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FINNOV

Impatient Capital in the US Economy

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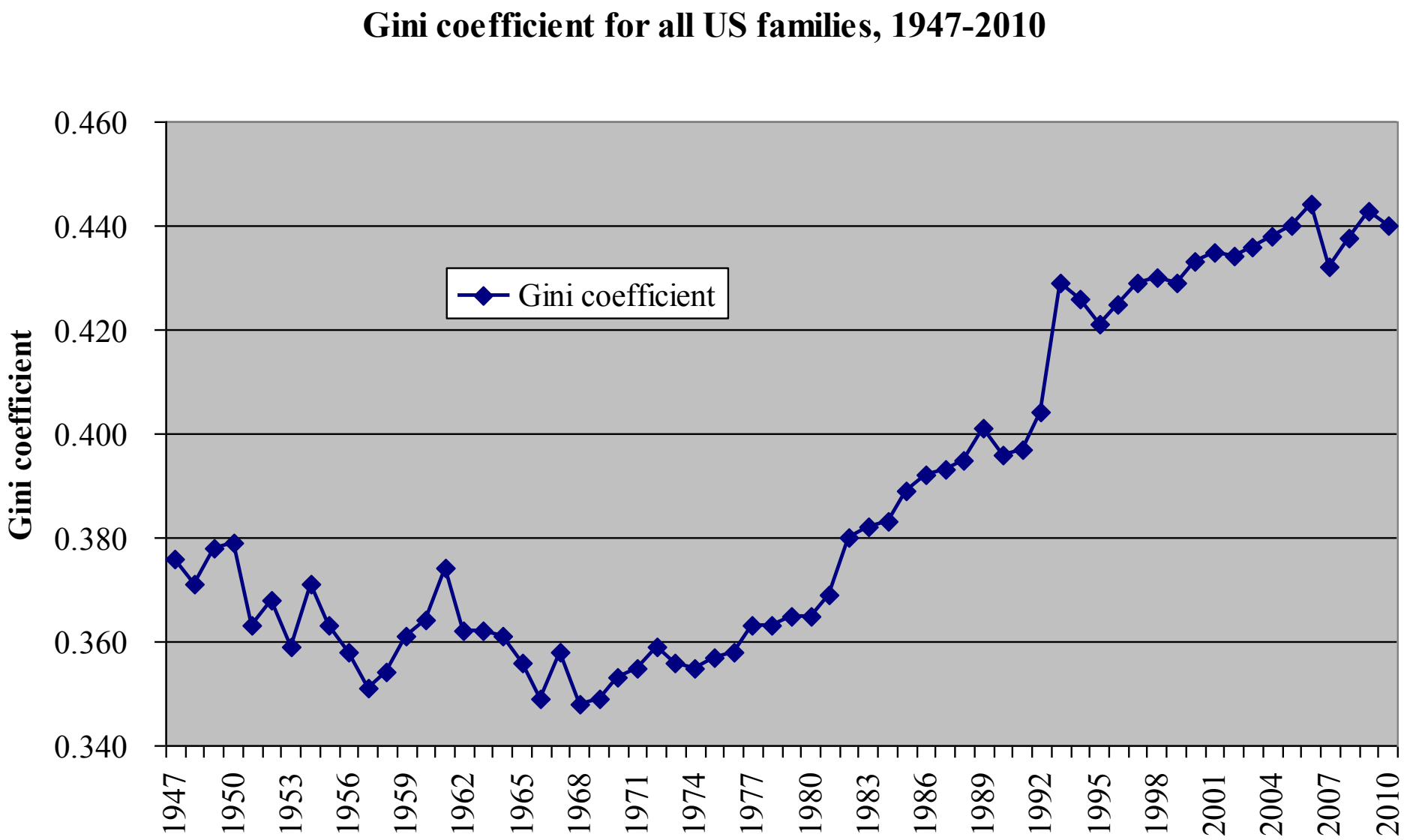
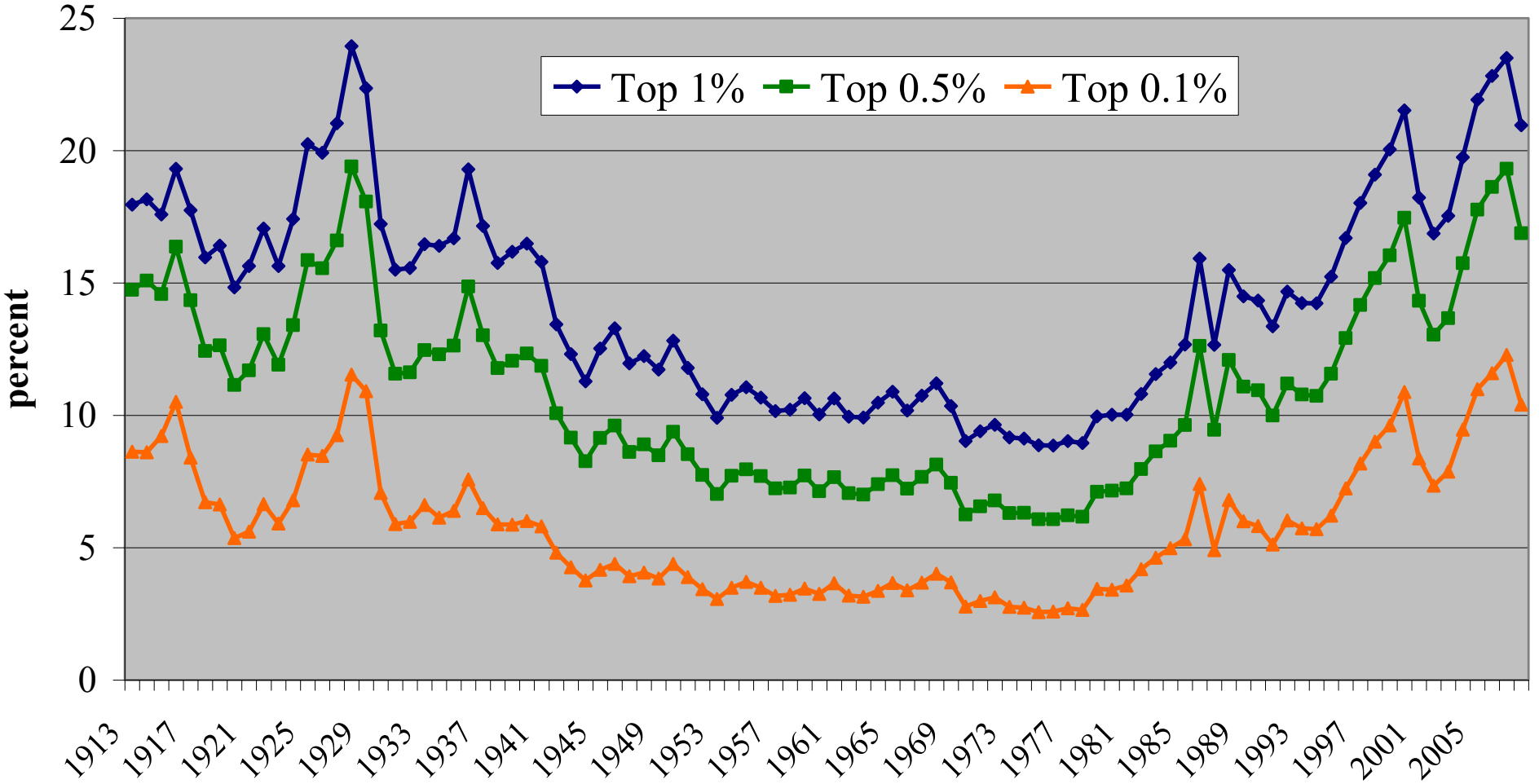
Income inequality in the United States



