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Paper by invitation

# Moving from Inflation Targeting to Prices and Incomes Policy

Summary: This paper focuses on the future of economic policies with regard to inflation. The dominant approach to inflation over the past two decades or so has been inflation targeting. The global environment of the decade circa 1995 to 2005 with the "China effect" pushing down prices of manufactured goods and with primary commodity prices being subdued was conducive to low inflation. It is argued that inflation targeting has not been a great success story and is unable to address inflation arising from global forces or from struggles over the distribution of income. It is argued that a more sophisticated analysis than that contained in the Phillips curve is required. Further, and from our analysis, counter inflation policies should include the achievement of an inflation barrier consistent with full employment without inflationary pressures. This can be addressed by ensuring that there is sufficient productive capacity to underpin full employment, where sufficient is to be interpreted in terms of quantity, quality and geographical distribution. Further, we argue that this should be complemented by some form of incomes policy, to enable inflation to be contained without resorting to demand deflation.

**Key words:** Inflation targeting, Inflation barrier, Incomes policy.

JEL: E31, E52, E64.

In the 15 years or so prior to the financial crisis of 2007-2009 and the associated "great recession", inflation had appeared to be rather low, notably by comparison with the preceding three decades. In 2008, consumer prices were 3 to 4 percent higher than a year earlier in the euro area, USA and UK (and inflation on a monthly basis peaked at a higher rate). After a fall in 2009 under the impact of the global recession and its impact on commodity prices, inflation picked up again and was again above target in 2011 and 2012. These rises in inflation may be seen as something of a break with the preceding 15 years or so. The lower and less variable rate of inflation was seen as part of a "great moderation" (in the phrase of Ben Bernanke), or a Non Inflationary Continuously Expansionary (NICE in the phrase of Mervyn King) period. Many academics and policy makers have claimed that this "great moderation" was a triumph of the "new consensus in macroeconomics" framework with explicit or implicit inflation targeting conducted by independent central banks. The financial crisis threw out any notions of "great moderation" and generated many doubts on the validity of the inflation targeting regime. We have argued that financial stability should replace inflation targeting as the central objective for central banks in their policy making and decisions (Philip Arestis and Malcolm Sawyer 2008a, 2012). The focus in this paper relates to policies for inflation. It is argued below that inflation targeting is problematic and ineffectual. Indeed, the relatively low inflation of early 1990s to mid 2000s is ascribed to the impact on prices of the entry of China and other low cost producers into the global markets for industrialised products and the general absence of rapid commodity price rises (until the middle 2000s). This paper is based on the idea that inflation is likely to be more of a policy issue in the future than it has been in the recent past as the factors, which helped generate the low inflation of early 1990s to mid 2000s no longer operate. Further, the policy regime of inflation targeting is unable to address the problem of inflation particularly when it is of the supply-push form. But even in the case of demand-pull inflation, the inflation targeting framework does not work as proponents assume it does.

Our approach is to view inflation as multi-causal and the sources of inflationary pressure varying over time and economy (Arestis and Sawyer 2005, 2008a). We seek to explore alternative policies to address inflation including the role of incomes policy. To the extent also that the range of factors, which impact on the rate of inflation, include factors such as struggle over income shares, the level and rate of change of the level of aggregate demand and cost-push factors emanating notably from the foreign sector (change in import prices and the exchange rate), then a range of policies may be required to address the different sources of inflation. A rather relaxed view of inflation is taken when it is in the range of less than 10 percent as we do not share the "accelerationist" fears of a tendency of inflation to accelerate (if the economy in question operates beyond the non-accelerating inflation rate of unemployment). Further our reading of empirical evidence suggests that growth and inflation may be positively rather than negatively related when inflation is below 10 percent (see, for example, Ross Levine and David Renelt 1992; Stanley Fischer 1993; Michael Bruno and William Easterly 1996; Atish Ghosh and Steven Phillips 1998; Moshin Khan and Abdelhak Senhadji 2001; Roger Ferguson 2005).

The lower inflation (here measured by GDP deflator) in the decade 1996 to 2006 as compared with the previous decade is clearly evident from the data in Table 1, and the relatively small range within which inflation moved. The figures for commodity prices indicate a general low rate of increase – and most of the increase in the price of oil occurred in 2005 and 2006. These statistics and many others form the basis of the claims for a moderation in inflation and the triumph of inflation targeting.

In this paper we begin by indicating that the relatively low inflation experience of the mid 1990s to mid 2000s should not be regarded as evidence of the success of the inflation targeting policies pursued over that period. Indeed we argue that inflation targeting has largely failed (Section 1). Inflation targeting was closely linked with a demand approach (exemplified in the Phillips curve) to inflation. We argue that the Phillips curve provides a rather simplistic approach to inflation and a more sophisticated approach is required, which is sketched in Section 2. This approach yields what we term an inflation barrier or Constant Inflation Level of Output (CILO); and the nature of that inflation barrier occupies Section 3. Section 4 considers the roles of expectations and experience in the inflationary process. Section 5 brings the previous discussion together to consider what role there would be for incomes policy. Finally, Section 6 summarises and concludes.

