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# Incomes policy: Two approaches

*Claudio Sardoni\**

*Post-Keynesians in general, and Geoff Harcourt in particular, have always laid much emphasis on incomes policies, which allow policy-makers to implement expansionary demand-side policies and ensure price stability. Mainstream economics, instead, gives little, if any, relevance to incomes policies. The central bank's monetary policy is the main tool to be used to ensure price stability. In the mainstream approach, price stability is ensured by constraining the economy's level of output and employment below full employment. This can be defined as the mainstream implicit incomes policy.*

*This article argues that policy indications different from the mainstream can be derived. This, in particular, is done by removing the typical hypothesis that, in the short period, productivity is constant and independent of variations of aggregate output. This sort of approach allows for non-inflationary demand expansionary policies, which at the same time can promote the productivity and efficiency of the economy as a whole. This line of analysis is largely influenced by the work of Geoff Harcourt.*

*JEL classifications: E10, E12, E64, O4*

*Keywords: incomes policy; incomes distribution; mainstream macroeconomics; Post Keynesian macroeconomics*

## ***I. Introduction***

Geoff Harcourt is undoubtedly one of the most prominent figures among post-Keynesian economists. In his long and passionate career, started during the 'golden age' of the Cambridge (UK) Keynesian tradition of thought, he has not only produced an impressive amount of

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books and articles on very many topics, but he has also been an inspiring *trait d'union* between the first generation of post-Keynesians (J. Robinson, N. Kaldor, R. Kahn, etc.) and at least three successive generations of younger economists in Australia and Europe.

In the post-Keynesian tradition, Geoff Harcourt has always tried to marry his theoretical concerns with policy and politics. He has never regarded economics as a sort of intellectual game, but rather as a powerful tool to design and propose policy indications to improve the working of the economic and social systems. Incomes policy, in this respect, plays a central role in Harcourt's economics. Geoff Harcourt has repeatedly dealt with this topic both from a theoretical and a policy-oriented viewpoint.<sup>1</sup>

This article is mainly concerned with incomes policy, which, in the post-Keynesian tradition, is seen as able to ensure the effectiveness of expansionary demand-side policies by avoiding, at the same time, the triggering of inflationary processes which are harmful to the economy as a whole.<sup>2</sup> Incomes policies ensure that the growth of demand, output and employment is associated with price stability, by avoiding that the economy's expansionary process gives rise to incompatible claims on the total output by employers and employees.

Instead, mainstream economics does not lay any importance on the role of incomes policy. It is sometimes mentioned as a possible option, but it is never given centre-stage. This is quite a surprising lack of interest for a theoretical approach that gives so much importance to price stability. Price stability is ensured only by the monetary policy implemented by an independent central bank, whose main, if not exclusive, concern is the control of inflation.

This article argues that, however, mainstream economics has, so to speak, an implicit incomes policy. Such a policy is the direct derivation of the central bank's anti-inflationary monetary policy.<sup>3</sup> The significant implication of this approach is that price stability must be obtained by constraining the economy's capability to generate more output and employment. Higher levels of output and employment are seen as unsustainable from the point of view of price stability.

Analytically, the mainstream policy of price stability is essentially derived from the notion of an equilibrium rate of unemployment (NAIRU or natural rate of unemployment). In the medium term, demand-side policies cannot be used to bring the economy away from its NAIRU. Fiscal and, above all, monetary policies can be effectively implemented in the short term to help the economy return to its NAIRU, but in the longer term only supply-side policies are able to modify permanently the equilibrium rate of unemployment.

1 The selected papers on economic policy contained in Harcourt (2001d) are a good illustration of his constant concern with policy in general and incomes policy in particular. Of particular relevance for incomes policy are Harcourt (2001a, 2001b and 2001c). See also Harcourt (1965).

2 Moreover, incomes policies can also be crucial in avoiding that the economy enters into a deflationary spiral, which is even more harmful and painful than inflation. The paper, however, does not deal with this aspect.

3 As fiscal policy is generally regarded as distorting and too slow to produce appreciable effects, monetary policy has the task of making sure that the economy stays in its inflation-neutral equilibrium, or it comes rapidly back to it if hit by some shock.

The mainstream approach raises several problems and difficulties of differing nature. The article focuses in particular on the problem of the determination and uniqueness of the NAIRU. In standard models, an equilibrium rate of unemployment exists and it is unique. If the uniqueness of the equilibrium unemployment rate is not guaranteed, the policy implications of the model are no longer so straightforward and simple as they are usually assumed to be. In particular, it is no longer necessarily true that demand-side expansionary policies are inflationary in the medium-long term.