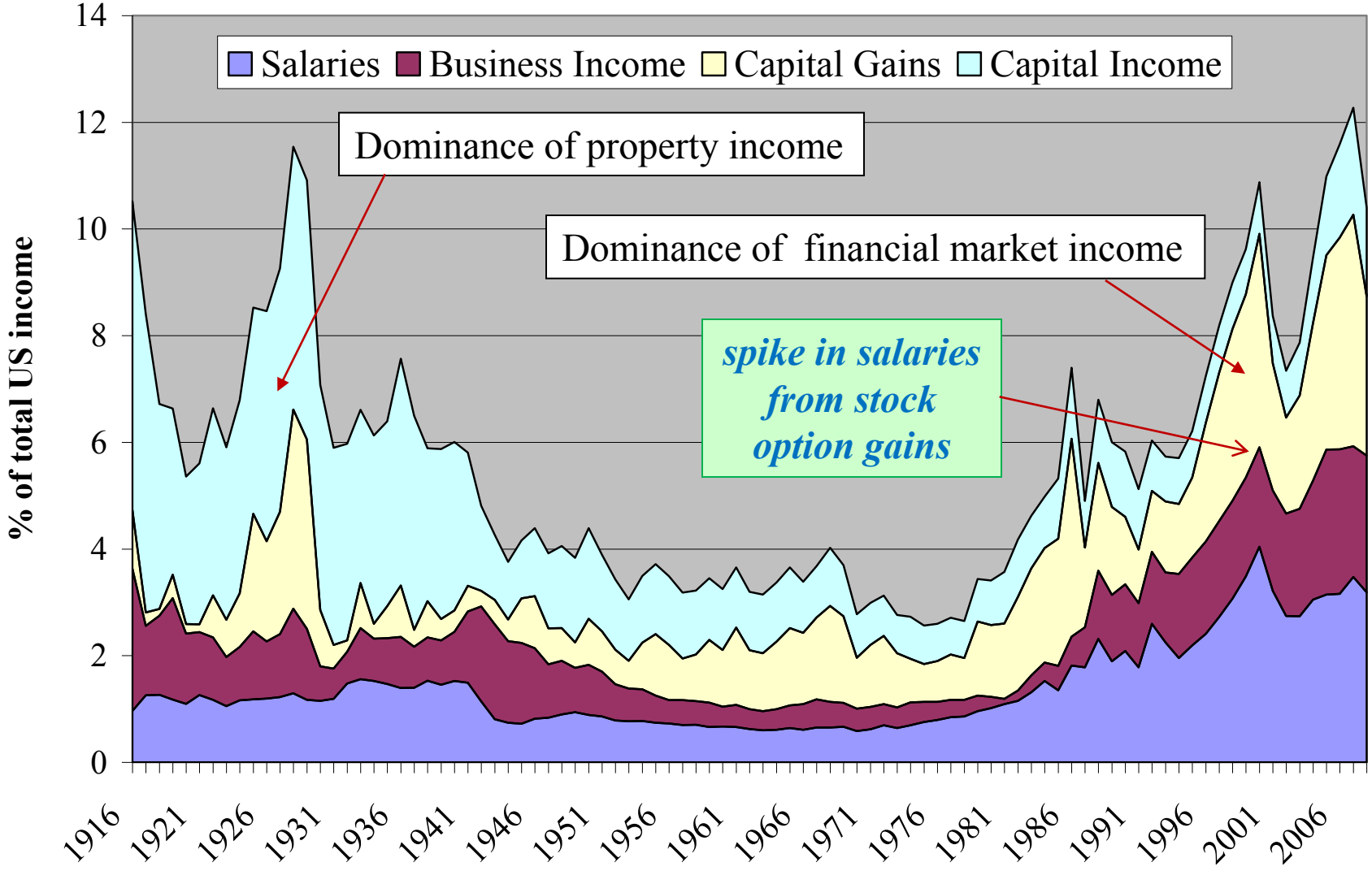
Concentration of income at the top

US income shares including capital gains, top 1.0%, 0.5% and 0.1% of households, 1913-2008



Source: Saez 2011

Components of income of top 0.1%, 1916-2008

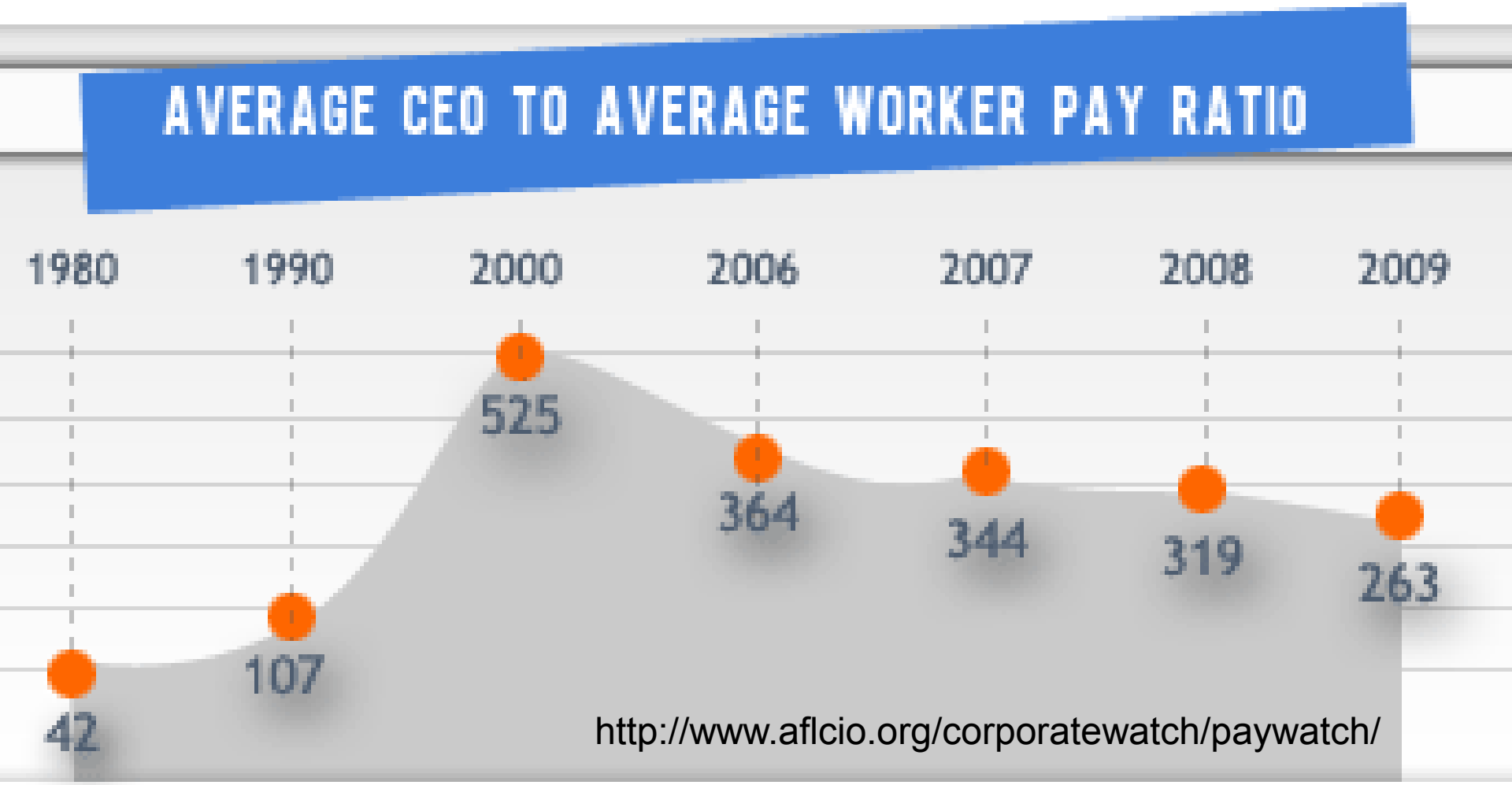


Source: Saez 2010 http://elsa.berkeley.edu/~saez/

In terms of resource allocation, the US economy is a corporate economy, not a market economy

