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A Future for Keynesian Macroeconomics¹
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A. Introduction

This paper is an overview of how Keynesian principles, originally developed to apply to the short run, can be extended to provide analytical tools applicable to the medium and long runs. The justification for the paper is that such analytical tools have not been developed by others, despite the claims of New Keynesian (and New Consensus) macroeconomics. Given space limitations, we present only the core of our model; a detailed account is not relevant to our primary objective, which is to make a case for the wider application of Keynesian analysis. The interested reader will find detailed support for key theoretical points in the footnote references to other work by the authors. The extended model is applied to a group of OECD economies to explain changing unemployment performance over time, as well as differences among countries. The intent is to support our claim that extending the original Keynesian model beyond the short run produces a substantial increase in the applicability of Keynesian principles to analysis and macroeconomic policy.

Before introducing the model, we use Sections B and C to distance our Keynesian analytical approach from current mainstream macroeconomics, which has New Keynesian economics at its centre. Examination of both its short-run and long-run features show it to lack essential Keynesian characteristics. More seriously, neither its short-run or long-run analyses are useful descriptive devices for real world macroeconomic processes; one consequence is that its continued wide acceptance, especially among academic economists, has reduced interest in macroeconomics. In sections D and E we outline our extension of the Keynesian model to the medium and long runs. Section F considers two episodes in the development of mature capitalism -- the prosperous Golden Age and the subsequent Age of Decline, to illustrate the explanatory value of our framework. In the concluding section it is argued that without a return to traditional Keynesian principles, macroeconomics will not regain the prestigious position that it held during the Golden Age.

B. New Keynesian Short-run Analysis

It has been claimed that the future of macroeconomics is New Keynesian, a claim bolstered by the status it is given in mainstream textbooks and journals. Its current ascendancy rests largely on research undertaken in the 1970s and 1980s to provide rigorous and realistic micro foundations for macroeconomics. Realism was provided by replacing the perfect competition framework of the New Classical model with imperfectly competitive markets. The introduction of imperfections abandons the frictionless price and wage adjustments of perfect competition. Following a shock, individual imperfectly competitive profit-maximising firms make price and quantity decisions, an activity that slows down adjustment of the general price level; rigidity also stems from the possibility that the cost of changing price lists, catalogues, etc. will exceed anticipated revenue gains. The existence of contracts, information asymmetries, and interdependent firms further complicates decision-making and hampers price adjustment, delaying the return to equilibrium. When aggregated, these imperfectly competitive markets would become the demand side of a short-run macroeconomic model along the lines of the familiar IS-LM model. To complete the model, a wage-price mechanism with real wage bargaining and the vertical Phillips curve comprise the supply side, together with adjustment mechanisms, e.g. Pigou effects, that govern the system's response to shocks.

The shift to imperfect competition at the micro level distinguishes New Keynesian from New Classical economics. But does it make the model Keynesian? Imperfectly competitive micro markets allow the introduction of one Keynesian feature only: wage and price inflexibility. The consequence is that deviations from equilibrium are likely to be long-lived, and this provides an argument for monetary or fiscal policy, but only to speed up the return to equilibrium. Clearly

the New Keynesian introduction of imperfectly competitive markets has not severed the tie with exogenous supply-determined equilibrium analysis. This fundamental characteristic is shared with the new Classical model. It does provide a more realistic explanation of the observed sluggish response of prices and wages to disturbances. Earlier explanations relied upon vaguely defined 'market imperfections' that caused short-run frictions, impeding the function of flexible prices in otherwise perfectly competitive market economies. New Keynesians have developed many variations of their model that rigorously illustrate these imperfections (Blanchard, 2000).

