Review Problems: Labor Market

Econ520. Fall 2022. Prof. Lutz Hendricks. August 29, 2022

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1 Walrasian Model

1. For the production function $Y = K^{\alpha} + L^{1-\alpha}$, derive the labor demand curve. What is the effect of higher K on labor demand? Why does it differ from the Cobb-Douglas case $Y = K^{\alpha}L^{1-\alpha}$?

   Answer: Zilch. $MPL = (1-\alpha)L^{-alpha}$. The reason is the additive form of the production function.

2. Analyze the effects of a minimum wage. Explain why it is inefficient. Note the general point: it is a bad idea to redistribute income by distorting prices.

   Answer: see slides. (Not covered in all years)

2 Wage Setting

Recall $W/P = P^e/PF(u,z) = 1/(1+m)$. Explain how the following affect nominal wages and real wages:

1. Higher price expectations.
2. Lower unemployment.
3. Higher markup.

2.1 Answer

1. No change in the real wage (it is determined by m). For given u, P has to rise. Intuition: Otherwise the higher P^e would erode W/P^e (which is what the workers consider in their labor supply decision). So W rises.
2. Again, no change in the real wage. To work more, workers need to see a higher wage. That requires a higher P.

3. The real wage falls. For given u, we would need a constant P/P^e and thus a constant P.

3 Unemployment

1. Why is it hard to measure unemployment? Why might unemployment be overstated or understated in the data?

   Answer sketch: Measured unemployment asks non-workers whether they are looking for work. If not, they are called "out of the labor force."

   Unemployment benefits cause some non-employed to "pretend" that they are looking for work. Conversely, some may think that looking for work is hopeless; those are not counted.

2. Explain main reasons why there may be involuntary unemployment: efficiency wages, contracts, search/matching, centralized wage bargaining.

   Answer sketch: See the slides (not covered in all years).