

Macro module 24 New Keynesian model practice exam questions

(The attached PDF file has better formatting.)

[The following scenario applies to the next two questions.]

The market for a good has imperfect competition. For firms making the good:

- The price of the good = 8.77 per unit
- The real interest rate is 4.0% *per annum*
- The mark-up ratio is 1.81
- The marginal product of labor = 4.79 units of the good per worker-hour
- The marginal product of capital = 4.90 units of the good per unit of capital
- The price level is 149

Question 24.1: Nominal wage rate

What is the nominal wage rate per hour?

Solution 24.1: The markup ratio = price per unit / [nominal wage rate / marginal product of labor], so

nominal wage rate = price per unit / [markup ratio / marginal product of labor]

$$= 8.77 / (1.81 / 4.79) = 23.21$$

Question 24.2: Real wage rate

What is the real wage rate per hour?

Solution 24.2: The real wage rate = the nominal wage rate / the price level = $23.21 / 1.49 = 15.58$