Despite this improvement, the core of New Keynesian economics is clearly non-Keynesian, at odds with Keynes' notion of an unemployment equilibrium determined by aggregate demand. But even on its own terms, serious problems arise from the New Keynesians having incorporated their new micro analysis into a short-run macroeconomic frame-work that assumes an exogenously determined, stable equilibrium. Three are worth citing. The first concerns the assumed exogeneity of the equilibrium; for example, if the equilibrium unemployment rate can be affected by economic variables (including the actual unemployment rate) it is not truly exogenous, and cannot function as an attractor of the system or as a fixed target for policy. Assuming the equilibrium to be exogenous, the second problem concerns the speed of adjustment when out of equilibrium. This must be rapid relative to the rate at which the exogenous determinants of equilibrium change. Even if this test is also passed, stability of the equilibrium requires the assumed adjustment mechanisms are able to counter not only the initial adverse shock, but also any additional induced cumulative adverse movements in aggregate demand, output and employment, e.g. an accelerator-multiplier interaction. If they cannot, disturbances may be amplified, pushing the system further from equilibrium, i.e. an equilibrium may exist, but it is unstable. In fact, there is no theoretical or empirical evidence to suggest that Keynes and Pigou effects are strong enough to perform this task (Tobin, 1993).² As a result, the New Keynesian short-run framework cannot explain movements in the actual unemployment rate. The economy would settle at this rate only by accident, and if disturbed would exhibit no tendency to return to it.

Thus while New Keynesian macroeconomics offers useful additions to micro analysis, its short-run equilibrium analysis, including its vertical Phillips curve component, is not useful. Therefore we reject the notion of a unique equilibrium unemployment rate (or output level), and substitute a downward sloping long-run Phillips curve with multiple equilibria as potential targets for policy makers. This restores the prominence of aggregate demand, an essential feature of Keynesian macroeconomics. We would add that concern over discarding equilibrium analysis in this context is unfounded. From a policy viewpoint, the important issue is whether shocks to an ongoing macroeconomic process have disturbance amplifying tendencies. These possibilities are better understood by modelling short run movements as the outcome of a Keynesian income-generating mechanisms that incorporates the newly recognized wage and price inflexibilities.

C. New Keynesian Longer Run Analysis

To formulate their core short-run model, New Keynesians have concentrated on the causes of wage and price rigidities and their impact on the economy. They have shown scant interest in developing its long-run properties. This neglect is consistent with their acceptance

²The ability of the monetary authorities to adjust aggregate demand by targeting interest rates is still untested.

that, once disturbed, the system returns (no matter very slowly) to its short-run macroeconomic equilibrium at an exogenously determined NAIRU or natural rate of unemployment and output level. To construct their long-run framework, New Keynesians follow one of two approaches. The first simply fits a smoothly evolving trend line to an historical output or unemployment series, and designates this line as the long run equilibrium path of the economy (Mankiw, 1994, figure 5.1 or CEPR, 1995, fn 20). In effect, this approach assumes the moving equilibrium of the system can always be derived from the past history of the economy, whatever path this has taken. No theoretical or empirical evidence is provided to support this assumption.

The second approach also treats the long-run equilibrium path of the economy as exogenous, but does so by attaching a neoclassical aggregate production function to the core short run model (Solow, 2000). In this way, the moving equilibrium of the economy is assumed to be at the full employment rates of output growth and unemployment. In the absence of shocks the economic system moves along a steady state, full employment equilibrium path determined solely by exogenous supply side factors. Alternatively, some new Keynesians combine this steady state component with the core short-run model, but allow shocks. The result differs only in assuming mild, shock-induced cycles around a steady state full employment growth path.

In either formulation the full employment assumption raises additional problems for the New Keynesian research program. First, there is the problem of internal inconsistency. By assuming the economy moves along a full employment growth path in the long run, markets are assumed neoclassical in the long run at the same time as they are Keynesian in the short run (Solow, 2000). Second, in assuming the economy moves along a full employment path, the New Keynesian long-run analysis also fails as a descriptive device. It describes a history of more or less continuous full employment, perhaps occasionally and briefly interrupted by shock-induced deviations from full employment. But the actual unemployment record of the developed capitalist economies reveals lengthy episodes of alternating low and high unemployment over a long run period stretching from the end of World War I until the present.³ This pattern is widely experienced by the developed economies, suggesting that such episodes are a common feature of capitalism. Unemployment rates were low in the 1920s (the unweighted average rate was 3.8 per cent)⁴, followed by a long episode of high unemployment (9.2 per cent) and low growth in the Great Depression. Good performance returned in the episode following World War II (unemployment averaged 2.4 per cent), the so-called Golden Age of capitalism. This was to last less than a quarter of a century. The mid-1970s heralded an episode of high unemployment (6.2 per cent) and slow growth that still persists in most countries.

