How to Reduce Unemployment Without Creating Poverty

2014 Summer Term

Klaus Wälde (lecture) and Alexey Cherepnev (tutorial)

www.macro.economics.uni-mainz.de

version - May 8, 2014

Problem Set 1

May 8, 2014

Pissarides: Unemployment, Vacancies, and Real Wages (1985)

Question 1

What is the broad idea of Pissarides (1985)?

Question 2

Find a simple relationship between the job finding rate, p, and the job filling rate, q:

$$p(\theta) = \theta q(\theta), \tag{1}$$

where $\theta = v/u$ is the ratio of vacancies v to unemployment u. Give an interpretation.

Question 3

Suppose y denotes in units worker's net output from a potential match. Output y is a random variable with a cumulative density function $F(y)$ which is identical for all jobs and workers. Find:

a) the fraction of acceptable contacts:

$$a(x) = \int_x^\infty dF(y) = \int_x^\infty f(y)dy \tag{2}$$

where $f(y) = \frac{dF(y)}{dy}$ is a probability density function, and x denotes the productivity that yields zero surplus for a firm;

b) the total number of job matches.