## 1. The End of Inflation Targeting?

Alongside claims of a "great moderation" and the dominance of the "new consensus in macroeconomics", it was often claimed that inflation targeting was able to provide a nominal anchor for the economy (see, for example, Marvin Goodfriend and Robert King 1997; Richard Clarida, Jordi Galí, and Mark Gertler 1999; Goodfriend and Bennet McCallum 2006).<sup>1</sup>

There had been other policies designed to provide nominal stability, notably control of the money supply and fixed exchange rates that had not been successes at all; inflation targeting appeared to have delivered. But the experience since 2009, with inflation significantly well above target levels in most cases, raises questions about the potency of inflation targeting in the face of cost-push inflation linked with global rises in food and oil prices. Inflation targeting can only address demand inflation, since it operates through manipulating interest rates to influence demand, which in turn is postulated to influence inflation. It also seeks to anchor expectations on inflation, such that experiences of upsurge of inflation deemed to be temporary do not feed into inflation via expectations on inflation.

In Arestis and Sawyer (2008b), we cast doubt on the effectiveness of inflation targeting along five lines of argument.

The first draws on comparisons in inflation performance between countries adopting inflation-targeting and those which did not, and argue that the differences between the two groups of countries with respect to inflation performance appears small. Further, inflation targeting was often introduced after inflation had been reduced and may serve as a mechanism of seeking to lock in low inflation through expectations (see also Alvaro Angeriz and Arestis 2007a, 2007b, 2008, 2009, 2011; Angeriz, Arestis, and John McCombie 2008). Ferguson, then Vice Chairman of the Board of Governors of the Federal Reserve System, argues that unfortunately, the empirical evidence for industrial countries available to date generally appears insufficient to assess the success of the inflation-targeting approach with confidence. For example, it is unclear whether the announcement of quantitative inflation targets lessens the short-run trade-off between employment and inflation and whether it helps anchor inflation expectations. In addition, some research, controlling for other factors, fails to isolate the benefits of an inflation target with respect to the level of inflation or its volatility over time, and output does not seem to fluctuate more stably around its potential for countries that have adopted numerical targets (Ferguson 2005, p. 297). Michael Dueker and Andreas Fischer (2006, p. 448) reach a similar conclusion when they state that "on the heels of a decade of low global inflation, it has been hard to argue that formal inflation targets have led to any divergence between targeters and non-targeters in terms of inflation performance".

Second, variations in the policy interest rate appear to have rather little effect on the inflation rate, though rather more on the level of output. The evidence for this is typically obtained from econometric estimation results undertaken within central banks or by researchers closely associated with them. A consensus result has been

<sup>&</sup>lt;sup>1</sup> For an extensive theoretical treatment see Michael Woodford (2003, 2009), Wendy Carlin and David Soskice (2005, 2006).

that 1.0 percent hike in the policy interest rate leads to a significant drop in output, but reduces inflation by only 0.1 to 0.2 percent (Arestis and Sawyer 2004, 2006). Charles Goodhart (2005, p. 169), drawing on his experience on the Monetary Policy Committee and the work undertaken within the Bank of England, comments that "unless the shocks hitting the system were really quite small, the extent of policyinduced demand management, even if perfectly calibrated, could not be responsible for the achievement of the stability and successful growth that we have enjoyed". In the estimations of the effects of interest rate changes, it is generally the case that the interest rate change is applied for a year and then interest rates return to their previous level. This may reflect the nature of the models employed, which are generally within the framework of the "new consensus macroeconomics" in which there is a notion of an equilibrium "natural rate of interest", and prolonged departures of the actual rate of interest from, this "natural rate" within the model would eventually cause the model to explode. It is also the case that in these models inflation is tied down by expectations and with assumptions of some form of forward-looking "rational expectations" and of the inflation target being met. This does point to the notion, though, that the success or otherwise of monetary policy with respect to inflation comes not from variations in the policy interest rate but through the generation of low inflationary expectations; specifically, that expectations are "locked down" even in the face of changes in actual inflation.

Third, inflation targeting involves a form of ultrafine-tuning, in the sense that central banks (such as the Bank of England) make decisions on the policy interest rate on a frequent basis (monthly in this case) but target inflation up to two years ahead. It is implicitly assumed that relatively small changes in the perception of inflation can be addressed by small changes in the policy instrument, and that issues of instability through lags in the system can be ignored.

Fourth, there is no strong theoretical link that runs from the interest rate to economic activity to inflation. It first assumed that a change in the nominal policy interest rate leads to changes in the full spectrum of other interest rates, and that these changes in nominal rates induce a corresponding change in the real interest rates with inflationary expectations remaining unchanged. The change in the real interest rate influences the output gap, which in turn influences the inflation rate (for which the empirical evidence, as cited above, is weak). To the extent that the central bank is credible, expectations of inflation would also change, so that the change in the nominal interest rate would hit the target inflation rate set by the central bank. The Phillips curve is assumed to be vertical in the long run so that a change in the interest rate can only affect inflation. No impact of the interest rate on real economic variables is evident in the long run (Woodford 2003). Sawyer (2009) examines a number of the proposed links outlined above. He notes that inflation is a rate of change (of prices) while in contrast, economic activity and the rate of interest are generally treated in terms of their levels. In economic theorising, it is usual to relate the level of a variable with the levels of other variables, and specifically the level of the rate of interest with the level of prices (as initially postulated by Knut Wicksell 1898), and the level of demand (or level of economic activity) with the level of prices. For example, theories of price behaviour by firms focus on the determination of the price-cost margin,

and this margin and costs themselves may vary with the level of demand (but not with the rate of change of demand).