Further, while mild increases in unemployment rates within an episode might be caused by shocks, episodes of persistently high unemployment cannot be so explained. The unemployment has been too high and too widely dispersed across economies. Instead, these episodes draw attention to long periods of inadequate aggregate demand. The lengths of these high unemployment episodes varies, but their duration falls between the usual definitions of short run and long run. Each episode is therefore designated a medium run in our analysis (Solow, 2000; Blanchard, 1997). A sequence of such episodes defines our long run. In the previous section we questioned the usefulness of New Keynesian equilibrium analysis in

³See Table 2.1 in Cornwall and Cornwall, 2001.

⁴Figures based on data for 16 of the 18 OECD economies of Table 1 of this paper; prior to the Golden Age, data are not available for Ireland and New Zealand.

modelling short-run movements of the unemployment rate. In our view it also lacks the analytical tools for explaining longer run periods of unemployment. In the next section we present a political economy theory of aggregate demand that uses Keynesian principles to model the medium run.

D. Medium-run Keynesian Macroeconomics

1. The demand for and supply of expansionary policies

Our Keynesian alternative provides a theoretical framework that models the historical record for the medium and long runs. For our medium-run analysis, we outline an extension of a basic Keynesian principle. We start from the Keynesian assumption that capitalism is not self-regulating because the private sector cannot be relied upon to deliver continuous high aggregate demand. Without the use of stimulative fiscal policies, periods of high involuntary unemployment are therefore likely. We then extend the analysis by investigating why periods of insufficient aggregate demand are allowed to continue. For example, in periods of high unemployment such as the 1930s and the long episode since the Golden Age, when stimulative aggregate demand policies would have reduced unemployment, why did the authorities fail to provide full employment levels of aggregate demand.

To answer these questions, we model the dominant macroeconomic policy response of the authorities within any historical episode as the outcome of an interaction between the supply of and demand for full employment policies.⁵ The strength of demand for full employment policies is determined by the distribution of political and economic power among organized interest groups. The policies supplied by the authorities depend upon whether there are constraints limiting their policy options, e.g., because full employment levels of aggregate demand generate unacceptable inflation or external imbalance, or because there are laws that limit budget deficits. In this section we focus on the inflation constraint, a common problem facing high unemployment economies during these episodes, and use a theory of group preferences for our analysis.⁶ The remainder of the paper concentrates on the two post World War II episodes.

The party control theory of economic policy is the most prominent of the models focussing on the demand side, offering a political explanation of policy choice and differences in unemployment rates across countries in terms of the relative strength of right-wing and left-wing political parties (e.g. Kalecki, 1971; Hibbs, 1987; Alesina *et al.*, 1997). This is assumed to depend upon the distribution of power between capital and labour. According to this theory, labour is more willing than capital to trade price stability for lower unemployment; this preference is registered at the ballot box through its choice of political parties. When these cross country results are applied to intertemporal events, differences in aggregate demand policies and unemployment are traced to shifts in political power within an economy.

However, we contend that the impact of the distribution of political power on unemployment records can only be part of the story, accounting only for the strength of demand for expansionary policies. Even the most ardently pro-labour government must consider the

⁵See Gordon, (1975) for an early explanation of policy outcomes stressing both demand and supply influences.

⁶A fully specified version of this approach is tested econometrically in Chapter 5 of Cornwall and Cornwall (2001).

costs of supplying a full employment policy, the most obvious among them the inflation cost. In this case, the determinant of the underlying costs and therefore the willingness to supply stimulative policies is the position of the Phillips curve, with a poorly placed Phillips curve acting as a constraint. For example, if the maximum politically acceptable rate of price inflation intersects the Phillips curve to the right of the full employment rate of unemployment, policy will target an unemployment rate greater than the full employment rate. In such an economy inflation costs constrain expansionary policy.

