

LSE public lecture

What I learned by Doing Capitalism

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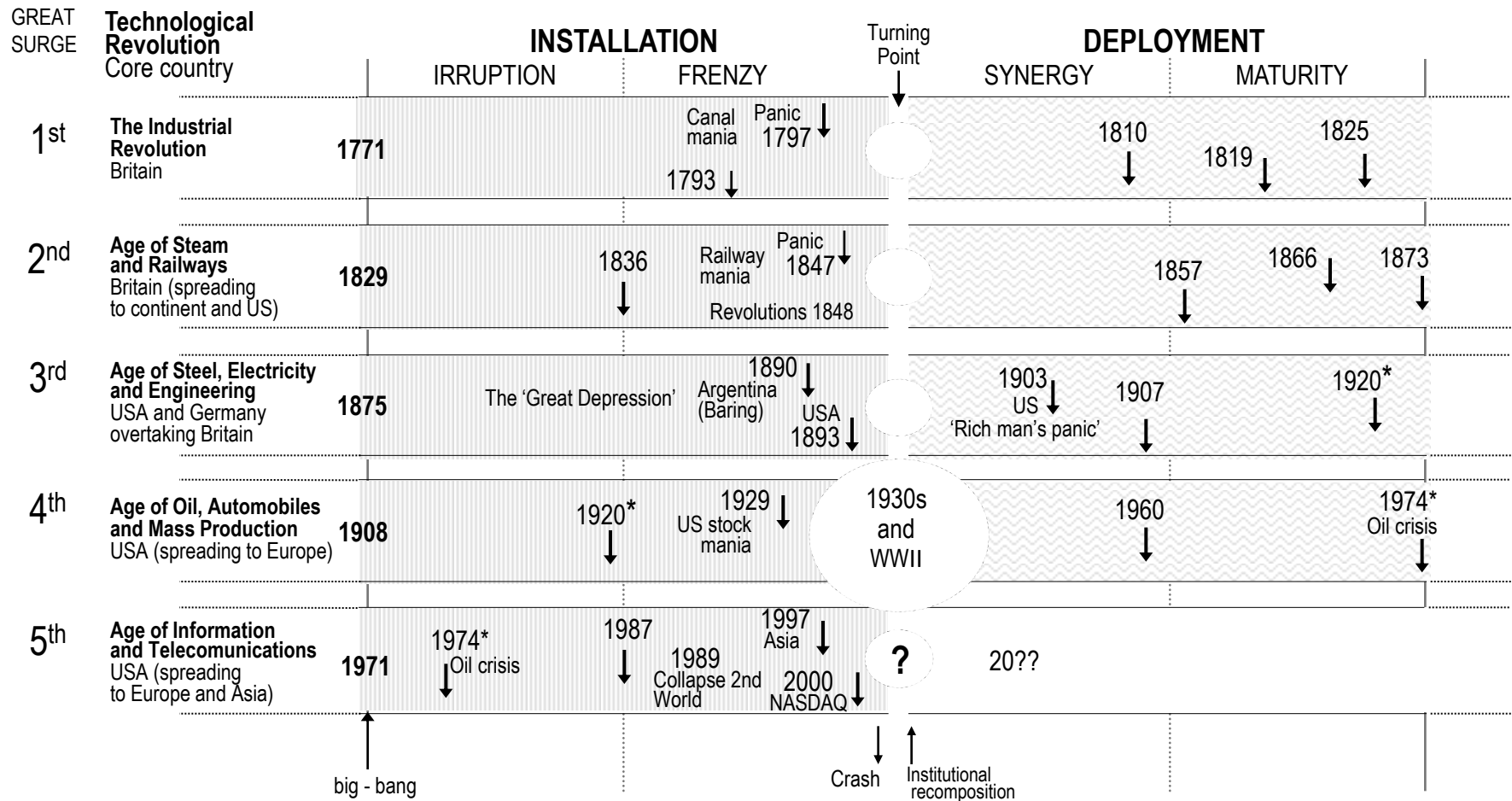
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Five successive surges, recurrent parallel periods and major financial crises

Source: C. Perez , *Technological Revolutions and Financial Capital*



Note: * Observe phase overlaps between successive surges.