Even though the mainstream model is marred by analytical problems, it has certainly been successful among policy-makers and central bankers in particular. The article argues that this success is largely due to the implicit incomes policy contained in the model. Beyond analytics, the message that the model sends is that the economy must not deviate from an equilibrium that is associated with a certain amount of unemployment and a certain distribution of income. In other words, the stability of the economy is incompatible with full employment. The system's stability is realized at an 'underemployment equilibrium', which is the outcome of the working of the market and cannot be altered by 'exogenous' interventions. This reflects the inherent aversion to full employment, which characterizes market economies and was lucidly illustrated by Kalecki (1990).

Once the uniqueness of the NAIRU is questioned and, more specifically, the possibility that the economy's inflation-neutral equilibrium depends on the level of output itself (i.e. the NAIRU is decreasing in the level of output) is considered, the range of possible expansionary policies available to decision-makers widens. Non-inflationary expansionary demand-side policies can be designed and implemented by drawing from the post-Keynesian approach to macroeconomics.

The article is organized as follows. Section 2 is devoted to a brief illustration of the basic mainstream macroeconomic model and Section 3 points to some of the difficulties that this model encounters. Section 4 is devoted to the discussion of the mainstream implicit incomes policy and the inherent aversion to full employment. Finally, Section 5 deals with some possible alternatives along lines mainly inspired by Geoff Harcourt's approach to macroeconomic analysis and policy. Here, it is argued that incomes policies can be designed in such a way to ensure higher rates of growth as well as price stability. Section 6 concludes.

## *2. The NAIRU and the conflict over income distribution*

In mainstream macroeconomics, the relationship between unemployment, wages and inflation is studied by using the notion of a NAIRU (non-accelerating inflation rate of unemployment) or natural rate of unemployment (NRU),<sup>4</sup> in the context of a non-perfectly competitive

4 Some use the two terms as synonyms (Blanchard 1997, Ball/Mankiw 2002), but others point out some differences between NAIRU and NRU (Carlin/Soskice 1990 and 2006). The notion of NAIRU as an equilibrium value is explicitly derived from models of an economy in imperfect competition; whereas the notion of natural rate of unemployment was introduced in the literature as derived from a Walrasian model (Friedman 1968).

economy where firms adopt some form of mark-up pricing and workers, organized in unions, are price-makers as well. The NAIRU is the equilibrium rate of unemployment at which the firms' and workers' claims on total output are compatible with one another.<sup>5</sup> The mainstream concept of the NAIRU is riddled with a number of analytical difficulties, but it contains also an element of truth. For now, we concentrate on this element. Some of the difficulties are considered later on in the next section.

Modern economies are subject to the risk of experiencing inflationary spirals, with their overall negative effects. An inflationary process can be triggered by the distributive conflict between workers and employers. Any analysis of the working of the macroeconomy cannot overlook this aspect and, consequently, it is necessary to develop a model that is able to indicate possible ways to at least reduce the risks of inflationary spirals. From the policy point of view, the model must be able to suggest policies that take into account their possible inflationary effects. This is particularly important for demand-side measures like the traditional fiscal and monetary policies.

The determination of the NAIRU under imperfect competition hinges on the concepts of bargained real wage rate and price-determined real wage rate. The bargained real wage rate is the wage rate that organized workers aim to obtain by bargaining their nominal wage rate with firms at a certain level of unemployment. The price-determined real wage rate derives from the hypothesis that firms set the price by marking up their unit direct cost.<sup>6</sup> Since it is assumed that prices are set after nominal wages are determined through bargaining, the actual real wage rate received by workers is the price-determined real wage rate. In other words, the economy's income distribution is determined by the firms' pricing policy.

The real wage rate that workers aim to obtain ( $w^B$ ) depends on their bargaining power, thanks to which they can determine the nominal wage rate. In turn, the workers' bargaining power is inversely related to the rate of unemployment ( $u$ ). If, for simplicity, we take all the variables in log terms, we can write

$$w^B = \bar{b} - hu \quad , \quad (1)$$

$w^B$  is decreasing in the rate of unemployment.<sup>7</sup>

Organized workers try to achieve their real-wage target by taking account of the expected price level ( $P^e$ ) when they bargain for the nominal wage rate. Therefore, the bargained nominal wage ( $W$ ) is decreasing in the rate of unemployment and increasing in the expected level of prices:

$$W = P^e + w^B \quad . \quad (2)$$

5 Here, as in the basic mainstream model, only workers and employers are considered. The analysis, as well as its policy implications, may be quite different if other social and economic groups are introduced.