2. The position of the Phillips curve.

The forces determining the position of the Phillips curve can be traced, both across economies and through time, to certain labour market institutions. In the period since World War II, the most important of these has been the strategy adopted by labour, business and government to institutionalize 'fairness' in labour markets. With some variations, there were two types of strategy. One permitted full employment with politically acceptable rates of inflation; the other failed to do so.⁷ The latter describes the outcome of using a 'market power' strategy in which wage settlements were reached through unrestricted collective bargaining between labour and management. The adoption of this labour market strategy reflected, and helped to perpetuate, the conflict endemic to an adversarial industrial relations system, often manifested as a high strike volume. In these cases there were no institutions (other than the market) that would routinely coordinate wage settlements with national goals; governments had failed to exercise leadership in establishing such institutions. The lack of coordinating institutions resulted in a strong emphasis on the money wage as the target of bargaining. Maximizing increases in money wages, with the cost of living and wage settlements in other sectors as guides, was chosen by labour as the means to maximize real wage gains. Unfortunately efforts to maximize the rate of increase of money wages under full employment conditions lead to politically unacceptable rates of wage and price inflation. The result was restrictive aggregate demand policies and lower output, leading to reduced growth rates of productivity and real wages.⁸ More generally, since labour's market power rose when unemployment rates fell, this strategy generated a negatively sloped long-run Phillips curve with an unsatisfactory menu of inflation-unemployment choices.

In contrast, economies in which a 'social bargain' strategy was adopted in cooperation with capital and overseen by government, labour accepted the need for money wage restraint in order to achieve national goals such as wage and price stability and international competitiveness. In exchange, labour was promised full employment, the rising real wage that full employment generated through higher productivity growth, and welfare programs as a safety net. Variations in the institutional forms of the social bargain, including the generosity of welfare programs and employment protection measures were largely the result of differences in the power of labour. In most of the developed capitalist economies social bargain strategies were adopted and proved a success in restraining inflation at full employment during the Golden Age.

In summary, considering both the demand for and supply of policies allows us offer an explanation of the dominant policy stance and macroeconomic outcomes, giving insight into the differences in macroeconomic performance between countries, a view supported in Section F. In the next section we indicate its value in explaining differences in successive historical

⁷For greater detail see Cornwall, 1994, chapters 5-7.

⁸Empirical work by the authors, reported in Chapter 11 of Cornwall and Cornwall (2001), shows a strong correlation between growth rates of output and labour productivity.

episodes. To anticipate our conclusions, the Golden Age was remarkable for its absence of constraints on full employment policies other than an unacceptable inflation cost, and even this was limited to a small number of economies. This enhanced the ability of the authorities to supply full employment. In the episode that followed the Golden Age new institutional constraints arose, as well as the spread of the inflation constraint to other countries, causing a proliferation of restrictive policies. There was also a shift in the distribution of power to capital in most economies, adversely affecting the demand for expansionary policies.

E. A Long-run Keynesian Model of Growth and Development

1. Intertemporal analysis

Our extension of the standard Keynesian framework deepens the analysis, incorporating Keynesian policy principles within a more formal political economy framework to derive a political economy theory of aggregate demand. Within each episode the overall macroeconomic outcome is modelled as the result of an interaction between political and economic processes. The former considers the authorities' policy response to the preferences of organized political interest groups responding to macroeconomic conditions. The latter considers the impact of government policy intervention on macroeconomic performance.

Since in our analysis the long run is essentially a sequence of medium term episodes, the political economy theory of aggregate demand is easily extended over time to explain a sequence of alternating episodes of good or poor macroeconomic performance. Each episode is a medium run in the economy's long-run development, beginning and ending with a marked change in unemployment rates and related performance variables.⁹ Each episode is therefore characterized by its fixed institutional framework and its distribution of power. A sustained radical alteration in performance signals the arrival of a new episode, characterized by new institutions or a new power distribution or both, and a major shift in the dominant policy stance of the authorities. For example, the institutional shift from a social bargain to a market power strategy would lead to incompatibility of full employment with acceptable inflation rates and restrictive policies that would end the boom. A radical shift in the distribution in power is also a possible source of radical shift in macroeconomic policy and performance.¹⁰