	THE FORTUNE 1000: USA worldwide data			Per company, average worldwide data		
	Revenues	Profits	Employees	Revenues	Profits	Employees
2008	$b.	$b.	no.	$b.	$b.	no.
top 50	4,968	158	9,876,792	99.4	3.2	197,536
top 100	6,584	239	13,716,319	65.8	2.4	137,163
top 200	8,342	219	18,369,532	41.7	1.1	91,848
top 500	10,688	99	25,612,023	21.4	0.2	51,224
top 1000	12,086	103	30,881,978	12.1	0.1	30,882
2007						
top 50	4,902	292	9,628,749	98.0	5.8	192,575
top 100	6,549	366	13,541,346	65.5	3.7	135,413
top 200	8,284	508	18,073,414	41.4	2.5	90,367
top 500	10,602	645	25,601,644	21.2	1.3	51,203
top 1000	11,975	724	30,845,377	12.0	0.7	30,845

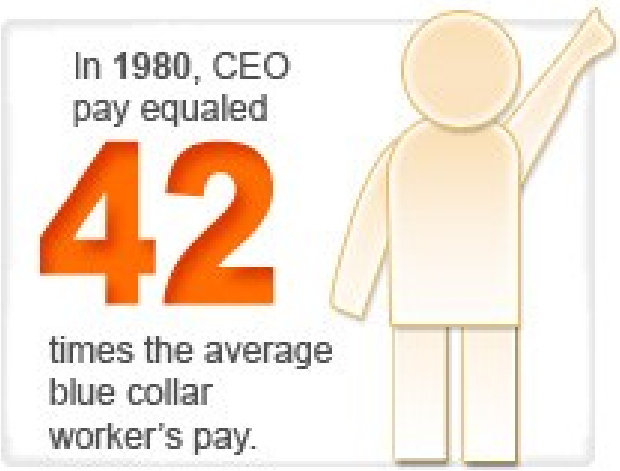
From AFL-CIO Executive Paywatch



Explosion and extent of CEO pay depends on gains from exercising stock options: see Lazonick, "The Explosion Executive Pay and the Erosion of American Prosperity," Entreprises et Histoire, 57, 2010.

From AFL-CIO Executive Paywatch

CEO Pay Skyrockets Compared with Workers' Wages



Source: BusinessWeek magazine

Source: AFL-CIO calculations, www.paywatch.org

http://www.aflcio.org/corporatewatch/paywatch/

Top executive pay, 1992-2010, % from stock options

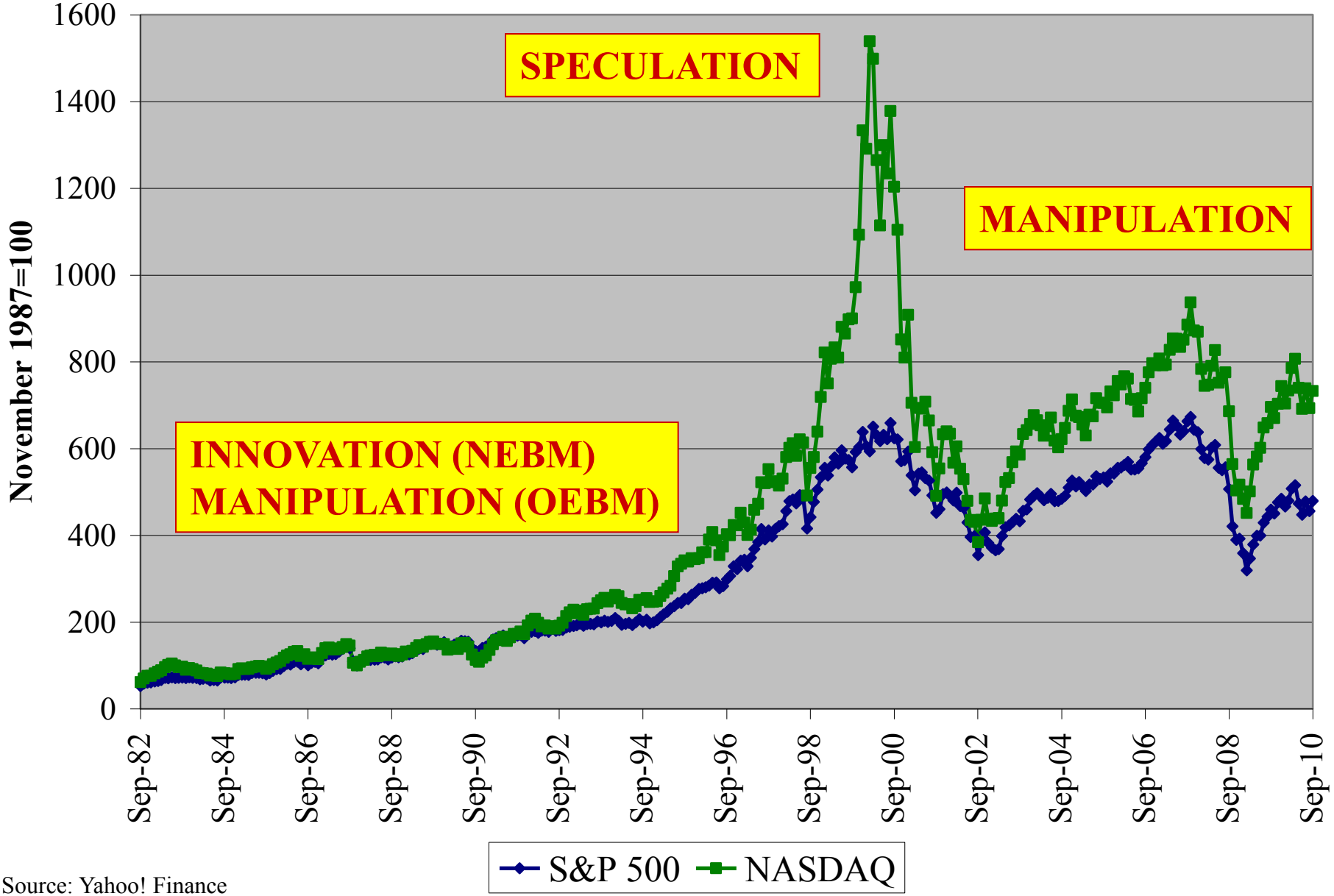
	Mean pay in millions of 2010 dollars				% of pay from stock options			
	top100	top500	top1500	top3000	top100	top500	top1500	top3000
1992	23.1	9.3	4.8	2.9	68	50	35	24
1993	21.3	9.1	4.8	3.1	55	43	32	24
1994	18.5	8.1	4.4	2.9	50	36	25	18
1995	20.9	9.7	5.3	3.4	57	43	31	23
1996	32.3	13.9	7.2	4.6	54	43	34	26
1997	44.1	18.5	9.4	5.9	66	54	45	35
1998	78.2	27.2	12.7	7.6	72	60	49	38
1999	69.9	27.9	13.4	8.0	76	64	50	38
2000	105.4	40.9	18.9	10.9	82	74	58	43
2001	63.1	24.0	11.4	6.9	75	57	45	36
2002	37.9	17.0	8.7	5.5	53	43	34	28
2003	49.0	21.3	10.8	6.8	61	49	37	29
2004	55.3	24.9	13.0	8.1	69	53	43	36
2005	67.4	28.6	14.5	9.0	70	54	46	38
2006	68.2	29.4	15.3	9.6	61	52	42	35
2007	60.4	27.8	14.8	9.4	65	52	42	34
2008	39.7	16.8	8.4	5.1	54	38	25	17
2009	30.1	14.1	7.8	5.1	44	27	17	12
2010	33.8	17.4	9.9	6.5	46	34	25	20

