Lecture 9 : Private Equity

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Alternative Investments Introduction

- Let's broaden the scope of the investable universe
  - Private equity, hedge funds, fixed income and derivatives
- Everything we learned in first half of class applies, but…
  - Data is more opaque
  - Liquidity is a bigger issue
  - Institutional details matter more
    - E.g. Lock-up periods, redemption, fee structure
  - Efficiency (maybe?)

Private Equity

- What is Private Equity (PE)?
- A PE fund is a financial intermediary typically formed as limited partnerships
  - General Partner (GP): Manage funds, make investments
  - Limited Partners (LPs): Passive investors (pension funds, endowments)
- A PE fund invests only in private (or soon-to-be-private) companies
  - Costs: information asymmetry and illiquidity
  - Benefits: control

Private Equity

- A PE fund takes an *active* role in the firm
  - Added value through management/monitoring
- A PE fund has an exit strategy
  - Because of illquidity of investment, targets must provide a clear path to exit (e.g. IPO or sale to another company)
  - Funds are closed-end with lifespans of 10-12 years
    - Commitments raised
    - Capital calls/investments made
    - “Harvesting” period

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Venture Capital

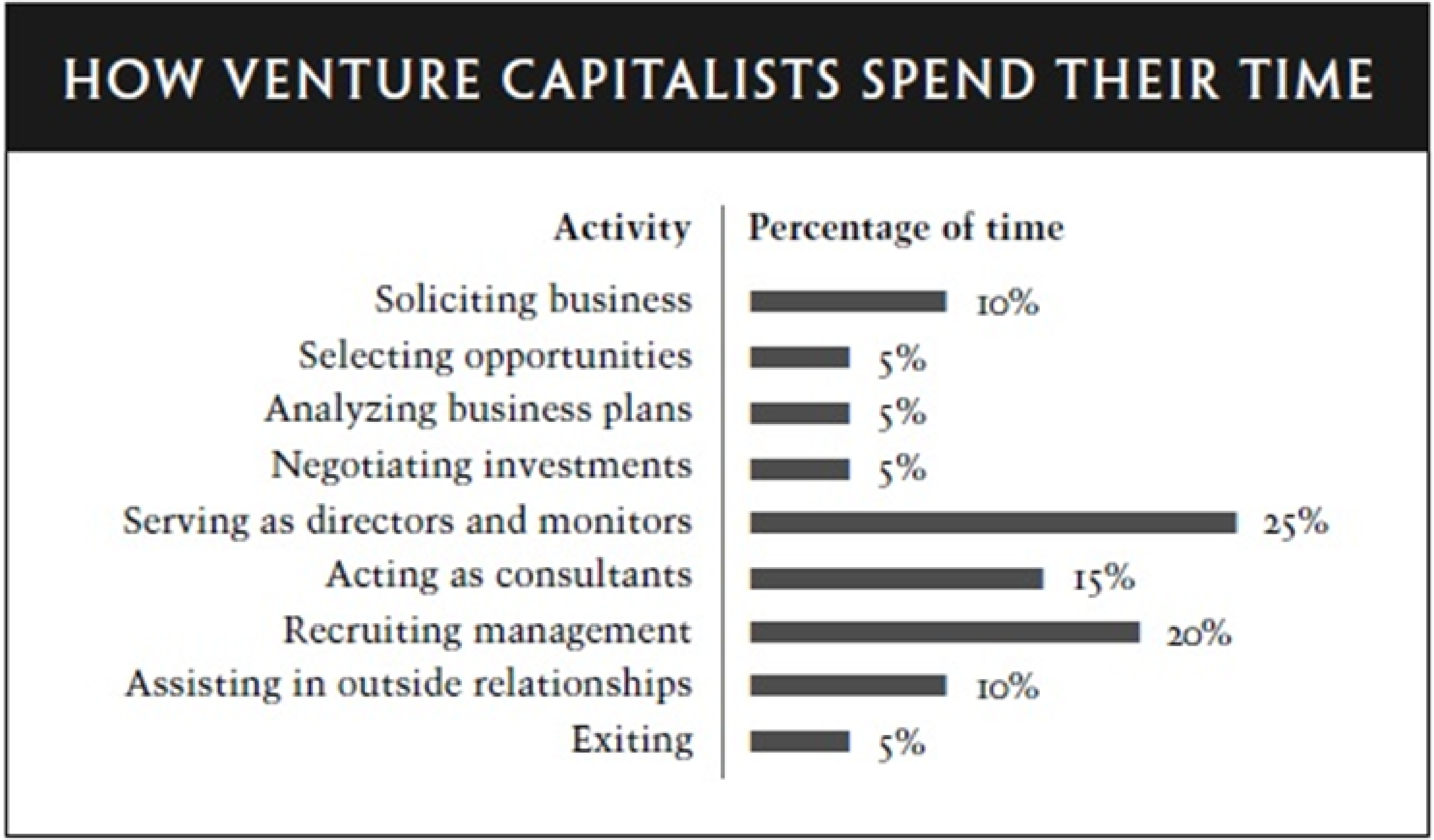
Table 2: Venture Capital-Backed Companies by CSA, 1975 - 2005

