Chapter 6

Inflation and the State

Before World War II (during the period 1920-1940), most prices in the U.S. economy rose more in the early expansion phase of the business cycle than they did in the late expansion, while prices fell in the contraction. After World War II (during the period 1954-1970), this pattern changed radically: prices rose faster in the late expansion than in the early expansion and then continued to increase at about the same rate during the contraction as in the late expansion. (Thorning, 1975.) This latter pattern persisted -- and perhaps intensified -- in the 'seventies. The former pattern is that described in the last chapter (section 5.3.6c): price increases slow in the late expansion because of the ceiling on prices. The latter pattern -- inflation and stagflation -- is the subject of this chapter.

In the post-War period, we see the limits on inflation lifted, so that the no-inflation assumption should be discarded. With the rise of U.S. hegemony in the world capitalist system and the Bretton Woods system, the dollar standard and political- fiat money replaced the discipline of the gold- or gold-exchange standard. With the decline and fall of the Bretton Woods system, foreign competition as a rein on domestic inflation gave way to the international transmission of inflation. No nation in the advanced capitalist world could inflate unless other were doing so since balance of payments problems would result. But if all nations inflated, each could do so. The growing importance of the international credit system, demand linkages, shifts of hot money among nations for speculative purposes (engineered by transnational corporations and banks), the replacement of the dollar standard by floating
exchange rates, and the flood of Eurodollars allowed an inflationary bias in the world economy. (See Hawley, 1979.) Finally, nations in the advanced capitalist world were pushed in the inflationary direction because most followed Keynesian demand-management policies due to domestic pressures and the fear of the recurrence of the social and economic chaos of the 'thirties.

This history forms the context for the analysis of this chapter, which will concentrate on a limited number of issues. It cannot claim to be the "complete theory of inflation" or even the "complete Marxian theory of inflation." Rather, this chapter should be seen as, first, an investigation of the implications of the analysis of the previous chapters for the theory of inflation, and second, a clarification and extension of "conflict" theories of inflation. First, the neoclassical "supply and demand" theory of inflation will be rejected in favor of a theory that puts more emphasis on the bargaining power of different groups as they fight over the production and distribution of total output. The standard Phillips curve framework where changes in the distribution of income plays no role will be replaced by an analysis which allows squeezes of the rate of profit (with the standard Phillips curve analysis as a special case). Second, theories that over-emphasize conflict (that is, many Marxian theories of inflation) will be supplemented with considerations concerning the other dynamics of the capitalist mode of production. In other words, a strong working class is not the only imbalance that depresses the rate of profit and sets the stage for inflation as a means for capitalists to recover a more normal rate of profit. This argument is especially relevant to the analysis of inflation in a country such as the U.S. where the working class is especially
weak and disorganized. A pure conflict theory seems more appropriate for a country like Great Britain, though that conflict must also be placed in historical context.

The above theoretical analysis forms section 1. In section 2, the role of the state in the inflationary process will be examined. A sketch of the political economy of post-World War II macroeconomic policy will be presented. In this discussion, less emphasis will be put on class conflict as a cause of inflation than in much of the Marxist literature. Finally, in section 3, the conclusions of this chapter will be compared to those of other inflation theories. Some comments will be made there on the political business cycle theory.
6.1 Inflation and the Profit Squeeze.

In this section, we will re-examine the labor-power market, pricing behavior, and inflation. We begin with the standard Phillips curve framework and move to an analysis that allows short- or medium-term squeezes on profits. This allows us to reject the pure supply-and-demand theory of inflation, put the conflict theory into context, and introduce other causes of inflation besides the conflict over wages and conditions.

In the last chapter we assumed the trend rate of inflation to be zero. We will modify that assumption but will consider only endogenous inflation. Thus we assume that $\ddot{p} = \ddot{u} - \ddot{q} = 0$ and add extra terms to the wage-Phillips curve. Second, instead of the division between the short, medium, and long terms, we will utilize the distinction between the shorter and longer terms. The economy will be assumed to always be in short-term equilibrium at $z \leq 1$.

