Discussion of: "Collateral Booms and Information Depletion"

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Sept 2019

General Theme

- Literature on “credit booms / credit cycle”
  - loans that are made in good times are “different”: lower informational quality
- Main idea: pecking order between use of collateral vs. screening
  - If collateral is worth enough to reassure lender, no need for screening
  - Screening becomes necessary only when collateral has low value
- Main results:
  - Periods of booms: collateral is high; little screening
  - Periods of Busts: collateral falls, move to screening, overhang of unscreened capital
  - Longer booms→Larger Busts
  - Public policy: no scope for intervention; efficient cycles

Outline

- Quick summary of the model
- Comments

Model

- Ingredients: (1) Moral Hazard + (2) stickiness in informational quality
- Capital is Screened or Unscreened (forever): vintage effect
- Screening is costly (convex costs: certifiers are scarce)
- Screened capital has no moral hazard issues (generates fully pledgeable income)
- Unscreened capital is “opaque” with probability $(1 - \mu)$: proceeds will be diverted by entrepreneur

Remark

information production by finance industry

- Screening the collateral (no cost in this paper)
- Screening the entrepreneur (no heterogeneity in this paper)
- Screening the technology/project : this paper

Pecking-order intuition

- First saturate your capacity to use unscreened capital by using wealth
- Then, use screened capital as far as it remains profitable (given convex cost of screening)

Key equation

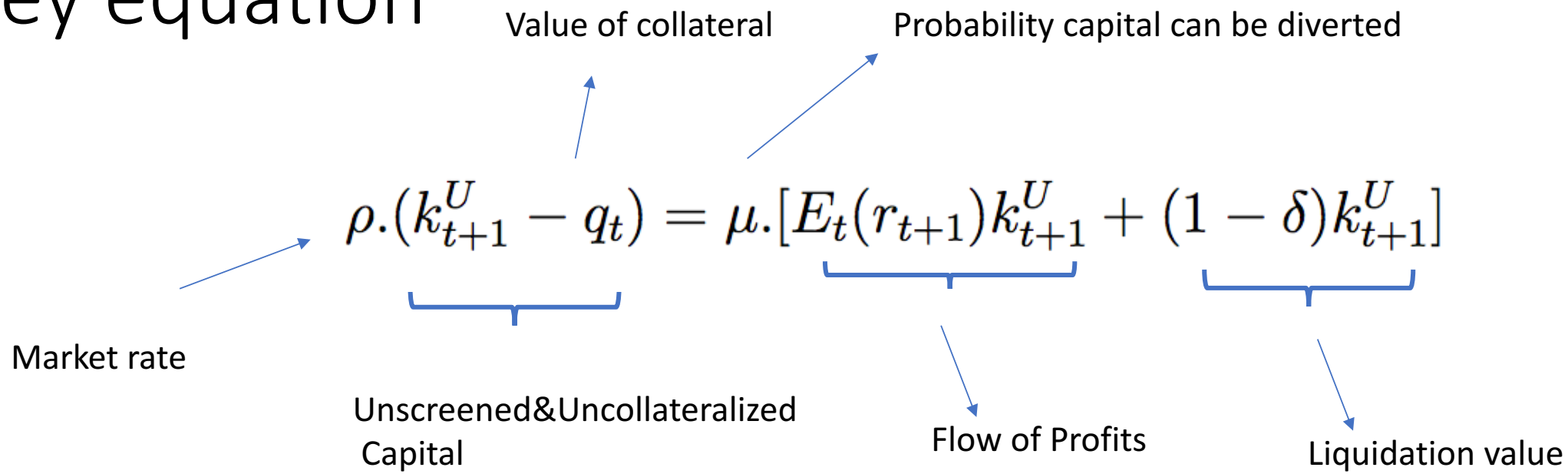
Value of collateral

$$\rho.(k_{t+1}^{U} - q_t) = \mu.[E_t(r_{t+1})k_{t+1}^{U} + (1-\delta)k_{t+1}^{U}]$$

