

Modeling the Participation of Households and Firms in Formal and Informal Economic Activities – Lessons from the Transition Economies

Non-technical Summary

Bianca Pauna
CERME

The purpose of the paper is to develop a dynamic labor market model that describes the mechanisms on which individuals and firms base their decisions regarding the supply of and the demand for formal and informal labor. In this model, the actors, workers and firms, are faced with two simultaneous choices: to supply labor, respectively hire workers, formally or informally. Making use of the utility maximization framework, in the case of the individuals, and profit maximization in the case of the firms, the mix of formal and informal work that is optimal for individuals/firms to supply/demand is obtained. The intersection of supply and demand in the formal and informal markets determines the equilibrium levels of employment and wage rates for the two markets.

The model finds that the formal labor supply schedule is determined by the current and the expected future differences in net wage rates and disutility from work between the formal and informal sector, as well as previous formal employment levels. The formal labor supply schedule displays an inter-temporal substitution characteristic, through which current employment adjusts by responding to expected changes in variables. The informal labor supply is determined by the informal net wage and by the disutility from informal work.

The determinants of the formal labor demand schedule are the current and the expected future values of difference in productivity between the two sectors, and current and expected future differences in labor costs to the firm. The formal labor demand schedule exhibits a certain degree of rigidity, with firms adjusting slowly to changes in the current and the expected future levels of the variables. The informal labor demand is determined by the current formal employment, informal productivity and informal wage.

The path of the equilibrium formal employment is determined by the difference in the slopes of the demand and supply schedules. When demand is steeper than supply, the formal equilibrium employment path exhibits similar characteristics to the supply schedule, namely an inter-temporal substitution effect triggered by the current and the expected future changes in variables. When supply is steeper than demand, the formal employment equilibrium path exhibits characteristics similar to the demand schedule, namely a rigidity of the equilibrium employment level vis-a-vis the current and the expected future changes in variables. The informal equilibrium employment is determined by informal labor productivity, disutility from informal work and costs to both workers and firms from informal participation.

Keywords: formal employment, informal employment, dynamic labor market model.