## Macro Theory B

PS 3: DMP

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## 1 Workweek restrictions, unemployment, & welfare

Exercise 26.9 in LS2

## 2 Matching model with heterogeneous jobs<sup>1</sup>

Extend the basic matching framework as follows: Let there be I types of jobs. A filled job of type i produces  $y_i$ . The cost in each period of creating a measure  $v^i$  of vacancies of type i is given by a strictly convex upward-sloping cost schedule,  $C^i(v^i)$ . Assume that vacancies are competitively supplied at a price equal to the marginal cost of creating an additional vacancy,  $C^i(v^i)$ , and retain the assumption that firms employ at most one worker. There is only one matching market, at which all vacancies are posted and all unemployed have access to. The rest of the model  $(b, r, \sigma, \gamma)$  remains unchanged (where b is the flow value of unemployment, r is the interest rate,  $\sigma$  is the fraction of matches that

 $<sup>^{1}\</sup>mathrm{Davis},$  Steven J. 1995. "The Quality Distribution of Jobs and the Structure of Wages in Search Equilibrium."

break at every period, and  $\gamma$  is the bargaining power of workers). Provide a condition for  $\theta$  that includes only  $\theta$  and the model parameters. Discuss the differences in this equation between this extension and the benchmark case.

## 3 Mandatory reading

Hall, R.E., 2005. Employment Fluctuations with Equilibrium Wage Stickiness. American Economic Review 95, 50–65.

Shimer, R., 2005. The Cyclical Behavior of Equilibrium Unemployment and Vacancies. American Economic Review 95, 25–49.