cost and to maintain their profits. Most likely, unemployment increases due to corporate restructuring, outsourcing, and introduction of new technology. That is, unemployment becomes the norm of the capitalist economy. Essentially, within these relationships inflation and unemployment evolve. Both are distributional phenomena: a struggle over income share, and because of this unsolvable struggle, capitalism is inherently unstable [Sherman 1991]. If a recession is measured by the rate of unemployment, then a higher unemployment rate does indicate the appearance of this phenomenon. Normally, economists take the growth rate of GDP as the basic indicator to determine the condition of the economy, and in some cases a high rate of unemployment may not indicate a recession in the economy, particularly, when the growth rate of GDP is increasing: a job-less recovery. In either case, the business cycle is also a distributional phenomenon.

The main objective of this paper is to argue that the ultimate cause behind inflation, unemployment, and the business cycle is the social conflict on income share, which is the driving force of instability under capitalism. Section 2 is devoted to review some of the important literature, and section 3 develops a simple model showing how inflation, unemployment, and the business cycle are connected to income shares. Evidence (or data) from the American economy do substantiate the validity of this model. The last section is devoted to a summary and conclusions.

## **2. Review of some of the significant literature**

Historically speaking, economists and various schools of economic thought have provided different explanations for the instability of capitalism. Marx [1967] contends that capitalists aim at maximizing the surplus value and the rate of profit. As they expect a high rate of profit they will invest and produce commodities. Capitalists will hire workers to implement the production process and sell the output and pocket the profits for their future consumption and investments. As demand for labor rises, wages will increase. Capitalists will raise prices, and hence inflation is generated. Introduction of new technology will increase production and lower prices. Eventually, the rate of profit will decline, and unemployment will rise, and the economy sinks into a crisis.

On the contrary, Veblen [1904 and 1923] contends that as wages rise and productivity slows down during an expansionary phase of the business cycle, the cost per unit of output will rise and profit margin will decline. On the other hand, prices will decline due to the introduction of technological advance, which provides markets with huge amounts of products. Profitability will decline and many companies will encounter difficulties in paying their debts and interests. These payments create a disastrous liquidating condition for many firms, particularly when the real values of debts rise as a result of the decline in price level, or the appearance of what Fisher [1933] calls the deflationary condition. These facts describe the American economy during the period 1970-2001.

Schumpeter [1927, 1928, and 1934] explains instability of capitalism by innovations introduced by entrepreneurs. He contends that during the early period of the prosperity phase of the business cycle, the new innovating firms generate higher demands for economic resources which must come from other industries. Prices of consumer goods start rising, and firms make profits. A secondary move generated by expenditures from speculative companies and agents will come for more profits to reinforce the primary expenditures. At a later time the innovative firms start selling new products at reasonable prices. Given the low cost of production, the reasonable prices will generate higher revenues and profits.

According to Schumpeter these profits are temporary. This is because some old firms become adapted to the new conditions and innovations, and will be able to imitate (or copy) the methods and the products of the leading innovative enterprises. On the one hand, demand for economic resources will rise, so will their prices and the cost of production. Cost per unit of output will increase. On the other hand, the large volume of production will lower the prices, as firms lose their economic power for setting higher prices for their products. Consequently, as costs rise and revenues decline, profits will be eliminated, and liquidation will follow. This causes pessimism to emerge and the capitalist economy moves toward a recession or depression. Revival will start again after new swarms of innovations and after enterprises

have reestablished their economic power for setting higher prices and lower cost of production. The American economy of the 1990s provides an excellent vindication for Schumpeter's theory of the business cycle which started as a result of the new innovations in information technology.

Keynes [1936] contends that a high expected effective demand under an uncertain environment increases investments which, in turn, increase employment and income. A secondary round will increase aggregate demand, which will increase price level and cost of production. Inflation rate will rise, and so will interest rates. Capitalists form pessimistic expectations about future profits and will reduce investment spending. Unemployment will increase and the economy is again in a recession till another round of higher investments come. Therefore, fluctuations in effective demand generate inflation, unemployment, and the business cycle.

