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A Banker's Assessment Of The IT R&D Ecosystem

April 19, 2007

Jefferies 

One Could Argue That Silicon Valley Has Been The Healthiest IT R&D Ecosystem In The World

The Chicken or The Egg?

- Is the U.S. the “natural” leader of the global venture capital industry?
- Is Silicon Valley a superior ecosystem that can be neither replicated nor supplanted?
- Are Silicon Valley VCs the best in the world, or just the luckiest (to be located in SV)?
- Is the Silicon Valley ecosystem merely a “perfect storm” that has come, will pass, and could be replicated?

Why Has The U.S. Led The Innovation Economy?

An Historic IT R&D Ecosystem

- Strong entrepreneurial culture
- Great research universities
- Confidence in the rule of law (contract, IP, etc.)
- Wide availability of early stage risk capital
- Wide availability of later stage capital
- Clear meritocratic mechanisms for innovators to gain ownership and earn wealth
- Unencumbered access to a liquid capital market for exits (IPO, M&A)
- Large numbers of “wise men” (and women)
- Largest homogeneous product market in the world

Magnet for talent, globally

What Makes A Great Entrepreneurial Culture?

- People who want to work hard and are achievement oriented
- Business success is financially rewarded
- Business success is celebrated (socially rewarded)
- These rewards are accessible to all (mobility)
- Meritocracy is the recognized social order
- Failure is not a permanent stain
- “Experts” are available to provide guidance
- Learning new ways is considered a positive attribute

In any society, it's mothers who decide what is “success”

The Global Entrepreneurial Scorecard (Part 1)

	U.S.	U.K.	Continental Europe	Israel	Japan	China	India
Culture							
Research Universities							
STEM Output							
Rule of Law							
Early Stage VC							
Late Stage VC							
Access to Exits							
Experts/Wisemen							
Local Market							

The Entrepreneurial Culture Scorecard (Part 2)

	U.S.	U.K.	Continental Europe	Israel	Japan	China	India
Work Hard / Achievement	✓ ↓	✓ ↓	○ ↓	✓ →	✓ →	✓ ↑	✓ ↑
Financial Rewards	✓ ↓	✓ →	✓ →	✓ →	✓ →	✓ ↑	✓ ↑
Success Celebrated	✓ ↓	✓ ↓	○ ↓	✓ ↑	○ ↓	✓ ↑	✓ ↑
Mobility	✓ →	✓ →	○ ↑	✓ →	○ →	✓ ↑	○ ↑
Meritocracy	✓ →	✓ ↓	○ →	✓ →	○ ↑	○ ↑	○ ↑
Failure is ok	✓ ↓	○ ↓	? ↓	✓ →	○ →	N.A.	N.A.
Experts	✓ ↑	○ ↑	? ↑	✓ ↑	○ ↑	○ ↑	○ ↑
New Ways	✓ ↓	✓ ↓	○ ↓	○ →	○ →	✓ ↑	✓ ↑
Collaboration	✓ →	✓ →	○ ↑	✓ ↑	✓ →	○ ↑	○ ↑

The IT Industry Has Globalized At A Time When The U.S. Ecosystem Is Losing Ground