6 Which reduces to the unit labor cost if the cost of raw materials is not considered. Moreover, it is often assumed that the unit labor cost is constant.

7  $h$  denotes the reactivity of wages to unemployment and  $\bar{b}$  is a constant.

As to prices, expressed in log terms as well, we have

$$P = \bar{\mu} + W - \lambda \quad (3)$$

( $\bar{\mu}$  is the logarithm of  $(1 + \mu)$ , with the mark up  $\mu$  assumed to be constant, and  $\lambda$  denotes the level of labour productivity).

The rate of change of prices is

$$\dot{P} = \dot{W} - \dot{\lambda} \quad (4)$$

The price-determined real wage rate is

$$w^P = \lambda - \bar{\mu} \quad (5)$$

The rate of change of the nominal wage rate therefore is

$$\dot{W} = \dot{P}^e + \dot{w}^B = \dot{P}^e + \frac{w^B - w_{-1}}{w_{-1}} \quad (6)$$

$\frac{w^B - w_{-1}}{w_{-1}}$  is the rate of change of the bargained real wage rate, with  $w_{-1}$  denoting the real wage rate in the previous period.

For the hypothesis that the real wage rate which workers actually receive is the price-determined real wage rate, it is  $w_{-1} = w^P$ , so that

$$\dot{W} = \dot{P}^e + \frac{w^B - w^P}{w^P} \quad (7)$$

Now it is possible to determine the NAIRU, the unemployment rate at which inflation is constant and firms' and workers' claims on total output are consistent. From (7) and (4), we have

$$\dot{P} = \dot{P}^e + \frac{w^B - w^P}{w^P} - \dot{\lambda} \quad (8)$$

At the NAIRU, it must be  $w^B = \bar{b} - hu$  and therefore it must be

$$\frac{w^B - w^P}{w^P} = \dot{\lambda} \quad (9)$$

Since it is  $w^B = \bar{b} - hu$ , (8) becomes

$$\frac{(\bar{b} - hu) - w^P}{w^P} = \dot{\lambda} \quad (9)$$

which, if it is assumed that labour productivity is constant, reduces to

$$\frac{(\bar{b} - hu) - w^P}{w^P} = 0 \quad (10)$$

(10) can be solved in  $u$ . Its solution,  $u^*$ , is the NAIRU:

$$u^* = \frac{\bar{b} + \bar{\mu} - \lambda}{h} . \quad (11)$$

The NAIRU is a direct function of the markup; an inverse function of labour productivity and of the reactivity of real wages to unemployment ( $h$ ). Under the hypothesis that labour productivity is constant, the NAIRU is unique.

Given a short-period production function, the NAIRU is associated with a certain level of employment and output, which is the equilibrium level of output  $y_e$ .<sup>8</sup> This equilibrium level of output, or natural level of output, is then used to write the three typical equations of the mainstream model in terms of deviations of the actual output from its natural equilibrium.

The three equations are: an IS equation, an expectations-augmented Phillips curve and a monetary rule.

The IS function can be formulated as follows:

$$y - y_e = -a(r - r_e) , \quad (12)$$

where  $y_e$  denotes the equilibrium level of output and  $r_e$  is the real interest rate associated to it. The deviations of the actual output,  $y$  from  $y_e$  depend on the deviations of the actual interest rate from its equilibrium level  $r_e$ .

The second equation is an expectations-augmented Phillips curve:

$$\pi = \pi_{-1} + \alpha(y - y_e) . \quad (13)$$

Expected inflation is set equal to inflation in the previous period,  $\pi_{-1}$ .

The third equation, the monetary rule, is:

$$y - y_e = -b(\pi - \pi^T) , \quad (14)$$

where  $\pi^T$  is the central bank's inflation target. Monetary policies are implemented by the central bank through the setting of the short-term interest rate. Central banks do not implement their policies by controlling the quantity of money, which instead is endogenously determined.

The essential policy implication of the mainstream model is that traditional demand-side policies are ineffective in the medium to long term, that is to say that such policies cannot be used to shift the economy to a level of unemployment lower than its NAIRU. Any attempt at doing so would trigger an inflationary spiral, started by the increase in wages brought about by the workers' increased bargaining power. The central bank will stop the spiral by implementing a restrictive monetary policy and realize its inflation target.

Demand-side policies are effective only in the short term. They can be used to bring the economy back to its natural equilibrium when it is hit by a (positive or negative) shock.

8 For simplicity, it is assumed that total labour force is constant, so that the rate of unemployment is unambiguously decreasing in the level of employment.

The economy's NAIRU can be reduced permanently only through supply-side policies, which mostly aim to reduce the workers' bargaining power.