Monetarism contends that capitalism is a stable system and external disturbances create instability. For example, expansionary monetary policy will fool economic agents, generating high demand for labor and inflation. Once agents realize the increased rate of inflation they will reduce employment, and the economy goes back to its natural rate. The eventual outcome generated by discretionary economic policies will be higher inflation. In addition, the economy sinks into a recession, because the Federal Reserve Bank increases the federal funds rate, making consumption and investment costly. The Fed always makes such an honest mistake whether when it increases or reduces the interest rates. In short, external forces such as the Fed will create economic instability. Similarly, Lucas and Sargent [1979] argue that misperception and mistakes lead to increase employment and inflation. Eventually, rational agents will adjust to the economic condition and the economy returns to its natural level. Unemployment will be at its natural rate, and the economy generates a high rate of inflation in the short run. That is to say, under regime of rational expectations discretionary public policies are ineffective destabilizing the stable capitalist economy.

New Keynesian theory ([Hall 1990], Mankiw and Romer [1991], Bernanke and Carey [1996], Borda et al. [2000], Dornbusch et al [2002], and Sorenson and Whitta-Jacobsen [2005]) contend that capitalist instability is created by the fluctuations in aggregate demand and supply. In the short run, aggregate demand increases both prices and output, but prices increase modestly relative to demand, as mark-up prices and labor cost are not completely flexible (i.e., stickiness of nominal wages). This is due to factors such as contracts, menu cost, and near rationality, which are associated with imperfect markets. But as price level increases due to increased money supply, real wages decline and employment and output will increase. Positive aggregate supply shocks, such as a decline in oil prices and improvements in technology, reduce marginal costs and increase the aggregate supply curve. But negative supply shocks tend to increase marginal cost and reduce the aggregate supply curve, generating an economic downturn. Similarly, a decline in consumption and investment expendi-

tures generate a recession, because as the aggregate demand decreases, prices do not decline rapidly. Consequently, real wages will increase, causing a decline in employment and output.

### 3. The instability model

The instability model, which explains the entire production process, consists of two cohesive components. The first component is the profit inflation achieved through the markup pricing, a method of pricing in which prices of production are set according to the cost of production plus a markup (the profit margin). Veblen [1923, 393n] and Keynes [1930] realized the role of profits in increasing the price level. Keynes [1930, 155] called this phenomenon profit inflation, stating:

In Spain, it would appear, Profit Inflation commenced in 1519, when the Aztec spoils arrived, and terminated as early as 1588, the year of the Armada. During this period of seventy years prices and wages were both rising steeply, but prices were always able to keep comfortably ahead of wages, especially during the first forty years of it.

For Keynes, profit inflation is a desirable phenomenon for improving the wealth of nations. Keynes [1930, 154] wrote, "It is the teaching of this Treatise that the wealth of nations is enriched, not during Income Inflations but during Profit Inflations—at times, that is to say, when prices are running away from costs." Not only is profit inflation used for capital accumulation, as Keynes suggested, but it is also utilized for capitalists' consumption. Davidson [1978, 348] pointed out, "Profit inflation... may be due to firms trying to obtain control of a source of internal finance in order to increase the rate of accumulation out of a given level of income, or it may reflect the desire of capitalists to increase their consumption of the available outputs." Both spending outlets were analyzed by Marx and Veblen. Marx emphasizes accumulation, and Veblen explains both with a more sophisticated analysis of consumption, particularly conspicuous consumption, than Marx did. Empirically, it has been demonstrated that through markup pricing companies can accomplish their profit targets. For example, Linzollotti [1958, 923] explained, "...the companies explicitly indicated that their pricing policies were based mainly upon the objective of realizing a particular rate of return on investment, in a given year, over the long haul, or both; but in most cases the target mentioned was 14 percent (after taxes)."

The second component is the rate of labor compensation relative to the rate of productivity, an element reflecting the power of trade unions (or any form of power of the working people) and market conditions. If the former increases faster than the latter, cost per unit will rise and eventually profit margin will decline, because even if prices rise they will not rise enough to increase the profit margin. Veblen realizes this issue before Keynes. He thinks that if wages increase "without a corresponding

increase in the workmanlike efficiency of the wage-earners; [then this] ... acts in its degree to increase the labor-cost per unit of the marketable output of industry, and therefore also to narrow the margin of sales-price over production-cost" [Veblen 1923: 393n]. For this second component, one has to state that it was indeed become the second half of Keynes's theory, to borrow from the late Robinson's remark [1973]. Keynes [1936, 309] pointed out:

Stability or instability of prices will depend upon the strength of the upward trend of the wage unit (or more precisely, of the cost unit) compared with the rate of increase in the efficiency of the productive system.