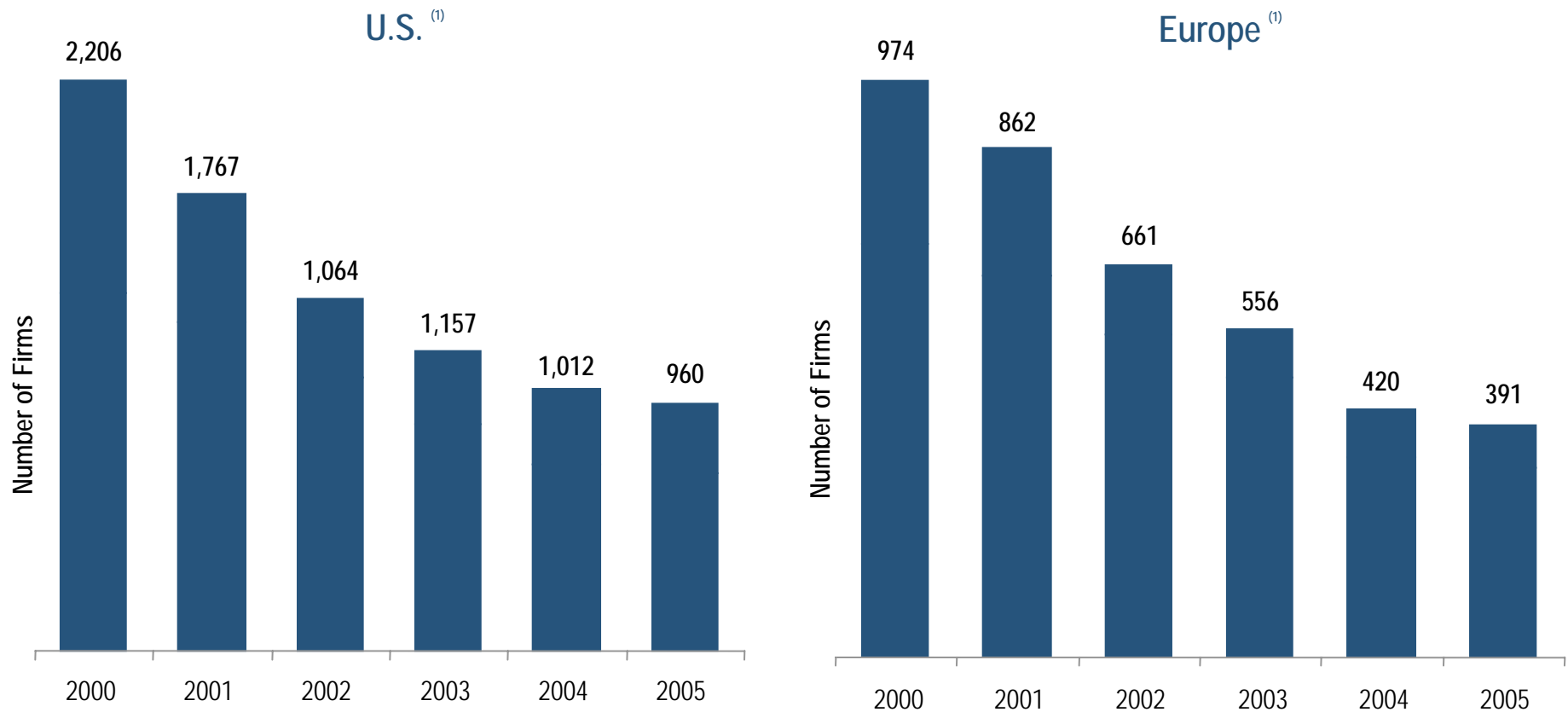
**“The World
is Flat”**

- Globalization of all product markets increases the need for true competitiveness
- Huge tech product markets of substance are developing outside the U.S. and Europe
- Dispersion of quality engineering talent is well underway, while our immigration and education systems are under stress
- Financial markets are evolving and globalizing at a time when the U.S. regulatory environment is “tightening”

