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PRESS RELEASE

Inflation dynamics with labour market matching: assessing alternative specifications

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The main task of a central bank is to ensure price stability. For this reason, it is important to understand the elements that help explain inflation dynamics. Among these elements, labour market frictions generally tend to be regarded as crucial. The intuition is that the labour market's slow but steady response to external shocks could in itself explain the slow and persistent response of inflation to these same shocks. Moreover, within the euro area itself, a wide range of labour market institutions co-exist and we believe it is useful to see which type of institution is important for explaining inflation dynamics and thus for monetary policy. This paper i) sums up various labour market modelling examples that can be found in the literature on this subject, ii) incorporates them into a neo-Keynesian model, iii) discusses their practicality and iv) explains how these different approaches can affect marginal cost behaviour and, using the neo-Keynesian Phillips curve, inflation patterns.

As a starting point, we take the model developed by Trigari (2006), namely a neo-Keynesian model in which the labour market is depicted by the Mortensen-Pissarides matching theory. In such a model, employment can be adjusted either extensively (number of workers) or intensively (number of individual hours worked) and there is common bargaining between firms and workers on working time and pay ("efficient bargaining"). The model is calibrated on euro area data. We then consider different variants: (i) hours fixed by the firms only ("right-to-manage"), (ii) wage rigidity, (iii) distinction between new and old contracts, (iv) different hiring procedures (and costs), (v) micro interactions between price and wage formation, (vi) different job-seeking procedures, and (vii) endogenous separation of the firm and the worker. We keep the same calibration for all these simulations, so as to be able to cross-compare all our results.

Our research shows that while, on the one hand, the original model accurately reproduces the behaviour of labour market variables, on the other hand, it is not able to reflect the pattern of inflation (it reacts suddenly and too strongly). Inflation behaviour is more realistic when using the "right-to-manage" approach combined with rigid wages, but the performance of the unemployment rate and reaction of the stock of vacancies is less realistic in this case. When we combine nominal wage rigidity and real wage rigidity due to the fact that the labour factor is firm-specific, we find that the larger is a firm's marginal cost reaction to a change in its price the lower will be the general price index response to an exogenous shock. Endogenising the job destruction process can also reduce the inflationary reaction, but this modelling is very sensitive to the calibration.

More generally speaking, our findings suggest that the microeconomic structure of the labour market plays a crucial role in determining the link between this market and inflation dynamics. The institutional features of the labour market which generate a direct relationship between wages and marginal costs can bring about a weak and persistent response of inflation to exogenous shocks.

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