2. Linkages between episodes.

To this point our long run is a sequence of seemingly disconnected episodes of alternating good and poor performance. It is of course possible that an episode might end because of one or more radical shocks. In this case, the long-run performance of the economy displays the characteristics stressed by complexity theorists such as Basil Moore. However, our contention is that even in the absence of such shocks the development of capitalist economies can generate its own change, creating links between successive episodes, yielding a path dependent process. These links stem from the performance of the economy itself. In the medium run the institutions and power distribution that define the episode are taken as exogenously given causes of economic performance. In the long run, i.e., from one episode to the next, these institutions and the distribution of power are eventually subject to change

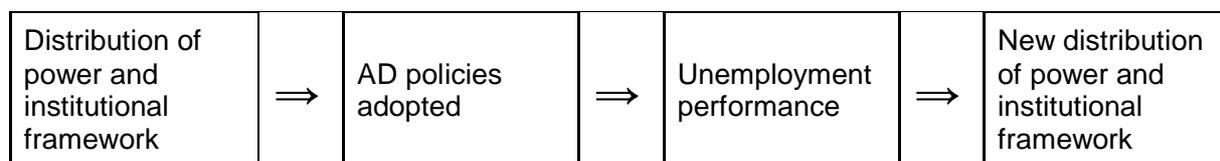
⁹Compared with the Age of Decline, the Golden Age was an episode of rapid growth in *per capita* incomes and labour productivity.

¹⁰Kalecki's (1971) famous model of the political business cycle offers an alternative explanation of the interruption of aggregate demand, i.e. capital's ability to force governments to enact high unemployment policies.

induced by the medium-run performance of the economy, thus becoming endogenous effects of economic performance. In this way the long-run dynamics of the system are modelled as a path-dependent and evolutionary process with a negative feedback.¹¹ Although not found in Keynes' writings, this evolutionary feature is easily incorporated to formulate a long-run theory of growth and development in a Keynesian spirit.¹²

Figure 1 illustrates this dynamic interaction. Starting at some initial point in time, the prevailing institutional framework acts as a constraint limiting and shaping economic performance, including the set of policy options available to the authorities.

Figure 1 - Path Dependence



However the policy chosen will also depend on the distribution of power, which influences the strength of demand for full employment policies. Moving across the diagram from left to right, the policies adopted then influence the actual unemployment performance of the economy. For example, if the distribution of political power in the first episode was strongly left-of-centre in an economy in which a social bargain had been adopted, we would expect expansionary policies to be in effect with low unemployment and rapid growth of productivity and living standards the result. As long as these institutional and power characteristics remain substantially unchanged, the episode of favourable macroeconomic performance would continue.

But the historical record is clear; good times come to an end and poor performance does not last forever. The right-most arrow in Figure 1 designates the endogenously induced impact of performance on the institutional framework and the distribution of power in what constitutes the long-run in our analysis. For example, suppose the economy is experiencing a prolonged period of affluence, such as the Golden Age. As the episode lengthens, rising expectations and aspirations outpace the economy's capacity to meet them. Dissatisfaction with the income distribution enshrined in the social bargain increases, leading to their collapse and the adoption of a market power strategy. There is then a rightward shift of the Phillips curve, followed by accelerating inflation and a restrictive policy response. The new institutions and the reduced relative power of labour caused by the rising unemployment define a new episode, characterised by diminished macroeconomic performance; the new episode is causally linked

¹¹In previous work (Cornwall and Cornwall, 2001) we have analysed the entire period beginning in the 1920s as an evolutionary process consisting of the four episodes listed in Section C. In this study we argued that the main cause of the Great Depression in the USA could be traced to basic changes in its industrial structure during the 1920s rather than in changes in institutions.

