Discussion of

"On the Scale of Financial Intermediaries"

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Empirical regularities

- Findings to be interpreted
  - Asset growth funded with debt (not book equity)
  - Payouts high (low) when book equity high (low)
  - Result is stable time trend for equity (relative to assets, leverage and payouts)

- Related findings
  - Post-crisis asset growth has slowed more for banks & broker/dealers than for other firms
  - Book leverage is procyclical; market leverage is countercyclical

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Suggested interpretations

- Banks target book equity
  - earlier work (Adrian and Shin) suggests this arises from optimal contracting with creditors
- More provocatively…
  - "This payout behavior raises the question why banks choose to finance the growth in credit through debt, even while they erode the size of their book equity through increased payouts."
  - "**This suggests that banks' operations do not exhibit constant returns to scale.** If the banking business had constant returns to scale, the bank could refrain from dividend payouts by retaining the profit as book equity and replicate their existing operations based on a larger book equity foundation."

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Can regulatory incentives and institutional features explain these phenomena?

Short answer:
YES!

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Interpreting findings through a regulatory/institutional lens

- Preference for funding asset growth with debt
  - Debt is cheap(er), e.g., b/c of underpriced deposit insurance & implicit guarantees; or b/c of returns to liquidity provision, payment services & maturity transformation
  - *Note non-financial firms also depend more on debt than on equity for growth*
- Preference for payouts over equity accumulation
  - Higher equity reduces value of deposit insurance and implicit guarantees
  - Even safe banks may want to release cash to avoid future regulatory restrictions on payouts
  - *Note non-financial firms with growth opportunities also make payouts to shareholders*

Interpreting facts through a regulatory/institutional lens

- My interpretation:
  - Normal corporate finance frictions also apply to banks (aversion to issuing equity, preference of shareholders for payouts, tax advantages of debt)
  - In addition, banks manage capital structure and payouts to satisfy capital requirements at lowest cost, which implies smoothing of equity
    - See also Rafael Repullo and Javier Suarez “The pro-cyclical effects of bank capital regulation” RFS, 2013 and references therein

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Implications for returns to scale?

- **An important issue for regulatory design**
  - E.g., if decreasing returns then less costly to break up large banks or tax size

- But hard to link optimal scale to capital structure and payout policies
- **Theoretical considerations:**
  - Capital structure and payouts are irrelevant to growth as a first approximation
  - Frictions favoring debt financing & positive payouts may slow down adjustment to desired scale but they shouldn’t affect what that scale is
    - Mystery of simultaneous debt issues and payouts present in other industries too
  - Growth by mergers achieves scale without new equity. Here effects of mergers are undone by pre-consolidating institutions

