Comments on "Risk Allocation, Debt Fueled Expansion and Financial Crisis," Beaudry and Lahiri

Discussion by

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Federal Reserve Board

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The views expressed in this discussion are solely my responsibility, and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or of any other person associated with the Federal Reserve System.

Outline

- This is a nice model. It goes to the heart of the recent situation.

- Review

    - Specific comments
    - Policy implications

- The model emphasized the effects of credit default risk on employment. Yet, what do we know about the effects of credit shocks on the labor market dynamics?

Asymmetric Information and Adverse Selection

- Some years ago, many MBS where rated AAA –with minimal risk of default. Buyers did not worry about the quality of the exact composition of assets of the bundle, because the stream of payments was (perceived) as safe.

- House prices decline, the owners of MBS had strong incentive to estimate how much those securities were worth. This was the crux of the problem.

- At this point, everyone who considers purchasing a MBS fears Akerlof's classic lemons problem. The buyer hopes that the seller is selling the security because, say, it needs cash, but the buyer worries that the seller may simple be trying to unload its worst-performing assets. This asymmetric information problem takes the market illiquid.

- In these circumstances, the market price of MBS reflect's buyers' belief that most securities that are offered for sale are low quality (fire-sale price). The true value of the average MBS may in fact be much higher. This is the hold-to-maturity price.

- The adverse selection problem then aggregates from individual securities to financial services institutions. Because of losses on their real estate investments, these firms are undercapitalized. Investors fear that any firm that would like to issue new equity or debt is currently overvalued. Hence, firms that attempt to recapitalize push down their market price (increasing their equity premium). Lending freezed (**lemon problem again**).

The model a detour

- Baseline model
  - Risk premium, debt, and employment
  - Dynamic

- Distorted economy: Default risk, asymmetric information, and adverse selection
  - Multiple equilibria

Timing

Trade in labor and assets markets

Credit market
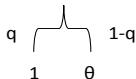
t

t+1

Production

Consumption

$$p^d = \frac{E u'(c^o_{t+1})}{E u'(c^y_t)}$$

$$d_t = \phi(d_{t-1} A_t)$$

$$\frac{w}{p^b} = \frac{p^s}{p^b} = g'(l)$$

$$\frac{p^s}{p^b} = \frac{E_s u'}{E_s u'}$$

Shock: A

Existing cohort

Financiers (F)

Workers (y)

New cohort

Financiers ($p^d d = f + F$)

q   1-q

1   θ

Risk premium, employment, and debt
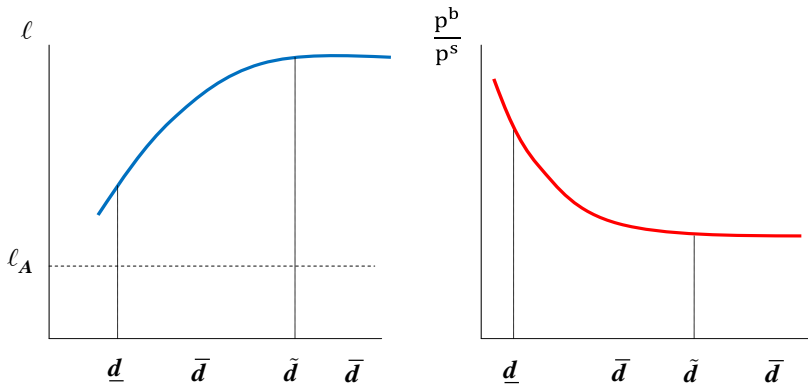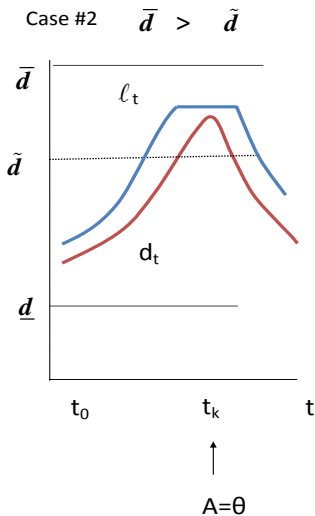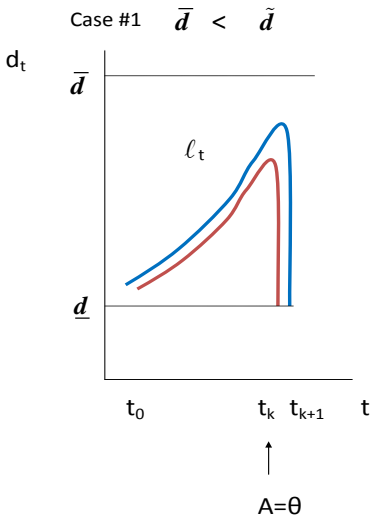
Dynamics

Case #1 $\overline{d} < \tilde{d}$ Case #2 $\overline{d} > \tilde{d}$

- No income effect in labor supply

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- Analysis of the debt thresholds ($\widetilde{d}$ and $\overline{d}$).