	Portfolio Company Location		Share of Investments in CSA		
CSA	**Share of Total**	**#**	**Main Office**	**Branch Office**	**Outside**
San Jose/San Francisco, CA	29.01%	4,063	56.55%	16.40%	27.04%
Boston, MA	11.67%	1,634	42.34%	8.07%	49.59%
New York, NY	8.74%	1,224	47.94%	2.37%	49.69%
Los Angeles, CA	6.08%	851	11.93%	2.53%	85.54%
Washington, DC	4.17%	584	20.96%	6.37%	72.67%
San Diego, CA	3.53%	494	6.71%	3.75%	89.55%
Dallas, TX	2.93%	411	17.04%	9.25%	73.71%
Seattle, WA	2.73%	383	17.40%	0.25%	82.35%
Denver, CO	2.63%	369	22.68	0.55%	76.78%
Atlanta, GA	2.48%	348	20.50%	0.33%	79.17%
Chicago, IL	2.16%	303	30.70%	0.85%	68.44%
Philadelphia, PA	3.16%	302	12.91%	2.00%	85.09%
Other	21.70%	3,040	16.41%	1.19%	82.40%
Total	100%	14,006	35.63%	7.83%	56.54%

What value does Venture Capital add?

1. Screening:
   - VCs as winner-pickers – select 1-in-400 deals to fund
   - Do VCs bet the jockey or the horse?
   - High management turnover suggests the horse
2. Advising/Monitoring:
   - Requires control rights
   - Investments typically include voting rights, board seats, esp. in bad times
3. Exit

Important to have good VCs for good returns!



