Macroeconomics A: EI056

Quizz

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1 Insider-outsider model

Question: Why can temporary productivity shocks have permanent employment effects in the insider-outsider model?

Answer: The wage is set by a union representing only the employed workers. At time 0 there are N_0 employed workers. The union sets a wage W_0 such that the firm retains the N_0 workers at that wage. Now consider that productivity unexpectedly drops at period 1 for one period. The wage prevailing at period 1 is the one that was set before the shock: $W_1 = W_0$. At that wage the firm only retains N_1 workers, with $N_1 < N_0$.

The union sets decides which wage to set for period 2, at which time productivity will be back up. If it cared about all the workers that initially had a job, it would maintain the wage at $W_1 = W_0$, and the firm would re-hire the workers it fired in period 1, so that $N_2 = N_0 > N_1$.

The union instead cares only about the workers that are employed in period 1. It then sets a higher wage for period 2, such that the N_1 workers keep their jobs and get a higher wage. The workers that lost their job in period 1 do not get a say in the wage setting and are permanently excluded.

2 The role of the wage

Question: How does the interaction between labor supply and labor demand differ between the standard model and the efficiency wage model?

Answer: In the standard model, both firms and workers take the wage as given. Firms are willing to hire until the marginal product of labor equals the wage, and workers are willing to work until the wage is equal to the marginal cost of work. Thus, the wage results from both the supply and demand.

In the efficiency wage model the firm does not take the wage as given, but sets it to induce effort from worker. It needs to use the wage to induce effort as there is no way to condition the pay on

effort because effort is not observed. The wage proposed by the firm reflects the sensitivity of effort to the wage. Given the wage, labor is set by the firm so that its marginal productivity is equal to the wage. The labor supply does not play any role, and thus there can be unemployment. The only supply that plays a role is the effort supply, that is the relation that gives effort as a function of the wage.

3 Wage and incentive

Question: In the Shapiro-Stiglitz model, could we reduce unemployment by letting the unemployed work for a lower wage than the one prevailing in equilibrium?

Answer: No. Even though the unemployed would be willing to work for a lower wage, the firm would not be willing to pay it. This is because at that low wages workers would have little to loose if they get dismissed, and thus do not have a strong incentive to work hard. The firm prefers to pay a wage enough to make sure that employees are productive than a lower wage to employees who are not. Even though the unemployed could pledge to work hard if employed, this pledge is not credible as the firm cannot freely check wether employees work or not.

In other words the wage acts as an incentive mechanism to sustain effort, and not as an allocative mechanism to clear the labor market.

4 Search and matching

Question: Why is the wage above unemployment benefits, and employment below full employment, in the search-matching model?

Answer: In the search-matching model the wage exceeds unemployment benefits as otherwise workers would be unwilling to take a job. A wage-benefit gap is thus needed to ensure that search takes place.

If there was full employment, the probability for a firm to fill an open position would be zero, as there would be no employed person to apply. But having an open desk is costly (cost c), so the value of a vacant position would be negative. This cannot be an equilibrium and firms would reduce vacancies.

In equilibrium, firms keep some positions vacant only if the gain from doing so (the probability of filling them times the profits if this happens) exceeds the cost of an open desk (ρV_V must be 0 in other words). For this to be the case, there must be some positive probability of finding someone to take the job, and thus there must be some unemployed people looking.

Notice that if firms could keep positions open at no cost ($c = 0$) then there would be an infinite supply of vacancies. Any worker loosing its job would then automatically get another one right away, and we would get full employment.