Essentially, this suggests that if productivity increases at a rate higher than the increase in money wages, the cost of output will decline, and so will the price. In contrast, if money wages increase at a rate higher than the increase in productivity, the labor cost of output per unit will rise, so will the prices. These price fluctuations are termed price instability; but, price stability implies an increase in labor productivity that is in line with the increase in money wages, a situation that is seldom happening under capitalism.

Mathematically, one can start from Marx [1967] to formulate such an argument [Lichtenstein 1983]. For Marx [1967], the total value (PQ) of production is

$$PQ = C + W + S \dots(1)$$

where (C) and (W) are constant and variable capital, respectively, and (S) is the surplus value. The rate of profit (k) can be written as,

$$k = S/(C + W) \dots(2)$$

and is affected by various determinants which are explained below. But before doing so, some of the elements influencing the rate of profit need to be explained. If the surplus value S is written as

$$S = P_x Q_x - P_{in} Q_{in} - W \dots(2a)$$

Where  $P_x$  and  $P_{in}$  are the prices of output and intermediate non-human inputs, respectively, and  $Q_x$  and  $Q_{in}$  are the quantities of output and intermediate inputs, respectively. If the surplus value S is divided by the actual rate of productive capacity utilization  $K^*/K^{**}$ , where  $K^*$  is the capital goods actually used in the production process and  $K^{**}$  is all capital goods available (idle and in use), then

$$k = S/K^*/K^{**} \dots(2b)$$

In other words, the rate of profit is the surplus value divided by the rate of capacity utilization. If S is assumed to be constant and the rate of capacity utilization increases

until it becomes 100 percent, then the rate of profit will decline. If the rate of capacity utilization is intentionally reduced [Veblen, 1921], the rate of profit will rise.

Having explained these components, the rate of profit  $k$  is determined by various variables which are briefly explained here. (1) Efficiency and intensity of work or labor productivity per hour increase the volume of output  $Q_x$  and reduce cost of production per unit of output. Managerial supervision is important in increasing labor productivity and reducing cost of production. A higher level of output at a given price  $P_x$  will increase total revenue  $P_x Q_x$ . Efficient management can establish a vital link between consumers and workers such that cost per unit of output is minimized and sales of output will be increased. (2) Technological progress increases productivity and the volume of output, and reduces cost of production as it replaces workers and reduces wages  $W$ . Technological progress also forces capitalists to imitate other capitalists and to adopt new technologies, a behavior that requires a higher rate of investment and a larger productive capacity  $K^{**}$ . (3) Monopoly power prevents competition between producers and raises output prices and revenues. Producers with high monopoly power can increase the differential advantage between the price and the marginal cost to maximize profits. In addition, those producers can practice sabotage by cutting the volume of production in order to charge higher prices [Veblen 1921].

(4) Availability of intermediate inputs or materials and their prices affect the rate of profit significantly. If the intermediate inputs are available and purchased at lower prices due to monopsony and market power on the input side, the cost of these materials decline; and consequently, profits will rise. In contrast, if the prices of intermediate inputs such as oil increase, the cost will rise and profit will decline. Imperialist adventures of capitalist countries may allow other capitalists to purchase inputs at reasonable prices than otherwise, although this proposition cannot be verified recently, as oil corporations have raised the price of oil tremendously such that many industries have been affected negatively. (5) Wages are very important factor in cost of production. The lower the wages producers pay the higher the profitability will be. The opposite is true when wages increase. Immigrants and outsourcing of parts of the production process will reduce wages and cost of production; hence, they will augment profits. Lengthening labor-day increases the absolute surplus value and production, a situation that will increase the rate of profit. (6) If prices of capital goods decline, the cost of production will decrease and the surplus and the rate of profit will rise. Technological progress can cheapen the prices of capital goods and raises the rate of profit in the short-run. (7) If the rate of capacity utilization is low, production will not increase to a level that will cut prices. Thus, this rate will affect production if it is properly controlled. For example, increased interest rates will reduce investments and slow down the rate of capacity utilization [Veblen, 1921].

(8) If market of a product is enlarged, then a large amount of that product will be sold. Hence, total revenues will rise. Imperialist adventures are important in this con-

text because they secure large markets for monopoly capitalists. Efficient marketing and advertising increase demand for the product and create loyalty for it. Thus, these promotional methods will contribute significantly towards increasing revenues. (9) Higher taxes and interest rates will increase the cost of production and will reduce profitability. This explains the reason why many capitalist governments cut taxes. (10) Innovations introduced by efficient entrepreneurs become a crucially important element for finding markets, new products, new methods of productions, and taking the risk for higher surplus and profitability [Schumpeter 1934]. In short, all these significant ten factors will increase (S) and the rate of profit (k), assuming capital stock  $K^*/K^{**}$  is constant.