Gains from speculation

Gains from manipulation

Source: Standard and Poor's Compustat Execucomp database

Drivers of the stock market: Innovation, speculation, manipulation



Source: Yahoo! Finance

Speculative gains in the 1980s and 1990s

Ave. annual US corporate stock and bond yields (%), 1960-2009

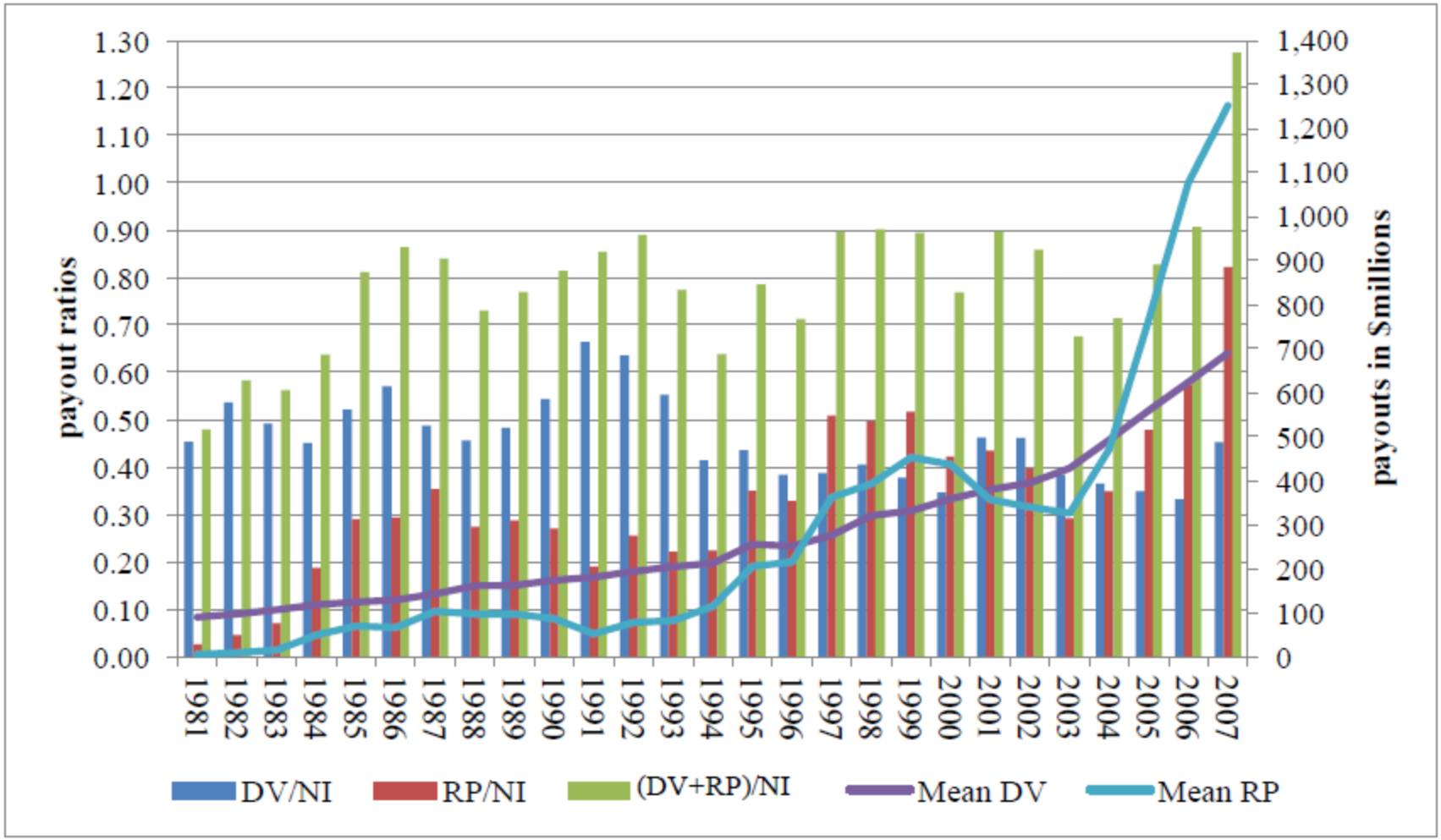
Source: Economic Report of the President 2010	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009
REAL STOCK YIELD	**6.63**	**-1.66**	**11.67**	**15.01**	**-3.08**
PRICE YIELD	5.80	1.35	12.91	15.54	-2.30
Dividend yield	3.19	4.08	4.32	2.47	1.79
Change in CPI	2.36	7.09	5.55	3.00	2.57
REAL BOND YIELD	**2.65**	**1.14**	**5.79**	**4.72**	**3.41**

With unindexed stock options and double-digit annual stock price yields in the longest bull-run in US stock market history, the explosion of executive pay was automatic in the 1980s and 1990s.

So how were the gains from stock options maintained in the 2000s? Manipulation of the stock market through buybacks.

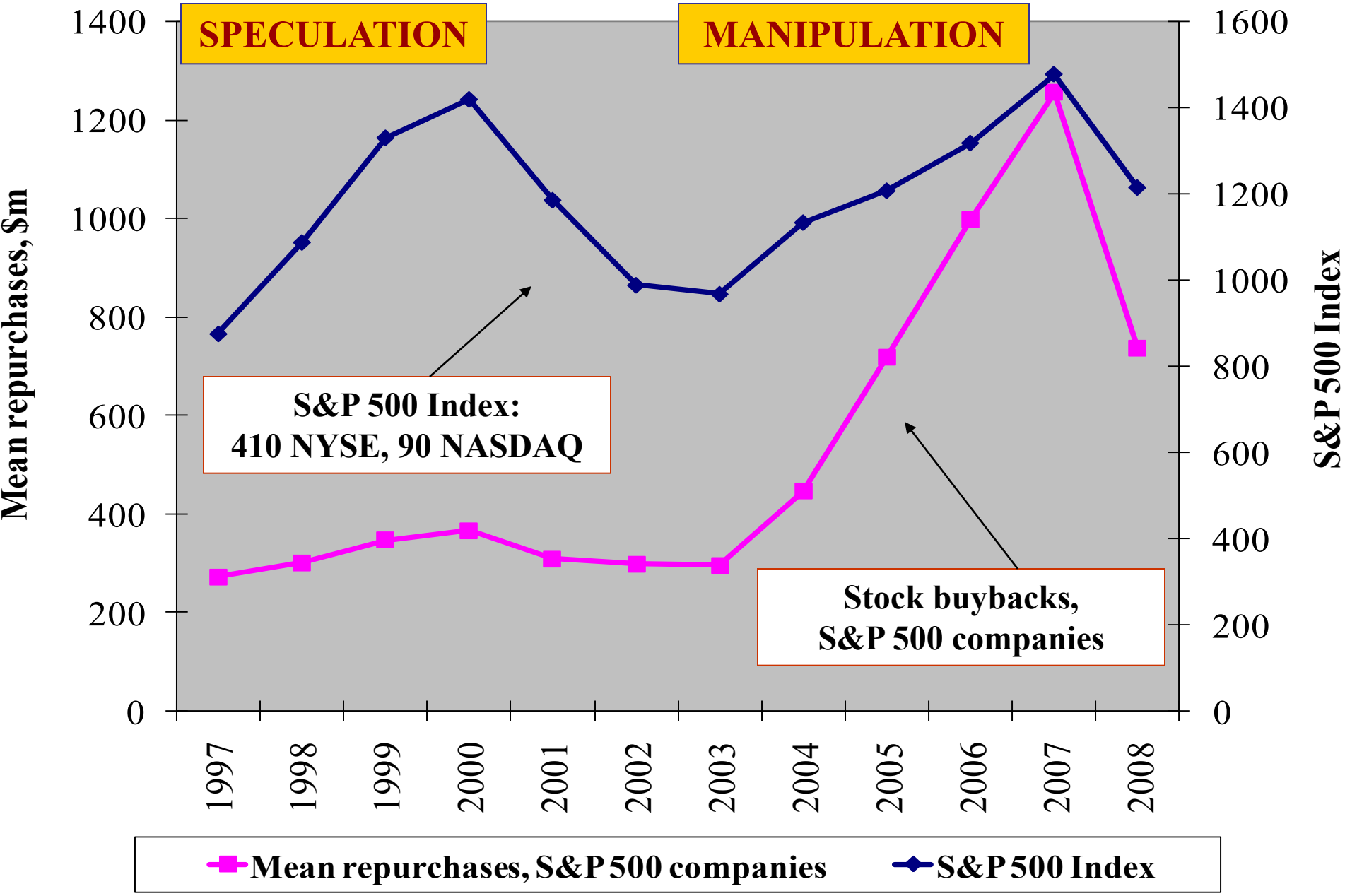
Stock buybacks, S&P 500 companies, 1981-2007

