Alternative Models of the Venture Investing Process

O'Reilly Emerging Technology Conference San Diego, CA

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"IT Doesn't Matter"

Nicholas Carr Harvard Business Review May 2003

- Technological infrastructure has been commoditized
- No competitive advantage from investing in IT
- Spend less and cut costs
- "Focus on vulnerabilities, not opportunities"



The Fifth Wave

Carlota Perez <u>Technological Revolutions and Financial Capital</u>

- The Bubble of 1999-2000 marked the MID-POINT of the "Fifth Wave" of transformational technology
- Like railroads and electrification: two phases
 - From infrastructure to applications
 - From experiment to existence proofs
 - From speculation to common sense
- The promise of technological revolutions is transformational
- Speculative Bubbles are endogenous



The "Killer Apps" of the Fifth Wave

- The Bubble financed experiments in:
 - Customer self-service
 - Straight-through processing
 - Real-time intelligent transactions
- The vehicles for the Fifth Wave's productivity revolution
- The sources of major market discontinuities in IT infrastructure and applications
- Two decades to mature/two decades to deploy



The Status of The Technology

• Standardization is in process (and costs are falling)

• BUT:

- Complexity rises with convergence
- Computing vs. communications paradigms
- Integration costs more than development
- Syntax versus semantics
- Required: Higher levels of abstraction
- Required: Technological innovation
- Required: New ventures to bring innovation to market



Two Models of Venture Investing

Round-by-Round





Round-by-Round VC Model: 1

- Focused on product innovation
- Start with intersection of: Well-defined market New technology
- Specify an innovative product (faster, cheaper, better)
- Add management as needed
- Achieve liquidity ASAP: IPO or sale



Round-by-Round VC Model: 2

- Fund in multiple rounds/multiple investors per round
 - Each round validates (or NOT) continuing investment
 - New investors leverage returns for earlier ones (and for entrepreneur)
 - Value at each round = f (operational progress, Capital Market environment)



Round-by-Round VC Model: 3

• Key attributes

- Goal = Deliver product to market
- Risks = Operational and Capital Market
- Time horizon
 - 12 months per round
 - ~3/4 years to liquidity event
- Key exposure: Capital Market volatility



Capital Market Volatility

- The round-by-round VC model evolved to manage operational risk
- But every new venture is also exposed to Capital Market risk
- Ability to respond to Capital Market risk
 - Potentially compromised by multiple VCs
 - With diverse cost bases, availability of capital
- What the Bubble gave...hath been taken away



Fundraising Barely Noticeable in 2003

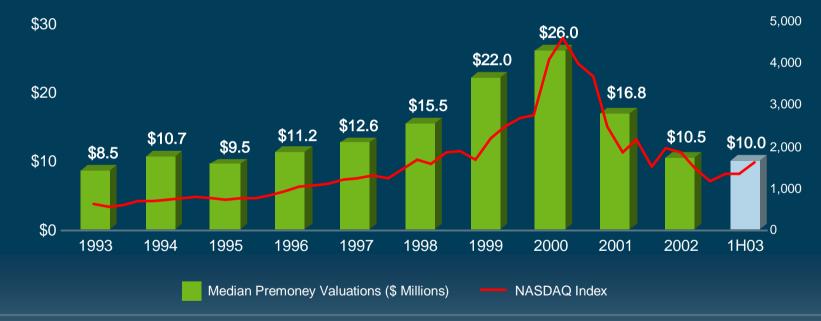
Commitments to Venture Capital Funds



Underlying data available in VentureSource

Valuations at Mid-'90s Levels

Median Premoney Valuations by Year



Underlying data available in VentureSource

WARBURG PINCUS

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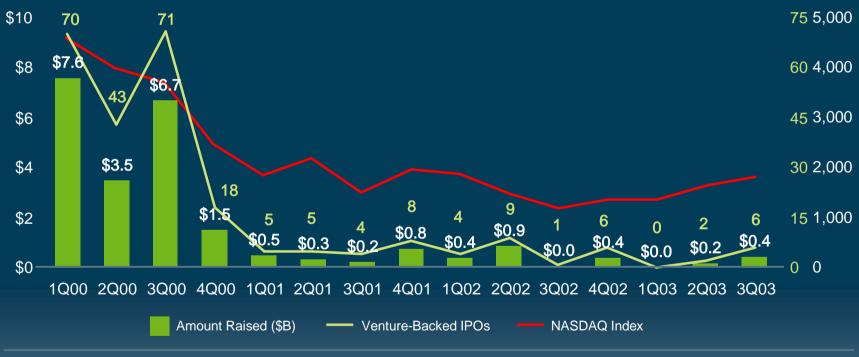
Valuations Regress Toward Overall Median