Source: Dates of crises are from Kindleberger (1978:1996), Appendix B

US VC Fund-raising 1980-2011

	<u># of Funds</u>	<u>\$B raised</u>	<u>\$B managed</u>
1980	52	2.0	2.1
1985	118	3.8	11.4
1990	86	3.2	22.1
1995	165	9.5	32.4
2000	649	105.0	182.2
2005	234	30.8	234.4
2010	157	13.8	164.7
2011	169	18.2	n/a

Source: National Venture Capital Association

US Venture-Backed IPOs: 1980-2011

Year	Number of IPOs	Total Offer Amount (U.S. \$ MM)	Med Offer Amount (U.S. \$)
1980	59	664	9
1981	97	1,068	8
1982	39	577	8
1983	196	3,770	12
1984	84	1,028	9
1985	76	1,293	13
1986	366	3,461	15
1987	127	2,361	15
1988	54	846	14
1989	65	1,223	15
1990	70	1,396	20
1991	157	4,923	25
1992	196	7,280v	24
1993	221	6,688	22
1994	167	4,671	23
1995	205	8,147	33
1996	272	11,482	32
1997	138	4,826	30
1998	78	3,782	41
1999	270	20,871	63
2000	264	25,499	73
2001	41	3,490	71
2002	22	2,109	71
2003	29	2,023	66
2004	93	11,015	69
2005	56	4,461	66
2006	57	5,117	76
2007	44	6,463	88
2008	6	470	78
2009	12	1,642	136
2010	72*	7,017	97
2011	53	9,921	187

*Includes 17 Chinese companies.

US VC Returns Relative to IPO Market

	<u>Mean</u>	<u>Median</u>
Exit conditions < 2	19%	9%
Exit conditions = 2–3	33%	24%
Exit conditions > 3	106%	76%

U. S. VC Index Returns vs. NASDAQ

For the period ending 3/31/2012

<u>1 year</u>	<u>3 years</u>	<u>5 years</u>	<u>10 years</u>	<u>15 years</u>
12.8%	12.6%	5.9%	4.4%	31.0%

NASDAQ Composite

<u>1 year</u>	<u>3 years</u>	<u>5 years</u>	<u>10 years</u>	<u>15 years</u>
11.2%	26.5%	4.2%	5.3%	6.4%

Source: NVCA and Cambridge Associates LLC.

Mark Heesen, President NVCA (January 2012)

“This past year we saw more venture capital money raised by essentially the same number of firms, a sign that consolidation within the industry is continuing. We also continued to invest more money in companies than we raised from our investors. Both of these trends—if they continue—suggest that the level and breadth of venture investment is starting to recalibrate to reflect a concentration of capital in the hands of fewer investors. Our cottage industry is indeed getting smaller still and that will impact the startup ecosystem over time.”

Venture Fund Performance Summary

The following table summarises the performance of the 205 venture funds in the database by IRR. To highlight the skewness of the data and the influence of a select group of high performing funds, these metrics are also presented when the top decile and quintile of performing funds are excluded. Finally, the performance of the funds is summarised across different periods of time.

	Mean	Med.	St. Dev.	Skew	25 th Percent	75 th Percent	Max.	Min.
IRR	47%	24%	72%	2.74	9%	61%	515%	-94%
- Top decile only	215%	193%	92%	1.97	155%	254%	515%	133%
- Excluding top decile	27%	20%	35%	0.69	7%	41%	125%	-94%
- Excluding top quintile	18%	16%	24%	-0.46	6%	31%	76%	-94%
- 1980 – 1984	17%	9%	23%	2,10	4%	20%	92%	-5%
- 1985 – 1989	23%	19%	26%	2.06	11%	32%	155%	-57%
- 1990 – 1994	42%	37%	40%	-0.37	17%	64%	125%	-94%
- 1995 – 2006	86%	55%	107%	1.48	4%	136%	515%	-34%

Mckenzie and Janeway, “Venture Capital Fund and the Public Equity Market”

Venture Fund Performance Relative to the NASDAQ

Fund Multiple and IRR measures of performance are estimated for a hypothetical set of funds that are created assuming that each terminated fund in the database made an equivalent investment in the NASDAQ. The Public Market Equivalent (PME) is a measure of the total disbursements to a fund expressed relative to the total distributions to the hypothetical fund. This data is also summarised excluding the top decile and quintile of funds.