Default risk

Trade in labor and assets markets

Credit market

t

t+1

Production

Consumption

$$\frac{w}{p^b} = \frac{p^s}{p^b} = g'(l)$$
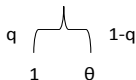
$$p^d = \frac{Eu'(c^o_{t+1})}{Eu'(c^y_t)}$$

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Intermediaries

$$\frac{w}{p^b} = \frac{p^s}{p^b} = g'(l)$$

$$p^d = \frac{Eu'(c^o_{t+1})}{Eu'(c^y_t)}$$

$$\frac{p^k}{p^b} = E\psi$$

$k_t = d_{t-1}$

$$\frac{p^s}{p^b} = \frac{E_s u'}{E_s u'}$$

Shock: A

$d_t = \phi(d_{t-1}A_t, \psi)$

Workers (y)

New cohort

q   1-q

1   θ

Existing cohort

Financiers (F)

Financiers ($p^d d = f + F$)
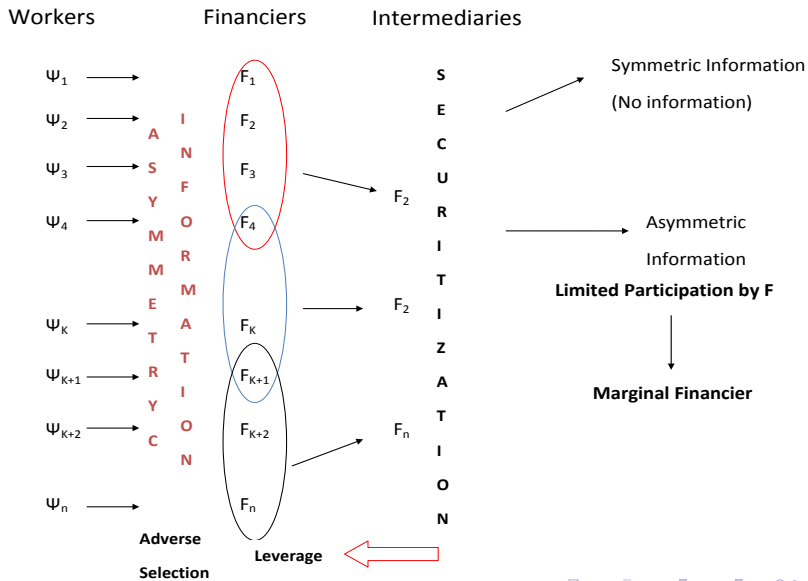
Heterogeneity:

Default Risk

$1 - \psi$

Default risk: Asymmetric information

Marginal financier

- $1 - \psi$ Probability of default (i.e. productivity equal to zero at the beginning of t+1)
- Symmetric information

$$p_t^d = E(\psi)E\frac{u'(c_{t+1}^o)}{u'(c_t^y)} \quad E(\psi) = \frac{p_t^k}{p_t^b} \text{ i.e. } p_t^k = E(\psi)p_t^b$$

- Asymmetric information. Limited participation in credit markets. This requires to pin-down the marginal participant in the credit market (i.e. the marginal financier offering debt).

$$p_t^k = \widehat{\psi}\, p_t^b, \ \widehat{\psi} = \frac{\int_0^{\psi^m} \psi f(\psi) d\psi}{F(\psi)}$$

$$\psi^i > \psi^m \text{ The financier holds on to her debt}$$

$$\psi^i < \psi^m \text{ The financier will offer debt holdings}$$

Multiple equilibria: An illustration

- At least two equilibrium

  - $\psi^m = 0$. Pessimistic (no insurance is providing to undertake employment/production decisions).

    - Distorted economy (employment below autarky)

  - $\psi^m = 1$. Symmetric information case

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- The transmission mechanism to the real economy of credit default risk.