At any rate equation (2) can be solved for (S), and if the outcome is inserted in equation (1), one obtains

$$PQ = (C + W) + k(C + W) \dots(3)$$

Which is

$$PQ = (1 + k)(C + W)$$

Or,

$$P = (1 + k)(C + W)/Q \dots(4)$$

Weintraub [1961, 45-46] formulated Marx's proposition, which he thought it was Keynes's proposition, as follows:

$$P = (1 + k) TC/Q \dots(5)$$

where, TC, P, k, and Q are the total cost (the sum of C and W), the markup price, the rate of profit (markup), and the physical output, respectively. Since money wages constitute the largest component of the production cost, which is about three-fourths, equation (5) may be rewritten as,

$$P = (1 + k) W/Q \dots(6)$$

If the right-hand side terms are divided by the number of employed workers (N), one can obtain,

$$P = (1 + k) w/q \dots(7)$$

where (w) and (q) are the average of money wage (W/N) (or real hourly wage) and the average product of labor (Q/N) (or physical productivity of labor per hour), respectively. And (w/q) is called the labor cost per unit of output. Equation (7) suggests that the markup price can be augmented by increasing either (k) or (w/q) or both, and the latter can be increased by either increasing (w) relative to (q) or reducing (q) by labor militancy relative to (w).

If equation (7) is transformed by taking the natural logarithm of both sides, one can obtain,

$$\ln P = \ln(k) + \ln(w) - \ln(q)$$

If this equation is differentiated with respect to time  $t$ , we obtain

$$1/P \, dP/dt = 1/K \, dk/dt + 1/w \, dw/dt - 1/q \, dq/dt$$

which can be rewritten as

$$P^*/P = k^*/k + w^*/w - q^*/q \dots(8)$$

That is to say, the percentage change in price level, or the inflation rate, is equal to the percentage change in the rate of profit plus the percentage change in wage rate minus the percentage change in the growth rate of productivity. If  $(q^*/q)$  and  $(P^*/P)$  are assumed to be constant, then the percentage change in the wage rate will be cancelled by the percentage change in the rate of profit. Stated somewhat differently, the class struggle between capitalists and workers generates the increases in price level, i.e., inflation. Asimakopulus [1979:70] correctly stated:

If firms can establish high mark-ups and high levels of investment expenditures...workers try to improve their shares by bargaining for higher money-wage rates, but this will only lead to an increase in their real-wage rates and income shares if firms are unable to maintain their mark-ups. Inflation is one of the symptoms of this conflict over income shares, as firms raise prices in an effort to restore their mark-ups on the higher wage costs.

Similarly, Sherman [1976:136] pointed out:

...the truth is that in almost every inflation on record there is massive redistribution of income from the poor to the rich. Owners of businesses push up their prices rapidly; therefore, profit margins remain constant or rising in most inflation.

It should be noted that the profit rate is related to income share. The profit rate ( $k$ ) can be written as

$$S/K = (S/Y) (Y/K)$$

Therefore

$$S/K = (1 - w/q) (Y/K) \dots(9)$$

where  $(Y)$  is output and  $(K)$  is the capital stock which is determined by technological progress and investments. If  $(K)$  increases, the productive capacity of the economy

will rise, a situation that increases the volume of output. Accordingly, increased production will exert a pressure on prices to decline. Hence, profitability will be squeezed and the rate of profit will decrease, assuming every thing else fixed.