The “in-country” IT R&D ecosystem must be globally competitive

The Venture Industry Itself Has Undergone A Needed Shakeout

Number of Firms Investing

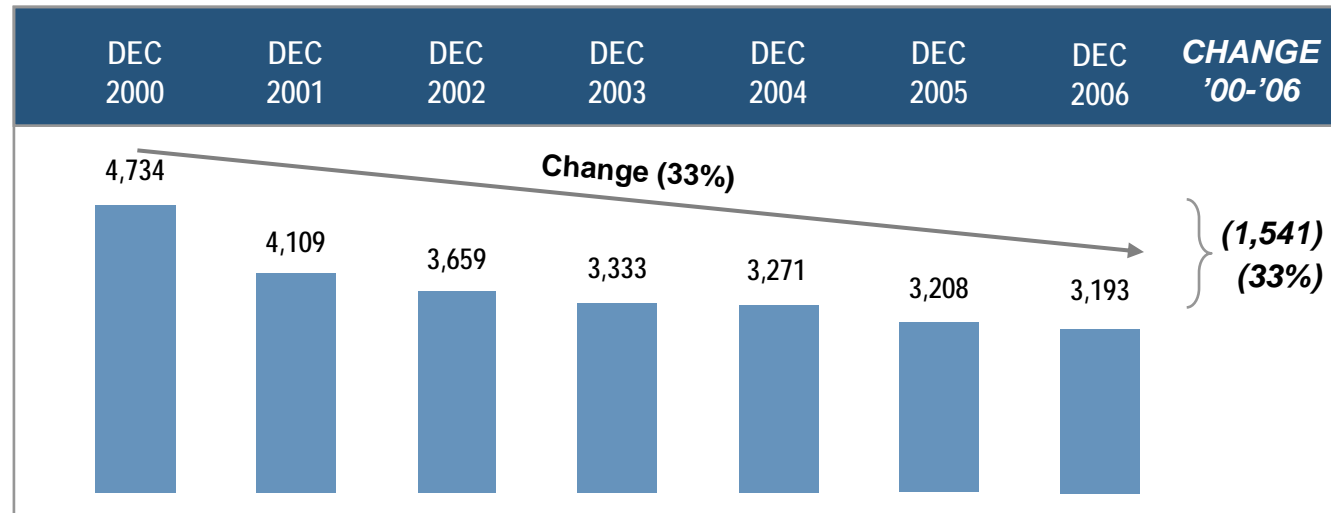


The Dramatic Rationalization Of The Public Markets Continues

Number Of NASDAQ Listed Public Companies⁽¹⁾

Dec 2000 – Dec 2006

NASDAQ peaked at 5,181 companies listed in March 2000

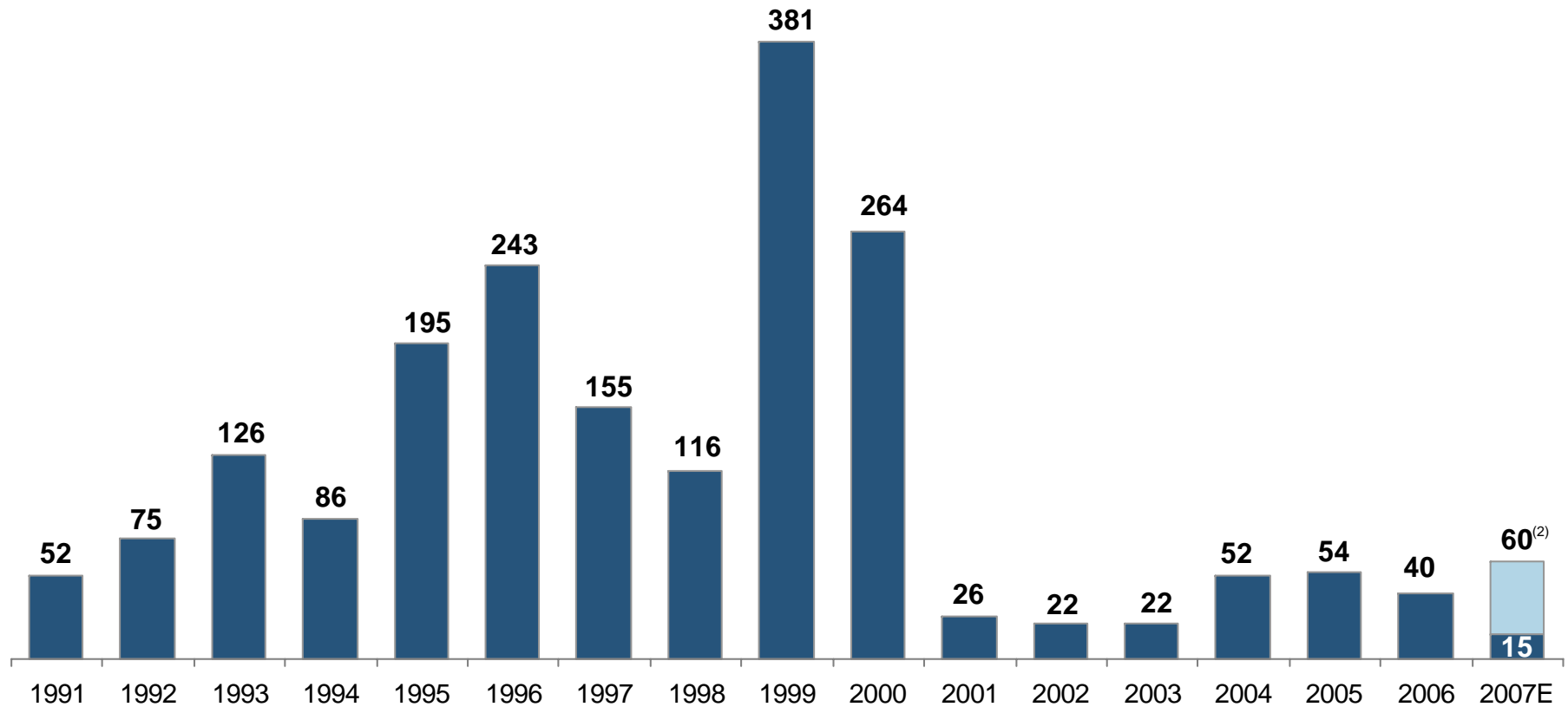


37% of NASDAQ listed public companies have no research coverage⁽³⁾

Trading Values	# Companies ⁽²⁾	% of Total
<Cash	16	0.50%
<\$100m	937	29.40%
<\$250m	1,623	50.93%

