Discussion of
"Debt Constraints and Employment"
by Kehoe, Midrigan, and Pastorino

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What the paper is about

great recession:
both consumption and employment dropped more in areas with
largest decline in household debt (Mian, Rao and Sufi)

literature:
growing body of literature focus on how a credit crunch
generates a drop in consumption

this paper:
how can a credit crunch generate a drop in employment?

Discount Rates

- the literature typically relies on nominal rigidities

- Hall (2014): rise in firms' discount rates reduces desire to invest → job creation declines

- this paper: a credit crunch increase firms' discount rates ...

- two additional ingredients amplify the mechanism:

    1. human K accumulation → backloaded returns to vacancy
       → longer term return in investment

    2. also the workers' discount rates increase
       → increasing wage profile is a form of investment

Toy Model

- continuum of agents i part of a large family

- two periods ($t = 1, 2$) and shock $z_i \sim U[0,1]$

- family preferences: $u(c_1) + \beta u(c_2)$

- budget constraint in period 1:

$$c_1 + a = \int [e_i(z_i - \kappa) + (1 - e_i)b]di$$

- budget constraint in period 2 ($r = 0$):

$$c_2 = \int [\lambda z_i + (1 - e_i)b]di + a$$

- borrowing constraint

$$a \geq -\bar{d}$$

Employment decision

- human capital accumulation: $\lambda > 1$

- nec condition for unemployment: $z_i < b + \kappa$ for some i

- employment decision: cut-off rule $\hat{z}$ s.t. work if $z_i \geq \hat{z}$

$$u'(c_1)(b + \kappa - \hat{z}) = u'(c_2)(\lambda \hat{z} - b)$$

- interior solution $\Rightarrow$ it must be that $\hat{z} < b + \kappa$

Credit Crunch

- consumption in period 1:

$$c_1(\hat{z}) = \int_{\hat{z}}^1 (z_i - \kappa)di + \int_0^{\hat{z}} bdi + \bar{d}$$
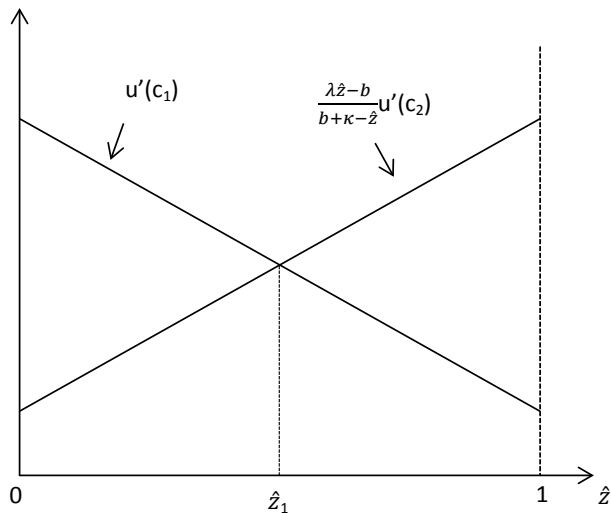
- consumption in period 2:

$$c_2(\hat{z}) = \int_{\hat{z}}^1 \lambda z_i di + \int_0^{\hat{z}} bdi - \bar{d}$$
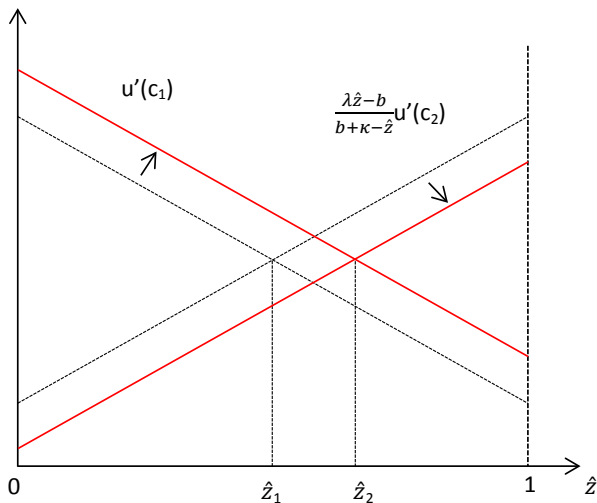
- employment cutoff:

$$u'(c_1(\hat{z})) = \frac{\lambda \hat{z} - b}{b + \kappa - \hat{z}} u'(c_2(\hat{z}))$$

- if $\bar{d}$ decreases $\Rightarrow \hat{w}$ increases

Before the Shock

After the Shock

Take out

- credit crunch $\rightarrow$ agents need more resources now

- in standard models this implies they want to work more!

- here agents can get more resources by

    1. creating less vacancies (agents are both workers and entrepreneurs)

    2. sometimes even accepting less jobs ($b > z_i$ because of human capital)

- fortunately the authors show that the first channel is the most important

Comment I: Wage Determination

- authors show that workers' discount rate change important

- otherwise wages would go down and help creation

- how important is the choice of the bargaining power?

- why $1/2$? different from literature...

- easy suggestion: robustness check

- more difficult: try to estimate it

- larger drop in employment if workers have higher bargaining power?

Comment II: Large Family

- more general model would split workers and firms

- no transfers within the family (and from firms)

- workers would suffer more due to credit crunch

- two effects in opposite directions:
    1. workers would try to bargain even flatter wage profile
    2. but probably smaller bargaining power

- ⇒ wage determination even more important...
    1. what is the outside option: leisure vs transfers
    2. what is the bargaining power

Comment III: Heterogenous Jobs

- jobs are heterogenous for human capital intensity (sectors/occupations)

- more human capital intense jobs steeper wage profiles

- mechanism $\Rightarrow$ more human capital intense jobs should suffer bigger employment drops

- but e.g. manufacturing suffered big employment decline

- would be interesting to look at the data more carefully

Comment IV: Job-to-Job Transitions

- evidence of decline in job-to-job transitions during recessions (Li Bergolis 2015)

- maybe job-to-job transitions towards jobs with steeper wage profile

- or towards safer jobs (workers move for higher upside/ more risky jobs)

- similar spirit: increase in workers' discount rate push them towards safer jobs

Comment V: Long Term Contracts

- in this model: wage profile does not really matter

- alternative way to amplify firms' discount rate effect
  (without workers' side)

- think about long term contracts

- firms would prefer to have steeper wage profile during a
  credit crunch

- but if commitment problems (or other contractual frictions)
  it may be that the effect is bigger!