To develop the analysis further, the interest rate variable must be brought and connected to equation (7). It can be stated that as labor cost per unit of output rises, central banks expect the inflation rate to rise. In response to this rising labor cost and income, demand for money will increase, and central banks will react by raising interest rates ( $i$ ) in order to control the increases in consumption, investments, employment, and money wages. This relation can be written as

$$i = f(w/q) \dots(10)$$

Or,

$$i = f(w^*/w - q^*/q) \dots(11)$$

Veblen [1921] contends, for example, that the Federal Reserve Board in the United States of America controls the productive capacity of the economy by controlling credits through increasing (or decreasing) the interest rates. As will be demonstrated below, equation (10) creates financial bankruptcy for many business enterprises when the interest rates rise. Fisher [1933] uses the interest rates as the crucial factor for business depression. Usually, before the economy sinks into depression, price deflation occurs, and consequently the real value of debt increases. With the rises of interest rates, a significant pressure is exerted on many firms such that these indebted firms will be bankrupt. Minsky [1986, 207] added to Veblen and Fisher the fact that financial fragility will affect all these firms suffering from Ponzi financial situation where their “financing costs are greater than income.” Hence, they are fragile financially collapsing when interest rates increase. In short, equations (7) and (10) demonstrate the rising labor cost and financial difficulty, the two most important causes for causing a crisis, or a downturn, in the economy.

Equation (7) suggests that if ( $w$ ) increases faster than ( $q$ ), employment will decrease, for the capitalists do not reduce ( $k$ ), nor do they increase output: capitalists are interested in producing fewer goods. But as employment (and income) decreases, output is expected to decline further as a result of lower aggregate demand caused by the decrease in workers’ demand for goods and services [Sherman 1991, 197]. This decrease in output is explained by the decline in induced investments generated by the decline in employment and income.

With respect to the analysis of unemployment, equation (7) can also be used. If ( $W$ ) increases faster than ( $Q$ ), the labor share will increase. If ( $P$ ) increases, then capital (profit) share may stay constant. But if the labor share increases while prices do not increase, capital share will decrease. Simply, if labor share increases, capital share decreases. Consequently, the rate of profit declines when the labor cost per unit rises

while prices decrease. If this occurs, investment decreases and unemployment will increase. Therefore, the basic problem facing capital is that inflation and unemployment–stagflation–will increase when (W) increases and productivity decline. This is the same as stating that due to higher wages and lower productivity, the aggregate supply will decrease and consequently it will raise the price level (or the rate of inflation) and reduce output and employment levels. The same conclusion holds if production declines. Equation (7) shows that if (k) increases, price level and employment will increase. Also, if productivity increases at a rate higher than the increase in money wage, price level will decline, but employment will increase. That is to say, due to a higher productivity, the aggregate supply will increase, reducing the price level and increasing output and employment.

The foregoing explanation can be extended to the business cycle. During the expansionary phase of the business cycle prices increase steadily, and capitalists obtain a higher target rate of profit. Employment increases in this period, and workers demand higher money wages as the economy approaches near full employment, and they succeed [Rosenberg and Weisskopf 1981, 44]. Workers behave as such in order to compensate for the increases in the cost of living. As Moore [1972,161] pointed out, “Rates of increases in hourly compensation...are usually at a moderate level during the initial phase of the upswing in prices, but soon begin to rise, partly in response to the price movement.” After the increases in money wages occur, the capitalists feel that their income (profit) share is deteriorated relatively. To maintain the profit share, they will increase prices once again through the markup, especially when foreign competition (rivalry) is not quite strong.

If foreign competition is fierce, a reduction of labor cost is implemented by other means such as downsizing, outsourcing, foreign direct investments or relocation of firms, and massive inflow of immigrants from foreign countries. All these means will cut the cost of production by employing less domestic workers. Under this condition prices will decline and profits will rise. For example, a relocation of firm from North America to India will enable capitalists to hire workers and engineers whose qualifications are similar to those in North America at very low wages. Therefore, output can be produced, and a massive surplus value along with a very high rate of exploitation (S/V) can be achieved. Immigration can achieve a similar result as well, where capitalist firms can pay lower wages for high quality foreign workers.

During this stage of the expansionary phase of the business cycle, central banks start increasing the interest rates (or the Federal funds rate) to control inflation and employment, and this can be done by using equations (10 and 11). Specifically, during the last phase of an expansion and the beginning of a recession the possibility of an increased inflation rate has become the norm in capitalist economies, especially the United States of America, since the 1970s. The only exception for not having a high inflation rate lies in the development of new technology. This is because technical progress increases production and lowers prices. In this phase of the business cycle,

workers cannot demand higher money wages, because the rate of unemployment starts increasing. Workers can inhibit productivity growth by interrupting production [Naples 1981, 38], a behavior causing the labor cost per unit of output to increase. Consequently, central banks will raise the interest rates to defend the financiers.

