

# Venture Capital

**Financing Innovations & Supporting Institutions**

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# Agenda

1. Role of VCs in Financing Innovations: Theory
2. Role of VCs in Financing Innovations: Evidence
3. Legal institutions that support VCs.



# What are US Venture Capitalists?

- Financial intermediaries that raise funds by forming limited partnerships.
- Investing in young firms' private equity.
- Often former entrepreneurs and top school MBAs (Harvard).
- Often actively involved in the management of portfolio firms.



# VC-funded Firms Grow Fast

- Examples of VC funded companies are Amazon.com, e-bay, Fedex, Microsoft,...
- IPO companies have frequently financed through VCs.
- VC funded companies employ more than 10 million jobs (9.4%) and \$1.8 trillion in sales (9.6%) in 2003. -- Global Insight, 2005



# VC-backed IPOs

	# of IPOs	% VC-backed	# of Tech IPOs	% VC-backed
1980-89	1,982	27%	521	47%
1990-94	1,632	44%	380	71%
1995-98	1,752	36%	651	53%
1999-00	845	59%	576	66%
2001-05	538	40%	163	62%
<b>1980-2005</b>	<b>6,749</b>	<b>39%</b>	<b>2,291</b>	<b>61%</b>

Ritter, "Some Facts about the 2004 IPO Market"



# Role of VC in Financing Innovations: Theory

- Ability to screen technical projects. (Chan, 1983; Ueda, 2004)
- Ability to monitor the progress of technical projects. (Michelacci and Suarez, 2004)
- Ability to enhance value of the portfolio firms. (Hellmann, 1998; Cassamatta, 2004)  
⇒ Circumvent “underinvestment problems”.



# Ueda (2004)

- Investors with deep entrepreneurial and technical knowledge (VC)
- Such investors can
  - assess quality of entrepreneurs' projects better than other investors
  - but also can expropriate.
- Implications
  - Stronger IPR protection promotes VC financing.
  - High-growth firms finance through VCs.



# Role of VC in Financing Innovations: Evidence

- Kortum and Lerner (2000) – VC investments are more effective than corporate R&D in increasing patent counts.
- Hellmann and Puri (2000) – VC-backed firms are more “innovative” than others.
- Hirukawa and Ueda (2004, 2005) – Impact of VC investments on productivity growth is doubtful.





# Hirukawa and Ueda (work-in-progress)

1. Assignment of SIC code to VC investment.
2. VAR analysis of VC investment and productivity growth
  - Productivity growth often *leads* VC investment. (“Innovation spurs VC investment”)
3. Impact of VC investment on productivity growth
  - No significant impact.
  - Increases capital intensity.



# Supporting Institutions for VC: Law and Finance View

- Stock market (and also VC industry) are bigger in common law countries than civil law countries. (La Porta et. al, 1998)
- Popular speculation
  - Common law system provides better protection of minority investors than civil law system.
  - Judicial innovations in common law system are responsible for this difference.



## D. Gordon Smith and Ueda (work-in-progress)

- Coding US court cases that involve VC and portfolio firms.
- Classify each case by the method of interpretation (Sunstein, 1989).
  1. Text
  2. Structure
  3. Purpose or intent
  4. History



Questions or Comments?

