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PRESS RELEASE

Employment, hours and optimal monetary policy

by Maarten Dossche, Vivien Lewis and Céline Poilly

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This paper describes how we use a model to show that in large firms the availability of *two* labour adjustment margins, namely the number of employees and volume of hours worked per employee set-up, gives rise to novel optimal fiscal and monetary policy prescriptions.

The model has a couple of important and realistic features as compared with much of the existing literature. First, firms' price-setting and hiring decisions are subject to costs and frictions. These two types of frictions are not artificially distinct from each other, but are at work within *every one* of these firms. This is important, because a firm that has chosen a particular price will adjust its labour input to meet the demand it faces at that price. Second, firms can only adjust hours per worker to keep up with fluctuations in demand in the short term; likewise, they can only change their workforce with a time lag in response to persistent changes in demand.

The steady state displays distortions along the two labour adjustment margins. First, due to the combination of monopolistic competition in product markets and labour market frictions (wage bargaining coupled with a 'right-to-manage' choice of hours), hours per employee are too low. Second, as a result, the shadow value of the marginal worker is also too low and therefore hiring is below the efficient level.

In a large firm, there is another (and well-known) effect on employment that works in the opposite direction. Hiring shifts the burden of future production away from the intensive and towards the extensive margin. Hours per employee fall and, through intra-firm bargaining, the wage paid to *all* workers falls, too. In isolation, this externality leads to over-hiring. The paper demonstrates that, in a standard calibration, the first effect on employment dominates and steady-state employment is too low.

It is shown that the optimal fiscal policy mix is a subsidy to private consumption (to raise production and hours per employee), combined with a tax on company earnings (to counter the over-hiring result due to the large-firm externality, see above).

In the absence of any fiscal instruments, the steady-state distortions lead to inefficient business cycle fluctuations. The model features a 'wage curve' whereby the wage set through bargaining is a convex function of hours per worker; with the real marginal wage increasing in hours. A low steady-state real marginal wage implies that the real wage and thus real marginal costs are not very sensitive to hours. As a consequence of this real wage rigidity, firms overuse the hours margin relative to the employment margin in response to shocks. In this context, the optimal monetary policy consists in using inflation as an instrument to dampen inefficient fluctuations in the volume of hours worked.