### 3. *Analytical difficulties in the determination of the NAIRU*

The mainstream approach to macroeconomic analysis and policy meets several conceptual and analytical difficulties, which have been pointed out by many post-Keynesians.<sup>9</sup> Here, we concentrate on the determination of the NAIRU, which is more directly relevant for the problem of incomes policies.

The concept of a NAIRU has been criticized from several differing perspectives. For example, also within the mainstream, many have pointed out that the NAIRU is an unobservable variable, which creates substantial difficulties for empirical analyses and the estimation of the model's equations. Others, within and outside the mainstream, have concentrated on the problem of hysteresis: the equilibrium level of unemployment can be path-dependent, so that it can be hard, if not impossible, for the economy to return to its 'natural' position once it deviates from it because of external shocks or policies. The existence of problems of hysteresis implies that there exist multiple equilibria, i.e. multiple NAIRUs.<sup>10</sup>

Here, we look at the problem of the non-unicity of the NAIRU from a particular perspective, that is to say the possibility that the NAIRU is affected by policy interventions; more precisely, expansionary policy interventions that positively affect labour productivity.

In a closed economy, under the hypothesis that productivity is constant, there exists a unique NAIRU, which is the solution of equation (10) above.<sup>11</sup> If, instead, the productivity changes over time, the NAIRU obviously takes on a different value from that obtained in the equation (10).

If, in equation (9), it is assumed that  $\dot{\lambda} > 0$ , i.e. that productivity changes over time, the NAIRU becomes:

$$u^* = \frac{\bar{b}}{h} - \frac{w^p}{h} (1 + \dot{\lambda}) \quad . \quad (15)$$

The equilibrium rate of unemployment is now decreasing both in the level and the rate of change of productivity. If productivity is dynamic over time, so is the NAIRU. If, for example, productivity is assumed to grow at a rate  $g$ , and all the other relevant assumptions are maintained,<sup>12</sup> the NAIRU will decrease at a rate that is proportional to  $g$ .

9 See, for example, several contributions in Rotheim (1997) and Fontana and Setterfield (2009).

10 For a critical survey of the concepts of natural rate of unemployment and the NAIRU, see, for example, Cross (1995), Wilkinson (1997 and 2000) and Sawyer (2001).

11 In an open economy, the NAIRU depends also on the real exchange rate. If the exchange rate is floating, there exist multiple NAIRUs.

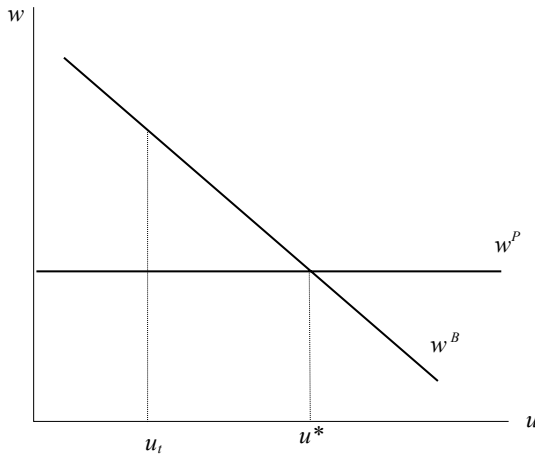
12 In particular, that firms maintain the same policy of a constant mark up and the workers' real-wage function retains its shape and position.



The result above is quite obvious, even though not always mentioned in standard presentations of the model. More interesting are cases in which productivity is assumed to be increasing in the level of aggregate demand and output.<sup>13</sup> In such a case, expansionary demand-side policies are no longer necessarily inflationary. In other words, if it is assumed that the productivity is decreasing in the rate of unemployment, an expansion of demand, which reduces unemployment, does not necessarily imply that the economy moves to the left of its NAIRU and, hence, an inflationary process starts.

Let us suppose that, at  $t$ , the government implements an expansionary fiscal policy. If productivity is constant and independent of output,  $w^P$  remains constant and so does the NAIRU. The expansion of aggregate demand, however, brings the actual unemployment rate to  $u_t < u^*$ , so that the inflationary spiral is triggered by the workers' demand for a higher real wage rate than  $w^B = w^P$ . Graphically, the economy moves to  $u_t$ , where it is  $w_t^B > w_t^P$  (Figure 1).

