Discussion: Paul Wooley Conference

The Forced Safety Effect: How Higher Capital Requirements Can Increase Bank Lending (Bahaj and Malherbe)

Marcus Opp

SSE

Summer 2018

Motivation

1. Ongoing debate about bank capital regulation in the aftermath of the financial crisis

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2. Not much motivation needed

Contribution / Main results

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Roadmap for discussion: Explain "Forced Safety effect**"** in a simpler model
that allows for various extensions (building on HOO)

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- Equityholders choose Δ_E, D_0 and I to maximize:

$$-\Delta_E + \mathbb{E}\left[\max\left\{A^s + I\Delta_A^s - D_0, 0\right\}\right]$$

(Important: promised repayment D_0 regardless of risk!)

Optimal capital structure and investment decisions

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- Take on new project, $I = 1$, iff

$$NPV\Delta_A := \mathbb{E}\left[\Delta_A^s\right] - \Delta_A \geq P_0 - P_1$$

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    Necessary condition is that put value strictly decreases!

Why the bank may pass on a safe good project?

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  - ▶ Does not invest if NPV sufficiently small: $NPV < \frac{p_L}{1-p_L} \bar{e}_N$

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Comment 1: The effect is "possible" for an individual bank

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    i.e., safe bank would always find it optimal to finance safe asset
- GE segmentation of banking sector maximizes aggregate put value

Comment 2: Regulators care about **aggregate** volume & composition of credit (Individual bank behavior and aggregate effects not the same)

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- Generally, private ranking of bank not aligned with social ranking!
  Effects of regulation depend on _marginal_ borrower type

3 Type Example:
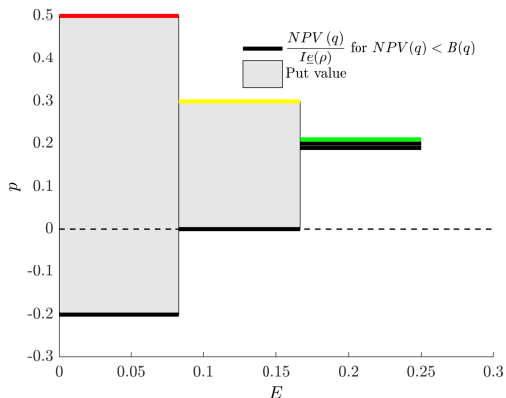
Stylized example with 3 types, 2 states, $I = 1$, $\underline{e} = 20\%$ $\forall$ types

1. Good, safe borrower bank dependent: $C = (1.05, 1.05)$
2. Good, risky borrower with public market access: $C = (1.8, 0.6)$
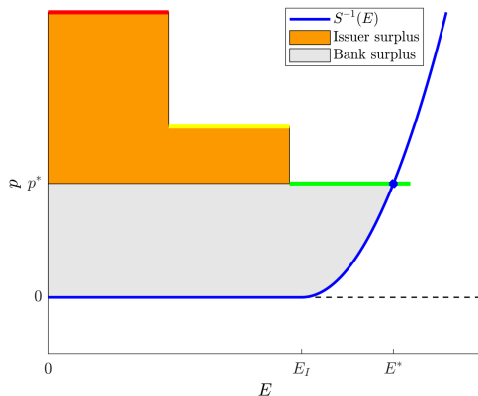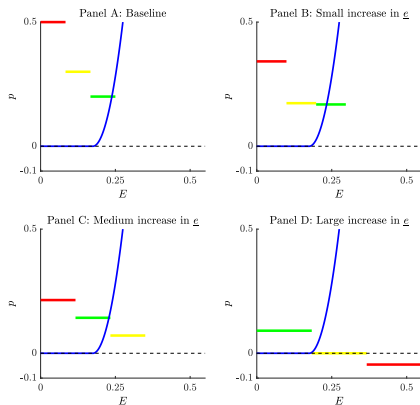3. Bad, risky borrower: $C = (1.5, 0.4)$

Equilibrium rents

Figure:

Bank competition: Private surplus may be passed on to borrowers!

Aggregate lending opportunity is endogenous to regulation

- Panel A →B: Good, safe issuer is marginal. $\underline{e} \uparrow \Rightarrow$ Total NPV$\downarrow$
- Panel B →C: Good, safe issuer has higher p^r than good, risky issuer
- Panel C →D: Good, safe issuer has highest p^r (GE effect: **pays lowest yields under most stringent capital regulation**)

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   1. This paper: Focus on one, **new** counter-intuitive new case
   2. OOH highlight importance of marginal borrower type: many intuitive (& counter-intuitive) effects (and when they arise) can be characterized