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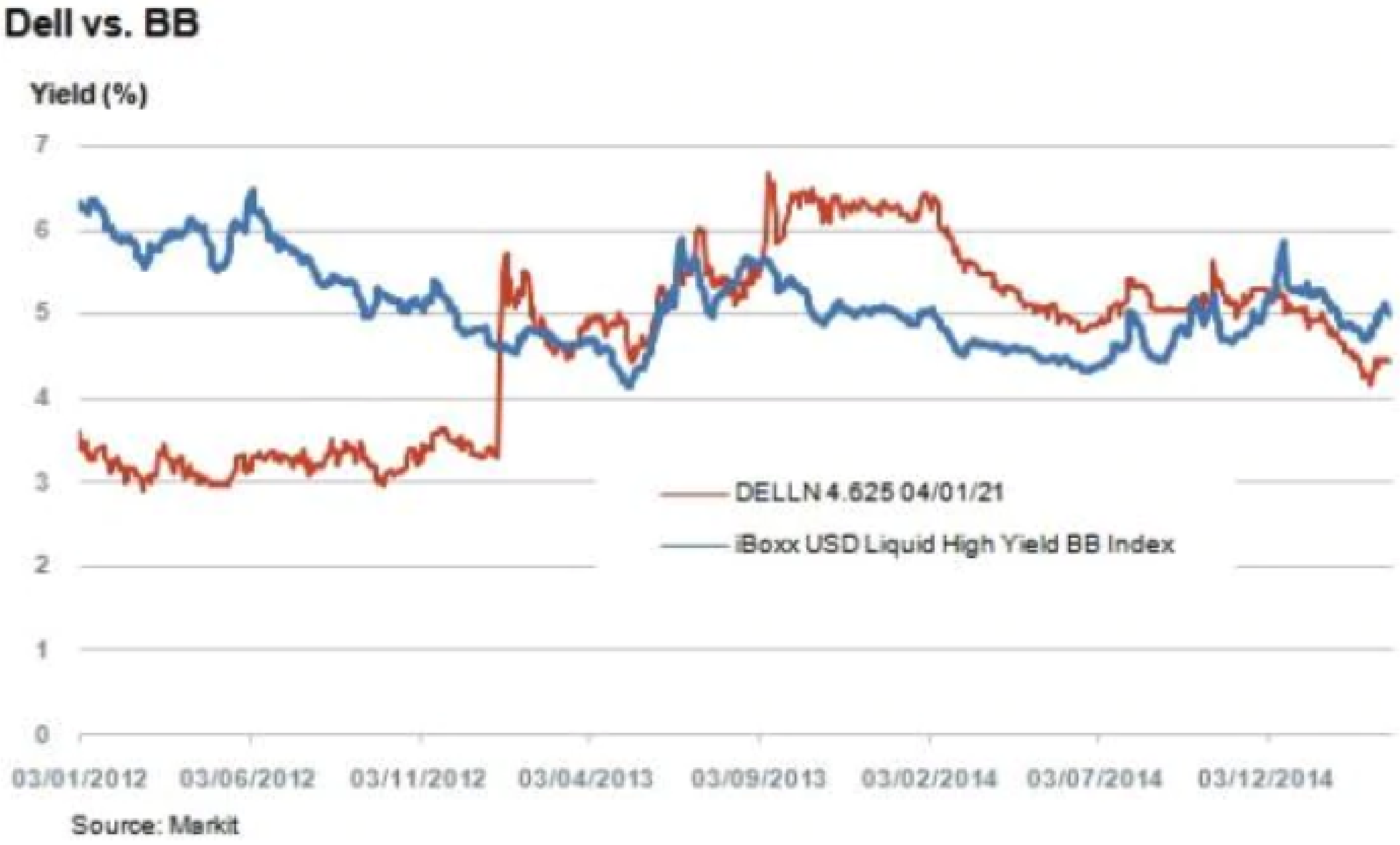
Buyout Funds

- In contrast to VC, (Leveraged) Buyout (BO) funds focus on established firms
- Firms are either private to begin with, or are taken private (as in a management buyout)
- Large amounts of *new* debt are used to finance the repurchase of existing equity
  - Often 90/10 debt-to-equity ratio in new company
  - Example: RJR Nabisco, Dell

Buyout Funds

- Where does the value-add come from?
  - No need to take company private to exploit an undervalued stock
  - Similar to VC, control must matter
- What types of things do LBO firms do once they have control that adds value?
  - Spin-offs of conglomerates
    - Beatrice Foods
  - Efficiency gains (cost-cutting, union negotiations, layoffs)
    - Safeway

Or is it just leverage?



