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PRESS RELEASE

Sequential bargaining in a New Keynesian model with frictional unemployment and staggered wage negotiation

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Since the early work of Phillips (1958), economists have been well aware that real wage and labour market dynamics are crucial for understanding the inflation process. But inflation dynamics is often analysed through the lens of the New Keynesian Phillips curve model in which the labour market is typically displayed as a spot market with no distinction made between heads and hours. Such models do not allow for involuntary unemployment and real wage rigidity, two key issues at stake when monetary policy faces complicated trade-off decisions.

This paper falls within the scope of recent efforts to integrate frictional unemployment into New Keynesian models: firms actively look for workers matching their requirements within the pool of job-seekers. In this set-up, this particular research intends to build a fairly general model allowing for staggered wage bargaining and differentiating between heads and hours in the labour production factor. This general framework makes it possible to analyse which features of labour market representation are important to generate realistic employment and inflation dynamics.

Search and matching models are known to be able to replicate the delayed and persistent response of labour market variables to shocks but it has recently been observed that they fail to produce a realistic range in employment dynamics. Several authors have put forward the argument that some rigidity in the wage level of newly-created jobs can help get round the problem. If new entrants cannot fully adapt their wages to a positive shock, the firm's profit expectations of an extra job will be higher and this will amplify aggregate employment reaction.

Since nominal wage rigidity is at the heart of the workhorse New Keynesian model to help induce inflation persistence, there are grounds for considering that nominal wage stickiness could contribute to producing both realistic employment dynamics and inflation sluggishness. The paper shows that it actually depends on the way in which working time is bargained. The literature on this topic usually distinguishes two procedures: (i) right-to-manage considers that the working time decision belongs unilaterally to the firm and (ii) efficient bargaining refers to working time that is negotiated by the firm and the worker in order to maximise their joint surplus.

Under the right-to-manage scenario, firms maximise profits by adjusting their demand for hours worked up to the point where the marginal productivity of labour and wages balance out: other things being equal, the demand for hours decreases with the hourly wage. The latter is an essential element of real marginal cost, opening up what is referred to as the "wage channel" in the literature. The direct consequence is that staggered wage bargaining will automatically generate inflation persistence. However, when they want to expand their labour force, firms prefer to ask workers on a low wage to put in more hours rather than pay search and recruitment costs for new workers to whom they should pay higher wages (in expectation). This leads to an unrealistically low reaction for employment. Under efficient bargaining, hours worked are independent of the wage, while the real marginal cost depends on the marginal disutility of worked hours and the marginal utility of consumption. Compared with the right-to-manage set-up, firms lose the flexibility to adjust along the intensive margin and employment volatility is higher. However, the volatility in working time affects inflation via the strong correlation between the real marginal cost and hours and the New Keynesian Phillips curve which links inflation to the real marginal cost. This illustrates the conflict between employment volatility and inflation persistence.

The paper presents a more general sequential bargaining procedure where hours worked are negotiated for each period with a bargaining power which can vary from that considered in the (staggered) wage negotiations. This model encompasses the two canonical working time bargaining procedures discussed above as particular cases. Such a sequential bargaining set-up, compared with the right-to-manage case, keeps the "wage channel" open and at the same time reduces a firm's incentive to adjust the labour force via its working time component. This leads to realistic employment and inflation dynamics. The paper also illustrates that the wage rigidity of existing jobs potentially plays an important role in the inflation process while the new entrants' wage rigidity matters for employment dynamics.

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