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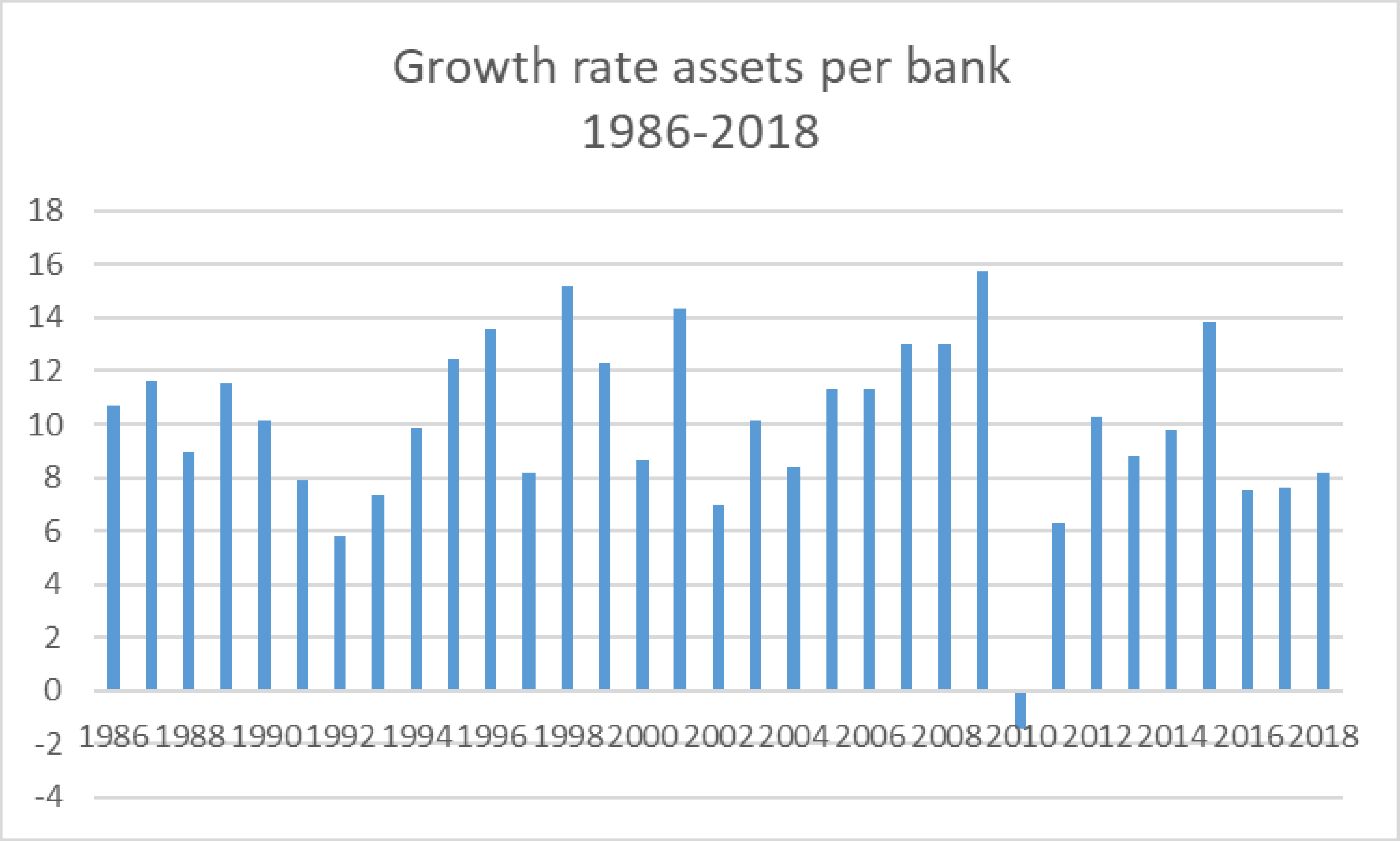
- **Empirical evidence:**
  - The scale of individual U.S. banking institutions has grown at 8% per year from 1985 to 2018, suggesting **increasing returns to scale**
    - Question then is whether this is for regulatory reasons or to achieve fundamental efficiencies
  - Growth in assets of individual banks appears similar pre- and post-crisis

The increasing scale of individual banks



Bank scale, capital structure & payout policy are much studied. What do we already know?

- A sampling of articles on “scale,” just from the JMCB’s archives:
  - Karlyn Mitchell and Nur M. Onvural, "Economies of Scale and Scope at Large Commercial Banks: Evidence from the Fourier Flexible… (1996)
  - Jeffrey A. Clark, "Economic Cost, Scale Efficiency, and Competitve Viability in Banking" (1996) pp. 342-364
  - Stavros Peristiani, "Do Mergers Improve the X-Efficiency and Scale Efficiency of U.S. Banks? Evidence from the 1980s," pp. 326-337 (1997)
  - Do Large Banks Have Lower Costs? New Estimates of Returns to Scale for US Banks," David Wheelock and Paul Wilson
  - David C. Wheelock and Paul W. Wilson, "Do Large Banks Have Lower Costs? New Estimates of Returns to Scale for U.S. Banks" (2012)

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