Review Problems: Labor Market

Econ520. Spring 2021. Prof. Lutz Hendricks. July 29, 2021

Jones, Macroeconomics, problems 7.1, 7.2, 7.4-7.8, 7.9, 7.10.

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.

2 Wage Setting

Recall $W/P = P^e/P F(u, z) = 1/(1+m)$. 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?

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