Private Equity Fund Contracts

- Incentives of GPs and LPs may not always be aligned
- GPs may have incentives to shirk or take excessive risk
- Fees, co-investment by fund managers and covenants discipline GPs and protect the LPs

Private Equity Fund Contracts

- *Fees* include a flat rate (1-3%) plus 20-30% performance fee
- *Co-investment*: General partners often required to personally invest in the funds (typically GP invests 1%)
- *Covenants*: e.g. restrictions on activities

Private Equity Fund Covenants

THE NUMBER OF COVENANTS IN 140 VENTURE PARTERNSHIP AGREEMENTS, BY YEAR

	PERCENTAGE OF CONTRACTS WITH COVENANT IN: 1978–82	1983–87	1988–92
Covenants relating to the management of the fund:			
Restrictions on size of investment in any one firm	33.3	47.1	77.8
Restrictions on use of debt by partnership	66.7	72.1	95.6
Restrictions on coinvestment by organization's earlier or later funds	40.7	29.4	62.2
Restrictions on reinvestment of partnership's capital gains	3.7	17.6	35.6
Covenants relating to the activities of the general partners:			
Restrictions on coinvestment by general partners	81.5	66.2	77.8
Restrictions on sale of partnership interests by general partners	74.1	54.4	51.1
Restrictions on fund-raising by general partners	51.9	42.6	84.4
Restrictions on other actions by general partners	22.2	16.2	13.3
Restrictions on addition of general partners	29.6	35.3	26.7
Covenants relating to the types of investment:			
Restrictions on investments in other venture funds	3.7	22.1	62.2
Restrictions on investments in public securities	22.2	17.6	66.7
Restrictions on investments in leveraged buyouts	.0	8.8	60.0
Restrictions on investments in foreign securities	.0	7.4	44.4
Restrictions on investments in other asset classes	11.1	16.2	31.1
Total number of partnership agreements in sample	27	68	45
Average number of covenant classes	4.4	4.5	7.9
Average number of covenant classes (weighted by fund size)	4.4	4.6	8.4

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Private Equity Performance

Sample	Equal Weighted			Size Weighted		
	All Funds	VC Funds	Buyout Funds	All Funds	VC Funds	Buyout Funds
IRR_{VE5}	0.11	0.10	0.12	0.13	0.15	0.12
	0.18	0.20	0.14	0.18	0.30	0.13
	(0.36)	(0.40)	(0.24)	(0.32)	(0.46)	(0.23)
	[0.02;0.22]	[0.02;0.21]	[0.02;0.22]	[0.03;0.23]	[0.04;0.42]	[0.02;0.21]

- Table reports mean, median, standard deviations and 25-75th percentile of dollar-weighted returns (IRR) to PE funds
  - Why dollar-weighted returns?

Private Equity Performance

- How to identify good private equity funds?
- Pick past winners! (What?)
- Returns to private equity are highly persistent (Why?)
- Issue: everyone wants to get in funds with strong performance
  - Who gets access?
  - What incentive effects does this create?

Private Equity Performance

Determinants of fund performance (Private Market Equivalents)

- General Partner (PE funds) performance is persistent

PME_{t-1}	0.54	0.49			0.46
	(0.17)	(0.21)			(0.21)
PME_{t-2}		0.28	0.39		0.28
		(0.13)	(0.14)		(0.13)
PME_{t-3}				0.32	
				(0.24)	
log(Size)					0.09
					(0.05)
log(Sequence)					0.20
					(0.20)

Private Equity Performance and Other Issues

- Often the binding constraint for successful PE funds is investment opportunities, not investors
- Leads to money-chasing-deals phenomenon
- During periods of high flows into private equity, funds pay higher valuations for their acquisitions