Figure 1: The effect of an expansionary policy when productivity is constant



If, however, the expansion of aggregate demand determines an increase in productivity, so that  $\lambda_t > \lambda_{t-1}$ , the picture changes. If, for example, the expansion of aggregate demand and output determines an increase of productivity at the rate  $g$  ( $\lambda_t = \lambda_{t-1}(1 + g)$ ), the NAIRU at  $t$  is

$$u_t^* = \frac{\bar{b}}{h} - \frac{w_{t-1}^P}{h}(1 + g) \quad ,$$

<sup>13</sup> In other words, the so-called Verdoorn Law is assumed to hold. For a recent interesting application of the law and some empirical tests of the positive relation between the output and productivity, see Hein and Tarassow (2010).

i.e.

$$u_t^* = u^* - \frac{w_{t-1}^P}{h} g . \quad (16)$$

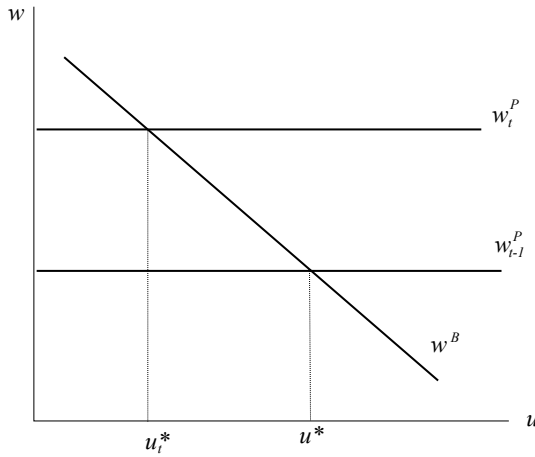
The higher the rate of growth of productivity, the lower the new equilibrium rate of unemployment.

There is, therefore, no inflationary process due to the expansionary policy. The economy does not deviate from its NAIRU. This result evidently depends on the fact that the price-determined real wage rate increases as a consequence of the productivity rise. At  $t$ , the price-determined real wage rate is

$$w_t^P = \lambda_{t-1}(1 + g) - \bar{\mu} = w_{t-1}^P + g\lambda_{t-1} . \quad (17)$$

Graphically, the economy moves to its new equilibrium at  $u_t^* < u^*$  (Figure 2).

*Figure 2: The effect of an expansionary policy when productivity is increasing in output and only workers benefit from the productivity gain*

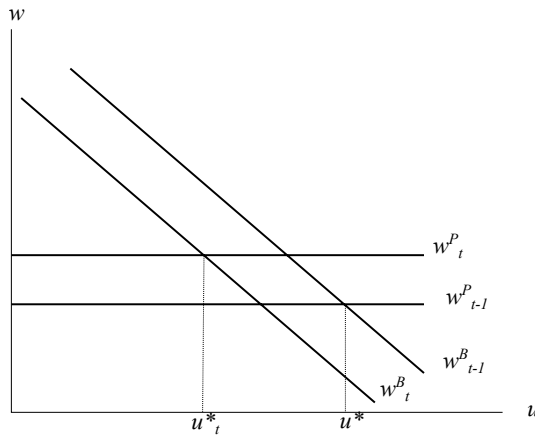


In the example above, the increase in productivity benefits only workers, who obtain a higher real wage rate, while the firms' mark up remains constant; but this need not be necessarily the case. It can be that the productivity gain is shared by workers and employers, so that also the firms' profit margin increases.<sup>14</sup>

Graphically, the economy moves to its NAIRU  $u_t^*$  thanks to a smaller upward shift of  $w^P$  and a shift to the left of  $w^B$  (Figure 3).

<sup>14</sup> For example, it could be  $w_{t-1}^P < \bar{w}_t^P = \lambda_{t-1}(1 + \bar{g}) - \bar{\bar{\mu}} < w_t^P$ , because it is  $\bar{g} < g$  and  $\bar{\bar{\mu}} > \bar{\mu}$ .

*Figure 3: The effect of an expansionary policy when the productivity gain is shared between workers and firms*



The examples above are very simple, but sufficient to point out an important aspect: expansionary demand-side policies are not necessarily inflationary as predicated by the mainstream. More precisely, these examples show that, if productivity is positively related to the level of output, an expansion of aggregate demand has a positive effect on employment and the growth of the economy without triggering inflation. This implication is virtually ignored by the mainstream. Some of the reasons for this are considered in the next section.

#### *4. The implicit mainstream incomes policy*

All, of course, recognize that expansionary policies would not be inflationary if accompanied by measures that are able to reduce the workers' claims on the produced output. In other words, the NAIRU could move to the left if, at a higher (lower) level of employment (unemployment), workers are ready to accept a lower real wage rate than that they previously aspired to. In Figure 1, the NAIRU could move to the left thanks to the shifting to the left of the curve  $w^B$ , so that it intersects the curve  $w^P$  at  $u_t$ . But this simply means that the equilibrium level of unemployment can be reduced only through so-called supply-side policies. In particular, the workers' claims on output can be reduced by rendering the labour market more 'flexible', which ultimately amounts to reducing the workers' bargaining power, while employers retain their market power.