Consider a standard version of the Phillips curve theory. First, there is the wage-Phillips curve:

$$w^* = w(U) + \bar{w} + F \frac{\pi^e}{p}$$  \hspace{1cm} (1)

where $w^t < 0$, $F > 0$, and $w(U^*) = 0$. This is an extended version of equation (5.30), which is commonly labelled the "naive" Phillips curve. Unemployment dampens wage inflation while the extra term, $\frac{\pi^e}{p}$ (expected price inflation), encourages it.

Second, assume that prices are set according to a constant mark-up over unit labor costs measured at full capacity. Initially we assume that the ratio of unit raw material costs to unit labor costs is constant. Thus, we can ignore the role of these costs. This pricing
behavior is represented by the following equation:

\[ p = n' \omega \eta \]

(2)

where \( n' = 1/(1 - \alpha) \) = assumed constant. Thus,

\[ q = \varphi + \eta \]

(2')

Third, \( \eta \), the percentage rate of change of unit labor-power usage will be assumed to be independent of the unemployment rate:

\[ \eta = - \frac{\zeta}{\eta} < 0 \]

(3)

Productivity does vary with capacity utilization in the standard Phillips curve analysis, but this variation is irrelevant since capitalists are assumed to maintain a constant mark-up on full- (or normal-) capacity unit labor costs.

Now, combine equations (1), (2'), and (3):

\[ *p = \varphi(0) + F \frac{*e}{p} \]

(4)

since \( \varphi = \varphi \). This is the shorter-term price Phillips curve. The difference between the shorter- and longer-term Phillips curve analyses is that in the longer term, the expected rate of inflation is endogenous. Let us consider this endogeneity and its implications.

Expected inflation is most often seen as determined by an adaptive expectations model:

\[ *e = *e_{t-1} + \eta(\hat{p} - \hat{p}_{t-1}) \]

(5)

In the longest term, price expectations adjust so that \( \hat{p} = \hat{p} \). (That is, \( \eta \) approaches unity as the period under consideration approaches
being infinite. Thus, we see the longest term price Phillips curve:

\[ p^* = \frac{w(U)}{(1 - F)} \quad \text{for } F \neq 1 \]

\[ w(U) = 0; U = U^* \quad \text{for } F = 1 \]

(6)

The longest-term price Phillips curve is steeper than the short-term variant (if \( 0 < F < 1 \)) or is vertical at the "natural" rate of unemployment, \( U^* \), for the limiting case of \( F = 1 \). But as one neoclassical economist, R.J. Gordon, notes

...the terminology "natural rate of unemployment" is misleading. The natural rate is not carved in stone, immutable, or desirable....The rate is natural only in the sense of equilibrium -- at the natural unemployment rate, whatever its value in a particular year, there is no pressure on the inflation rate to change.

(1978, p. 245.)

A better name for this rate is the "non-accelerating inflation rate of unemployment," the NAIRU. It corresponds to the medium-term equilibrium rate of unemployment defined in the last chapter.

Equations (1) through (6) represent the standard Phillips curve framework. What is the economic basis of these equations? The argument for equation (1), the wage-Phillips curve, has occupied a lot of economists' time and energy. The usual argument concerns the downward stickiness of money wages which prevents labor-power markets from "clearing" immediately. If money wages are sticky, then price increases are necessary to cut real wages so that labor-power markets clear. In addition to a host of institutional or historically specific reasons why this should be so, there is the basic Keynesian analysis. As Tobin (1972) argues, workers in the short-term are much more concerned with relative wages than with absolute (real) wages. They will be most likely to seek new jobs or fight for higher money wages if their relative
wages fall. This makes the entire structure of money wages (the wage contour) rigid. But why should workers care about only relative wages? After all, don't they complain when their real wages fall? Re-examining the labor-power market to introduce the constraints on workers' choices will shed some light on this mystery. As Robinson notes

...the orthodox conception of wages tending to equal the marginal disutility of labor, which has its origins in the picture of a peasant farmer leaning on his hoe in the evening and deciding whether the extra product of another hour's work will repay the extra backache, is projected into the modern labor market where the individual worker has no opportunity to decide anything except whether it is better to work or to starve. (1966, p. 2, her emphasis.)

