Discussion on "Aggregate Implications of Financial and Labor Market Frictions" by Andreas Caggese & Ander Perez

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[1]The views expressed is solely the responsibility of the author and should not be interpreted as reflecting the views of the Executive Board of Sveriges Riksbank.

Introduction

- The relationship between labor market and financial frictions highlighted by the 2008 crisis.
- Standard mechanism: financial constraint combined with working capital, see e.g. Jermann & Quadrini AER(2012) .
- This paper has a different mechanism - precautionary motives in firms and households lead to demand externality affecting the economy.

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The Economic Environment

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Firms

- Needs assets a_F to operate - has to be at least $\underline{a}_F$.
- Assets evolve according to

$$a'_F = a_F (1 + r) + \pi - d(a_F)$$

  where r is return, π profits and $d(a_F)$ dividends
- Also, no external funding after startup: $d(a_F) \geq 0$

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- Profits π are

$$P\left(z+\frac{\theta}{1-\theta}\varepsilon\right)-w$$

if idiosyncratic productivity ε is high and

$$P\left(z-\varepsilon\right)-w$$

if idiosyncratic productivity is low, where P is the price w the wage, z average production and θ the probability of a negative productivity shock.

- Wages are determined according to sharing rule

$$w=\varphi Pz$$

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- If assets too low

$$a_F (1 + r) + (P (z - \varepsilon) - w) \leq \underline{a}_F$$

  Exit with recovery rate χa_F for owners.
- Firms can exit voluntarily if present value of dividends is too low

$$\sum_{s=t}^{\infty} \beta^{s-t} d_t < a_F - Fcw$$

  where Fcw is severance payments
- Creates endogenous exits

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Workers

- Workers either work or are unemployed.
- Payoff function

$$\frac{c^{1-\gamma}}{1-\gamma}$$

- Cannot insure against unemployment and are credit constrained: assets $a \geq 0$.
- Precautionary savings
- If employed, assets evolve according to

$$Pc + a' = a(1+r) + w(a_F)$$

and if unemployed

$$Pc + a' = a(1+r) + h$$

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Results

- Steady state analysis
- Precautionary motives implies that financial frictions can have large effects on the economy
- Finds that higher unemployment benefits can *reduce* unemployment substantially
- Firing costs have small effects on unemployment

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Comments on model and results

- Nice and interesting mechanism of labor market and financial frictions
- Precautionary motives lead to problems in model - demand externality.
- Higher probability of loosing job gives more precautionary savings in households
- Higher precautionary savings in households leads to lower returns for firms
- Lower returns for firms leads to more voluntary exit

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- Financial frictions combined with precautionary savings important:

γ	Unemployment when: financial fr important ($\underline{a}_F = 1.14$)	fin fr **not** important ($\underline{a}_F = 0$)
0.5	7.7 %	4.88 %
2	12.63 %	5.71 %
4	21.55 %	6.41 %

- Effects of changes in benefits not consistent with empirical evidence - usually an increase in benefits lead to an increase in unemployment, see e.g. Costain & Reiter (2006).
- Policy experiment:

Benefit level	Unemployment when: **financial** fr important	**labor** mkt fr important
2 %	21.66 %	10.08 %
25 %	14.11 %	9.82 %
50 %	9.54 %	9.66 %

- For firing costs evidence are mixed - see Cahuc & Zylberberg (2004).

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- Benefits result. One reason for it: Benefits do not affect wages: sharing rule is

$$w = \varphi P z$$

- Normally, in a search and matching model, parties bargain over the surplus: NBS

$$(V_t - U_t)^{\delta} (J_t)^{1-\delta}$$

where V_t (U_t) is the value for the worker when employed (unemployed) and J_t the value for the firm. Sharing

$$\delta (V_t - U_t)^{\delta-1} (J_t)^{1-\delta} \frac{\partial V_t}{\partial w_t} + (1-\delta) (V_t - U_t)^{\delta} (J_t)^{-\delta} \frac{\partial J_t}{\partial w_t} = 0$$

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- Values

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V_t &= w + \beta E_t \frac{\lambda_{t+1}}{\lambda_t} \left((1-\sigma) V_{t+1} + \sigma U_{t+1} \right) \\
U_t &= h + \beta E_t \frac{\lambda_{t+1}}{\lambda_t} \left(\lambda_w V_{t+1}^{avg} + \beta (1-\lambda_w) U_{t+1} \right)
\end{aligned}
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- Problem: e.g. V_t and $\frac{\lambda_{t+1}}{\lambda_t}$ depend on worker assets. Firm value also depend on assets. Wage would then depend on asset position of both firm and worker

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- Possible alternative: assume union/employer associations that cannot observe asset position of individual firms/workers
- Fixed costs perhaps messier - wage varies between new hires and workers with existing jobs, see Cahuc & Zylberberg (2004) for a simple treatment.
- Hosios condition: is unemployment too high or too low in the baseline calibration ?
- Improving calibration. Is there data on liquidation costs? Perhaps take calibration from Banal-Estañol & Ottaviani (2010) where it is 0.65.
- For benefits, perhaps use Shimer AER (2005) where it is 0.4.

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