	Mean	Med.	St. Dev.	Skew	25 th Percent	75 th Percent	Max.	Min.
Nasdaq Multiple	2.42	2.38	0.83	0.39	1.96	2.82	5.05	0.63
- Excluding top decile	2.23	2.27	0.63	-0.69	1.92	2.71	3.27	0.63
- Excluding top quintile	2.12	2.21	0.58	-0.90	1.86	2.58	2.92	0.63
Nasdaq IRR	16%	15%	10%	-0.24	11%	21%	45%	- 24%
- Excluding top decile	14%	14%	8%	-1.50	11%	19%	28%	- 24%
- Excluding top quintile	13%	13%	7%	-2.02	11%	17%	23%	- 24%
Nasdaq PME	1.59	1.00	3.67	10.33	0.57	1.68	42.36	0.14
- Excluding top decile	1.02	0.93	0.57	0.66	0.57	1.33	2.48	0.14
- Excluding top quintile	0.88	0.83	0.43	0.44	0.54	1.19	1.85	0.14

“WE HAVE MET THE ENEMY... AND HE IS US,”

Lessons from Twenty Years of the Kauffman Foundation’s Investments in Venture Capital Funds and The Triumph of Hope over Experience”

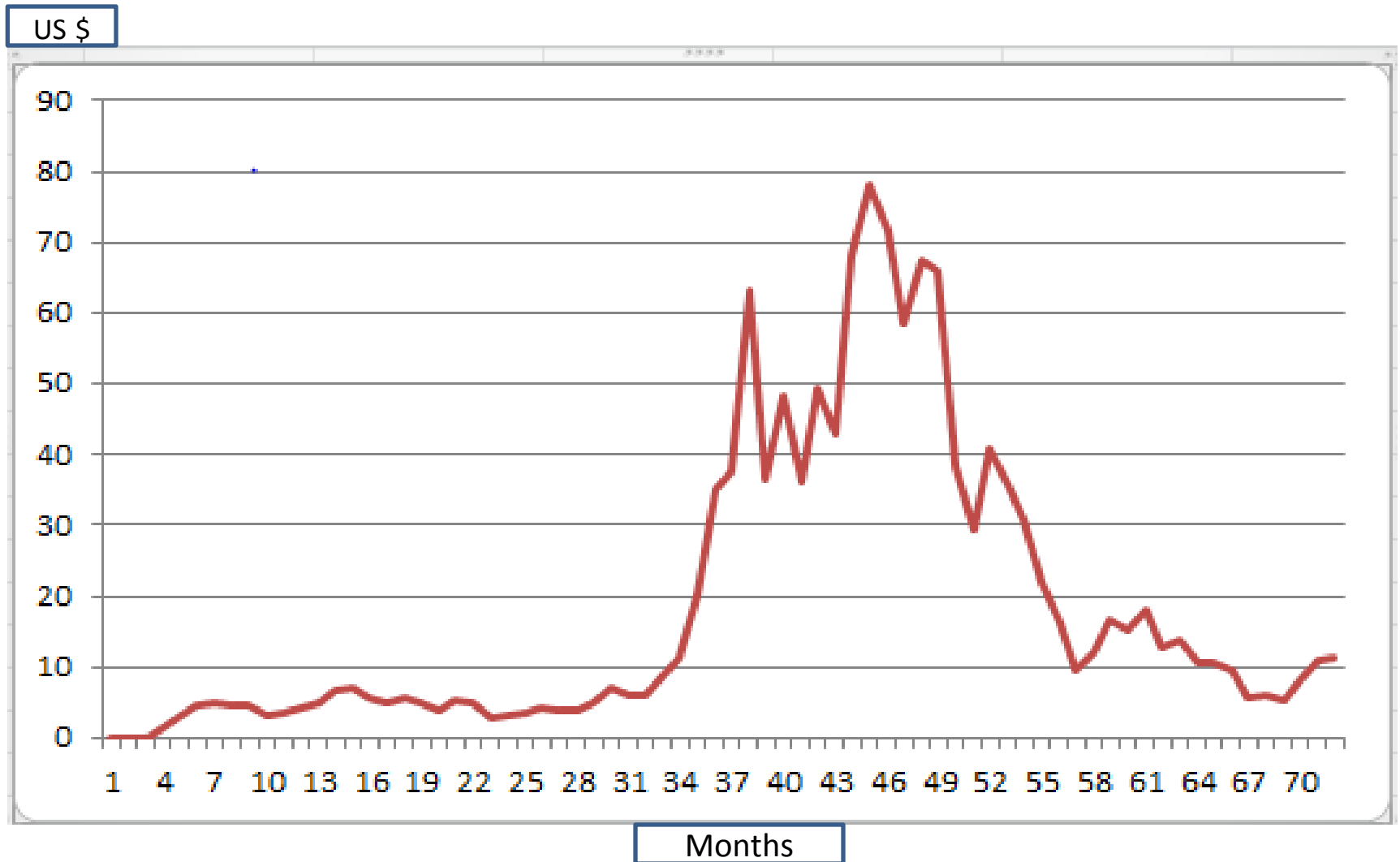
“The Kauffman Foundation investment team analyzed our twenty-year history of venture investing experience in nearly 100 VC funds with some of the most notable and exclusive partnership “brands” and concluded that the Limited Partner (LP) investment model is broken. Limited Partners—foundations, endowments, and state pension funds—invest too much capital in underperforming venture capital funds on frequently mis-aligned terms.”

