797N – Macro 3
Fall 2015

Problem set 5

1. Using the lecture-note formalization of the Kalecki argument, discuss the implications of structural changes that

   (a) strengthen workers for any given value of the employment rate

   (b) worsens the "business climate" for any given value of worker militancy.

2. In a standard efficiency wage model of the shirking type (e.g. Shapiro and Stiglitz) the unemployment problem could be solved if workers "posted a bond" (i.e. workers put up a certain amount of money which they lose if they are caught shirking). Why could posting a bond have this effect? Would it work in a model of the Akerlof & Yellen type?

3. Consider the following modified and simplified version of Rowthorn (1977, Cambridge Journal of Economics). Firms set prices (p) as a markup on wages (w),

$$p = mw \tag{1}$$

   where the markup m is assumed constant. Wage inflation (the growth rate of the nominal wage) is determined by

$$\hat{w} = \begin{array}{ll} -\alpha + \beta v & \text{if } -A \leq \hat{p}^e \leq A \\ -\alpha + \beta v + \hat{p}^e & \text{if } \hat{p}^e > A \text{ or } \hat{p}^e < -A \end{array} \tag{2}$$

   where v is the employment rate. Thus, it is assumed that wage setting is unaffected by inflationary expectations as long as the expected inflation rate is low but that high levels of expected price inflation wlll be fully incorporated into wage inflation. The expected inflation rate is equal to the inflation rate in the previous period (static inflation expectations),

$$\hat{p}^e = \hat{p}_{-1} \tag{3}$$

   (a) Derive and sketch the long-run Phillips curve (ie. the relation between the employment rate and inflation when expectations are being met, $\hat{p} = \hat{p}^e$).

   (b) Assume that initially the economy is at a long-run equilibrium $(v^*, \hat{p}^*)$ with $\hat{p}^e = \hat{p}^* = -\alpha + \beta v^* = 0$. Policy makers now decide to expand aggregate demand so as to raise the rate of employment to a new level v^{**}. Analyze the short- and long-run inflationary effects of this policy if

i. $v^{**} - v^{*} \leq A/\beta$

ii. $v^{**} - v^{*} > A/\beta$

(c) Briefly discuss the specification of equation (2) in relation to the analysis of money illusion in Shafir et al. (1997) and Akerlof et al. (1996).