

DISSERTATION PROPOSAL

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"Three Essays in Macroeconomics"

Tuesday, January 13, 2015

1:00 pm

388 Posner Hall

The first chapter studies the workforce occupational mobility and its effects on workforce composition and business cycle. I argue that the countercyclical workforce occupational mobility could be caused by aggregate economic fluctuations, as a result, the workforce composition shifts over business cycle, which in turn can affect how the economy recovers from recession. Using the Current Population Survey, I find: a) workers were more likely to separate from their occupations during last two recessions, b) the deteriorated economic conditions during last recession significantly reduced the average productivity change upon occupation switch, which suggests the additional occupation switches were triggered by worsened economic conditions. To demonstrate how workforce composition could play a role in business cycle, I calibrate a model with aggregate TFP, occupational productivity, match quality and increasing productivity in occupational tenure. Workers can be separated endogenously from current occupation due to low continuation value for the firm. Aggregate TFP shifts the threshold of endogenous separation, and less productive workers are fired first in a recession, leaving workers who are in more productive occupations, have better match quality or longer occupational tenure in the workforce. The output recovers faster than the aggregate TFP because newly hired workers tend to concentrate in more productive occupations and have better match quality than before. The model is able to generate faster output recovery and slow labor market recovery after a recession. The result suggests that other than the total amount of labor input, the workforce composition change could also play an important role in real business cycle and this channel shall be explored more in the future.

The second chapter, coauthored with Nicolas Petrosky-Nadeau and Etienne Wasmer, reviews the theoretical mechanisms that promote either procyclical or countercyclical movements in time spent searching for consumer goods and services, and then uses the American Time Use Survey to measure shopping time during the Great Recession. Average time spent searching declined in the aggregate over the period 2008-2010 compared to 2005-2007, and the decline was largest for the unemployed who went from spending more to less time searching for goods than the employed. Cross-state regressions point towards a procyclicality of consumer search in the goods market. At the individual level, time allocated to different shopping activities is increasing in individual and household income, with the exception of time spent purchasing groceries, gas, and food. We also confirm a negative correlation between working hours and shopping time for men found in Aguiar et al. (2013). However, this countercyclical force of shopping time does not dominate in the aggregate.

The third chapter uses the income prospect at occupational level to study the individual occupation mobility. Using the monthly Current Population Survey from 2002 to 2010, I am able to identify the occupational mobility at individual level as in the first chapter. Furthermore, the income prospect can be constructed at occupation level using the subsample in which outgoing respondents are asked about their occupation and income at the same time. The income prospect can serve as the benchmark to determine different types of occupation switch. By using multinomial logistic regression, the paper is able to identify the determinants of occupation switch of different types.