Market rate

Unscreened&Uncollateralized Capital

Key equation



Key equation

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Market rate

Unscreened&Uncollateralized Capital

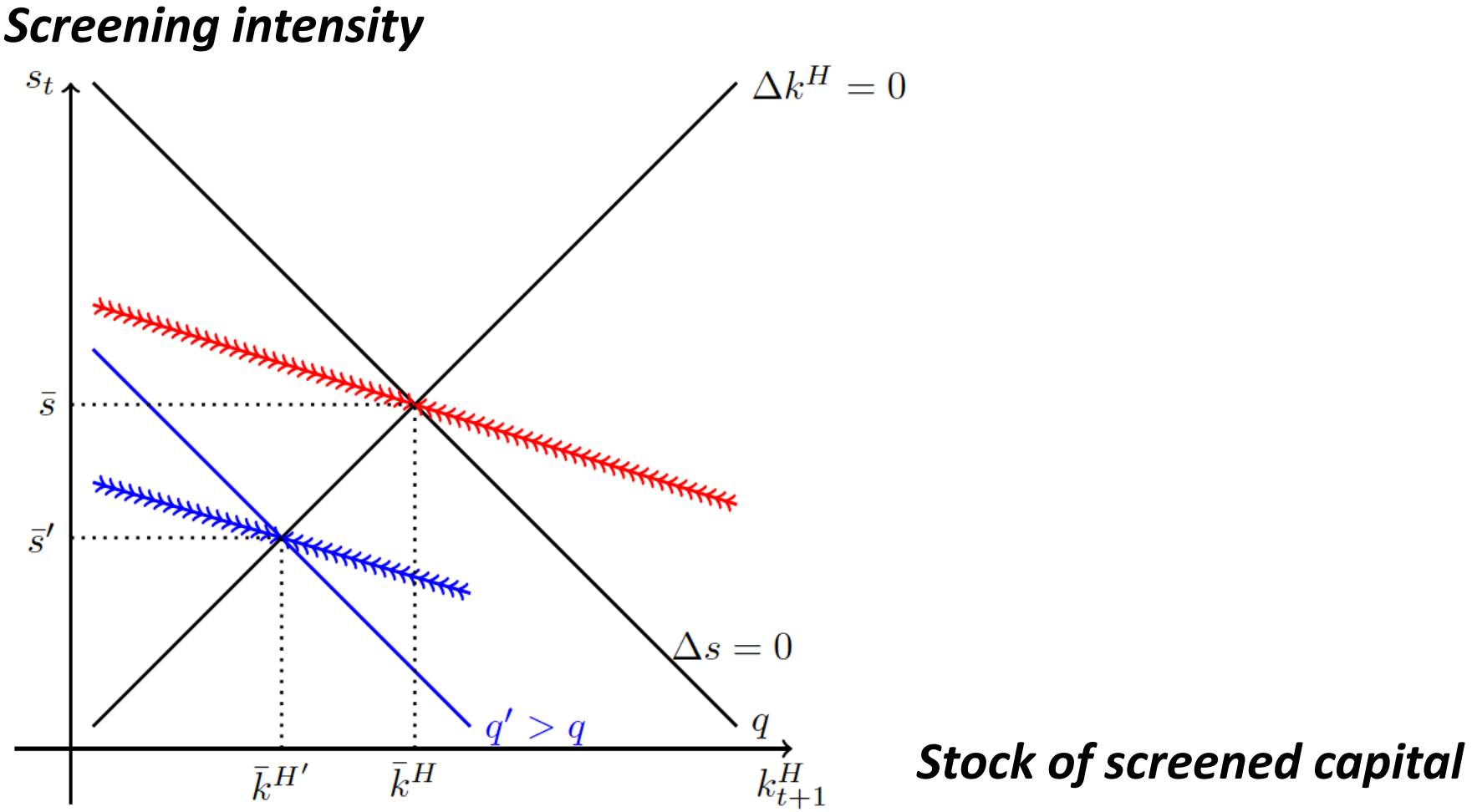
Pledgeable cash flows
Coming from all Unscreend capital