Neoclassical economists typically see workers as being able to choose among real variables: leisure and real wages. But in the modern labor-power market, the choice is only among nominal variables, that is, among the different money wages offered by different capitalists and the cost of the use of saving (or the accumulation of debt) necessary to living without working for a capitalist employer. Most so-called leisure is either involuntary, as in the case of extended unemployment, or is necessary to the reproduction of workers as workers (a complement rather than a substitute for labor), for example, sleep, eating, and entertainment. Even the rise of public assistance as a source of a worker's livelihood doesn't widen her choice that much, since this income is also stated in nominal terms. Finally, since workers have no control over the price level or its rate of change, they cannot bargain over real wages. They perceive cuts in nominal wages as cuts in real wages. Since profit margins often rise as money wages fall, this perception is not far off the mark. In sum, there is no large mystery in the stickiness of money wages.
But why should the unemployment rate play a role in determining the rate of money wage inflation? The usual neoclassical argument for the first term of (1) is based on supply and demand. In this view, \( U - U^* \) represents the excess supply of labor. (See, for example, Santomero and Seater, 1978.) This theory assumes perfectly competitive labor-power markets, that is, competition between individual workers and atomistically organized employers with only a limited amount of friction. (This friction explains why \( U^* < 0 \).) But this theory is not sufficient. There are all sorts of obstacles to the movement of labor-power (and capital) among firms and sectors. Product and labor-power markets are almost always in disequilibrium. Thus, bilateral monopoly and bilateral monopsonistic competition are more reasonable descriptions of labor-power markets than is perfect competition — and the simple Walrasian supply-and-demand framework. (Arrow, 1959, points to the role of disequilibrium here.) Furthermore, workers and managements each join formal and informal organizations to fight for their interests. Thus, this view should be supplemented by a bargaining power theory of wage inflation, where institutional forces and power considerations play a role in the general context of aggregate supply and demand (where the latter is determined by the progress of capitalist accumulation).³

Workers do want higher real wages, but at higher rates of unemployment their bargaining power (whether as individuals or in unions) decreases and they are less able to achieve this goal. Individual capitalists' profits threaten to be cut when the working class' bargaining power is high. A profit squeeze may happen at the aggregate level (as will be argued later in this section) because the rate of profit is not a technologically-determined constant that varies over the cycle only with
the rate of capacity utilization. In a conflict model of inflation, $U$ no longer represents excess supply of labor. Instead it is a measure of the reserve army of unemployed workers whose existence threatens the security of employed workers. In this framework it does not matter whether or not that unemployment is frictional, due to search costs, technological or cyclical in nature: it can always play the role of a reserve army. On the other hand, $U^*$ represents that rate of unemployment where the balance of power shifts in favor of the workers (as unemployment falls) or in favor of the capitalists (as it rises).

In the conflict theory, inflation is caused by a conflict over the production and distribution of a constant or shrinking pie. There are other conflicts under capitalism besides the class struggle. Conflicts exist among races and between the sexes; capitalists are always competing over the distribution of the surplus; environmentalists and consumers attack the abuses of the system. These conflicts must not be forgotten in the theory of inflation. For simplicity, however, we will concentrate on the role of class struggle in the inflationary process.

One implication of the conflict theory is that it is actually good for the capitalist system that money wages do not instantaneously move to clear labor-power markets. The familiar argument of Keynes (1936) is that flexible money wages could lead to spiraling deflation in slumps, without promising recovery. (In the model of the last chapter, the result can be the underconsumption trap.) The present analysis suggests that in addition if labor-power markets actually cleared, it would strengthen labor's position and possibly squeeze profits.

We have justified the first term of equation (1). The second term ($\omega$) represents the trend in workers' money wages. Since $\omega = 0$, this
also is a trend in real wages. This can be seen as a result of the
trend in workers' needs (discussed in section 3.2). Since \( \bar{u} = \bar{q} \) is
assumed, we are assuming that needs are increasing with trend produc-
tivity. Whatever its economic interpretation, this is an arbitrary
assumption that implies that there is no exogenous basis for accelerating
inflation or profit squeezes, or deflation for that matter.