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- Preventing 'high-valuation episodes'

Policy implications

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- Preventing 'high-valuation episodes'
  - The responsibility fee or the Volcker rule

Financial shocks and labor market dynamics

- Credit spread decomposition (Gilchirst-Zakrajsek (2010)):
  - Component attributable to expected default risk (M-DD).
  - Excess bond premium: price of default risk.

- Analysis:
  - Implications of shocks to the excess bond premium for labor market dynamics.

Finding and Separation Rates (Shimer-Updated)

BLS (black) vs. CPS (blue)

Job Finding

Job Separation
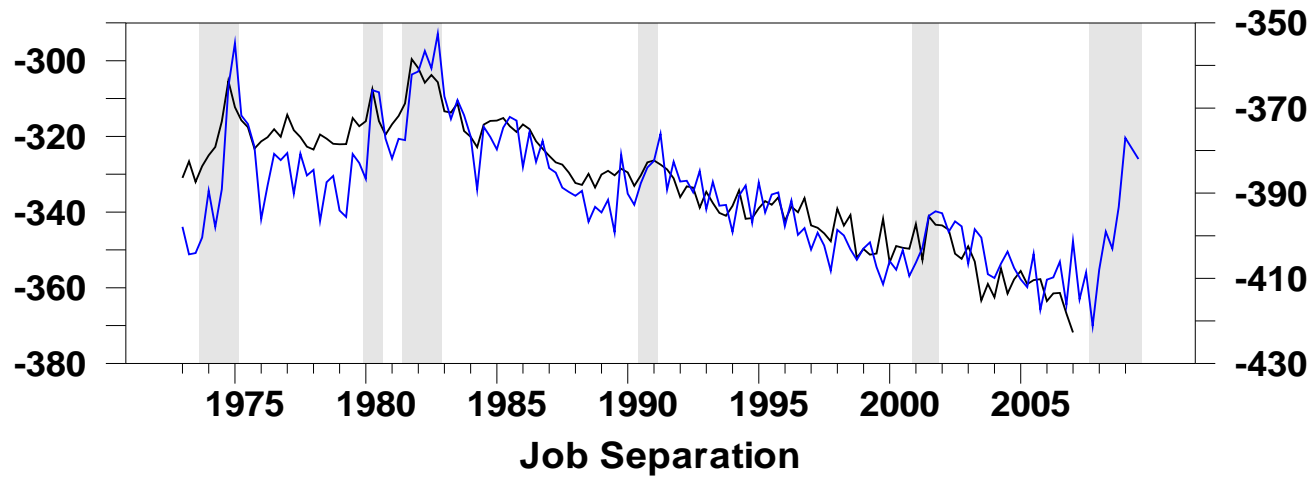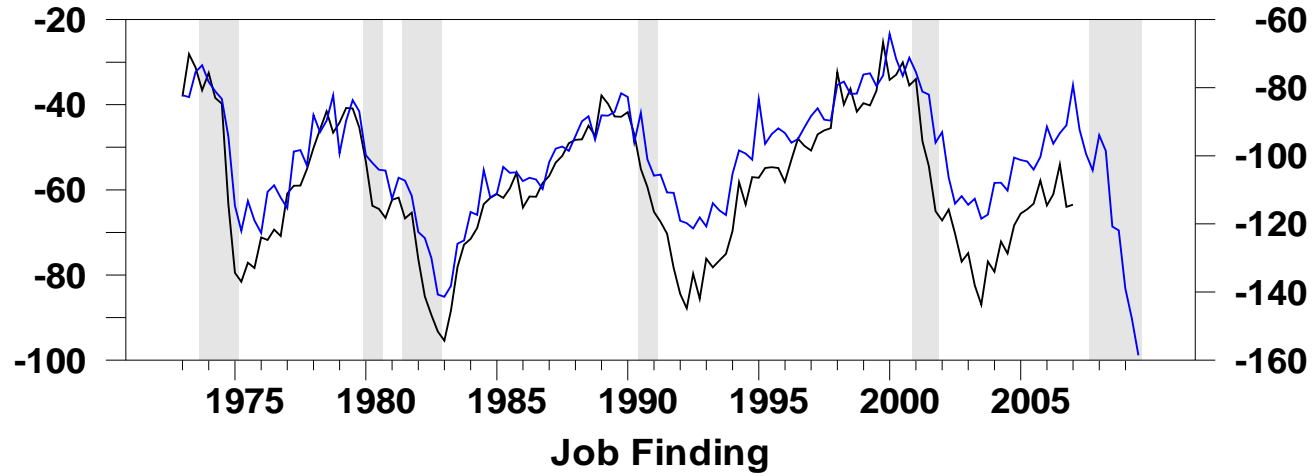
Responses to a Financial Shock
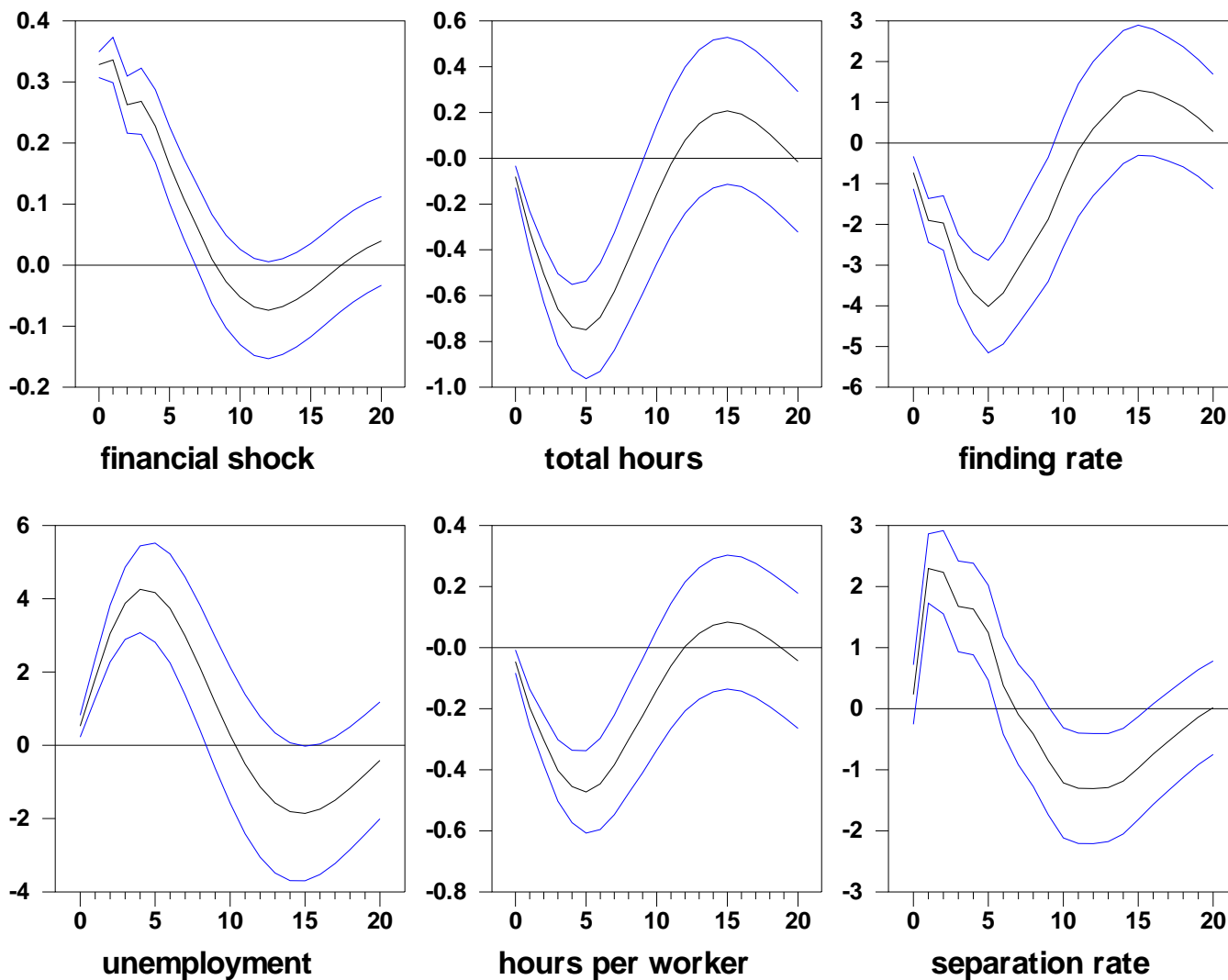
Contributions to unemployment dynamics

——	unemployment
——	only finding
——	only separation