Key equation

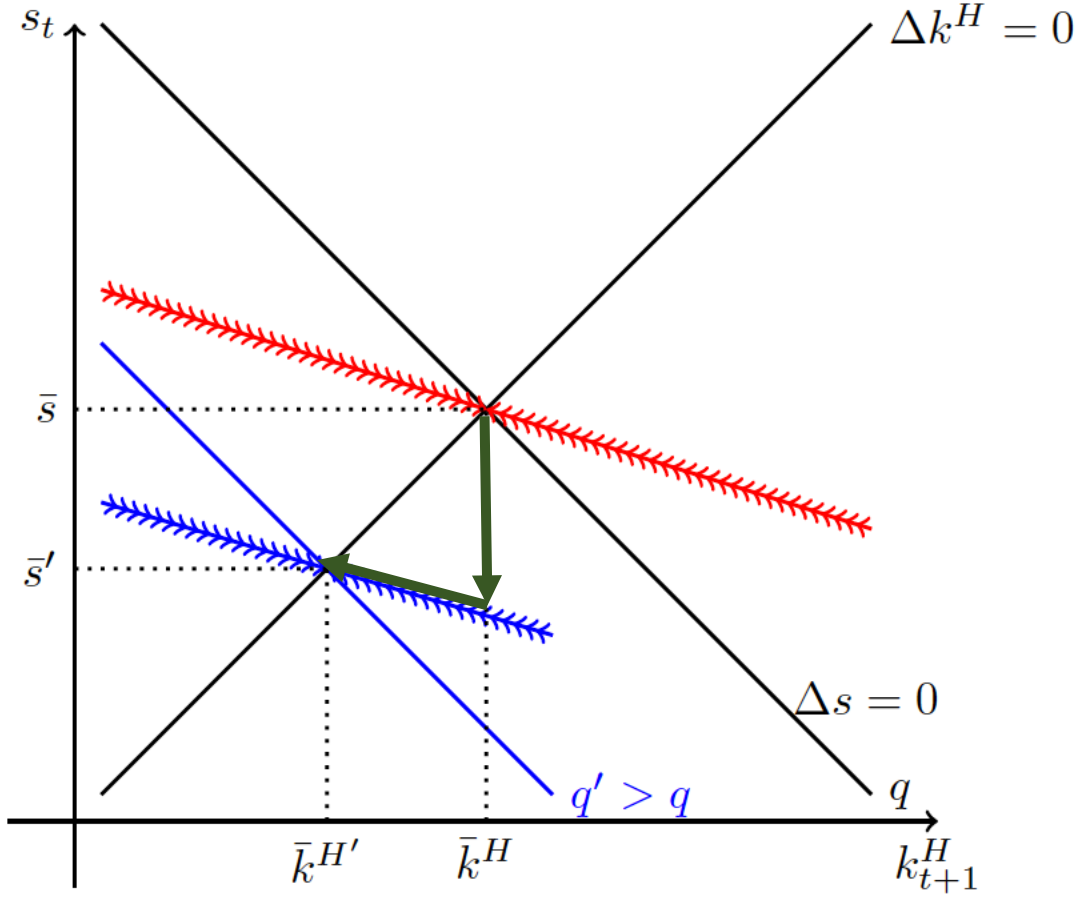
$$\rho.(k_{t+1}^{U} - q_t) = \mu.[E_t(r_{t+1})k_{t+1}^{U} + (1-\delta)k_{t+1}^{U}]$$

$$k_{t+1}^{U} = \frac{1}{1 - [E_t r_{t+1} + (1-\delta)]\mu/\rho} q_t$$

Graph


Screening intensity
s_t
$\Delta k^H = 0$
$\bar{s}$
$\bar{s}'$
$\Delta s = 0$
$q' > q$
q
$\bar{k}^{H'}$
$\bar{k}^H$
k^H_{t+1}
Stock of screened capital

Graph



Comment 1 : Ancestors

- Part of the Austrian Business cycle literature
  - Liquidationist view of the credit cycle
    - Rognlie, Matthew, Andrei Shleifer, and Alp Simsek. 2018. "Investment Hangover and the Great Recession."
    - Paul Beaudry, Dana Galizia, Franck Portier, "Reconciling Hayek's and Keynes' Views of Recessions", 2018
- Shares the same issues:
  - Bust is optimal, Information production and lending should not be restricted
  - Consumption quite smooth (?)