The last term of (1) requires examination. It suggests that money
wages will rise as inflationary expectations rise, since workers will
want to protect their standard of living. (If \( \bar{p} \) is negative, this
term seems nonsensical because it is less likely that they will want to
cut wages when deflation is expected.) The usual argument here concerns
the value of \( F \), the importance of which is shown by equations (6). Is
it unity (or larger)? Are workers able to push up wages to compensate
for all inflation expected? If \( F \geq 1 \), we have an "accelerationalist"
story: the rate of inflation will accelerate without end if \( U < U^* \)
and decelerate without end if \( U > U^* \). It is unlikely that the value of
\( F \) is independent of the workers' bargaining power, however, since the
mere wish to increase wages in response to expected inflation does not
imply that workers will be able to do so. Capitalists will resist money
wage increases since they cut into profits.

It is sometimes argued that capitalists are more willing to make
concessions when they expect inflation. But this is unlikely since to
do so decreases profits. Since all capitalists act similarly in this
situation, no individual capitalist need worry about others bidding away
his workers. It is a general fall in the unemployment rate that induces
such competition. In conclusion, it is unlikely that inflationary
expectations play a role in the wage-Phillips curve, except in a way that
is dependent on bargaining power.

We should use an alternative specification of the wage Phillips curve to incorporate the role of class conflict. The difference between the shorter- and longer-term versions (the acceleration of wage inflation) represents not the adjustment of expectations as much as the increased ability of workers to keep up with expected inflation as the unemployment rate stays low. They gain bargaining power as their personal savings and union strike funds accumulate and as there are fewer potential strike-breakers and replacements lined up in front of the workplace door. A low level of unemployment means that workers are more able to attain part-time jobs while on strike or when locked out. Before the conflict, the availability of part-time jobs (and over-time) allows workers to accumulate resources. Restate (1) as

\[ \bar{w} = w(U^+) + \bar{w}, \quad (w^* < 0; w(U^*) = 0) \]  

(7)

where \( U^+ \) is a weighted sum of present and past rates of unemployment, for example, following a geometrically-declining (Koyck) lag structure:

\[ U^+ = (1 - \delta_0)(U + \delta_0 U_{-1} + \delta_0^2 U_{-2} + \ldots + \delta_0^t U_{-t} + \ldots) \]  

(8)

where \( 0 < \delta_0 < 1 \). \( U^+ = U \) when \( U = U_{-t} \) for all \( t \).

This formulation produces accelerating inflation rates when \( U < U^* \) for any long time. It is distinguished from the neoclassical model by the limits on the acceleration. Also, the imbalance in the system is different from that in the neoclassical theory. Rather than a recession "ridding the economy of inflationary expectations," it represents an attack on the bargaining power of the working class.

The ability of the working class to push for higher money wages
might also be measured by the size of workers' individual saving (or debt) and union strike funds, plus a measure of the degree of unionization and strikes. These measures can be approximated by $U^+$ to the extent that they are determined endogenously. But they, too, are of limited use because they miss the qualitative aspects of working class power. For example, a unionization measure misses the extent to which unions are bureaucratized or co-opted. Boddy and Crotty (1975) suggest that a further term should be added to equations such as (7'), the rate of change on the unemployment rate. A rising unemployment rate discourages worker struggle, even if the rate of unemployment is low.

Since our purpose here is more theoretical than to specify equations for econometric estimation, this complication will be left out to simplify exposition.

We can reintroduce the role of subjective expectations into the formulation of (7). This should be done in a way that indicates the dependence of workers' ability to realize expectations on their bargaining power. For example,

$$\hat{\pi} = \dot{\pi}(U^+) + \ddot{\pi} + F(U^+) \dot{p} \quad (F \geq 0; F' < 0)$$

(7')

In this variant, there is a greater tendency toward wage inflation acceleration than in (7). In the following discussion, however, we will utilize (7) for simplicity's sake. But it is good to keep (7') in mind.