Ratios of cash dividends (DV) and stock repurchases (RP) to net income (NI), and m dividend payments and stock repurchases, 1981-2007, among 292 companie the S&P 500 Index in January 2008

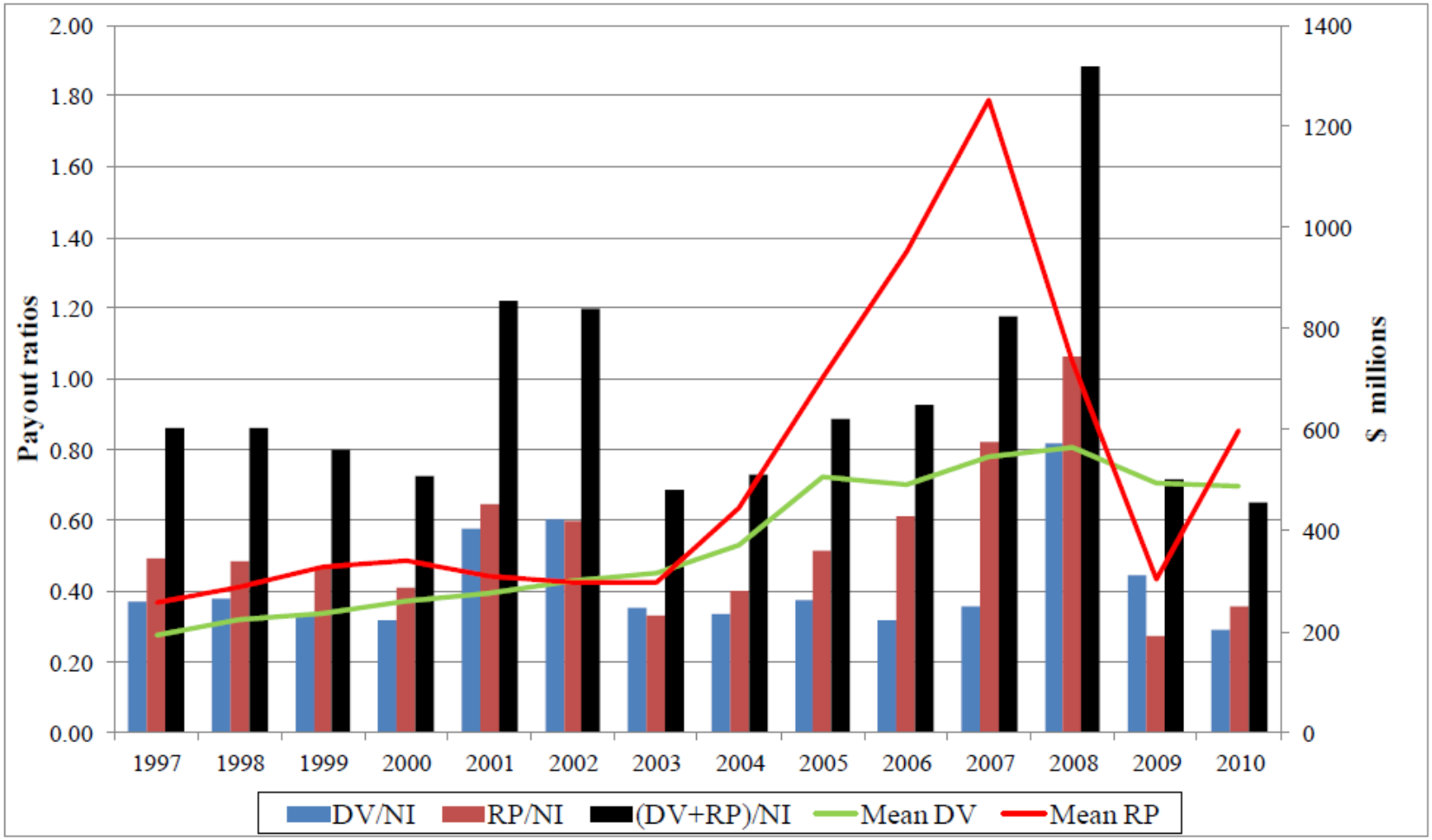


Sources: Standard &Poor's Compustat database (North America, Fundamentals Annual) and company 10-K filings.

Manipulating the stock market in the 2000s



Impatient capital disgorges the cash flow: Stock buybacks, 419 S&P 500 companies, 1997-2010



Data for 419 corporations in the S&P 500 Index in January 2011 that were publicly listed 1997-2010. Data for companies that end their fiscal years during the first six months of the calendar year are attributed to the previous year. RP, stock repurchases; DV, total dividends (common and preferred); NI, net income (after tax with inventory evaluation and capital consumption adjustments).

Sources: S&P Compustat database (North America, Fundamentals Annual, 1997-2010); company 10-K filings for missing or erroneous data from the Compustat database.

RP rank	Company Name	Fortune rank 2010	Repurchases 2001-2010, $m	RP/NI%	DV/NI%
1	EXXON MOBIL	2	174,482	62	26
2	MICROSOFT	38	110,006	89	49
3	IBM	18	89,131	93	19
4	CISCO SYSTEMS	62	65,045	130	0
5	PROCTER & GAMBLE	26	56,979	70	42
6	HEWLETT-PACKARD	11	53,953	116	18
7	WAL-MART STORES	1	52,603	46	24
8	BANK OF AMERICA	9	52,418	49	61
9	PFIZER	31	50,627	62	70
10	INTEL	56	48,261	81	32
11	GENERAL ELECTRIC	6	47,906	29	54
12	JOHNSON & JOHNSON	40	37,299	38	40
13	GOLDMAN SACHS	54	35,757	59	24
14	CITIGROUP	14	32,941	37	69
15	HOME DEPOT	30	30,090	72	26
16	DELL	41	29,455	119	0
17	PEPSICO	43	28,841	62	40
18	AMGEN	163	28,823	105	0
19	TIME WARNER	95	28,671	-73	-13
20	UNITEDHEALTH GROUP	22	26,500	88	2

Petroleum refining	ICT	Consumer goods
Retail	Financial services	Healthcare
Entertainment	Aerospace	Miscellaneous

Top repurchasers 2001-2010

RP rank	Company Name	Fortune rank 2010	Repurchases 2001-2010, $m	RP/NI%	DV/NI%
21	CHEVRON	3	25,552	20	32
22	AT&T	12	25,450	27	68
23	DISNEY	55	24,909	91	19
24	ORACLE	96	22,438	52	5
25	WELLS FARGO	23	22,212	30	42
26	CONOCOPHILLIPS	4	21,965	40	34
27	WELLPOINT	42	21,866	101	0
28	TEXAS INSTRUMENTS	175	21,671	129	18
29	JPMORGAN CHASE	13	21,197	24	44
30	MCDONALD'S	111	20,270	72	43
31	AMERICAN EXPRESS	91	17,074	56	22
32	UPS	48	16,857	57	51
33	MERCK	53	16,756	28	56
34	MORGAN STANLEY	63	16,450	43	31
35	COCA-COLA	70	16,014	28	50
36	ALTRIA GROUP	154	15,782	19	62
37	3M	97	15,192	49	41
38	DIRECTV GROUP	110	14,983	257	2
39	TRAVELERS COS	106	14,764	60	44
40	CBS	174	14,676	-52	-12

Petroleum refining	ICT	Consumer goods
Retail	Financial services	Healthcare
Entertainment	Aerospace	Miscellaneous

Top repurchasers 2001-2010

RP rank	Company Name	Fortune rank 2010	Repurchases 2001-2010, $m	RP/NI%	DV/NI%
41	UNITED TECHNOLOGIES	44	14,402	43	27
42	LOCKHEED MARTIN	52	13,959	73	28
43	COMCAST	66	13,929	84	14
44	KRAFT FOODS	49	13,717	46	27
45	BOEING	36	13,506	57	38
46	AIG	17	12,147	-29	-23
47	AETNA	77	12,034	102	1
48	ALLSTATE	89	12,030	60	35
49	TARGET	33	11,589	52	16
50	U S BANCORP	126	11,131	32	54