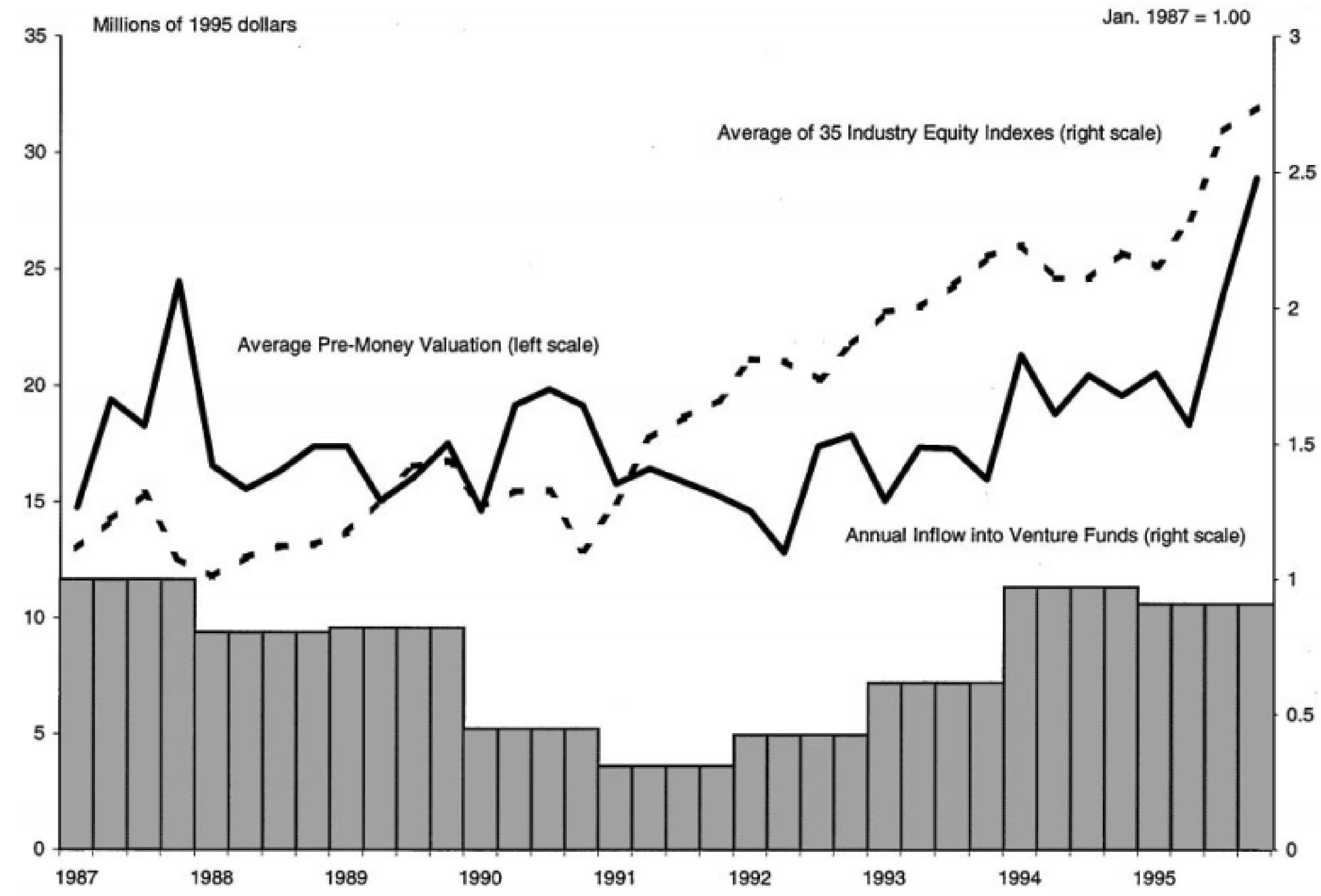

Fig. 1. Pre-money valuations of financing rounds, average public market equity values, and inflows into the venture capital industry. The sample consists of 4069 professional venture financings of privately held firms between January 1987 and December 1995 in the VentureOne database for which VentureOne was able to determine the valuation of the financing round. The pre-money valuation is defined as the product of the price paid per share in the financing round and the shares outstanding prior to the financing round, expressed in millions of 1995 dollars. The figure presents the mean pre-money valuation for each quarter, the unweighted average of the 35 value-weighted