Median Premoney Valuations by Round Class



IPO Liquidity Has Been Rare, now Recovering

"Normal" means ventures can go public that don't need to



Underlying data available in VentureSource

IPO Companies Older

Time from Initial Equity Funding to IPO



Underlying data available in VentureSource

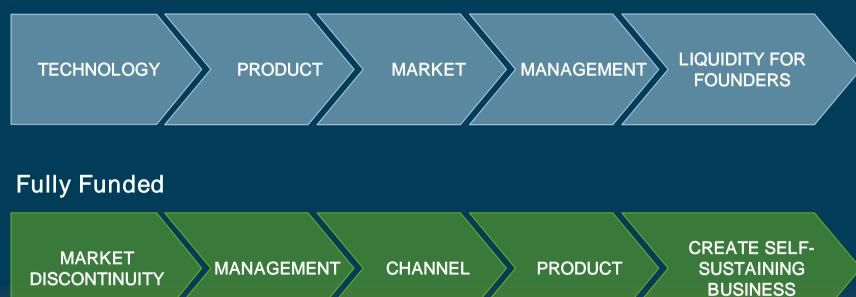
Less Gains in Current M&As

Median Amount Paid in M&As vs. Median Invested in Private Rounds Prior to M&A



Two Models of Venture Investing

Round-by-Round



"Fully Funded" Alternative: 1

- Focused on market discontinuity
- Partner with proven management team
- Define business strategy:
 - "Buy what you can/build what you must"
- Estimate capital needed to cash flow break-even
- Negotiate price and availability up-front



"Fully Funded" Alternative: 2

- Evolved to address Capital Market risk
 - If markets move favorably, can always take advantage of them
 - If markets move unfavorably, keep building the business
- Management of operational risk = Continuing responsibility of financial and operating team
- Operating team wholly focused on building the business



"Fully Funded" Alternative: 3

• Key attributes

- Goal = Positive cash flow from sustainable competitive position
- Risks = Operational only (Capital Market risk insured)
- Time horizon
 - 4-7 years
 - Liquidity event = "Nice" NOT "need" to have
- Added benefit: this model was totally irrelevant during the Bubble!



Where are we now?

- The existence proofs are evident: Amazon, Dell, eBay
 - The innovators have proven their case
 - "Main Street" has no choice but to follow
- But transformational technology only becomes universal when it becomes transparent
- Transparency requires higher levels of abstraction



Levels of Abstraction

- How to drive a car
 - "Turn steering wheel 10 degrees to left"
 - "Take Uncle Bob to the airport"
- From railroads to railway express
- From electrification to the assembly line
- From distributed computing to resource virtualization and web services



Abstracting the Infrastructure

- Fundamental paradigm change:
 - From bus-based to router-based processing: IP everywhere
 - From remote calls to messaging: XML everywhere
 - From the "smart" SMP system to the dumb crowd: numberless nodes
- New architectures are needed:
 - To manage heterogeneous, distributed resources
 - To make them work as an application platform
- New architectures are the context for new point products
- Delivering new architectures requires building sustainable businesses



Abstracting the Application

- Fundamental paradigm change
 - Composite applications: Functionality = Service
 - Value from business process understanding
 - Ease of customization
 - Ease of incremental extension
 - Payment for value delivered over time
- New business model means new investment model
- New product = \$15 million-25 million
- Sustainable business = \$75 million-100 million

Conclusion

- The "fully funded" alternative is relevant again
 - (f) The post-Bubble capital market environment
 - AND paradigm change at the infrastructure and application levels
- But only for a sub-set of strategic ventures
 - The entrepreneurs are self-selected
 - Build a business versus
 - Deliver a product
- When the capital markets are "normal", IPOs are available to the businesses that don't need them
- Strategic ventures require long-term capital