¹²Kaldor's model of cumulative causation is an example of a path dependent system in which outcomes depend upon initial conditions. Our model exhibits a path dependent process that creates its own set of potential final outcomes in the course of its historical evolution (Setterfield, 1997, 64-65).

to the previous one by endogenously induced institutional change.¹³

F. A Closer Look at the Record.

1. The Golden Age

To illustrate the explanatory value of our evolutionary-Keynesian framework, we continue to focus on the second half of the twentieth century, comprising the years following World War II until the mid-1970s, and the period from the mid-1970s to the present. These two historical episodes, the Golden Age and the Age of Decline, are distinguished by markedly different macroeconomic performance, institutional frameworks and power structures. As we have outlined, they were endogenously linked, with performance in the second causally related to events in the first. Eighteen developed capitalist economies are included in our sample.

Table 1 allows a closer examination of the data for the post-World War II period. It shows unemployment and inflation rates for two short-run GDP cycles in the Golden Age episode and for three successive within-episode short-run GDP cycles in the Age of Decline.¹⁴ Short-run cyclical movements occur within an episode because of wage and price rigidities. According to the arguments in Section B, it is unlikely that in this succession of short-run cycles any short-run equilibrium was realized. Rather each describes an example of a damped cyclical movement, generated by a Keynesian income generating mechanism. In our analysis, markets are Keynesian in the short and medium runs. Moreover, as our long run consists of a series of medium runs, markets are Keynesian in the long run also. Hence, there is no internal inconsistency in our analysis.

Using a 3 per cent rate as the full employment rate of unemployment, in the Golden Age episode all but four of the eighteen countries in the table experienced full employment. Considering the entire post World War II period, the economies fall into three groups: the 'low unemployment economies' with full employment in the Golden Age (1960-73) and in most of the subsequent short-run cycles; the 'high unemployment economies' with unemployment rates in excess of full employment both during and after the Golden Age; and the 'low-high unemployment economies' with full employment during the Golden Age followed by high unemployment.

It should also be noted that in the Golden Age the low unemployment economies did not experience appreciably higher rates of inflation, indicating that the inflation rate was not merely a politically acceptable trade-off; these economies did not pay a higher inflation cost for their full employment. According to the argument of section D, this remarkable development can be attributed to a combination of strong political demand for full employment and a willingness of the authorities to supply it, because there were no institutional constraints on aggregate demand. We trace the absence of constraints to the adoption of social bargains, which were designed to reconcile low unemployment with the containment of inflationary pressures.¹⁵ There were such constraints in the high unemployment group. These economies performed badly because of weak demand for expansionary policies, or institutional constraints or from a

¹³Exogenous shocks could also lead to radical changes in institutions and the distribution of power. The impact of World War II is a clear example.

¹⁴Comparable data are not available for all eighteen countries prior to 1960. The end-points for the periods shown in the table are those published in *OECD Historical Statistics*.

¹⁵See Cornwall (1994) chapters 5-7.

combination of the two.

2. The Age of Decline

The Golden Age of capitalism lasted about a quarter of a century. Following the 'Great Inflation' of the late 1960s-early 1970s, a lengthy upward trend in unemployment rates began, without the compensation of lower inflation rates, signalling the start of a new episode of capitalist development. While the 'Great Inflation' is usually attributed to temporary disturbances, e.g. oil price shocks, our analysis suggests the cause to have been a more lasting structural change linking this new episode with the Golden Age; social bargains collapsed as capital and labour adopted market power strategies in all but the few remaining low unemployment economies.¹⁶ This institutional change, signalled by accelerating wage inflation, made it impossible to achieve low inflation at full employment in most countries. Indeed, inflation did not fall to Golden Age rates -- the so-called 'victory over inflation' -- until well into the 1990s. The persistence of high inflation reinforced the shift to low inflation as the overriding macroeconomic policy target and to restrictive aggregate demand as the preferred instrument. Table 1 records the near relentless rise in unemployment in all but five economies. Nevertheless, with the exception of Sweden in the 1990s the five low unemployment economies maintained their commitment to social bargains and were able to maintain relatively low rate of unemployment.