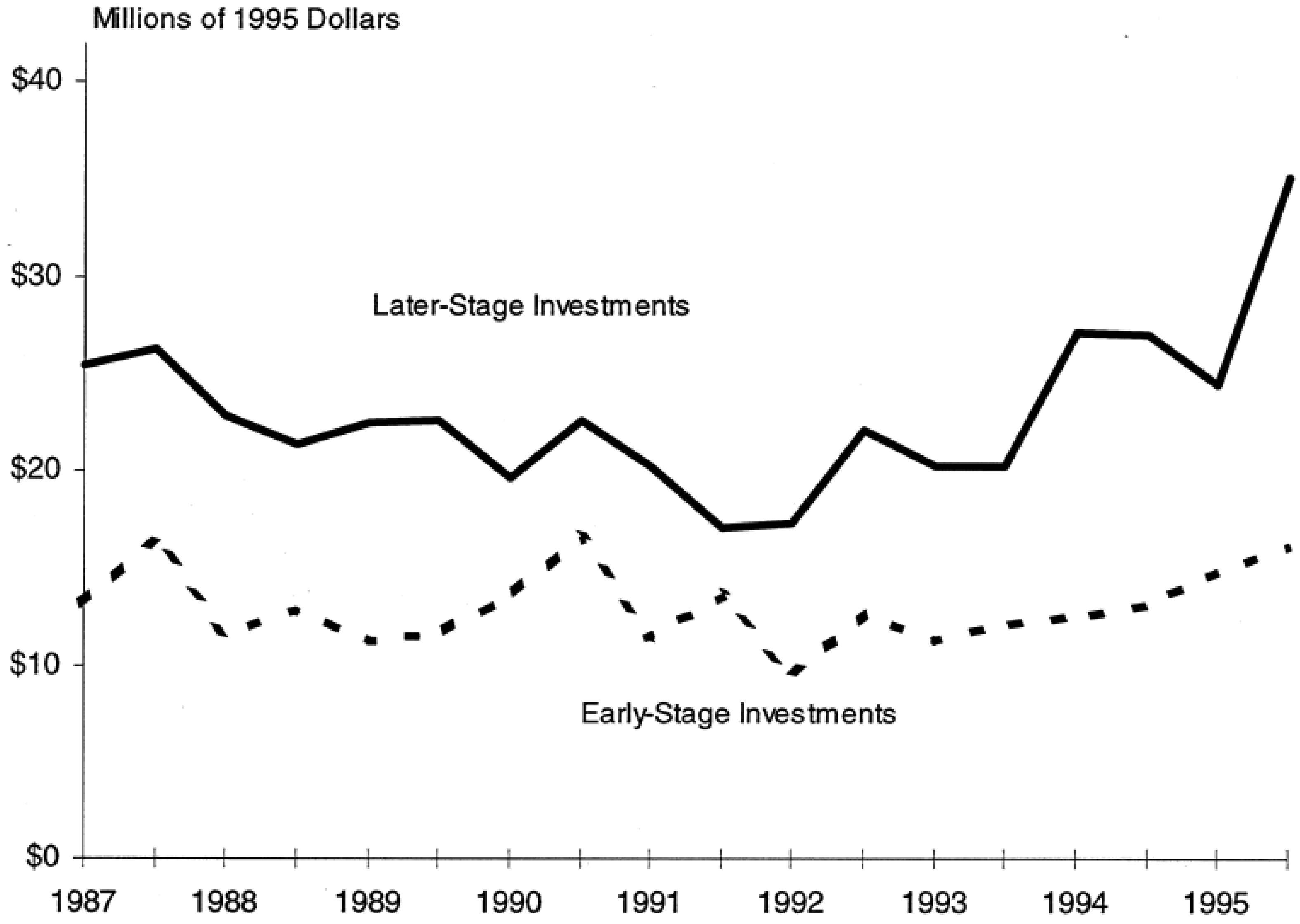

Fig. 2. Pre-money valuations of later- and early-stage financing rounds. The sample consists of 4069 professional venture financings of privately held firms between January 1987 and December 1995 in the VentureOne database for which VentureOne was able to determine the valuation of the

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