Comment 2: Modelling

- Collateral value exogenous
- Assumption that capital cannot be screened ex-post seems strong. Is it key?

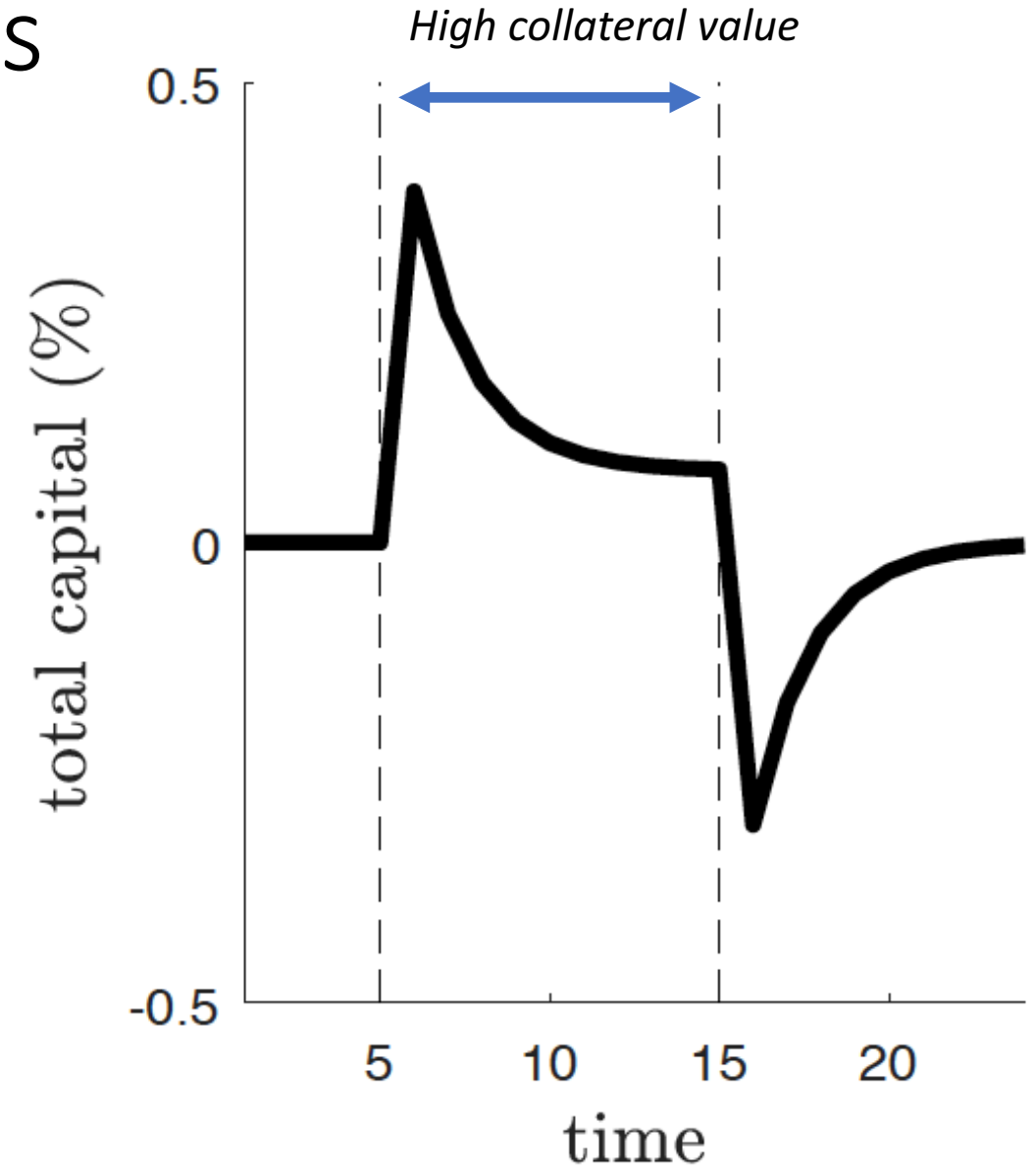
Comment 3: Interpretation

- Why 2 types of capital rather than 2 sectors :
  - opaque vs. non-opaque sector
- Is K vintage effect an important dimension? (cf. empirics)
- Could be a model of debt vs. equity ?