When interest rates increase, investments and consumption expenditures will decline. The rate of capacity utilization will decline, which may keep the profit rate from falling rapidly. This action will lower production as well, and the latter can prevent prices and hence profits from falling. It is also true that higher interest rates will slow down the demand for labor and the rise in money wages. At any rate, the capitalists' profit share will decline, so will the rate of profit; inflation and unemployment rates must rise, and the economy sinks into a recession.

It should be stated clearly that inflation does not increase during a period of technological innovations and strong foreign competition. Both increase production and weaken corporate market power in setting high domestic prices. For example, Veblen [1904], Fisher [1933], and Schumpeter [1939] think that technological innovations that are not accompanied by high doses of money supply will push prices and inflation downward. Consequently, if a deflationary trend develops many companies will have difficulty in paying their debts. This can occur by the lower revenues resulting from the decline in prices and by paying higher real values of debts and interests to serve them. Indeed, this generates a rapid process of liquidation and bankruptcy. In short, a crisis is a logical outcome of the combination of the rising labor cost (equation 7) and interest rates, or the financial fragility shown by equations 10 and 11, which Veblen's theory of the business cycle has established a long time ago.

Several institutions have a significant effect on the duration of the business cycle, and some of them have already mentioned such as governments and central banks. Capitalist governments do increase military spending during a recession. That is, militarism has become a very important institution to lift capitalist economies from economic crises, because it is important stimulus for increasing investments and effective demand. Similar arguments can be applied to lower taxes and regulations, where both can reduce cost (or shift aggregate supply) and increase output, employment, and profitability. International institutions such as the World Bank, International Monetary Funds, and the World Trade Organization have contributed towards expanding, e.g., the American economy during the 1990s. They created world markets for American investments and products as well as price reduction for American imports.

#### 4. Historical evidence

During the 1970s, the U.S. economy experienced stagflation or high rates of inflation and unemployment. The main reason for the stagflation was the slowdown in productivity and the high growth rate of labor compensation. These factors led to the deterioration of the profit share and investment spending. Table 1 shows various relevant facts for the U.S. economy. During the 1970s as the labor cost per unit of output grew at an average rate of about 6.5 percent, the unemployment and inflation rates increased at average rates of 6.1 and 7.4 percent, respectively, so did interest rates. Stagflation, however, did increase the profit share over this period because of the high growth of productivity and the increased mark-up prices during the earlier years of the 1970s. The lesson of this period was that the increases in labor cost per unit of output, higher interest rates, and increased oil prices, which were associated with a slowdown in productivity, will generate a crisis in the capitalist economy, as these factors reduced profits.

Table 1: Review of some indicators for U.S. Economy 1970-2003

- in percent

Year	Inflation	Unem- ployment	Profit (coef)	Wage (coef)	Labor Cost Per Unit	Produc- tivity Growth
1970-74	6.66	5.28	0.333	0.657	5.44	2.18
1975-79	8.16	6.92	0.341	0.659	7.04	1.88
1980-84	7.50	8.30	0.335	0.665	5.70	1.48
1985-88	3.30	6.50	0.345	0.655	2.80	1.85
1989-92	4.40	6.30	0.345	0.655	2.50	2.18
1993-2000	2.60	5.20	0.350	0.650	1.89	1.70
2001-2003	2.23	5.50	0.346	0.654	0.03	3.77

Sources: The Economic Reports of the President, (February 1994), P.339, P.306, and P.323 and The Economic Reports of the President, (February 2005), pp.242, 252-53, 269, and 284.

During the 1980-84 the table shows that the labor cost per unit of output grew at a rate of 5.7 percent, which was lower than the rate of growth prevailed over the 1970s, and productivity increased at a low rate of 1.48 percent. This combination increased the inflation rate by 7.5 percent and raised the unemployment rate by 8.3 percent, an increase that was higher relative to its rate prevailed over the 1970s. Both led to a higher labor income share which could be reduced by the two recessions of 1980 and 1982.

Over the 1985-88 the labor cost per unit of output grew at 2.8 percent which was the lowest growth rate relative to the rates prevailed over the 1970s and 1980-84. Clearly, the basic reason for the low growth rate was the weakening of the unions during the Reagan administration. The growth rate of labor cost per unit of output led to lower rates of inflation (3.3) and unemployment (6.5). Productivity increased by 1.85 percent, and along with the decline in labor cost, capitalist's income share rose. It is always true that once the labor cost per unit of output decreases, the rate and share of profit will rise.