A higher level of demand may lead to higher prices, but that does not mean higher inflation, i.e. persistently rising prices. There are two situations where higher prices could lead to inflation. First, if there is inflation in the period when higher prices occur, and if expectations of inflation jump into line with the experience of inflation, then the initially higher price could initiate inflation (in the sense of persistently rising prices). Second, wages also come into the picture, and if higher output and employment mean higher prices and higher wages, the increase in the wage/price ratio cannot occur. In effect, a wage-price spiral is set off. It is, therefore, doubtful whether monetary policy is an effective means to control inflation - with the exception of the argument that having a central bank with an inflation mandate somehow convinces people that inflation will be low, as a result of which it is.

Fifth, as Arestis (2009) argues, there is a serious problem with the long-run, real natural interest rate, assumed to be known by the central bank and important in the process of inflation-targeting monetary policy. Even if such a notion exists its value is not known with any certainty (and its value would likely vary over time). This raises the potentially serious problem that the central bank would likely be making mistakes in setting the interest rate to hit its inflation target. The discrepancy between the actual and equilibrium interest rates has been termed the "real interest rate gap" and can be used to evaluate monetary policy stance. The precise value of the natural interest rate cannot be known with certainty despite enormous econometric work and as Axel Weber, Wolfgang Lemke, and Andreas Worms (2008) demonstrate it is highly uncertain. Furthermore, the estimates of the "natural rate" are generally related to actual experience of interest rates, with postulates of some relationship between actual and natural rates of interest. It is also the case that the concept of "natural rate" of interest relates to a non-monetary economy and is specific to a model of the economy, which may or may not correspond to the economy in which we live.

The general conclusion which we draw is that inflation targeting is not well grounded on either theoretical or empirical grounds. As suggested above, the low inflation era of the decade or so starting in the early to mid 1990s, which many ascribed to the implementation of inflation targeting, should be ascribed to other factors. The latter include the global environment of stable or falling commodity prices and the downward pressures on industrial products exerted by the expansion of China and others into the global markets.

## 2. The Nature of the Inflationary Process

The term Phillips curve is used to signify any single equation approach in which rate of change of prices (or wages) is a function of a measure of the level of demand and expected rate of change of prices where the belief is that the coefficient on the latter variable is unity. As such it presents an essentially simplistic view of inflation with a demand push approach with incorporation of the role of expectations. It is remarkable for what is omitted from the Philips curve. There is a lack of interplay between different prices, for example any wage-price-wage spiral or where wages respond to prices and *vice versa*. There is an absence of a relationship between level of prices

and level of costs (in terms of mark-up of prices over costs) or between wages and prices (in terms of target real wage or bargaining over real wages), and no explicit mechanisms by which the price:wage ratio reverts back to some underlying value. The Philips curve has also been an essentially closed economy model in which commodity prices, global inflation play no role. These features are well illustrated by the new Keynesian Phillips curve in which prices rise because other prices are expected to rise, with no mention of wages, imported material costs etc. Real marginal costs enter to be substituted away for output.

Our view of the inflationary process is multi-dimensional. Arestis and Sawyer (2005), Sawyer (2002) and others, set out models of the inflationary process from what we term a structuralist perspective. The essence of that approach is reflected in Figure 1 where the p-curve represents the relationship between ratio of price level to wage level and output based on pricing decisions of firms, and the w-curve the relationship based on wage determination. The latter could be thought of as derived from a wage curve relationship between real wages and employment transferred into the price/wage ratio and output space (David Blanchflower and Andrew Oswald 1994). The p-curve would shift with, inter alia, differences in the profit margins that firms can achieve, changes in price of imported materials, and from investment in capital equipment, which enhances the capital stock. The w-curve would shift with, inter alia, changes in bargaining strength of workers and employers.

The inequalities in Figure 1 indicate our perceptions of how price changes and wage changes would relate from the perspective of price determination (the upper inequality) and wage determination (the lower inequality) where variable followed by ^ signifies rate of change of variable concerned. As can then be seen if the economy were operating in zone A, there would be something of a wage-price spiral. The output level Q\* in Figure 1 can be described as a constant inflation level of output (CILO) as the term. Some notable features of this approach are:

i. The CILO can be seen as akin to an inflation barrier though whether inflation tends to rise when output is beyond the CILO depends on the distribution of income. The CILO varies over time as investment occurs and the capital stock and productive capacity change. There is no presumption that CILO is a desirable or optimal level of output, nor is there any presumption that it corresponds to an acceptable level of unemployment.

ii. There would be an element of demand inflation in the sense that output higher than CILO may involve rising inflation. However, this demand inflation comes from a conflict over the distribution of income – the p-curve (representing claims for profits) and the w-curve (claims for wages) have different perceptions of the "right" price/wage ratio, and there is a clear conflict. If one side were unable to press their claims, there would not be inflationary pressures. For example, if workers were ineffective in pressing wage claims, then the w-curve would have no practical effect. The result of output higher than CILO would lead to higher prices relative to wages, but not to rising inflation.<sup>2</sup>

iii. The effects of global price rises (or indeed falls) can be represented by a shift in the p-curve. This may lead to what is in effect a fall in real wages, and how

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<sup>&</sup>lt;sup>2</sup> The p-curve could slope downwards in the presence of declining costs.

far such a global price rise is inflationary (in the sense of a continuous rise in prices) depends on the responses of wages and domestic prices to those global price increases and the degree to which rising prices become further embedded in the economy.

