Investment and Corporate Governance: Evidence from Japan in the 1990s

Comments by Colin Mayer

Impact of Leverage on Investment

- Limits over-investment:
  - Free cash flow
- Creates under-investment:
  - Bankruptcy threat
  - Asset substitution
  - Debt overhang
- Over (under)-investment in low (high) q firms

Effect of Corporate Governance

- Banks, institutional and foreign investors reduce under-investment in high q firms
- Institutional and foreign investor reduce over-investment in low q firms but banks may increase it
- Only sound banks can maintain long-term relations to reduce under-investment

Analysis

- Panel regression of investment/assets on
  - Q and cash flow,
  - Time and fixed effects
  - Leverage interacted with growth opportunity, ownership and main bank dependence
- 1300 firms, 1993 to 2000

Results

- Investment ratio negatively (positively) related to leverage in (non)-manufacturing
- Negative (positive) relation stronger (weaker) in post-financial crisis 1997-2000
- Negative relation in high and low growth firms
- Foreign investors and banks reduce negative relation post-financial crisis in high growth
- Banks increase negative relation in low growth firms particularly with poor banks

Interpretation

- Over-investment in non-manufacturing post-bubble followed by under-investment in manufacturing post-financial crisis
- Under-investment not just in high growth
- Better corporate governance by foreigners
- Main-banks maintained relation only with high growth firms post-crisis
- Banks reduce investment in low growth firms particularly if bank performance is poor

Comments

- Theories point to optimal leverage and therefore leverage affects cost of capital
- What is optimum and how does it vary across sample?
- For example, should there be a size control?
- How does ownership affect optimum?
- Would relation be expected to be linear?

Alternative View

- No optimum and leverage fluctuates in relation to financing needs
- Leverage is then derivative rather than fundamental
- Product of investment requirements, internal resources and access to external sources
- Latter a function of firm-investor relations

Endogeneity

- Raises question of whether leverage is endogenous
- Fact that it is pre-determined does not avoid issue since investments interconnected
- Also growth opportunities will be a function of leverage
- Implication that should model investment and leverage as jointly determined

Complexity of Relations

- Relation of investment to leverage, interacted with growth opportunities, period, ownership and bank relations, performance of banks
- Simpler partitions by types of firms and periods, e.g. firms with/without bank relations, high/low growth firms, bubble/crisis periods

Stylized Facts

- Where did institutional and foreign investor stakes increase between bubble and crisis periods?
- Where did bank relations persist, what was their relation with performance?
- How do institutional and bank involvement relate to corporate activities?
- Relation of these results to existing literature, eg Weinstein/ Yafeh

Explanation of Investment Theories

- Paper does not reject either under-investment or control of free cash flow theories
- One of most striking facts is large increase in cross-sectional variance in leverage
- Did leverage increase in high or low growth potential firms?
- Did it increase in firms with free cash flow?

Explanation of Bank Lending Theories

- Do not find predicted tendency of banks to over-lend to low q firms or for poor bank performance to cause under-investment
- What happened to allocation of bank lending between low and high q firms and between firms with large and small external financing requirements?

Conclusions

- Interesting set of issues
- Consider in relation to determinants of optimal leverage
- Greater attention to endogeneity
- Simplify presentation by reporting associations, partitions, stylized facts as well as regressions
- Should provide sharper tests of theories