In a bargaining-power model of inflation, we also want to take into account the role of power on productivity. Thus, we replace (3) with an equation which has full capacity productivity as a function of $U^+$:

$$\Delta \ln = - \ddot{q} - q(U^+) \quad (q' > 0; q(U^+) = 0)$$

(9)
As the (weighted) unemployment rate falls capitalists' ability to extract labor from the labor-power is hypothesized to decrease. Another reason for this phenomenon is that at low rates of unemployment, capitalists have no choice but to employ "marginal" workers and machines. Or alternatively, capitalists may over-employ labor-power in the expansion, just as they are hypothesized to over-invest in fixed capital. (Because of the costs of hiring and firing, the employment decision can be analogous to the investment decision.) None of these three reasons contradict the others; all can be true. One indication of the validity of equation (9) is that R.J. Gordon (1979) finds that productivity growth slowed at the end of the economic expansion of all but one of the post-World War II U.S. business cycles.

In recent years, arguments have arisen over the form of equation (5), the expectations-determination equation. Some argue that the theory of adaptive expectations should be replaced by that of rational expectations. This theory can be stated in its reduced form as

\[
\frac{p_t}{p_{t-1}} = \phi + u
\]

(5r)

where \( u \) is random error and the expected value of \( u \) equals zero. To use Professor Hansen's phrase, the theory of rational expectations is one of "stochastic perfect foresight." But this theory is not relevant to our argument. In addition to one's doubts concerning the realism of this theory, it has little to say about the ability of workers to realize their expectations (which is measured by the function \( p \)). Also, although this theory makes the longest run come sooner rather than later, all that is necessary to the argument of this chapter is that the wage Phillips curve not be vertical in the shorter term.
The key assumption in the standard Phillips curve theory is that of a constant mark-up. For Nordhaus (1974b), this assumption allows a leap of faith from the wage- to the price-Phillips curve (after adjusting for productivity change) and is the basis for his theory of the political business cycle which excludes the possibility of class conflict playing a role. For Santamero and Seater (1978), this assumption is implicit since they equate wage- and price-inflation. Weintraub states the implications of this theory most clearly: if the mark-up is constant, unions' struggles are "misplaced" since any push for higher wages simply leads to higher prices. A successful strike represents only a redistribution of the aggregate wage bill among workers. (1978, p. 110-111.)

Just as with more purely neoclassical theory, there is no possibility of a full employment profit squeeze.

Because the constant mark-up theory is so popular and so contrary to the spirit of this dissertation, it should be examined in depth. We argue that the "mark-up" (or m or m') is not constant in the shorter term. And rather than attempting to keep the mark-up constant, capitalists are much more concerned with the rate of profit. On the first point, it is true that Weintraub and others who point to the inability of workers to change the aggregate distribution of income in their class's favor are in broad agreement with Marxists such as Lenin and Luxemburg who saw trade unionism as insufficient to change the rules of the capitalist game. But these Marxists differ from Weintraub in that they posit the ability of workers to gain in the short term. For them, trade unions were essentially defensive institutions that could, on occasion, cut into the profit rate, but were ultimately dependent on the laws of capitalist accumulation. Finally, and most fundamentally, they
did not see these laws as being embodied in a natural or technological constant, but as resulting from the capitalist control over the accumulation process. Which prediction concerning changes in the mark-up is right, the constant mark-up theory or the Marxist view?

The data do not show a constant mark-up. Weintraub's own data (1978, p. 47) show both fluctuations and a downward trend (for the period 1929 to 1975). Godley and Nordhaus (1972) show that the hypothesis that prices are set by a constant mark-up over "normal" unit costs explains most aggregate price behavior in Britain since World War II. But this research does not imply that wages (or other costs) cannot squeeze profits: if wages rise above, or productivity falls below, the normal values, profits will be squeezed. And, as with Weintraub's data, there is a downward trend in the mark-up. Third, R.J. Gordon (1975) shows that for the post-World War II U.S. changes in aggregate demand can change mark-ups. Finally, Kahn (1980) shows that for the U.S. after World War II, real wages fall relative to the trend as unemployment rises.

This result is contrary not only to the usual prediction of the search theory of unemployment (as Kahn argues) but also the prediction of the constant mark-up theory. The former predicts that real wages rise in a recession while the latter predicts that they should be constant (if relative prices do not change radically).