When inflation is viewed as multidimensional, the policy implications are not as straightforward or as simple as say the monetarist view of inflation with its single cause of inflation and simple policy recommendation would suggest. Further, the predominant inflationary mechanisms change over time and depend on institutional and other factors. Inflation is generally defined as a continuous rise in the price level, rather than a one-off rise in the price level. But inflation in time period t is measured as  $\log p(t) - \log p(t-1)$ , and in observing the price level p(t) during period t it could be viewed in terms of the price level or the rate of inflation in that period. The significance of this distinction arises when expectations and perceptions for the following period are brought into play. Are those expectations and perceptions based on the price level or the rate of change of prices (or indeed the second derivative of prices with respect to time)? When expectations are "locked in", are those expectations relating to the price level or to the rate of change of prices. The "new consensus in macroeconomics" model has focused on the relationship between the rate of inflation and the rate of interest in what is often described as Wicksellian framework, but the original Wicksell approach related the price level with the rate of interest (for further discussion see Sawyer 2009).

#### 3. On the Inflation Barrier

The approach taken here is that there is in most, if not all, economies an inflation barrier beyond which there would be a tendency for inflation to rise in a wage-price spiral type of way. The inflation barrier may well be difficult to define and measure, and indeed in many respects can only be measured after the event by reference to levels of economic activity at which inflation did not rise. The barrier may also be more of a plateau – that is a range of economic activity over which inflation would tend to be little varying (or at least little affected by domestic pressures). The inflation barrier is perceived here in terms of capacity constraints rather than labour market institutions. There is no presumption that the inflation barrier corresponds to a desirable level of employment (or output); nor is there any presumption that the inflation barrier is a supply-side equilibrium, which is an attractor for the level of economic activity. Finally, there is the view that the position of the inflation barrier will vary over time (depending for example on the path of capital investment) and that through appropriate policy measures the inflation barrier may be "eased" over time by, for example, raising productive capacity (Arestis and Sawyer 2005).

An important part of inflation policy is to ensure that the inflation barrier is compatible with a high level of employment such that the economy can operate (through aggregate demand measures) at a high level of economic activity without generating domestic inflationary pressures. In other words, alongside demand management policies there should be supply-side policies to ensure that there is productive capacity in place, in terms of quantity, quality and geographical distribution which is compatible with full employment.

It would also be desirable to avoid very rapid increases in aggregate demand (and for other reasons avoid large falls in demand) and to do so through fiscal policy

as much as (or more than) monetary policy (which in any event should be directed towards financial stability as argued in Arestis and Sawyer 2011, and Arestis 2011). But rapid increases in aggregate demand have not been a problem, which has generally plagued industrialised economies (by rapid we mean rises in output of more than double the trend growth rate in a non-recessionary situation).

## 4. Expectations and Inflation

The earliest version of the Phillips curve was a relationship between wage changes and unemployment. But (lagged) price changes were soon added, and the battle between Keynesians and monetarists appeared to be over whether the coefficient on price change was unity or not. Edmund Phelps (1967) and Milton Friedman (1968) in their re-workings of the Phillips curve introduced the role of expectations, and not long afterwards "rational expectations" became the vogue. This could be summarised by saving it was the replacement of the experience of inflation by expectations of inflation. This has profound consequences for macroeconomic policy (and particularly monetary policy) in that it appeared to offer a relatively painless way of reducing inflation and/or maintaining low inflation – namely through the manipulation of expectations. The simple monetarist story was: if people expect that money supply to grow slowly, then with a "monetarist" knowledge of the workings of the economy, rational expectations on inflation would be for slow inflation (broadly equal to growth of money supply minus growth of output); hence announce in a convincing manner that growth of money supply is to be slow in future, expectations of inflation adjust accordingly and inflation comes down, validating the expectations. In a similar vein, the establishment of an independent central bank was intended to create expectations of a policy commitment to low inflation, backed if necessary by a threat to raise interest rates in the face of the prospect of rising inflation. Particularly if inflation was already low, the "locking in" of expectations of low inflation could serve to perpetuate low inflation. But what happens when those expectations are not fulfilled? In particular, the question is what happens when inflation does indeed rise, when central banks do not respond in the "correct" way, and when interest rate policy is impotent in the face of global inflation.

The significance of this discussion is to bring an emphasis on the experience of inflation to the fore rather than expectations of inflation, though there will of course be links between them, and expectations have to be rooted in experience whether of inflation or more generally. Inflation targeting has been intended to operate through influencing the level of demand (and thereby inflation) and expectations on inflation. We have cast doubt on the reliability and strength of the level of demand effect. The argument here is that policy cannot rely on favourable impacts on inflation expectations (through, for example, establishment of credibility of central bank) but rather has to focus on the experience of inflation.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> It should be noted that the most recent version of the Phillips curve, the new Keynesian Phillips curve has not been a great success story (see Gregory Mankiw 2001; Arestis, Michelle Baddeley, and Sawyer 2007; Sawyer 2010).