During 1989-92 the unit labor cost grew at a rate of 2.5 percent which was relatively lower than its rate of growth prevailed over 1985-88. This low rate of growth which was associated with a high growth rate of productivity (2.18 percent) generated a lower rate of unemployment of 6.3 percent. But the inflation rate increased by 4.4 percent, which can be called profit inflation. Thus, the evidence is consistent with the basic predictions of equation (7): as the wage share or the labor cost per unit of output relative to productivity decreases (or capital share increases), price level declines. If it is not, then profit share must rise. It should be mentioned that corporate profits in the manufacturing sector declined from \$113.1 billion in 1990 to \$99.5 billion in 1992. The federal funds rate was 8.10 percent in 1990 and was reduced by the Fed to 5.69 in 1991 and to 3.52 in 1992 in order to lift the economy from the recession of 1991-92. In addition, the percentage change in hourly labor compensation in the business sector was 6.3 in 1990 and declined slightly to 4.9 percent in 1991 and rose to 5.2 percent in 1992, while the output per person per hour was changed by 2.0 and 1.5 percent in 1990 and 1991, respectively; a situation indicating a rise in the labor cost per unit output. These indicators had a crucial impact in creating the recession of 1991-92, which affected negatively the reelection of President George Bush in 1992.

During the period of 1993-2000, a period associated with technological innovations and strong global competition, the growth rate of labor cost grew very slowly at rate of 1.9 percent. Similarly, labor productivity generated by the introduction of information technology grew by 1.7 percent. Although the growth rate of productivity declined, the growth rate of labor cost per unit of output decreased by a larger amount. This suggests that capitalists were becoming wealthier as their income share rose. Unemployment declined to 5.2 percent, but most of the jobs created were low-paying jobs. That is to say, the slowdown in the growth of labor cost was associated with a higher profitability share of 0.350. Expansion continued as long as profitability was increasing and the growth of labor cost was on the decline. Global competition, technological innovations, and higher value of dollars led to a low rate of inflation of 2.6 percent.

Before the end of 2000, the unemployment rate declined to 4 percent and labor cost per unit increased by 4 percent. Slowdown in Productivity occurred, which led to a higher labor income share. Therefore, the Fed responded by increasing the Federal

funds rate (short term interest rates) five times, which had a role in generating the recession of March 2001, given the higher labor cost per unit of output. That is to say, the combination of a higher labor cost per unit of output relative to a low growth rate of productivity and higher interest rates created a very high probability of a recessionary condition in the economy, because these variables reduced profits and investment and consumption expenditures.

After the recovery of 2001, the labor cost increased by 0.03 of one percent during 2001-03, which was the lowest growth rate during the last forty three years. In fact, the growth rates of labor cost per unit of output were (-1.1) and (-0.4) percent during 2002 and 2003, respectively. Associated with this decline was the higher growth rate of productivity of 3.77 percent. Both indicators of the low growth in labor cost and the high rate of productivity had kept the inflation rate at a low rate of 2.2 percent during 2001-2003, given the deficit spending of the government for the wars in Iraq and Afghanistan and the increased inequality in income distribution as indicated by the high Gini coefficient of 0.46. As long as labor cost does not grow, the model does not predict a recession in the economy, given the high prices of oil and interest rates. But if the latter two variables become extremely high, then a recession should occur.

Statistically, the regression results are as follows:

$$\text{Inflation Rate} = 0.81 \text{ Unemployment Rate} \quad R^2 = 0.88 \\ (6.69)$$

$$\text{Inflation Rate} = 1.55 + 0.95 \text{ Labor Cost} \quad R^2 = 0.94 \\ (3.35) (8.70)$$

$$\text{Unemployment Rate} = 4.97 + 0.54 \text{ Labor Cost} \quad R^2 = 0.85 \\ (11.94) (4.13)$$

The estimated regression equations are all statistically significant as shown by the high values of the t-ratios. For the entire period of the study, the rate of unemployment was correlated positively with the rate of inflation. The correlation coefficient was 0.94 which was very strong. This result rejects the belief that the relationship between the two variables, or the so-called Phillips curve, is negative. The explanation is very simple in that capitalists do not increase employment under inflationary conditions, where labor cost grows rapidly. The second estimated equation suggests that as the growth rate of labor cost per unit of output increased by one unit, the inflation rate increased by 0.95 percent of that unit. And the opposite was true. That is, capitalists had shifted the increased labor cost into high prices and consequently a higher price level: inflation. The third estimated equation was for the period of 1980-2003. For this period labor cost explained the unemployment rate. When labor cost grew

by one unit, unemployment rate did increase by 0.54 of that unit, and the opposite was correct. Capitalists would not hire more workers at higher wages, a result that substantiated the classical theory of employment. For the entire period, however, the growth in labor cost per unit failed to explain the rate of unemployment. The slope of 0.24 was not statistically significant, because the t-ratio was 1.8. The coefficient of determination ( $R^2$ ) was very low with a value of 0.3.