The rising inflation cost of low unemployment was a severe constraint on aggregate demand, but now there were others. The widespread implementation of restrictive policies was itself an impediment to expansionary policies for any economy acting alone, thanks in part to changes in the international monetary system, which shifted to flexible exchange rates and increasing deregulation of financial capital movements. This threatens currency depreciation and accelerating inflation should any country attempt unilateral expansion. To this can be added the trend toward governments' reducing their involvement in the economy by removing or assigning less importance to some policy targets by introducing formal political constraints. These include enacting constitutional amendments requiring balanced budgets, adherence to restrictive budgetary criteria required for membership in international agreements, e.g., membership in the European Monetary System, Maastricht and later the Stability Pact, and making the central bank increasingly independent of government.¹⁷ Each of these trends contributes to the rise in unemployment rates by placing the full employment goal beyond democratic control. Finally, there was wide acceptance by governments and capital that the demise of the Soviet Union had greatly reduced the political reasons for supporting social bargains.

3. Some institutions are better than others

In summary, we maintain that during the Golden Age the economies that were able to reduce unemployment to low rates without experiencing serious inflation costs were those that did not leave wage settlements to market forces. As well, only economies that maintained their social bargains during the Age of Decline were able to limit increases in unemployment rates. In particular, cross country studies brought new support to the view that social bargains, i.e. institutions that 'interfere' with free labour market outcomes, were necessary for full employment because they kept inflation at acceptable rates. This coordinating function could not be

¹⁶See Cornwall, *op. cit.*, chapter 7, for a detailed discussion and support.

¹⁷An estimate of the impact of these institutional changes on rising unemployment rates in the Age of Decline, see Cornwall and Cornwall, *op. cit.*, Table 11.2.

performed by the market. Unrestricted collective bargaining was the order of the day in countries with the strongest attachment to *laissez faire* principles such as Canada and the US. As a result their macroeconomic performance suffered.

The end of the Golden Age coincided with the widespread rejection of social bargains and the introduction of additional constraints on aggregate demand. Comparing cross country differences in performance in the Age of Decline, the historical evidence points to social bargains as a necessary condition for superior performance. A conspicuous feature of Table 1 is the consistently poor post-war unemployment record of the United States, compared to the other economies; this situation prevailed until the mid-1990s. We attribute the relatively poor long run unemployment performance of the United States to its sustained adversarial industrial relations system and its weak political demands for full employment.

G. A Future for Keynesian Macroeconomics

Whether the focus is on a historical period encompassing most of the twentieth century or the shorter period since World War II, episodes of high and prolonged unemployment have been an integral part of modern capitalism's historical development. It bears repeating: these episodes of high unemployment have been too long and too widely dispersed across economies to be attributed to shocks interrupting an otherwise full employment growth path. The record shows that capitalism is not self-regulating. From a Keynesian viewpoint a necessary condition for full employment (and indeed the faster growth of per capita incomes full employment brings) is strong, sustained and growing aggregate demand, achieved when necessary by stimulative policies.

We have argued that New Keynesian macroeconomics has limited Keynesian content, and that it cannot explain macroeconomic outcomes because it rests on a foundation of exogenous supply-determined equilibrium analysis. In its short-run analysis of the model, this foundation generates an equilibrium unemployment rate that fails to explain movements of the actual unemployment rate. The long-run version of this analysis typically adopts a steady state full employment growth path, an assumption inconsistent with the historical record. As well, this kind of treatment of the long-run leads to a model in which markets do not clear in the short run, but clear in the long run; the model is Keynesian in the short run and neoclassical in the long run. Our extended Keynesian framework has neither inconsistency. We model the long run historical record of modern capitalism as a sequence of medium run alternating episodes of favourable and unfavourable macroeconomic performance, each of which is composed of a sequence of Keynesian short runs.

New Keynesian macroeconomics suffers from another disability, related to the failure of its advocates to understand that capitalism comes in many different forms, and that the 'Anglo-Saxon' form is rather special adversarial kind in which capital demands very special treatment and powers. Within this milieu New Keynesians have been prone to explain lengthy periods of high unemployment by government interventions that have limited capital's control and economic power. Their policy response is to reduce labour's power. But the cross country comparisons in Section F show clearly that during the post World War II period the best-performing economies were those in which the free play of market forces was restricted through interventions on behalf of labour.