## 5. Incomes Policy

### 5.1 What Role for Incomes Policy?

The ideal, perhaps utopian, way to address issues of inflation in the context of the approach to inflation sketched above would be to ensure that the constant inflation level of output (CILO) corresponded to a situation of full employment and to maintain the level of demand through fiscal and monetary policy equivalent to CILO. This has some correspondence with the "inflation targeting" approach in so far as there is a policy instrument to manipulate demand (the interest rate) in line with a supplyside equilibrium (the "natural rate"). In view of our arguments above, we would much favour the use of fiscal policy for the maintenance of high level of aggregate demand, and recognise the "boom and bust" nature of a capitalist economy. However, there are major conceptual differences between the notion of CILO and the ideas associated with the non-accelerating inflation rate of unemployment (NAIRU) and the "natural rate of unemployment". One fundamental difference is that the position of the CILO is heavily dependent on the productive capacity of the economy (quantity and distribution) and that the CILO is continually changing as investment occurs. The CILO is path dependent and influenced by the path of aggregate demand. Periods of recession, which depress investment and bankrupt companies, reduce capacity and thereby the CILO. Industrial, regional and other policies are necessary to ensure sufficient relevant capacity. The thrust of policy towards unemployment is no longer the creation of "flexible labour markets", but the creation of sufficient productive capacity.

Figure 1 illustrates the idea that corresponding to the CILO there is a price/wage ratio, and thereby a specific distribution of income. There is little reason to think that the resulting distribution of income would be as socially acceptable. Further there is little to say that the level of aggregate demand resulting from that distribution of income is consistent with the CILO, unless there is an appropriate fiscal policy and budget deficit (or surplus).

It is relevant to note that a level of demand higher than the equivalent of the CILO has inflationary implications only in so far as there is some conflict over income shares. The degree of the inflationary pressures depend on the "gap" between the claims (that is the vertical distance between the w-curve and the p-curve) and the speeds of response of wages to price increases and prices to wage increases. For relative small "output gaps" (actual output minus CILO – say up to 5 percent) our perception would be that the inflationary pressures would be relatively small.

Inflationary pressures in this framework could arise from in effect a shift in one or both of the p-curve and w-curve in Figure 1. For illustration, suppose there is an upward shift in world commodity prices so that the costs of domestic firms rise, with subsequent rise in prices. This would be predicted to lead to a higher p/w ratio and lower output. The question then is whether a higher price level with the consequent price rises in that period leads to any faster wage increases and to any faster increase in those prices not directly impacted by the commodity price rise. The effects here would be related to the experience of inflation (and the decline in real wages) rather than the expectations of inflation. A similar example would come from a rise in indirect taxation.

The role of incomes policy would then be seen as preventing the rise in commodity prices (indirect taxes) feeding through into a wage-price spiral domestically (and it should also be said a decline in commodity prices feeding through into a deflation). In the current policy framework this role is in a sense played by the adoption of an inflation target along with the creation of the aura that inflation can be kept low through interest rate policies (despite the lack of evidence to support that as indicated above). If expectations on inflation can be anchored, then "blips" in inflation (say arising from commodity price increases) may not feed through into domestic prices and wages increasing. An increase in commodity prices may then be seen as a oneoff rise (and perhaps temporary), which does not impact on the underlying rate of inflation. Under the present regime, a rise in commodity prices, which was a "one off", would lead to a decline in real wages but not to higher inflation.

Incomes policy has been generally associated with the control of inflation but it should also be interpreted literally – that is a policy for incomes, and notably for the distribution of incomes. Thus, it is an unavoidable part of incomes policy to take some view on the features of a socially desirable distribution of income. Incomes policy in the past have generally, at least implicitly, accepted the prevailing distribution as the acceptable one, and then had policies towards wages, which align money wage increases with price increases plus productivity gains, and prices rising in line with costs. Some, such as the UK incomes policy of the 1970s, though, did have redistributive elements with regard to relative wages though not explicitly between wages and profits. It was in fact the persistence of the political leaders for slower increases in wages that prompted the collapse of those policies in September 1978. It is true to say that the collapse of the UK incomes policy in the 1970s was not the only example. John King (forthcoming) refers to the examples of Australia and New Zealand to make the more general point that "The collapse of trade union power was not confined to the Anglo-Saxon countries. A similar story can be told for much of central and northern Europe, including the supposed corporatist stronghold of Germany. Only in Scandinavia has union membership, and union influence, held up, and even here the centralised tripartite wage policy mechanisms of the Golden Age have atrophied".

The role for incomes policy (in the inflation direction) comes from seeking to align wage and price increases particularly in the situation where there is a positive "output gap" so that the dispute over income shares, which arises, is not quickly translated into inflationary pressures. Further, there are "exogenous" pressures on domestic inflation. These arise from global price movements and government induced price rises to limit the manner in which those pressures are inflationary in the sense of contributing to price rises continuing.