Limited Scope of VC Investments

Amount (\$billion)	1980	1985	1990	1995	2000	2005	2010
ICT	0.2 (44%)	1.9 (70%)	1.4 (53%)	4.0 (54%)	75.4 (75%)	13.6 (60%)	10.8 (49%)
Healthcare/ Biotech	0.1 (16%)	0.4 (13%)	0.7 (26%)	1.8 (23%)	7.6 (8%)	6.6 (28%)	6.3 (29%)
Other	0.2 (39%)	0.4 (16%)	0.5 (20%)	1.6 (21%)	17.6 (17%)	2.7 (12%)	4.9 (22%)
<i>Total</i>	<i>0.5</i>	<i>2.6</i>	<i>2.6</i>	<i>7.4</i>	<i>100.5</i>	<i>22.9</i>	<i>22.0</i>

(Source: NVCA Yearbook, 2011)

BEA End of Month Stock Price: January 1996-December 2002

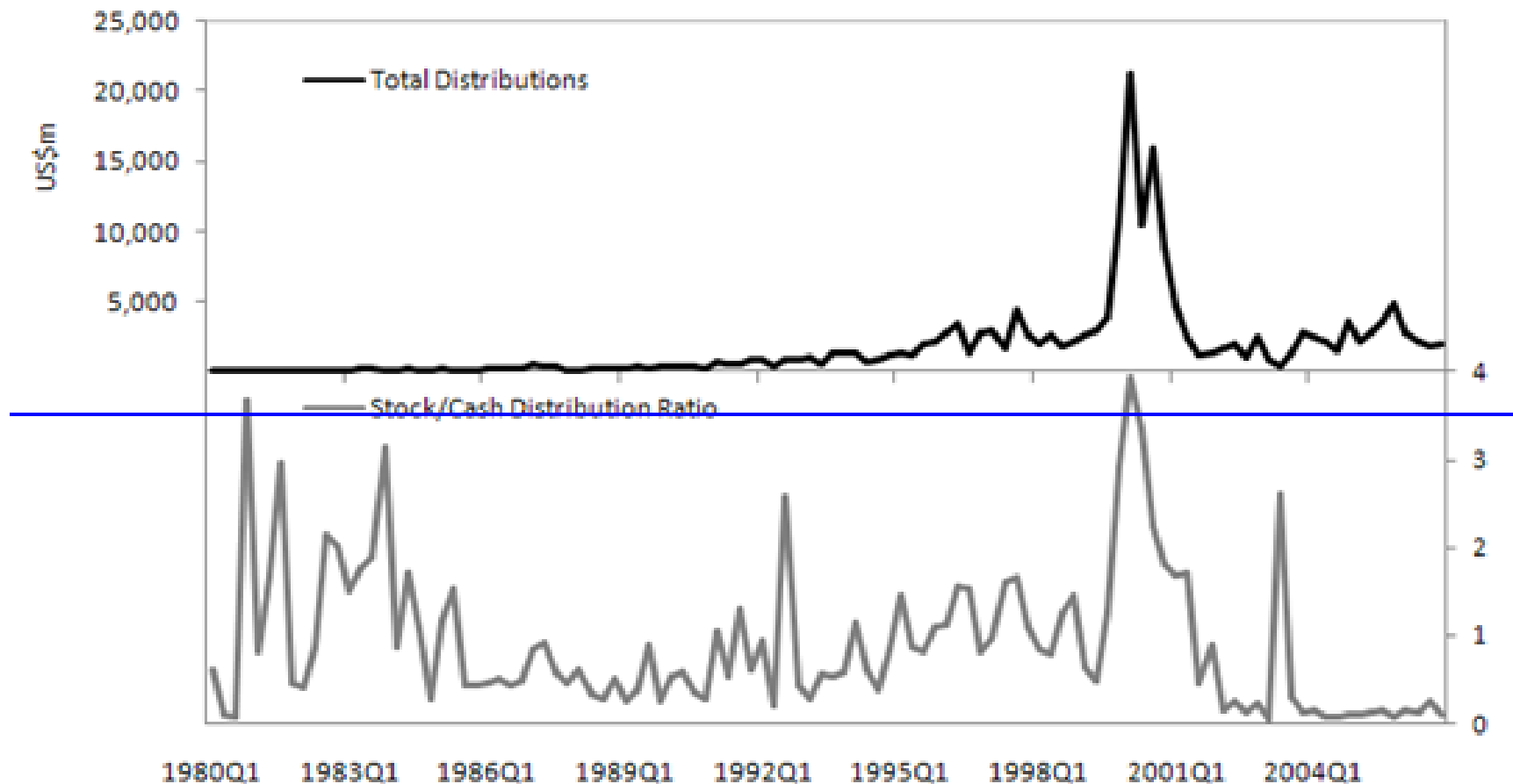


“No One Knows Enough...”

“In the vast majority of cases, the prospects of investment projects—the stream of future returns—cannot be understood in standard probabilistic terms . . . This is obviously true for investments in innovative products and processes for which estimates of returns cannot be based solely on the profit history of existing products and processes.

(R. Frydman and M. Goldberg, *Beyond Mechanical Markets: Asset Price Swings, Risk, and the Role of the State*, pp. 41-2)

Distributions by US VCs and Stock/Cash Ratio of Distributions



Mckenzie and Janeway, "Venture Capital Fund and the IPO Market"

What is “Rational” Behavior?

“A rational, profit-seeking individual understands that the world around her will change in non-routine ways. She simply cannot afford to believe that, contrary to her experience, she has found a “true” over-arching forecasting strategy, let alone that everyone else has found it as well.”

(R. Frydman and M. Goldberg, *Beyond Mechanical Markets: Asset Price Swings, Risk, and the Role of the State*, p. 27)

Keynes's Bridge

“The daily revaluations of the Stock Exchange . . . inevitably exert a decisive influence on the rate of current investment. For there is no sense in building a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased; while there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit. Thus certain classes of investment are governed by the average expectation of those who deal on the Stock Exchange as revealed in the price of shares, rather than by the genuine expectation of the professional entrepreneur.”

(The General Theory, p. 151)

The R&D Boom of the Late 1990s

(Brown, Fazzari and Petersen, “Financing Innovation and Growth”)

