Stabilization vs. Growth

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Big Picture

- Question: should we save distressed firms?
- Answer:
  - Stabilization $\uparrow$, Growth $\downarrow$
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- Model is very stylized
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  - tensions between model and data?
- Results driven by specific mechanisms
  - evergreening that arises from specific assumptions
  - innovation externality whose identification is questionable

Why does evergreening occur in the model?

Simplified 2-period model

- legacy *defaultable* debt b
- firm chooses
  - whether to default on outstanding debt b
  - next period *non-defaultable* debt b' and capital stock k'
- motive to take on debt: *impatience*
- production function $F(k)$ (increasing and concave)
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Firm equity value E

$$E(b; Q) := \max_{b', k'} \max \left[0, -b - k' + Qb' + \beta_f \left(F(k') - b'\right)\right]$$

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Default i.i.f. $Q \leq Q_{min}(b)$, with $Q_{min}(b) \uparrow$ in b

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- "monopolist" lender that solves

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$$\Rightarrow Q = \begin{cases} \beta_\ell & \text{if } Q_{max}(b) \geq \beta_\ell \geq Q_{min}(b) \\ Q_{min}(b) & \text{if } Q_{max}(b) \geq Q_{min}(b) \geq \beta_\ell \\ 0 & \text{otherwise} \end{cases}$$

Mapping between model and data

My model interpretation

- Relationship lending
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  - corporate bonds
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Fix: Use supervisory / loan-level data (e.g. Y-14)?

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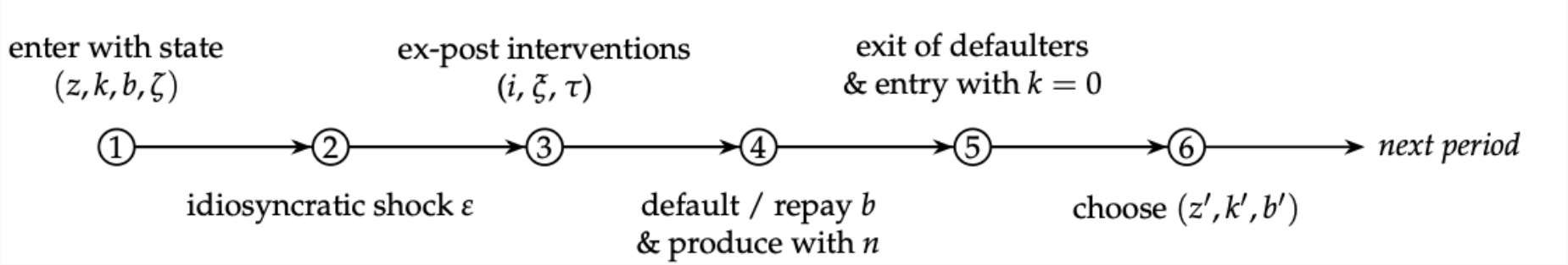
Problem:

- I am not sure this is what we see in the data
- Low productivity, high leverage firms typically face higher, not lower, borrowing costs (at least with Compustat firms)

Timing Assumptions Are Doing the Work



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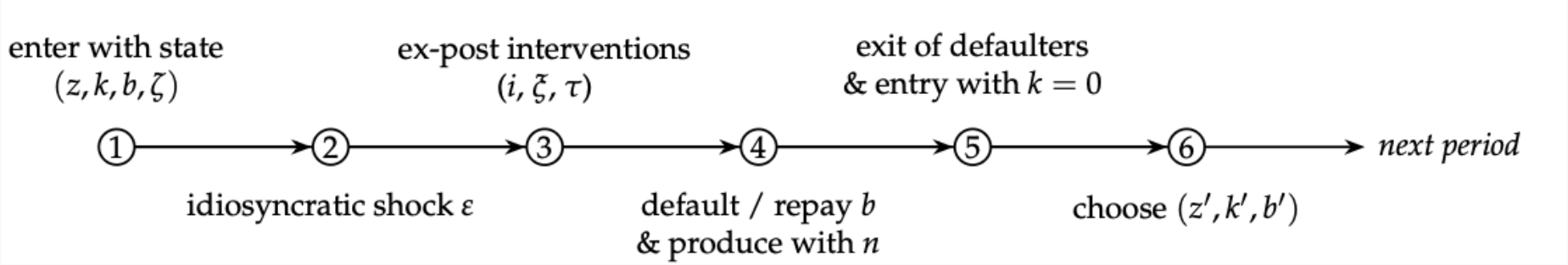

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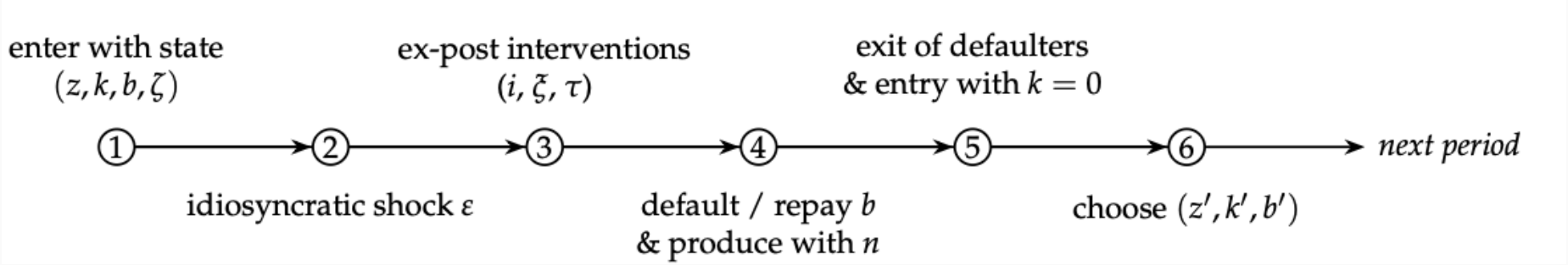