## 5.2 Necessity of Prices and Incomes Policy

The idea of a prices and incomes policy would be to have institutional arrangements designed to restrain the rate of increase of prices and wages to be compatible with a target rate of inflation without resort to deflationary measures. When would a prices and incomes policy be needed?<sup>4</sup> When the experience of low inflation rates is in place, and when the global environment is benign (with regard to inflation), then a price and incomes policy may not be needed. Indeed in the context of the model presented above, an environment in which economic activity is relatively close to the CILO and where there are not major shifts in claims on income shares, there would be little need for prices and incomes policy. This is not to say that the CILO represents a socially desirable level of output, and indeed, as argued, policy should focus on the promotion of a socially desirable CILO. Further, the distribution of income which corresponds to the CILO may not be an equitable one, and other policy measures are then needed to address income distribution. The purpose of a prices and incomes policy would arise from seeking to reduce the impacts of global inflation on domestic inflation.

The focus of attention of a prices and incomes policy should reflect perceptions on the likely sources of inflationary pressures. Many price and incomes policies have focused particular attention on wages in the belief that labour costs were a particular source of inflationary pressures. In contrast inflation targeting focuses directly on price inflation, and in principle responds to price inflation rather than wage inflation. It also views inflationary expectations as a potential source of inflationary pressures and seeks to anchor inflationary expectations through adoption of numerical inflation targets along with credibility of independent central banks to secure the set target.

It can be readily observed that the institutional arrangements upon which the incomes policies implemented during the 1960s and 1970s (and at other times) relied have on the whole gone, though elements do remain. The attempts at tripartite arrangements between government, business and trade unions, and the national collective bargaining with wide coverage of wages based on large bargaining units are no longer there in industrialised countries, even where they had previously existed. A possible starting point would be government assessment for inflationary conditions, notably from a global perspective, and the development of guidelines for domestic prices and wages, which at a minimum would inform the setting of public sector pay, regulated prices, minimum and living wage levels and prices paid to government suppliers.

The current inflation targeting regime is based on inflation rate as the only stated target of macroeconomic policy, and more significantly has to be seen as closely based on the "new consensus in macroeconomics" and "independence" of Central Bank with the remit to vary interest rates in pursuit of the inflation target. The alternative presented here would involve an inflation rate objective (and we would be relaxed in the objective were higher than the current 2 percent and within a wider range), with the focus on price inflation rather than wage inflation. The price

<sup>&</sup>lt;sup>4</sup> It should be noted that the notion of incomes policy has been widely discussed by mainly Post Keynesian economists (see, for example, Arestis 1986). King (forthcoming) discusses some of the issues and contributions to conclude that "Wage policy, it seems, is no longer a central part of a Post Keynesian anti-inflationary strategy" (p. 18 of the latest draft version of the paper). Geoff Harcourt (2006, 2010) has been a long standing advocate of incomes policy as a means of restraining inflation without having to resort to demand deflation with its inevitable effects on unemployment and loss of output.

inflation objective clearly has implications for a corresponding wage inflation objective, which would be particularly relevant for the setting of public sector wages.

The inflation rate objective would be one amongst a number of objectives for macroeconomic policy, and preeminent amongst those objectives should be high levels of employment. We have argued elsewhere for the focus of operations of the Central Bank to be that of financial stability (Arestis and Sawyer 2010). The macroeconomic analysis which underpins the approach here is sharply different from that of the "new consensus in macroeconomics", which underpins "inflation targeting".

The "inflation targeting" regime is intended to work through the threat of higher interest rates if inflation rises (or threatens to rise) though we have argued above that is an empty threat in the sense that higher interest rates have little effect on inflation (and it is doubtful whether central banks have operated in this vein over the past decade). Further, the threat is a generalised one, and an individual firm able to raise prices by more than the target rate will still have incentives to proceed with the price rises. The challenge for incomes policy remains as ever to find the mechanisms by which firms' pricing decisions are consistent with the inflation rate objective. Particularly so when the different circumstances of firms are allowed for along with the significant roles of imported material prices and global inflation. It is the argument here that the focus of incomes policy (which may be more appropriately labelled inflation policy) should be on prices rather than wages directly.

The approach to inflation policy here has three components. The first is to maintain (largely through fiscal policy) output close to the inflation barrier (represented in this paper as the constant inflation level of output), seeking to avoid sharp changes in demand. This must be combined with supply-side policies to ensure that there is sufficient capacity with relevant geographical distribution to ensure the inflation barrier is consistent with high levels of employment ("full employment"). The second is the development of policies to ensure that the distribution of income (in all its dimensions) which appears to be consistent with the constant inflation level of output is less inequitable than the present one. The third is the development of prices and incomes policies designed to reduce the impact which imported inflation would have on domestic inflation.

## 6. Concluding Comments

Inflation targeting was closely allied with the notion of the Phillips curve. It permitted the adoption of a single policy instrument (interest rate) to address both inflation and the level of economic activity on the basis that a constant rate of inflation was only consistent with some form of natural rate of unemployment or output. Inflation targeting was intended to work by anchoring expectations and reinforcing those expectations by the threat of raising interest rates in the face of rising inflation (and the generation of the belief, mistaken in our view, that higher interest rates could dampen inflation). It, in effect, was intended to work by a combination of the threat of demand deflation to control inflation and the generation of expectations of low inflation. In this paper we have argued that the inflationary process is much more complex than envisaged by the Phillips curve. Further we have suggested that whilst there may be some form of inflation barrier, the position of that barrier is much influ-

enced by the productive capacity of the economy and its geographical distribution; indeed, it moves over time as the productive capacity of the economy develops, including declines in productive capacity, which follow recessions and wars.