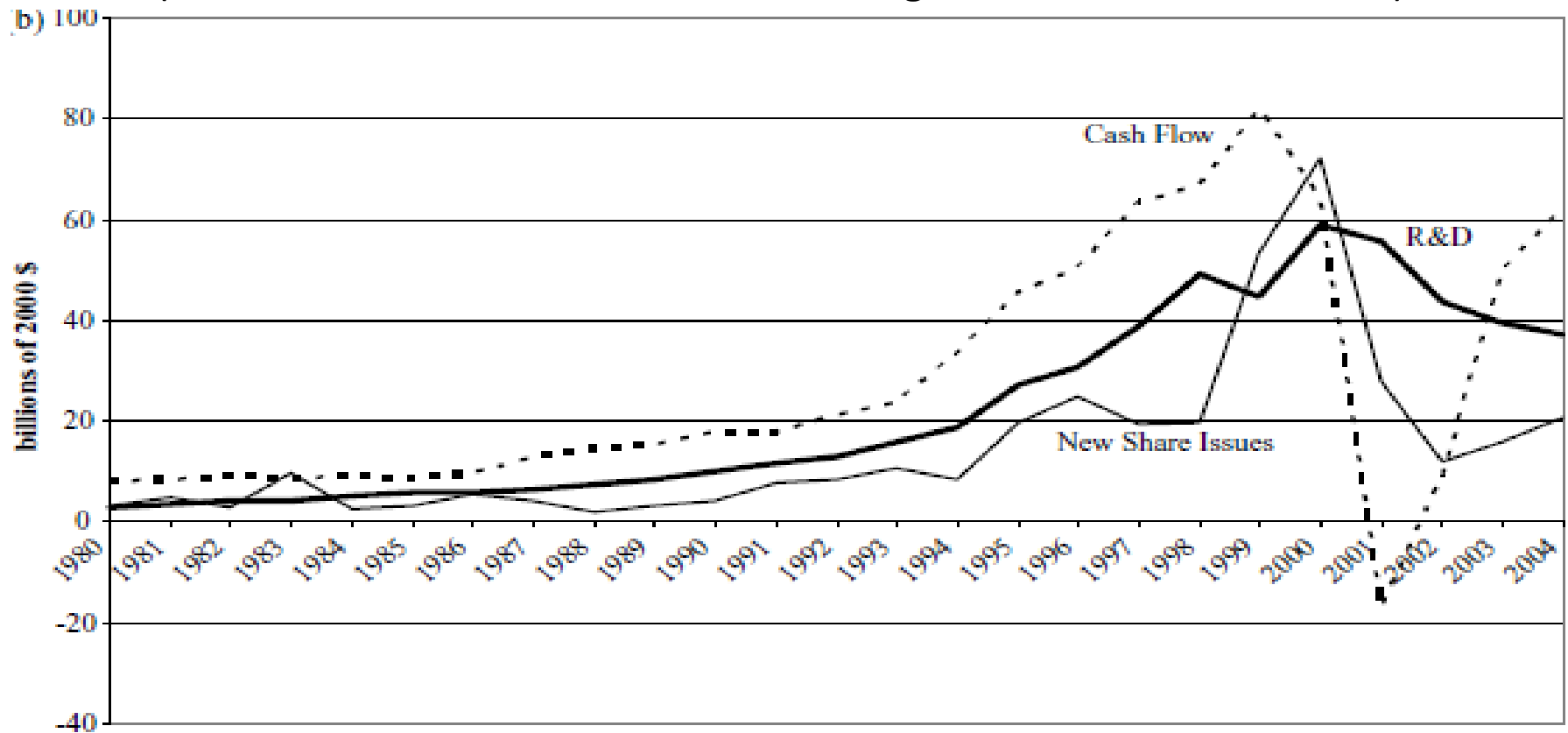


Figure 2b. High-tech R&D, cash flow, and new share issues (young firms). The sample is all young high-tech firms with coverage in Compustat. A firm is classified as young for the first 15 years following the year it first appears in Compustat with a stock price. The high-tech industries are SICs 283, 357, 366, 367, 382, 384, and 737. The heavy line plots the sum of R&D for all young high-tech firms, the dashed line plots the sum of gross cash flow, and the thin line plots the sum of net new stock issues with negative net issues set equal to zero.

Keynes' Provocation

“If the Treasury were to fill old bottles with bank-notes, bury them at suitable depths in disused coalmines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of *laissez-faire* to dig the notes up again, . . . there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing.”

(*The General Theory*, p. 129)

Keynes' Rueful Reflection

“It is, it seems, politically impossible for a capitalist democracy to organize expenditure on the scale necessary to make the grand experiment which would prove my case—except in war conditions.” (*The New Republic*, 1940)

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