Investor Horizon and the Life Cycle of Innovative Firms: Evidence from Venture Capital

Discussant:

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Paper

Main question:

□ Does the <u>horizon</u> of a venture capital (VC) fund affect the GP fund's decision to invest in more or less mature startups?

Complementary questions:

- ☐ How does this relationship vary with market conditions ("hot" NASDAQ and IPO market)?
- □ How does this relationship vary with GP/VC firm characteristics (e.g., GP experience)?

Findings

Main finding:

□ Recent VC funds (i.e., with longer horizon) tend to invest in younger startups ("horizon effect")

Complementary findings:

- ☐ Horizon effect is less strong when past returns of NASDAQ have been abnormally high, or when time from founding to IPO is shorter
- ☐ Horizon effect is stronger for more experienced GPs

Mechanism

Barrot's key idea:

- In the absence of market frictions, variations in investors' horizon should be unrelated to the maturity of the projects they invest
- □ Fund horizon may affect investment decisions if there are large information asymmetries between initial and later investors (or prospective buyers)

My initial conjuncture: At the same time,

- Day-to-day of the VC industry, participants, market, institutions, have grown around this institutional 'feature'
- Not obvious to me to uncover economic significant effects associated with this friction unless industry is subject to a major shock

Comment 1: 'Investment period'

Article exploits distinctive institutional feature of VC asset class:

□ VC funds life is set ex-ante, and typically is about 10 years

However, there is another (discontinuous) institutional feature not yet exploited:

- Limited Partnership fund agreements typically limit the <u>"investment period" to 5 years</u> (Dow Jones, 2007; Townsend, 2012).
- Investment period: time during which new investments (i.e., investments in startup companies not already invested in by the fund) can be made.

Comment 2: Main finding

Economic significance:

- \square Log of fund age is positively correlated (=0.23) w/ log of startup age
- □ "A one standard deviation increase in the age of the fund (i.e., moving from the first to the fourth year of operations) leads to an increase in the [company] age of the target by 8-16%"
- ☐ In other words, this is a 2.2% increase in company age when fund age increases by 10%. Are these effects large?

Identification of fund age effect

- ☐ The 5-year 'investment period' limit suggests that fund age may have discontinuous effects on the company age of the target of fund investments
- □ Replace log of fund age with fund age dummies
- ☐ This may explain the *magnitude* of the estimated effects.

Comment 3: Focus on major uncertain events

Examples of negative capital supply shock

- □ Collapse of the U.S "technology bubble" in 2000
- ☐ Financial crisis 2007-8

Perhaps findings may be more salient:

- □ Does the horizon of a venture capital (VC) fund affect the fund's decision to invest in more or less mature startups?
- More generally, what startups get equity financing at these times?
- Possibly long-run effects associated with major negative capital supply shocks
- Major negative capital supply shocks are interesting on its own