The examples of the previous section, though very simple, show that an alternative is possible. Interventions to raise aggregate demand can produce the conditions for an increase in productivity and, hence, the possibility for higher employment with income distribution that can become more favourable to workers.

The increase in productivity brought about by a higher level of output can be explained by the existence of economies of scale, but one can go further by arguing that expansionary policies should be selected on the grounds of their ability to promote productivity gains. For example, it can be argued that increases in public spending devoted to the creation or expansion of some basic infrastructures are preferable to tax cuts aimed at increasing the demand for consumer goods. Public investment in infrastructures, in fact, is more likely to produce overall increases of the economy's productivity.

Why is it that such simple considerations are so often ignored within mainstream academia and, above all, in the policy debate? Answering this question thoroughly is not easy and it would require entering into issues and topics well beyond the scope of the present article. Some general considerations, however, are in order.

Accepting the basic ›message‹ coming from the mainstream model of the economy means accepting that the economy is ›condemned‹ to live with a level of employment that is below what it could be if the level of output were larger. In other words, the economy cannot afford full employment under the given *status quo* in terms of market power and income distribution. Attempts at changing the situation through policy interventions are discarded as pointless and harmful, unless they are essentially aimed at determining a worsening of the bargaining power of workers. Thus, the social system as a whole must accept the outcomes of the working of markets and bear its cost in term of higher unemployment and lower output.

Kalecki argued that the capitalist opposition to full employment is explained by factors that go well beyond the concern for the dangers of inflation. There are social and political factors that prevent the economy from achieving and maintaining full employment. Kalecki's ideas on the importance of ›non-economic‹ factors are perhaps most clearly set out in his 1943 article, ›Political aspects of full employment‹ (Kalecki 1990), in which he pointed out that even if the economy could generate and maintain a level of investment corresponding to full employment, there are fundamental forces at work that prevent the system from doing so.

Such forces, in brief, consist in the opposition to full employment on the part of the capitalist class as a whole. In particular, the capitalists' opposition derives from ›their dislike of the social and political changes resulting from the maintenance of full employment‹. Other reasons for their opposition are:

- »(i) the dislike of Government interference in the problem of employment as such;
- (ii) the dislike of the direction of Government spending (public investment and subsidising consumption)« (Kalecki 1990: 349–350).<sup>15</sup>

Conditions of full, or near full, employment imply a stronger economic as well as political bargaining power of the working class, which can determine changes in income distribution.<sup>16</sup>

<sup>15</sup> In fact, for Kalecki, full employment could not be realized without state intervention, in particular fiscal policy.

<sup>16</sup> On the analysis of the conflict over income distribution in conditions of non-perfect competition, see Kalecki (1991). See also Harcourt (2006: 145–57) for an exposition of Kalecki's ideas in this respect.

Thus, the opposition to expansionary policies is due to factors that go beyond the concern for inflation. As we saw, the expansion of the economy can be promoted without necessarily putting the inflationary process in motion. From this perspective, therefore, the idea of an independent central bank that is exclusively concerned with inflation does not appear very convincing. In fact, it can be argued that the central bank is one of the system's instruments to keep income distribution in check.<sup>17</sup>

### *5. Some considerations on incomes policy from a post-Keynesian standpoint*

In their simplest form, incomes policies amount to some sort of social agreement on the grounds of which an expansion of demand and employment is not accompanied by an increase in wages, so that firms do not increase prices to maintain their profit margins.<sup>18</sup> Incomes policies can take, for example, the form of a trilateral agreement involving the government, employers and organized workers: The government agrees to implement expansionary policies, contingent on the workers' commitment not to demand for higher wages following the increase in employment and the employers' commitment not to raise prices to increase their profit margins.

Here, it is not possible to enter into a more detailed analysis of incomes policies, which would require also taking into considerations a number of institutional factors. We limit ourselves to some analytical considerations, based on the analysis carried out in the previous sections. If it is assumed that productivity is constant, the incomes policy boils down to a modification of the Phillips curve, i.e. the workers' reaction to changes in the rate of unemployment. If the Phillips curve is written as

$$\pi_t = \pi_t^e - \beta(u_t - u^*)$$

an incomes policy that prevents wages from rising when  $u_t < u^*$  can be expressed by setting  $\beta = 0$ , so that

$$\pi_t = \pi_t^e .$$

In such a case, the inflation rate at  $t$  is equal to the expected rate of inflation, which means that the nominal wage rate increases only if there is a positive expected rate of inflation. The expected rate of inflation, moreover, can be set equal to the central bank's inflation target,  $\pi^T$ , so that

$$\pi_t = \pi^T$$

<sup>17</sup> See Sardonì and Wray (2006) for some considerations on the US Fed's distributive policy.

