12th Emerging Markets Conference
December 13-15th, 2021

IPO suspensions and venture capital activity

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Background

- What happens to VC markets when IPOs are suspended?
- IPOs are an important exit mechanism for venture capital (VC) firms. Listing providing a route through which VCs can return money to their LPs.
- **Black and Gilson, 1998:** An active stock market is crucial for an active VC market. Exit through IPOs is crucial for VC investment in the US market. Successful entrepreneurs prefer exit by IPO. Successful IPO markets also encourage VC activity the following year.
- Important to encourage IPO markets to support VC activity to take the necessary risks, encourage private investment in start-ups.
- The linkage between VC activity and the IPO markets is well-established (Jeng and Wells, 2000; Gompers et al., 2008; Schertler and Tykvova, 2011; Nahata et al., 2014; Félix et al., 2013; Chaplinsky and Gupta-Mukherjee, 2016)

Background

- However, markets differ across geographies, institutionally, and in their share of IPO exits for VCs (12.5% in the US, 9.5% in EMs, but 64% in Japan, Korea and China).
- Important to distinguish between other factors like PE (Private Equity) that have similar relations with public markets.
- The IPO suspension in China provides an interesting exogenous shock, to study how the IPO market there affects VC activity.

Chinese markets and Data

- Chinese A share market: 3876 listed firms with market cap of US$8.5trn in 2019.
- IPO markets since 1990 (Shanghai Stock Exchange) and 1994 (Shenzhen Stock Exchange).
- IPO approval involves extensive scrutiny and is uncertain (70-80% acceptance rate).
- Approval to listing takes ~3 months on average.
- US$70.5bn of VC funding in 2018 (29% of global).
- 7055 registered VC funds, managing US$147bn.
- Avg. Investment duration in the sample is six years.
- VC investments between 1992-2017.
- 7764 VCs having 30,726 investment rounds with 21,229 start-up companies and 2527 exits (57%, or 1434 IPOs). Mean deal size is US$44.2m.

Questions and methodology

- How do public markets (specifically, IPOs, through IPO suspensions) affect venture capital investment activity?
- What’s different here? Utilize the random nature of an IPO suspension to analyse its impact on the VC market.

Models

Model	Dep Var	Specification	Question
Table 4	Deal characteristics		
1	Deal size	ln(1+deal size)	Do IPO suspensions affect deal size?
2	High-tech investment	I(high-tech)	Do IPO suspensions lead choice of high-tech firms?
3	Syndication	I(Syndication)	Do IPO suspensions reduce investment in Syndicated deals?
4	Late stage deal	I(late stage)	Is IPO suspension detrimental to late stage deals?
Table 5	No. of rounds and total amount invested		
1	Number of rounds*	number	Do IPO suspension increase the number of rounds for financing?
2	Amount invested*	ln(amount invested)	Does IPO suspension reduce the amount invested?
Table 6&7	Exit outcomes and exit types		
1	Successful exit *(under first round and proportion of rounds)*	I(successful exit)	Does IPO suspension affect the likelihood of successful exit?
2	IPO exit	I(Domestic IPO exit)	Do we observe a switch in type of exit during IPO suspension?
3	Off shore exit	I(foreign exit)	

Clarifications sought

- Do we have a sense of the deals that did not go through?
- From table 3, is the deal size available for 19584 deals alone? How do we deal with missing values? How would the results of Table 2 change with more information on deal sizes?
- No. of VCs. Is it 7764/7201 (Page 10) or 7210 (Table 2)?
- How do we explain the significance of deal count as a factor? Syndication seems to be rising on #(deals) in the previous month.

Conclusions

- While the linkage between stock markets and the venture capital ecosystem is known, the random nature of IPO suspension act as an exogenous shock that helps with causal inference.
- Uncertainty about IPO suspensions prevents guarding against them, colours VC behaviour.
- Once bitten…: IPO suspensions narrow the means by which VC can generate returns, deters VC from investing in start-ups, could lower investment valuations.
- Caveat emptor: Approach to funding takes a conservative turn in the aftermath of a suspension. More rounds, less funding.
- Hold for longer: They also lead to longer investment horizons (i.e., lower exit success for firms) and thereby affect investment choice (High-tech preferred for longer gestation and IPR)
- Catch them young: Longer horizons also translate into higher investments into early-stage companies. Harder to get VC funding into late-stage companies.

Conclusions

- Suspension of IPOs significantly raises the likelihood of alternate (M&A) and foreign/overseas exits.
- IPO suspensions significantly lower the number of funds raised and their size.
- Policy implication: A thriving, steady IPO market is inextricably linked in the Chinese markets to higher levels of VC activity, inflows into start-ups and better valuations.

Comments

- An interesting and unique feature in the Chinese markets helps extend the established literature on the linkage between stock markets and venture capital activity.
- Would be nice to have all the models specified.
- Could the model specification be done differently?
- Interaction terms? For instance, VC foreign*VC, age vis-a-vis domestic VCs.
- Time effects? (dummy for 2005 as China enters WTO)
- How are hi-tech firms classified? 1990s hi tech not same as 2000s, 2010s
- All the best for publication!

India@75 A guiding light, shining bright

Thank You

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