## 5. Summary and conclusions

Capitalists are seeking more profit for accumulation and consumption through charging higher markup prices (Keynes's profit inflation). The strong trade unions (or any form of people power) demand a higher rate of labor compensation relative to the growth rate of productivity, a behavior threatening the profit share. Workers' efforts to increase the wage share at the expense of profit will generate inflation and unemployment as well as recessions. Similarly, workers can inhibit productivity growth and consequently increase the labor cost per unit of output, a situation that is also leading to inflation and unemployment. Essentially, if the wage share increases (decreases), then employment will decrease (increase); and prices (or inflation) will increase. That is, stagflation usually takes place, if the wage share (or labor cost per unit of output) increases relative to slowdown in productivity.

This analysis leads one to conclude that capitalism is inherently unstable system, and unemployment, inflation, and crises are all indicators of this instability. Instability in turn is a basic outcome of class antagonism. Capitalism operates at the expense of workers' misery, because the only way to secure high share of profit is when workers work hard for the capitalists for money wages that are not at par with their intensity. If the capitalists feel that the wage share in the domestic economy has increased they release workers and increase prices, creating unemployment, inflation, and crises. A low profit share is also solved by exploiting foreign countries—imperialism. If foreign nations accept the fact of being exploited, capitalism of the center will survive.

History however indicates otherwise. First, many foreign nations are interested in having economic independence by breaking the dependency linkage with capitalism, a situation that forces capitalism to exploit its own people or go to wars. Second, workers and people of the core (center) historically resent the fact that they have to work so hard for the system for less. Since there is no compromise between classes under capitalism, capitalism cannot solve the problems of unemployment, inflation, and crises. Nor can capitalism survive and prosper, because parasitism is not efficient way of survival in the long-run.

An important conclusion is that over the last 33 years, the rates of unemployment and inflation had been on the decline, because the labor cost per unit of output had been decreasing with a growth rate of 0.03 of one percent during 2001-03. That is to

say, labor cost per unit was positively related to the rates of inflation and unemployment. The former had been associated with an increased rate of productivity growth, suggesting that capitalist income share would be on the rise. It is fair to state that the rates of unemployment and inflation were associated positively during 1970-2003. .

The last important conclusion is the inconsistent trend of the profit share. It seems that whatever necessary means the capitalists have utilized to reduce the wage share and to discipline labor, that means has had a mixed result on the profit share. This outcome supports the accurate conclusion of Bowles, Gordon, and Weisskopf [1990, P.91] that “Capital had begun to win the battle against labor...but it was continuing to lose the war.”

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## Nestabilnost kapitalizma, inflacija, nezaposlenost i poslovni ciklusi

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### Sažetak

U ovome radu istražuje se nestabilnost kapitalizma koji se definira kao stanje u kojem kapitalizam stvara inflaciju, nezaposlenost i poslovne cikluse. Veliki ekonomisti kao što su Marx, Veblen i Schumpeter bavili su se tim problemom i zaključili da će upravo nestabilnost kapitalizma transformirati kapitalizam. U radu se razvija model za istraživanje nestabilnosti, a rezultati ukazuju da je temeljni uzrok nestabilnosti sukob oko udjela u dohotku: nadnica i profita. Fluktucija u raspodjeli profita stvara inflaciju, nezaposlenost i poslovne cikluse. Ova generalizacija provjerena je na podacima američkog gospodarstva u periodu 1970-tih, 1980-tih i 1990-tih, te se može zaključiti da kad je udio u profitu visok, dolazi do umjerene stope inflacije i zaposlenosti, ali kad je udio u profitu nizak, stopa inflacije, nezaposlenosti i poslovnih ciklusa raste.

**Cljučne riječi:** poslovni ciklusi, nestabilnost kapitalizma, sukob oko udjela u dohotku, inflacija profita, nezaposlenost, planiranje i konkurentni sektori, inovacija, vrijednost viškova

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