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MACROECONOMIC THEORY AND POLICY

The Labor Market

1. The wage-setting equation

$$W = P^e F(u, z)$$

Assuming, for now, that $P = P^e$, we get

$$W = PF(u, z) \quad \Rightarrow \quad \frac{W}{P} = F(u, z).$$

2. The price-setting equation

a. The production function: $Y = AN$. Assuming A = 1, we get $Y = N$.

b. The mark-up equation

$$P = (1+m)W \quad \Rightarrow \quad \frac{P}{W} = (1+m) \quad \Leftrightarrow \quad \frac{W}{P} = \frac{1}{1+m}$$

3. Equilibrium real wages and unemployment

$$F(u_n, z) = \frac{1}{1+m}$$

4. From unemployment to employment

$$u = \frac{U}{L} = \frac{L-N}{L} = 1 - \frac{N}{L}$$

When $u = u_n$, $N = N_n$. Thus, from the production function in 2.a. above, it follows that:

$$u_n = 1 - \frac{Y_n}{L}.$$

From the equation in section 3 above it follows that:

$$F(1 - \frac{Y_n}{L}, z) = \frac{1}{1+m}.$$

The above is derived from Blanchard and Johnson, chapter 6.