Financial services: 12; ICT 11; Healthcare: 7; Consumer goods: 5; Retail: 4
Petroleum refining: 3; Aerospace: 3; Entertainment: 3; Miscellaneous: 2

Petroleum refining	ICT	Consumer goods
Retail	Financial services	Healthcare
Entertainment	Aerospace	Miscellaneous

Top repurchasers 2001-2010

Distributions to shareholders

These 50 companies expended $1.59 trillion on buybacks, 2001-2010

Proportion of profits expended on buybacks by top 50, 2001-2010:

100%+: 11 50%+: 32 30%+: 43

Proportion of profits expended on buybacks plus dividends, top 50, 2001-2010:

100%+: 24 80%+: 38 67%+: 48

S&P 500 companies expended almost $3 trillion on buybacks, 2001-2010

2011: The new run-up in stock buybacks

"Stock buybacks increase for 9th consecutive quarter, Q3 2011 Buybacks up 48.8% over Q3 2010 growing 41 percent in 2Q" PRNewswire , December 21, 2011

- **$118.4 billion for S$P 500 companies in Q3 2011**
- **Leading companies**

Exxon Mobil $5.5 billion
JPMorgan Chase $4.4 billion
Intel $4.1 billion
IBM $3.4 billion
ConocoPhillips $3.2 billion

- **$120 billion for the S&P 500 expected in Q4 2011**
  $437 billion for all of 2011

The ascendancy of impatient capital: Wall Street banks

William Lazonick, "Everyone pays price for share buy-backs," Financial Times, September 23, 2008.

> **"During the stock market boom of the 1980s and 1990s the argument that 'maximising shareholder value' results in superior economic performance dominated corporate governance debates. Economists argued companies should disgorge their "free cash flow" to create value for shareholders, rather than horde cash or invest in productive capacity that was insufficiently profitable."**

- **Wall Street banks did buybacks even as they were betting the company (and the economy) on derivative speculation, and ended up going to foreigners and the US government to bail them out**

  Eight of the biggest bailed-out banks spent a total of $182 billion on buybacks from 2000 to 2007

The ascendancy of impatient capital: ICT

- Leading ICT companies do huge buybacks even as they demand that the government invest more in the high-tech knowledge base to make "America" competitive – 2001-2010: Intel spent $48.3b. on buybacks, more than 4 times the total budget of the National Nanotechnology Initiative for 2001-2010
- Motorola: did $6.8b. in buybacks in 2006-2007, just when it needed to invest in smartphones
- Cisco: 126% of its profits, 2002-2011, spent on buybacks while it eschewed investment in advanced communication technology and has been outcompeted by Huawei Technologies
- In 2009 Microsoft and Intel borrowed billions to do buybacks while also doing large-scale layoffs
- IBM: perpetually doing massive buybacks while laying of in North America and offshoring, primarily to India
- RIM did $3.0b. in buybacks in 2009-2010, 1.3 times R&D

The ascendancy of impatient capital: petroleum refining

- **Oil companies do massive buybacks, while Americans pay high fuel prices and lack adequate investment in alternative energy – from 2001-2010 Exxon Mobil repurchased $174.5b., including $31.8b. in 2007, $35.7b. in 2008, $19.7b. in 2009, and $13.1b. in 2010 – in 2011: $22b.**

- **Buybacks 2001-2010: Chevron, $25.5b.; ConocoPhillips, $22.0b.**

- **In July 2008, four Congressional Democrats write a letter to oil CEOS, asking them, please, stop spending on buybacks – they were ignored although the Great Recession did help constrain buybacks**

The ascendancy of impatient capital: pharmaceuticals

- **Leading pharmaceutical companies keep US drug prices at least double the prices in other advanced countries – they argue in Congress that high US drug prices are needed to fund drug research – yet large portion of profits go to buybacks: Merck, Pfizer, J&J, and Amgen did buybacks equal to 28-105% of repurchases/R&D, 2001-2010: Pfizer, 61%, J&J 59%; Merck 35%**

- **Amgen, largest independent biopharma company, did $28.2 b. in buybacks, equivalent to its R&D expenditures, 2001-2010, including $5.1 billion in buybacks in 2007 to offset bad news on one of its blockbusters – borrowed $3.2b. to do the 2007 buybacks, then, on the advice of Wall Street, cut R&D and employment to boost earnings**

The ascendancy of impatient capital: health insurers, Walmart, General Motors

- **Health care insurers and providers do huge buybacks even as the nation's health care system is in crisis – buybacks/net income, 2001-2010: United Health 88%, Wellpoint 101%, Aetna 102%, Cigna 111%**

- **WalMart does multi-billion dollar buybacks while the wages of 2 million+ "associates" yield a low standard of living**

- **If General Motors had banked (with a 2.5% after-tax annual return) the $20.4b. distributed to shareholders as buybacks from 1986 through 2002 it would have had $29.4b. of its own cash to help keep it afloat and respond to global competition when it went bankrupt**