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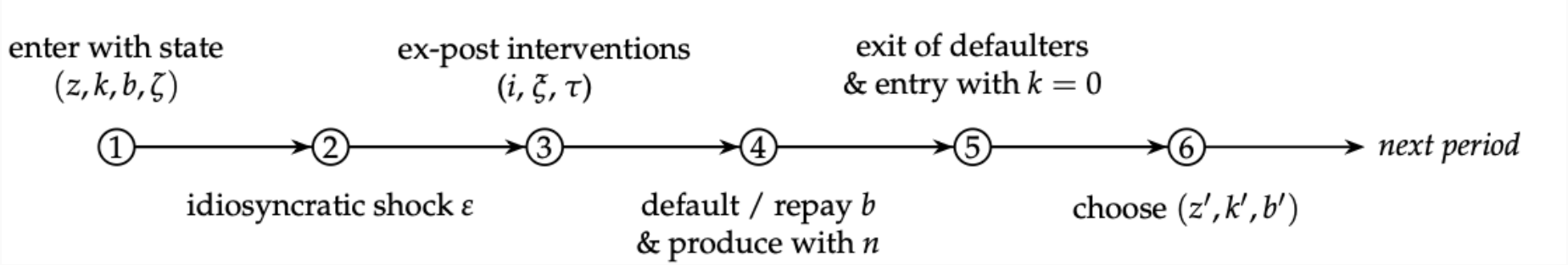

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Related:

- What exactly are i^{reg} and ξ^{reg} in the data?

Firm Heterogeneity?

- **In the model, all firms choose**
  - same capital k
  - same productivity z
  - same debt b
- **Only source of heterogeneity**
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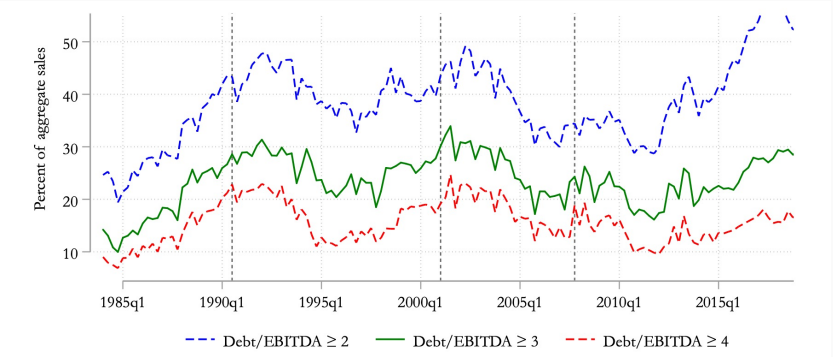

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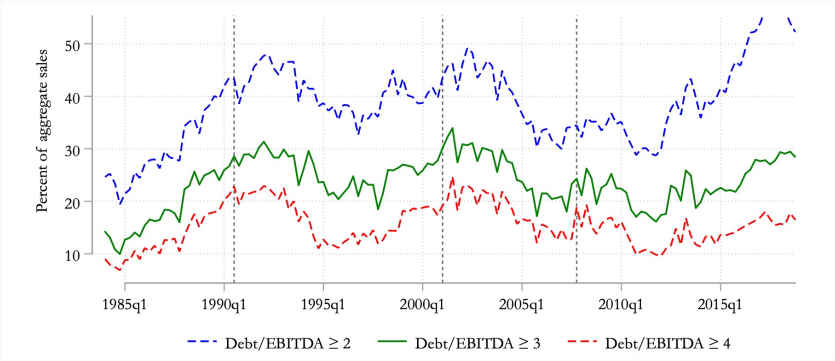

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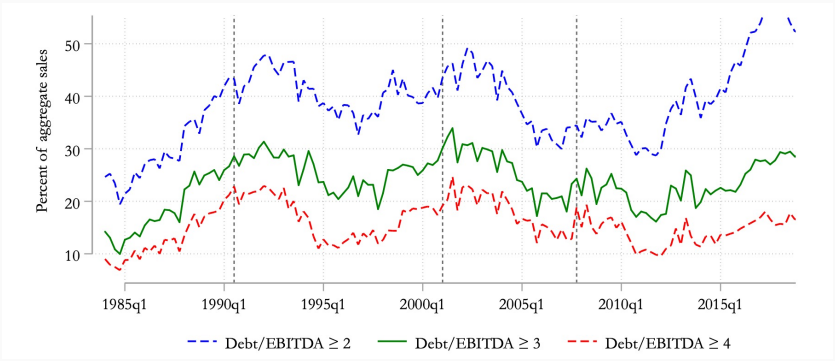

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Bottom line:

- This feels more like a toy model, not a quantitative one
- Unless firm heterogeneity doesn't matter for this mechanism?

One Mechanism Seems to Drive Everything

Key assumption: R&D costs $\downarrow$ with average productivity

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Concern:

- Strong assumption (seems non-standard?)
- Elasticity $\rho \sim 0.3$ drives quantitative results.
- Fragile identification (uses R&D tax credits as IV)
  - Firms can relocate R&D
  - Correlation with local conditions
  - Public firms only (selection)

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Possible fix

- Strip model down to 1–2 key frictions?

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Suggestion:

- Reframe paper around this?

Conclusion (Takeaway)

- Interesting mechanism
- Nice execution

But:

- Results hinge on a couple of key assumptions
- Model is too stylized
- Weak empirical grounding

Bottom line:

- This feels like a “theoretical possibility result”
- Not really a quantitative policy result