We have argued for a policy approach which seeks to ensure that there is sufficient productive capacity to produce an inflation barrier which does not preclude full employment. This would be complemented by fiscal (and perhaps monetary) policy, which focuses on securing high levels of economic activity and which do not fluctuate greatly over time. Within that framework we have assessed the role of an incomes policy. It is argued that an incomes policy has to be based on views of an acceptable distribution of income. With regard to inflation, we suggest that incomes policy can help the economy to operate at higher levels of economic activity (above the inflation barrier) through dampening the conflict over income shares spilling over into inflation and by managing the impact of major global inflationary shocks. The major issue remains of finding the institutional framework within which incomes policy can successfully operate. This is, however, the topic of a subsequent contribution.

#### References

- **Angeriz, Alvaro, and Philip Arestis.** 2007a. "Monetary Policy in the UK." *Cambridge Journal of Economics*, 31(6): 863-884.
- **Angeriz, Alvaro, and Philip Arestis.** 2007b. "Assessing the Performance of Inflation Targeting Lite Countries." *World Economy*, 30(11): 1-25.
- **Angeriz, Alvaro, and Philip Arestis.** 2008. "Assessing Inflation Targeting through Intervention Analysis." *Oxford Economic Papers*, 60(2): 293-317.
- Angeriz, Alvaro, Philip Arestis, and John McCombie. 2008. "Does Central Bank Independence Affect Inflation Persistence and Volatility?" Unpublished.
- **Angeriz, Alvaro, and Philip Arestis.** 2009. "UK Monetary Policy in Relation to the ECB and the Fed: An Assessment." Unpublished.
- **Arestis, Philip.** 1986. "Wages and Prices in the UK: The Post Keynesian View." *Journal of Post Keynesian Economics*, 8(3): 339-358.
- **Arestis, Philip, and Malcolm Sawyer.** 2004. "Can Monetary Policy Affect the Real Economy?" *European Review of Economics and Finance*, 3(3): 9-32.
- **Arestis, Philip, and Malcolm Sawyer.** 2005. "Aggregate Demand, Conflict and Capacity in the Inflationary Process." *Cambridge Journal of Economics*, 29(6): 959-974.
- **Arestis, Philip, and Malcolm Sawyer.** 2006. "Interest Rates and the Real Economy." In *Post-Keynesian Principles of Economic Policy*, ed. Claude Gnos and Louis-Philippe Rochon, 3-20. Cheltenham: Edward Elgar Publishing.
- **Arestis, Philip, Michelle Baddeley, and Malcolm Sawyer.** 2007. "The Relationship between Capital Stock, Unemployment and Wages in Nine EMU Countries." *Bulletin of Economic Research*, 59(2): 125-148.
- **Arestis, Philip, and Malcolm Sawyer.** 2008a. "A Critical Reconsideration of the Foundations of Monetary Policy in the New Consensus Macroeconomics Framework." *Cambridge Journal of Economics*, 32(5): 761-779.
- Arestis, Philip, and Malcolm Sawyer. 2008b. "New Consensus Macroeconomics and Inflation Targeting: Keynesian Critique." Revista Economia e Sociedade, 17(4): 631-655.
- Arestis, Philip. 2009. "New Consensus Macroeconomics and Keynesian Critique." In Macroeconomic Policies on Shaky Foundations: Wither Mainstream Macroeconomics?, ed. Eckhard Hein, Torsten Niechoj, and Engelberg Stockhammer. Marburg: Metropolis.
- **Arestis, Philip, and Malcolm Sawyer.** 2010. "What Monetary Policy After the Crisis?" *Review of Political Economy*, 22(4): 499-515.
- **Arestis, Philip.** 2011. "Fiscal Policy is Still an Effective Instrument of Macroeconomic Policy." *Panoeconomicus*, 58(2): 143-156.
- **Arestis, Philip, and Malcolm Sawyer.** Forthcoming. "Economic Policies of New Economics." *International Review of Applied Economics.*
- **Blanchflower, David, and Andrew Oswald.** 1994. *The Wage Curve.* Cambridge, MA: MIT Press.
- **Bruno, Michael, and William Easterly.** 1996. "Inflation and Growth: In Search of a Stable Relationship." *Federal Reserve Bank of St. Louis Review*, 78(3): 139-146.
- **Carlin, Wendy, and David Soskice.** 2005. "The 3-Equation New Keynesian Model A Graphical Exposition." *Contributions to Macroeconomics*, 5(1): 1-36.