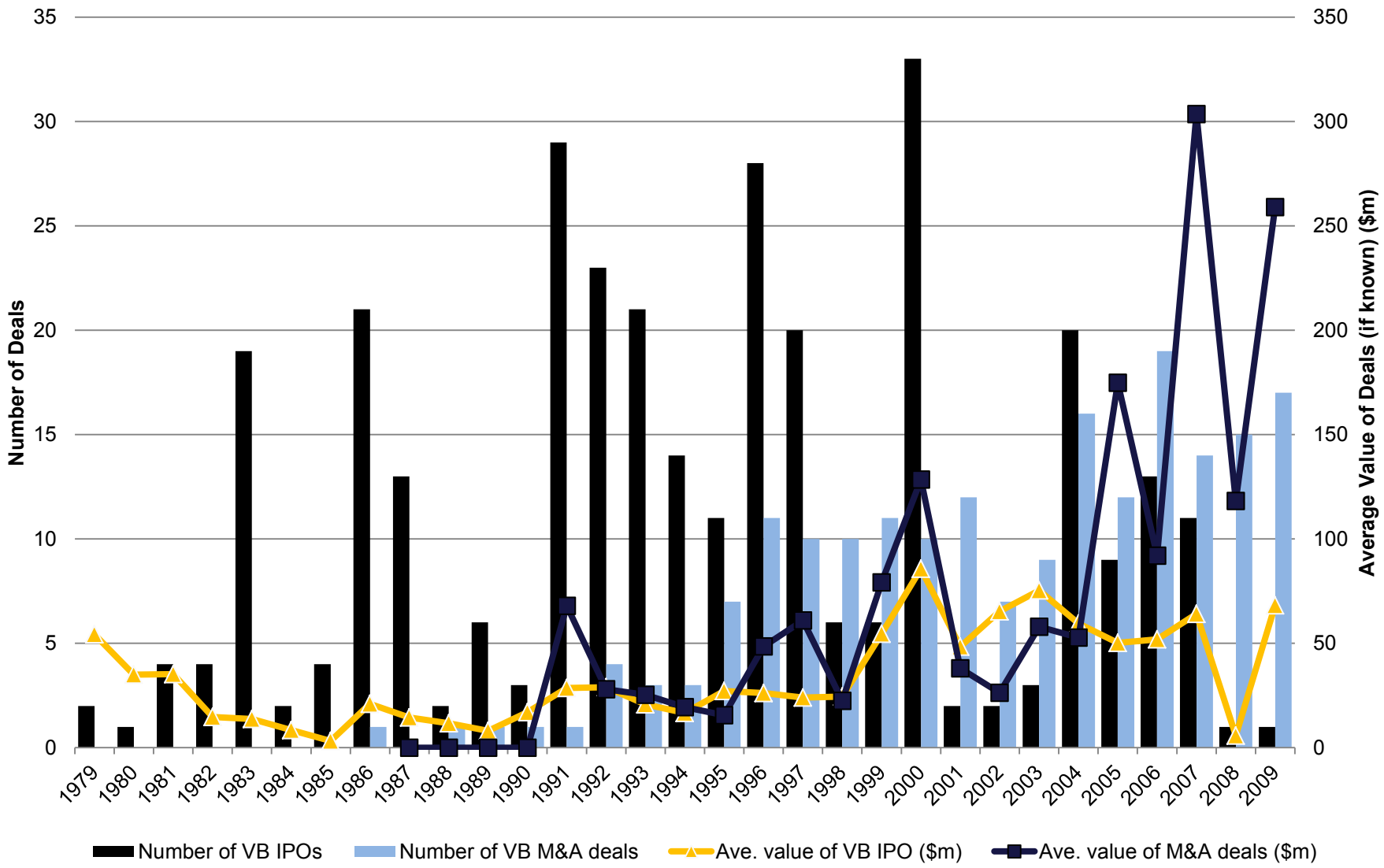
America's impatient venture capitalists

- **United States leads the world in venture capital**
- **Emergence of an industry for new-firm formation emerged out of the microelectronics revolution, especially emanating from Silicon Valley – but now these companies are in the forefront of buy back their stock**
- **But then applied, inappropriately, to biotechnology: it takes at least a decade and $1 billion to develop and commercialize a biopharma drug with high risks of failure; in biopharma there is a prevalence of PLIPOs: productless IPOs: Lazonick and Tulum 2011**
- **Impatient capital in renewable energy: see Lazonick and Hopkins 2011, "There went the sun: renewable energy needs patient capital," Huffington Post, Sept. 23, 2011**

Impatient capital: Biotech

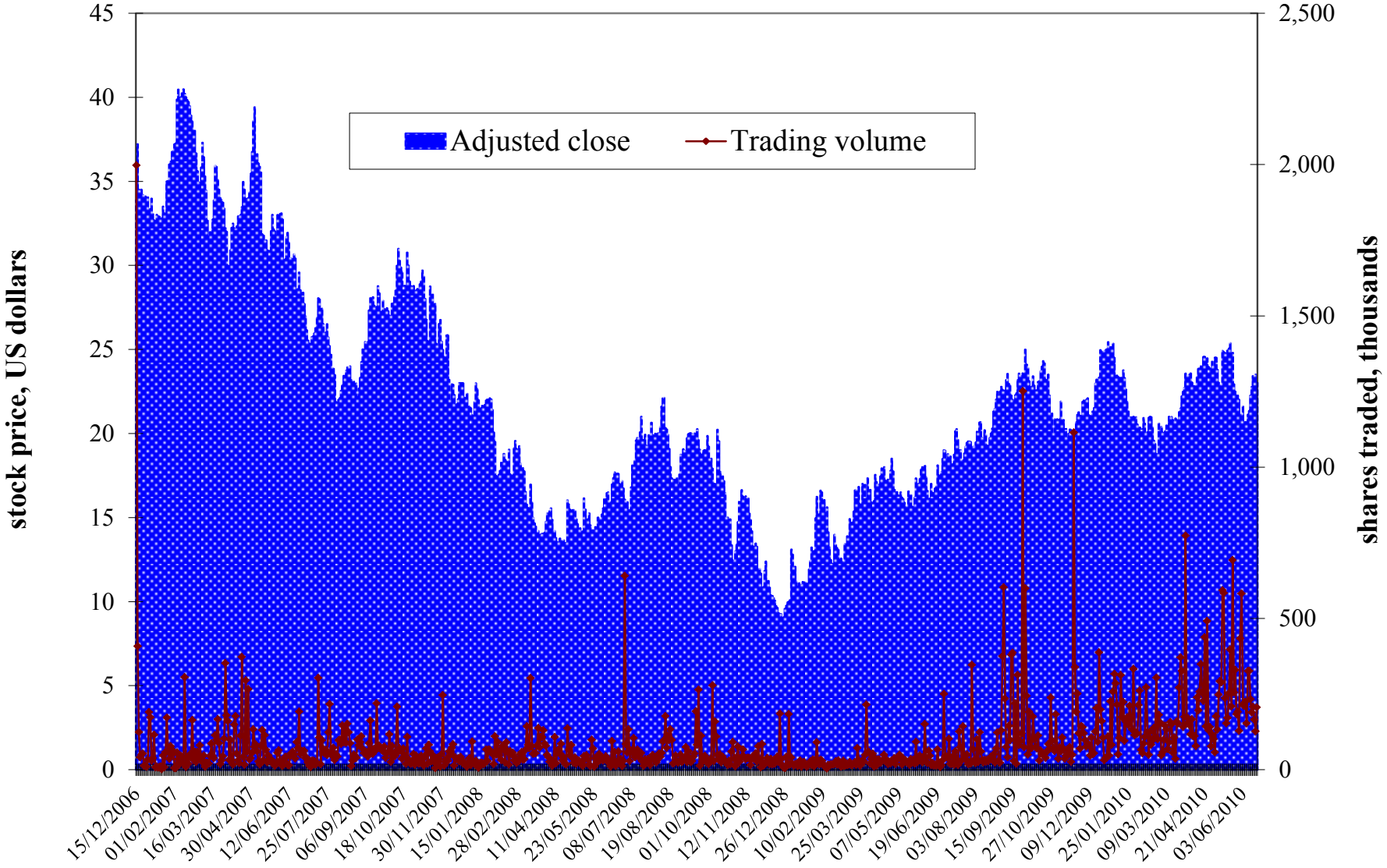
- **Over its 35-year history, the US biopharmaceutical (BP) industry has attracted large amounts of capital to fund both private startups and publicly listed firms.**
- **Yet the industry has been on the whole unprofitable, generating only 30 blockbuster drugs (products with at least $1b. in sales in at least one year).**
- **In fact, when they have done their IPOs, virtually all publicly listed US BP companies have lacked commercial products, and of the hundreds of publicly listed companies, few actually ever generate a viable commercial product.**
- **So why have large amounts of finance been attracted into the US BP industry?**
- **In a paper published in Research Policy, Lazonick and Tulum have shown that the industry's lure for private equity has been a combination of a) government funding of the knowledge base through the National Institutes of Health, b) government subsidies to drug development such as those available under the Orphan Drug Act, c) R&D contracts from big pharma, which typically include equity stakes, and d) the possibility of doing productless IPOs on NASDAQ in periods of heightened stock-market speculation.**
- **Detailed case studies of the financial evolution of BP companies by Lazonick and Sakinç have shown how, through this financing model, financial interests, including biopharma executives with stock-based pay, often extract large incomes from biopharma companies even when the companies remain unprofitable.**