<sup>18</sup> More in general, incomes policies also aim at ensuring that the negative effects of external shocks are borne by all social parties, rather than each social group trying to transfer the effects of the shock on to the others. Here, we do not consider this aspect.

In this case we have that both the objective of price stability and the objective of higher levels of output and employment can be achieved.<sup>19</sup>

The example above is an unrealistic 'textbook' case of constant productivity over time. If, like in Section 3, the hypothesis of constant productivity is lifted, we can have a non-inflationary increase in output and employment that is accompanied by an increase in the real wage rate. If, for example, in consequence of the expansion of output, productivity increases at a rate  $g > 0$ , the unemployment rate that ensures price stability (the new NAIRU) is

$$u_t^* = u_{t-1}^* - \frac{w_{t-1}^P}{h} g \quad . \quad (18)$$

Under the hypothesis of increasing productivity, incomes policy must ensure that the increase in aggregate demand is accompanied by an increase in the real wage rate that is proportional to the increase in productivity. More precisely, from (17), it must be

$$\frac{w_t^P}{w_{t-1}^P} = 1 + g \frac{\lambda_{t-1}}{w_{t-1}^P} \quad . \quad (19)$$

In other words, the incomes policy needs not necessarily imply that the existing income distribution between employers and employees is left unvaried.

At this stage, however, we need to make some further considerations. It is necessary, in particular, to go beyond a level of analysis that is exclusively concerned with average values, namely with the average level and growth rate of productivity. So far, in fact, we have considered, in each period, a single level of productivity and its rate of change.

If the simplistic hypothesis that productivity and its changes are the same across firms is lifted, the  $\lambda$  and  $\dot{\lambda}$  considered until now must be regarded as the average productivity level and the average rate of change respectively. The average values, obviously, are derived from firms characterized by differing static and dynamic efficiency: there are firms above and below the average.

To keep the analysis simple, we now consider two classes of firms and hypothesize that both their level and rate of change of productivity differ, so that

$$\begin{aligned} \lambda_{t-1} &= a_1 \lambda_{(t-1),1} + a_2 \lambda_{(t-1),2} \\ \lambda_{(t-1),1} &> \lambda_{(t-1),2} \end{aligned} \quad (20)$$

(the subscripts 1 and 2 denote the two groups of firms and  $a_1$  and  $a_2$  are the relative weights of the two groups of firms) and

$$\begin{aligned} \lambda_t &= a_1 \lambda_{(t-1),1} (1 + g_1) + a_2 \lambda_{(t-1),2} (1 + g_2) \\ g_1 &> g_2 \end{aligned} \quad . \quad (21)$$

19 This of course requires that the central bank's inflation target is credible.

Therefore,

$$\begin{aligned}\lambda_t &= \lambda_{t-1}(1+g) \\ g &= a_1g_1 + a_2g_2 \quad ,\end{aligned}\tag{22}$$

where  $g$  is the average of the two growth rates of productivity.

In this situation, if the implemented incomes policy is based on the observation of the average level of productivity and its average rate of change, the rule for the increase in the real wage rate is that expressed by the equation (17). The application of such a rule has important microeconomic implications.

If the economy's real wage rate is allowed to grow at a rate that is proportional to the average rate of change of productivity, it is evident that this implies a redistribution of profits among firms. At  $t$ , the more efficient firms (group 1) would obtain a higher profit margin than at  $(t-1)$ , whereas the less efficient firms of the group 2 would obtain a lower profit margin.

In fact, from (20) and (21), the profit margin in the first group of firms remains constant if it is

$$\frac{w_{t,1}^P}{w_{(t-1),1}^P} = 1 + g_1 \frac{\lambda_{(t-1),1}}{w_{(t-1),1}^P} > 1 + g \frac{\lambda_{t-1}}{w_{t-1}^P} \quad .$$

While the profit margin in the second group of firms remains constant if

$$\frac{w_{t,2}^P}{w_{(t-1),2}^P} = 1 + g_2 \frac{\lambda_{(t-1),2}}{w_{(t-1),2}^P} < 1 + g \frac{\lambda_{t-1}}{w_{t-1}^P} \quad .$$

Thus, apparently, the best income policy to be implemented should be one that allows for different wage dynamics in different classes of firms with different efficiency: higher wage rises where the productivity is higher and growing faster; lower wage rises in the weaker firms. But such a conclusion is highly questionable. Geoff Harcourt, it should be noted, has strongly objected to this sort of incomes policy (see, for example, Harcourt [2001b] and Harcourt [2006: 145–57]).