Comment 4: Predictions

- How far from calibratable?

- Counterfactual predictions?
  - Capital decline starts before collapse of collateral value
  - What about consumption?
- Contrast with Behavioral view:
  - Lax lending in booms due to expectations mistakes



Empirics: firm-level

$$Info_{it} = \alpha_i + \delta_t + \beta \cdot RE_{it} + \gamma \cdot P_{kt} + controls_{it} + \varepsilon_{it},$$

Instrumented with Saiz(2010) elasticity instrument

Two proxies:

1. Duration of main lending relationship
2. Number of analysts

Comment 3: Empirics

- High distance to the theory: vintage of capital idea disappears
  - In the empirical part, information production is about *stock of capital*, not incremental investments
- Maybe could explore more direct predictions of model, like :
  - Dynamics of cost of screening
  - Vintage effects: Do firms that are born during credit booms suffer more when real estate collapses?

Empirics

Information production variables unaffected by credit cycle in time series

How to interpret it in terms of the model? Cost of screening going down?

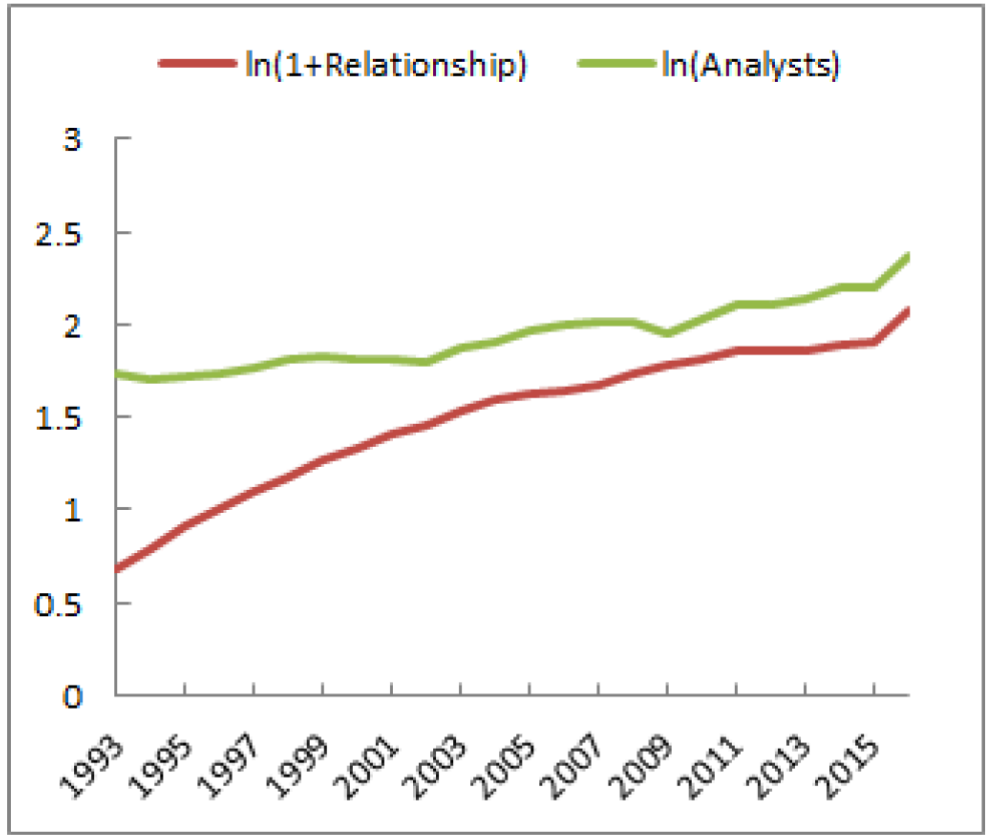


Figure 9: **Firm-level information**

Conclusion

Very nice and creative model

Opens up the issue of the production function of information along the cycle

Punchline: Not so obvious “lax lending” during credit booms is inefficient