If there is to be a future for macroeconomics it must be Keynesian, and the first step is to persuade macro economists that their theories must be free of internal inconsistencies and be consistent with the historical record. This will be a difficult task, requiring as it does the abandonment of a very large part of current macroeconomic research. Most important is the recognition that New Keynesian economics is trapped in an equilibrium framework that cannot

provide an empirically respectable account of the stylised facts of the historical record. This we have traced to their insistence on adopting a framework in which aggregate demand merely adjusts passively to the dictates of a supply determined equilibrium. This has prevented the development of a political economy theory of aggregate demand, a necessary condition for macroeconomics to provide an acceptable account of recent events. To escape, contemporary macroeconomics must reject its supply-determined equilibrium foundations. Our extended Keynesian framework offers an escape route.

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Table 1 Annual average standardized unemployment rates (U)* and rates of consumer price inflation (p)** for 18 OECD countries (%).

	1960-67		1968-73		1974-79		1980-89		1990-2000	
	U	p	U	p	U	p	U	p	U	p
<i>Low unemployment</i>										
Austria	2.0	3.6	1.8	5.2	1.8	6.2	3.3	3.8	3.9	2.4
Japan	1.4	5.7	1.2	7.1	1.9	9.9	2.5	2.5	3.2	1.0
Norway	2.0	3.9	1.7	6.9	1.8	8.7	2.8	8.3	4.8	2.5
Sweden	1.6	3.8	2.2	6.0	1.9	9.8	2.6	7.9	7.1	3.3
Switzerland	0.0	3.4	0.0	5.6	0.4	4.0	0.6	3.3	3.1	2.3
Unweighted Average	1.4	4.1	1.4	6.20	1.6	7.7	2.4	5.2	4.4	2.3
<i>High unemployment</i>										
Canada	4.8	2.4	5.4	4.6	7.2	9.2	9.4	6.5	9.3	2.2
Ireland	4.9	4.0	5.6	8.9	7.9	14.9	14.3	9.2	11.3	2.6
Italy	4.8	4.0	5.7	5.8	6.6	16.1	8.0	11.1	10.6	4.0
United States	4.9	2.0	4.6	5.0	6.8	8.5	7.3	5.5	5.6	3.0
Unweighted Average	4.9	3.1	5.3	6.1	7.1	12.2	9.8	8.1	9.2	3.0
<i>Low-high unemployment</i>										
Australia	2.2	2.2	2.0	5.6	5.1	12.2	7.5	8.4	8.4	2.7
Belgium	2.0	2.8	2.5	4.9	7.1	8.4	9.8	4.9	8.5	2.2
Denmark	1.6	6.2	1.0	6.3	6.1	10.8	8.1	6.9	7.1	2.2
Finland	1.6	5.6	2.6	5.8	5.1	12.6	5.4	7.1	11.7	2.3
France	1.6	3.6	2.6	6.1	4.5	10.7	8.8	7.3	11.1	1.9
Germany	0.6	2.7	1.0	4.6	3.2	4.6	5.8	2.9	7.7	2.5
Netherlands	1.0	3.6	1.5	6.9	5.4	7.2	7.9	2.8	5.4	2.5
New Zealand	0.1	3.3	0.3	7.4	0.8	13.8	4.6	11.8	7.8	2.1
United Kingdom	2.7	3.6	3.3	7.5	4.7	15.6	9.8	7.4	8.0	3.6
Unweighted average	1.5	3.7	1.9	6.1	4.7	10.7	7.5	6.6	8.4	2.4
Overall Average	2.2	3.7	2.5	6.1	4.4	10.2	6.6	6.5	7.5	2.5

* OECD *Historical Statistics 1970-2000* and earlier issues, Table 2.19, Standardized Unemployment Rates. For 1960-64, unemployment rates were obtained from the LSE data set. For Austria, Denmark and Switzerland, and for New Zealand prior to 1974, standardized rates are not available; unemployment as a percentage of the total labour force is used instead.

** OECD *Historical Statistics 1970-2000* and earlier issues, Table 7.10.