- Carlin, Wendy, and David Soskice. 2006. *Macroeconomics: Imperfections, Institutions and Policies*. New York: Oxford University Press.
- **Clarida, Richard, Jordi Galí, and Mark Gertler.** 1999. "The Science of Monetary Policy: A New Keynesian Perspective." *Journal of Economic Literature*, 37(4): 1661-1707.
- **Dueker, Michael, and Andreas Fischer.** 2006. "Do Inflation Targeters Outperform Non-Targeters?" *Federal Reserve Bank of St. Louis Review*, 88(5): 431-450.
- **Ferguson, Roger.** 2005. "Safeguarding Good Policy Practice in Reflections on Monetary Policy 25 Years After October 1979." *Federal Reserve Bank of St. Louis Review*, 87(2): 293-298.
- **Fischer, Stanley.** 1993. "The Role of Macroeconomic Factors in Growth." *Journal of Monetary Economics*, 32(3): 458-512.
- **Friedman, Milton.** 1968. "The Role of Monetary Policy: Presidential Address to AEA." *American Economic Review*, 58(1): 1-17.
- **Ghosh, Atish, and Steven Phillips.** 1998. "Warning: Inflation May be Harmful to Your Growth." *IMF Staff Papers*, 45(4): 672-710.
- **Goodhart, Charles.** 2005. "The Experience of Inflation Targeting Since 1993." In *The New Monetary Policy*, ed. Philip Arestis, Michelle Baddeley, and John McCombie, 164-171. Cheltenham: Edward Elgar Publishing.
- **Goodfriend, Marvin, and Robert King.** 1997. "The New Neoclassical Synthesis and the Role of Monetary Policy." Federal Reserve Bank of Richmond Working Paper 98-5.
- **Goodfriend, Marvin, and Bennett McCallum.** 2006. "Banking and Interest Rates in Monetary Policy Analysis: A Quantitative Exploation." *Journal of Monetary Economics*, 54(5): 1480-1507.
- **Harcourt, Geoff.** 2006. The Structure of Post Keynesian Economics: The Core Contributions of the Pioneers. Cambridge: Cambridge University Press.
- Harcourt, Geoff. 2010. "Finance, Speculation and Stability: Post-Keynesian Policies for Modern Capitalism." In *Macroeconomics, Finance and Money: Essays in Honour of Philip Arestis*, ed. Giuseppe Fontana, John McCombie, and Malcolm Sawyer, 237-249. Basingstoke: Palgrave Macmillan.
- **Khan, Moshin, and Abdelhak Senhadji.** 2001. "Threshold Effects in the Relationship between Inflation and Growth." *IMF Staff Papers*, 48(1): 1-21.
- **King, John.** Forthcoming. "Wages Policy." In *Handbook of Post-Keynesian Economics*, ed. G. C. Harcourt and Peter Kriesler. Basingstoke: Palgrave Macmillan.
- **Levine, Ross, and David Renelt.** 1992. "A Sensitivity Analysis of Cross- Country Growth Regressions." *American Economic Review*, 82(3): 942-963.
- **Mankiw, Gregory.** 2001. "The Inexorable and Mysterious Tradeoff between Inflation and Unemployment." *Economic Journal*, 111(471): 45-61.
- **Phelps, Edmund.** 1967. "Phillips Curves, Expectations of Inflation and Optimal Employment over Time." *Economica*, 34(3): 254-281.
- **Sawyer, Malcolm.** 2002. "The NAIRU, Aggregate Demand and Investment." *Metroeconomica*, 53(1): 66-94.
- **Sawyer, Malcolm.** 2009. "Interest Rates and Inflation: What are the Links?" *Intervention*, 6(1): 81-96.
- **Sawyer, Malcolm.** 2010. "Philips' Curve, Independence of Central Banks and Inflation Targetting." In *Macroeconomics, Finance and Money: Essays in Honour of Philip Arestis*, ed. Giuseppe Fontana, John McCombie, and Malcolm Sawyer, 126-138. Basignstoke: Palgrave.

- Weber, Axel, Wolfgang Lemke, and Andreas Worms. 2008. "How Useful is the Concept of the Natural Real Rate of Interest for Monetary Policy?" *Cambridge Journal of Economics*, 32(1): 49-63.
- **Wicksell, Knut.** 1898. *The Influence of the Rate of Interest on Commodity Prices*. London: George Allen and Unwin.
- **Woodford, Michael.** 2003. *Interest and Prices: Foundations of a Theory of Monetary Policy*. New Jersey: Princeton University Press.
- **Woodford, Michael.** 2009. "Convergence in Macroeconomics: Elements of the New Synthesis." *American Economic Journal: Macroeconomics*, 1(1): 267-279.

# **Appendix**

Table 1 Inflation Rates

	Average annual inflation rate	Average annual inflation rate	Highest rate (year)	Lowest rate (year)
GDP deflator	1985-1995	1996-2006		
OECD	7.1	3.13	5.0 (1996)	2.4 (2005)
Euro area	4.0	1.85	2.6 (2002)	1.0 (1999)
UK	4.7	2.53	3.6 (1996)	1.2 (2000)
USA	2.8	2.18	3.3 (2006)	1.1 (1998)
Oil (Brent crude)		12.1		
Food and tropical beverages		-1.3		
Agricultural raw material		0.9		
Minerals, ores and metals		8.7		
Total		0.0		

Source: Calculated from OECD Economic Outlook, Statistical Annex, various issues.

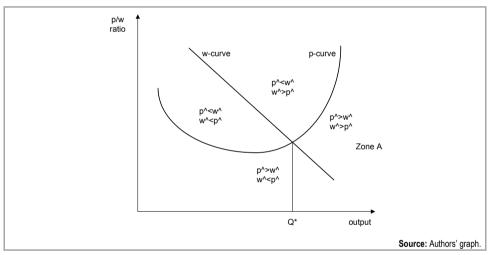


Figure 1 Derivation of Constant Inflation Level of Output (CILO)