Kahn's study replicates the observations of Boddy and Crotty (1975) and Weisskopf (1979) concerning cyclical fluctuations of the profit margin. This sort of evidence does not verify a conflict model of profit squeezes, however, unless there is evidence that conflict actually occurred. Ashenfelter and Johnson (1969) and Flaherty (1980, ch. 3) show that the number of strikes falls as the unemployment rate rises.
Flaherty also shows that this result applies to intracontractual (roughly, wildcat) strikes. (These results do not, however, apply in the case of short (one to three day) intracontractual strikes. This may be because of the low cost of these strikes to the workers.) The negative relationship between strikes and unemployment may depend on specifically U.S. institutions, however. It is possible to imagine that if the U.S. labor movement were organized in more powerful and politically-conscious unions, strikes against high unemployment rates might occur. In this case, the conflict theory of inflation would have to be modified.

The constant mark-up theory is also deficient on the theoretical level. It is akin to the view of some classical economists (for example, Proudhon) that profits are created by "adding on" to costs. This implicitly assumes that in the aggregate, profits are created in the sale of commodities. But profits must be first created in the production process by workers. Then, after they have been created, they are realised in the sale of commodities. Assume initially that the product is fully realized, that all that has been produced can be sold. Each capitalist may wish to set his price using a constant mark-up, but if not enough surplus value (and real surplus) is produced to be distributed to the capitalists according to these constant mark-ups, either these mark-ups will not be seen ex post or there will be inflation. Mark-up pricing can lead to the redistribution of surplus among the various capitalists, but it cannot create real profits at the aggregate level.

The determination of the mark-up should be seen more in terms of the operations of the capitalist mode of production. The actual mark-up seen ex post is determined by the aggregate relation between real wages
(or w') and productivity, which in turn is determined by class conflict within the process of capitalist accumulation. Capitalist competition plays a role here by helping to determine how the different components of surplus value are priced. (This is the famous transformation problem; see note 66 in section 3.1.) This pricing helps determine the magnitude of the aggregate surplus. The ratio between the aggregate surplus and aggregate costs determines the ex post mark-up. In sum, the theory of the constant mark-up does not distinguish between ex ante individual capitalist intentions and ex post aggregate results, reducing the latter to the former (just as with most of the theories of investment surveyed in section 4.1).

The constant mark-up theory makes the most sense as a description of ex ante pricing policies, for example, as a rule of thumb for making decisions under uncertainty. These are most likely to correspond to ex post aggregate results when the economy is operating at less than full capacity. This, in fact, seems the basis of the post-Keynesians' theory of the constant mark-up. At less than full capacity (where not all of the product is realized) capitalists can vary mark-ups because there is room for adjustment of aggregate demand: the amount of surplus produced relative to costs can increase with the mark-up (if aggregate demand increases with it) because increases in capacity utilization imply greater productivity. (We are assuming that the economy is not in the underconsumption trap.)

There have been several forays by post-Keynesian economists (Eichner and Kregel, 1975; Wood, 1973; Kenyon, 1979) to derive theories concerning the determination of the mark-up. These theories do not, however, indicate that the mark-up should be constant (except, perhaps,
in the long term). In these theories, the mark-up is set by the capitalists' need for internal funds for investment, subject to various constraints (market structure, fear of government intervention, and so on). This theory assumes that individual corporation's investments are primarily self-financed. But as Tarshis (1980, p. 11) points out, even though the corporations in the aggregate are self-financing (or almost so), in 1978 the average nonfinancial corporation relied on external finance for at least 55 percent of its investment outlays. This undermines much of the post-Keynesian logic: it seems that corporations would be unlikely to jack up mark-ups to accrue internal funds if that would spoil current sales. Second, an additional constraint on the mark-up must be added. At high levels of employment, conditions in the labor-power market constrain the share of surplus in net national product.

There is a third problem with the constant mark-up theory. If mark-ups are the same across industries, then the mix of output is unimportant in the determination of the aggregate average mark-up. But this implies that the rate of profit will differ across industries since capital intensity differs among industries. This seems a possible result if there is no capital mobility. But there is some mobility. This means that the rate of profit should be partly equalized — and the mark-up should vary. Thus, the aggregate average mark-up will vary with the relative importance of different industries. Since this mix of industries varies with such variables as the general wage rate and the level of composition of aggregate demand, the aggregate average mark-up will be a dependent variable.