Drawing from the seminal work of Salter (1966), Harcourt argues that, on the whole, it is preferable that wages are indexed to productivity in the most efficient firms. The rationale of his policy indication is evident. If wages grow at a rate that implies lower profit margins for the less efficient firms, these would tend to exit the market or to scrap their less efficient production techniques in order to raise their productivity and defend their profits. In both cases, the overall level and growth of productivity and efficiency would increase to the benefit of the whole system.

An income policy with these characteristics is concerned with growth *and* price stability. On the contrary, policies that allow for differing wage dynamics to preserve the profitability of the less efficient firms would contribute to constraining the overall dynamics

of productivity.<sup>20</sup> Therefore, incomes policies should not necessarily always be concerned with the maintenance of profit margins and the existing income distribution. The economy's overall interest could be to allow less efficient firms to exit from the market or to force them to make new investment to raise their efficiency.

Similar considerations were made by Sylos Labini (1967) in considering the optimal rate of growth of wages. Sylos Labini observes that the optimal wage rate growth is not necessarily equal to the rate of growth of productivity.<sup>21</sup> In particular, he points out that, in situations characterized by low productivity and low growth of the output, wages increasing faster than productivity would have positive effects because they can stimulate more productive investment projects to recover the firms' profitability.<sup>22</sup>

## 6. *Summary and conclusions*

The incomes policies outlined in the previous section are able to guarantee price stability together with growth and an equitable income distribution. Such policies are not based on the application of simple rules; they call for a certain degree of flexibility, i.e. the ability to tailor policy interventions that take account of the economy's overall structure and situation at a certain time. These policies, therefore, require a reasonable knowledge of the 'model' of the economy by policy-makers.

These policies, it is argued, are preferable to the mainstream policies concerned only with price stability, which are ultimately concerned only with the defence of profit margins from 'excessive' workers' claims. At the same time, such policies are little, if at all, concerned with excessive profits.<sup>23</sup> In fact, an important factor at the roots of the current crisis can be found in the unregulated changes in income distribution in favour of profits, which in turn has pushed the economy to increasing levels of indebtedness in order to maintain sufficiently high levels of aggregate demand. Different approaches to incomes policy, concerned with a more equitable distribution of income, could have prevented the current explosive outcomes.

Incomes policies inspired by the principles outlined in this article are not currently very popular with the mainstream and among policy-makers. Those who see their approach to economics and policy as alternative to the dominant paradigm should therefore engage in the attempt to orient the profession and politicians toward a more favourable attitude

20 Harcourt (2006: 152) points out that supply-side policies that make labour markets more flexible produce the same negative results in terms of a slack productivity growth. Low wages allow less efficient firms/sectors to survive and, thus, they constrain the growth of the economy's productivity.

21 Which, in this case, is assumed to grow uniformly through firms.

22 Moreover, investment would also be stimulated by the larger demand for consumer goods generated by an income distribution more favourable to workers, with a higher marginal propensity to consume.

23 On this aspect, see Tarling and Wilkinson (1977).



to policies that are not only more equitable but also more efficient in terms of growth than those currently carried out in most countries.

The development of such policies requires, of course, going beyond the basic analytical framework adopted in the present article. More specifically it is necessary, on the one hand, to look at past experiences. Incomes policies have been implemented in several countries in the past, but they have encountered significant difficulties and have been dismissed.<sup>24</sup> The reasons of these difficulties and failures must be considered in order to try to promote more successful policies in the future.

On the other hand, it is necessary to carry out the analysis of inflation and incomes policies by taking explicit account of the high degree of openness of contemporary economies. The openness of the economy is relevant in several respects. First, the exchange rate affects significantly the NAIRU because the real wage relevant for workers depends also on the price of imported consumer goods. Second, the dynamics of domestic prices can be significantly affected by the dynamics of the price of imported raw materials. Third, at a more general level, in the context of highly integrated economies, the inherent capitalist aversion to full employment can manifest itself also in the form of capital movements and decentralization of production. Capital and investments are directed towards more 'favourable' destinations in terms of wages, working conditions, etc.

Such developments can be carried out by using, at least to a certain extent, the same mainstream analytical tools, as in the present article, but most of all by drawing inspiration from economists like Geoff Harcourt.

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24 Tarling and Wilkinson (1977) provide an insightful account of incomes policies and their failure in Britain in the second half of the 20th century.

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