Discussion of

Public Market Staging

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Main Empirical Evidence

- IPO Firms come back to do SEOs.
- Original evidence in Welch (1989) is dated.
- Novel Unconditional Evidence.
    - Updated: From 1990-2005, 1/2 do (1/3 did).
    - IPOs already indicate return in IPO prospectus!
- Novel Cross-sectional Evidence:
    - **Firms with high R&D and low intangibles come back more often.**
    - **Firms with higher (known) cash burn rate come back more often.**
- (Smarter and more detailed economic interpretations.)

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Interpretation

Firm funding is “staged” in public markets

...just as it is in VC context.

Note: Allen-Faulhaber 1989 is not about SEO link, but about dividend interpretation link. Only Welch 1989 is about the IPO to SEO link.

Discussion

- First and foremost, the paper just seems correct. I truly believe that this staging is really happening.
- Well-written. Informative. Good Paper.
- I will cover various nitpicks here.
  - Theory Interpretation
  - Empirical Evidence

What is Staging?

What exactly is the staging hypothesis and what is its null?

- Is the hypothesis that firms expect already at the IPO stage that they will come back (if things go well), and the null hypothesis is that they raise everything that they expect to need for many years to come at the IPO, then
- If the hypothesis is that IPO firms come back, then

  Prima-Facie Evidence that half of them came back to do SEOs.

  Done. Don't need xsect evidence.

(cont'd)

What is Staging?

- Is X-sectional evidence icing on the cake?

  What would I have concluded if it had gone the opposite way?

  - Would I then change my mind and conclude that IPOs firms do not tend to stage (i.e., not raise everything at the IPO)?

Theory/test of "ex-ante known staging"?

- How is ex-post vs. ex-ante staging different?
  - At IPO time, I know that I will come back. [p20]
  - At IPO time, I know that I may come back, but only [more] if things will turn out well. (e.g., industry returns). [p19]
  - What is left?
    - At IPO time, I know I will not come back?
    - I may come back, but only [more] if things turn out badly?

  Is one staging, but not the other?

  (Is paper trying to test this? If so, should it also test whether ex-post capex predict better than ex-ante capex?)

- Paper flips forth and back here—or likes to interpret everything as favorable evidence?!

Or test staging as agency costs?

- Could staging also occur w/o agency costs if
  - it is cheaper to raise small amounts of capital repeatedly because investors are easier to find.
  - investors have better uses of capital in the meantime, i.e., until the cash is needed.
  - financial distress costs are lower for these firms, so having all money up-front is not as important.

  Above hypotheses can be due to agency costs (are not incompatible), but need not be.

- In what sense is industry evidence unique to staging? (p14) Does industry not matter in (all) other theories?
  - What about industry-correlated ex-post opportunities?

Is paper testing agency costs?

- Is staging, regardless of cause, interesting? Is agency subsequent test? Right now muddled.
- Is the hypothesis joint—
  - Agency costs lead to more staging.
  - No better mechanisms to control agency costs.
- Could intangibles and R&D both have had more agency costs and triple the financial distress costs, so that firms with more intangibles and R&D would have had agency costs push towards staging, but distress costs push towards not-staging, so we could have seen these firms do less staging?
  - If so, does positive evidence tell us that we have agency costs? Which accepts and which rejects agency costs? Or, are they compatible with either in a tradeoff?
- Should we look at firms that raised “too much” capital. Did they disproportionally waste it?

What would be a good ideal experiment?

- Tough to think of QE, because I am not sure I understand the hypothesis and its alternative.
- If you could design an ideal experiment to test your hypotheses, what exactly would it be?
- Maybe: shock to time-to-funding. DNA tech may have progressed so much that ...

What is the economic significance?

1. In my critique (of struct. research), I suggest CF needs
   1. First-order correlations
   2. Quasi-experimental (causality) tests.
2. HHP is more about first-order correlations...
3. ...so suggest that paper could emphasize economic (and not just statistical) significance more.

(Some great aspects, too)

Although a discussion is supposed to critique, I could not help but mention some excellent aspects:

- Great—uses firms' own comments in prospectus as indicator of staging.
  - But why not use it as a predictor, too?
- Great—survivorship bias handling.
- Great—cash burn metric. (ex-ante vs. ex-post?)

Time-Industry Period Interactions

- Main Specification Curiosity:
  - In 1998, more tech IPOs with more R&D and intangibles went public
  - ...and these 1998 tech IPOs probably came back.

  - In 2002, there were probably fewer IPOs with high R&D and intangibles
  - ...and these probably did not come back.

Paper could do sequential ex-post return-based prediction better—hazard?

Other Empirical Comments

- Also mention prediction of SEO amount vs. IPO amount (Tobit).
- Footnote 7 belongs into the paper.
- Why are medical instruments less agency-conflicted? If anything, I would have guessed that these folks can waste money if their research fails, and much more so than oil drillers. at least, those would probably go out and try another hole.
- is the no-staging cost about the second-most-likely use of cash if first-best use fails?
- I missed this—do similar firms that raise more money at the IPO issue less likely afterwards? Are there some?
- Could intangibles and R&D simply measure the ability to raise debt financing?
- It would be easy, in this sample, to include payout policies and cash-raised to take a net financing perspective (p5). Also, text and naming of “duration” is misleading (due to 2-year cutoff), but I do not have a better idea.
- Scale measures — if raise 1% at the IPO, then I have more to sell for an SEO; than raise 100% at the IPO?!? when would I not expect this?
- Is it industry or firms? Are agency problems industry-correlated?
- I am not sure I grok the primary/secondary specification. If a firm does a purely secondary IPO, now what?
- Do VCs simply like staging ? (p20)
- Should you include IPO rate of return, too? (JWW was about rel strengths.)
- Is there a valuation aspect to hypothesis at IPO?