Macroeconomic stabilization policy and trade union behaviour as a repeated game

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13.1 INTRODUCTION

It is unquestionably true that the presence of trade unions in an economy affects its macroeconomic behaviour. By attempting to maintain traditional patterns of relative wages among occupations and industries, and by resisting cuts in real wages, unions slow macroeconomic adjustment (and structural change) in response to macroeconomic shocks. It is often argued that by insulating groups of workers from competitive pressures, wage determination is less associated with market clearing than it otherwise would be. Overlapping contracts and resistance to relative wage changes thus give aggregate wage inflation momentum it would not otherwise have (Taylor, 1980; Jackman, 1983). Trade union bargaining may affect the position of the Phillips curve (Jackman and Layard, 1982; Nickell, 1982). A popular argument for the increases in the NAIRU (non-accelerating-inflation rate of unemployment) which have taken place between 1960 and 1980 in many industrialized countries where unions are 'strong' is that trade unions have grown more 'militant' and their bargaining behaviour has changed in some way. This argument goes back at least as far as Hines (1964).

The purpose of this paper is to explore a further consequence of union behaviour for aggregate employment and real wages in any economy where the government attempts to stabilize output and employment in the face of shocks to the economic system. It is argued that stabilization policy, which effectively gives the union sector the appearance, if not the substance, of a partial full-employment guarantee, will induce it to choose higher real wages, leading to a lower level of aggregate

employment in the economy. Thus stabilization policy reduces aggregate employment (on average) and increases unemployment.

In the face of sustained high unemployment, governments have been tempted to seek a co-operative agreement with the trade union movement wherein the government pursues policies intended to expand employment in return for the union moderating its wage demands. A case in point is the UK in 1976 where the Callaghan government offered budgetary concessions in return for moderation in wage bargaining. The problem with this kind of voluntary agreement, a 'social contract', is that, given the behaviour of the other side, each side has a temptation to cheat. Indeed, the social contract engineered by Callaghan collapsed in the winter of 1978–9 when the union movement was no longer able to restrain wage demands.

'Social contract' outcomes and the associated temptations for the union to 'cheat' are analysed in this paper. The analysis then goes on to examine the extent to which any of the desirable features of the 'social contract' could be rescued if the government were to use suitable incentives to remove the union's temptation to cheat.

For simplicity, it is assumed that the labour market can be represented as the behaviour of a single union, with preferences defined on real wages and employment (The model may be relevant to economies with several unions, and with a competitive sector in the labour market as well, providing the union effects survive in such cases. Analysis of models with several unions, e.g. by Oswald (1979), indicates that this is likely to be true.) The analysis assumes the 'monopoly union' model of wage determination, where the union chooses the real wage and the firms choose the level of employment, (Oswald (1982) rather than the 'efficient bargain' model, used e.g. in Hall and Lilien (1979) and McDonald and Solow (1981)). Oswald (1983) discusses their relative merits.

This paper addresses the real affects of union behaviour and stabilization policy. Nominal effects are not considered. In order to do this it is assumed that the union can choose real wages and that government intervention can affect the position of the aggregate demand curve for labour. (The means by which this might be done are not specified in detail.) The aggregate demand curve for labour is also affected by a random shock, which provides the motivation for having stabilization policy in the first place.

The most natural interpretation of this structure is as a model of supply shocks—changes in productivity, or fluctuations in imported raw material prices and so on—and supply-oriented policy—employment taxes and subsidies, direct labour market intervention. However, the specification of the model has been kept as simple as possible consistent with the purpose at hand, and so it can be interpreted more widely than as a model of supply shocks.

The analysis emphasizes the strategic aspects of stabilization policy and wage determination. In section 13.2, they are examined as a one-shot game. The Nash and Stackelberg non-co-operative equilibria, and co-operative equilibria are examined. The Nash and Stackelberg equilibria have the property that stabiliza-