Venture Capital Funding of Innovation

WTF
April 3, 2004
What Is the Problem?

- Venture Capital Is Not Funding Innovation
- Increasing Scrutiny of Funding for Innovation
  » Universities
  » Government laboratories
  » Corporate laboratories
- Funding Innovation
  » Life cycles: innovation comes in waves?
  » Structural problems: relatively short time horizons?
Methodology

- **Information Sources**
  - Initial Public Offerings: 1993-2002
  - Select Mergers & Acquisitions: 1993-2002

- **Define Innovation**
  - Five point scale: T1 Highest, T5 Lowest

- **Data Analysis**

- **Data Interpretation**
Information Sources on IPOs

● 1993-2002 Initial Public Offerings
  » Morgan Stanley Technology IPO Yearbook
  » 1303 IPOs 1993-2002
  » Discards
    – Spinoffs, Recaps: Lucent, Agere, Agilent
    – eCommerce: eBay

● 1993-2002 Mergers and Acquisitions
  » 213 acquisitions by Cisco, Lucent, Nortel et al
  » Cisco effect: 14 acquisitions 1993-1996
## Technology Innovation Ranking Definitions

<table>
<thead>
<tr>
<th>Technology Ranking</th>
<th>Criteria</th>
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<tr>
<td><strong>T1</strong></td>
<td>New technology representing a fundamental departure from anything existing previously, whose commercialization made possible an entirely new (and important) business market</td>
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<td><strong>T2</strong></td>
<td>Fundamental technology improvement in an existing product category (ie, disruptive technology)</td>
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<td><strong>T3</strong></td>
<td>Non-trivial technical improvements in existing product categories -- coming from extension of existing technologies.</td>
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<td><strong>T4</strong></td>
<td>Modest improvement in existing technologies; ie, by repackaging a combination of already-commercialized technologies in novel ways</td>
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<td><strong>T5</strong></td>
<td>No new technology, but able to successfully market existing technology. Alternatively, companies developing new business models using well-established Internet technologies</td>
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Profitability of Funding Innovation

- Is Innovation Less Profitable? NO
  - Higher IPO valuations -> higher the innovation ranking
  - Post IPO -> higher valuations stick

- Changes over time in relative valuation?
  - Valuations higher for higher innovation
Quandary
[For articles, see www.signallake.com/innovation]

- True Innovation Continues to Attract Little Funding, despite
  - A 10x increase in Venture Capital funding in the late 1990s
  - 1992: <$3B invested by venture funds in all stages of all companies
  - 2000: >$130B invested by venture funds in all stages of all companies
  - Data indicating that the market rewards innovation

- Is This Due To
  - Life cycle factors?
  - Structural Problems with Venture Capital?