Venture-backed IPOs and M&A deals in US biotech, 1979-2009

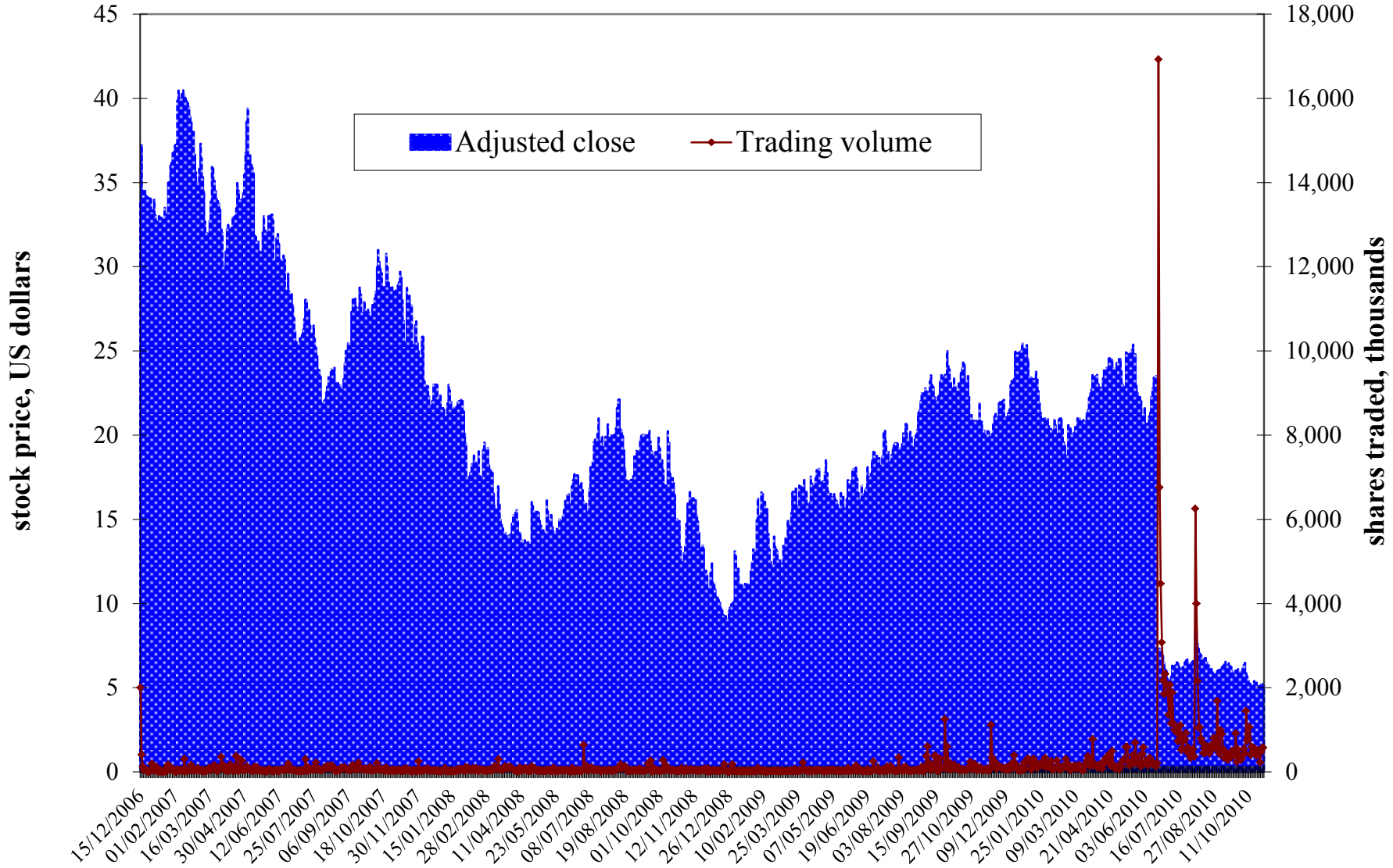


V-B IPOs in biotech: 2010: 8, ave. $93m.; 2011 (through Nov. 16), 9, ave. $89m.

Impatient capital: a biotech PLIPO



Affymax: a biotech PLIPO, with the collapse of its stock price



Close December 16, 2011: $6.3

Affymax: a biotech PLIPO (I)

- **Affymax was founded in 1988 in The Netherlands with a research lab in Palo Alto CA.**
- **GlaxoSmithKline acquired Affymax in 1995, and then spun it off as a new venture in 2001.**
- **From its founding to its IPO on December 15, 2006, Affymax recorded a total of $11.7m. in revenues, virtually all of it from an R&D partnership worth up to $102m., signed in Feb. 2006, with Japan-based Takeda Pharmaceutical.**
- **At that time, Affymax had a therapeutic product under development in the late stages of Phase II clinical trials, with the expectation of moving into Phase III trials in early 2007 and the possibility of gaining Food and Drug Administration marketing approval for the drug in 2010; that is, three to four years after the IPO. At that point, Takeda would have exclusive rights to market the drug outside of the United States.**
- **But Takeda, as well as Affymax's venture capitalists, do not have to wait until a product actually goes to market to generate returns from their investments. As part of the R&D partnership, Takeda purchased 2.1m. Affymax shares for $10m. in February 2006. At the IPO some ten months later, Takeda's shares were worth $63m.**

Affymax: a biotech PLIPO (II)

- Takeda was able to reap this return on its shareholdings because of the existence of public investors who were willing to speculate in the shares of a company like Affymax that was still years away from a commercial product.
- Indeed, from an IPO price of $30.00 on December 15, 2006, Affymax's stock rose to a peak price of $41.00 on February 12, 2007, and then began a general decline to $9.03 on December 23, 2008. It then rose as high as $25.43 on December 30, 2009, and stood at $23.01 on Friday, June 18, 2010.
- By the following Monday, however, the stock price collapsed to $7.18 when it was announced that some patients had suffered heart-related side effects in Phase III trials.
- Even before the stock-price collapse in June 2010, both the Affymax stock price and the trading volume in its shares were very volatile, with speculators going into and out of the market in the attempts to lock in speculative gains.
- The existence of stock market investors looking to make speculative gains on a stock such as Affymax is what enables the IPO, which in turn attracts venture capital and big pharma money into the BP industry.

Impatient capital: Clean tech

- **August 2011 bankruptcy of Solyndra, a US V-B solar panel maker founded in 2005, questions about whether the US can compete in renewable energy.**
- **There is demand: the global solar power market was $71b. in 2010, double 2009.**
- **Many have argued, however, that the US government loan guarantees that Solyndra received from the Obama administration in 2009 under the Energy Policy Act of 2005 led it to borrow $535m. to build a redundant plant that, in any case, could not have hoped to compete against those in China.**
- **Hopkins and Lazonick argue that the public debate over Solyndra has failed to ask why both before and after the government loan guarantees, Solyndra was able to raise $1.1b. from 11 different VC sources, and why in 2011 these financiers called it quits.**
- **The answer: the closing of the door in the spring of 2010 on the possibility for Solyndra to do an IPO through which these private financial interests could reap a quick return on their investment in the company.**
- **In the light of a number of other recent bankruptcies among US clean tech companies, we are now analyzing the explanatory power of this "impatient capital" argument more generally, as well as its applicability to the case of wind power, a clean tech industry on which, under the Ford grant, Hopkins has done in-depth research.**

Impatient capital and the US economy

- Impatient capital pervades the US economy
- The US financial sector was highly regulated after World War II to promote financial commitment, or "patient" capital
- Began to break down with the conglomerate movement of the 1960s – buying and selling companies for financial gain
- Transformation of Wall Street from investing to trading in the 1970s leading to the "deal decade" of the 1980s
- Pervasiveness of stock buybacks and stock options from the 1980s
- By the 2000s the US industrial corporation had become completely financialized; and by the 2010s little talk of "US innovation"
- Financialization of the US corporation results in the erosion of middle-class employment opportunities -- see, e.g., Lazonick, "How We Became the 99%, and What We Can Do About It"

Impatient capital in comparative perspective

- Europe: impatient capital in the financial sector – but institutional barriers to financialization of the industrial sector that vary by country – barriers high in Germany and Sweden, low in UK –
- Database on buybacks by the Europe S&P 350 currently being refined by Sakinç for analysis with Lazonick
- Top 20 European repurchasers, 2001-2010

Company	Repurchases 2001-2010 €b.	Company	Repurchases 2001-2010 €b.
BP	37.3	AstraZeneca Plc	16.0
Vodafone Group	28.6	Novartis AG Reg	15.8
Nestle SA Reg	27.6	Credit Suisse Group AG	14.2
TOTAL SA	26.2	Diageo Plc	11.5
UBS AG	22.8	E.ON AG	10.4
GlaxoSmithKline	22.3	BHP Billiton Plc	10.3
Nokia OYJ	18.6	Koninklijke Philips Electronics NV	9.8
Royal Dutch Shell PLC B	18.3	Koninklijke KPN NV	9.2
Deutsche Bank AG	18.3	BASF SE	9.1
Telefonica SA	16.3	ING Groep NV	8.4

Impatient capital in comparative perspective

- **Japan: perfected OEBM, but then let the bubble economy undermine equity and stability – since bursting of the bubble Japan has maintained the institutions for "patient capital" but, based on OEBM has failed to globalize innovation in new industries, e.g., wireless (see research of Kenji Kushida) – nevertheless, Japan still stands as the rich nation that is the exemplar of equity and stability**

- **China: has grown by inserting itself in the global value chains of NEBM, and has been moving to indigenous innovation – government has provided "patient capital" and has characterized the most successful global firms (e.g., Lenovo and Huawei) – but in the 2000s China has also permitted "impatient capital" to emerge, manifested in growth of income inequality: China needs to confront the developmental implications of "impatient capital"**