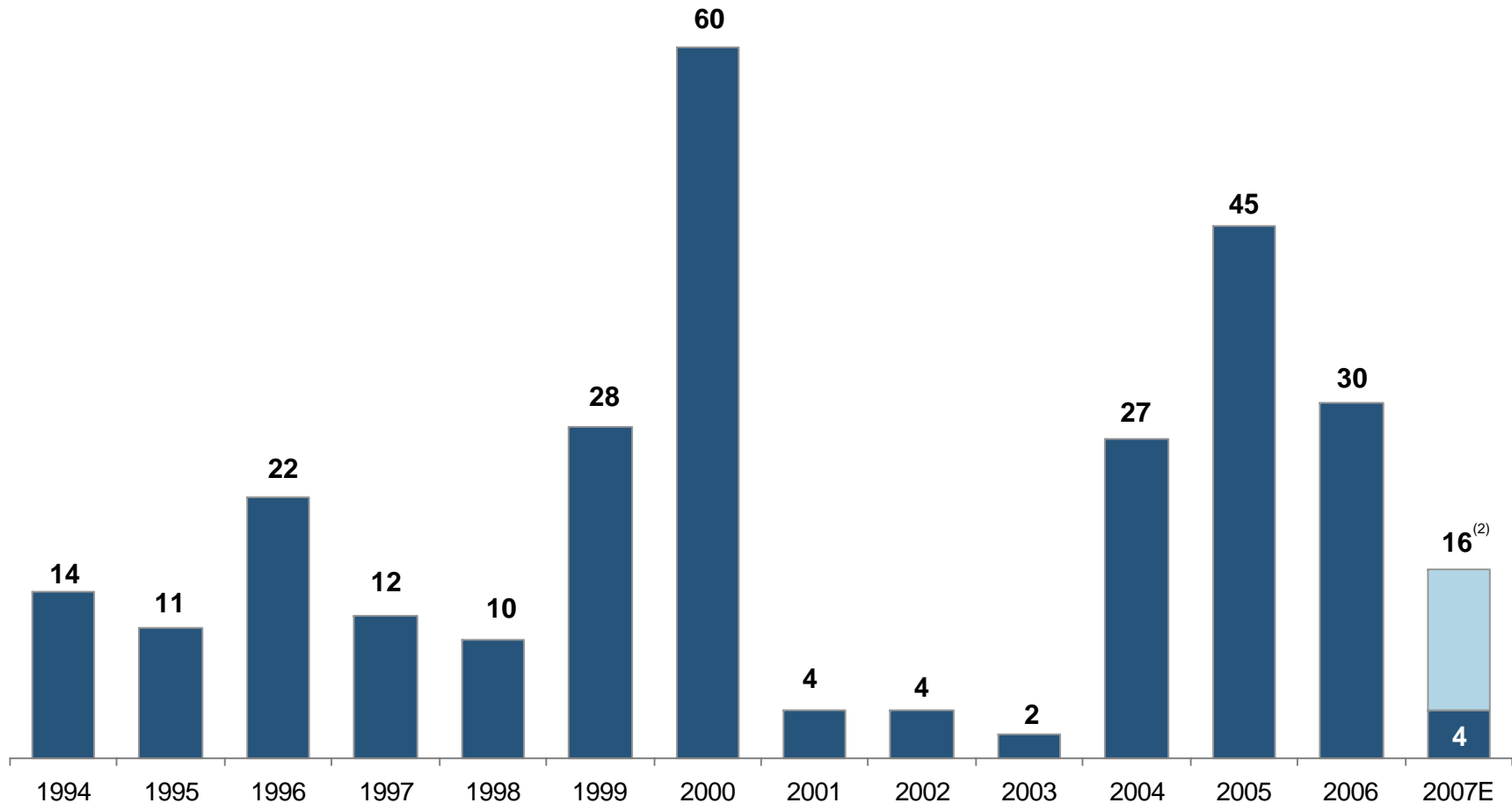
Technology IPO Activity Is Not Yet Close To Even “Pre-Bubble” Levels

US Tech IPO Activity – Number of Transactions⁽¹⁾



On A Relative Basis The Western European IPO Market Is Booming

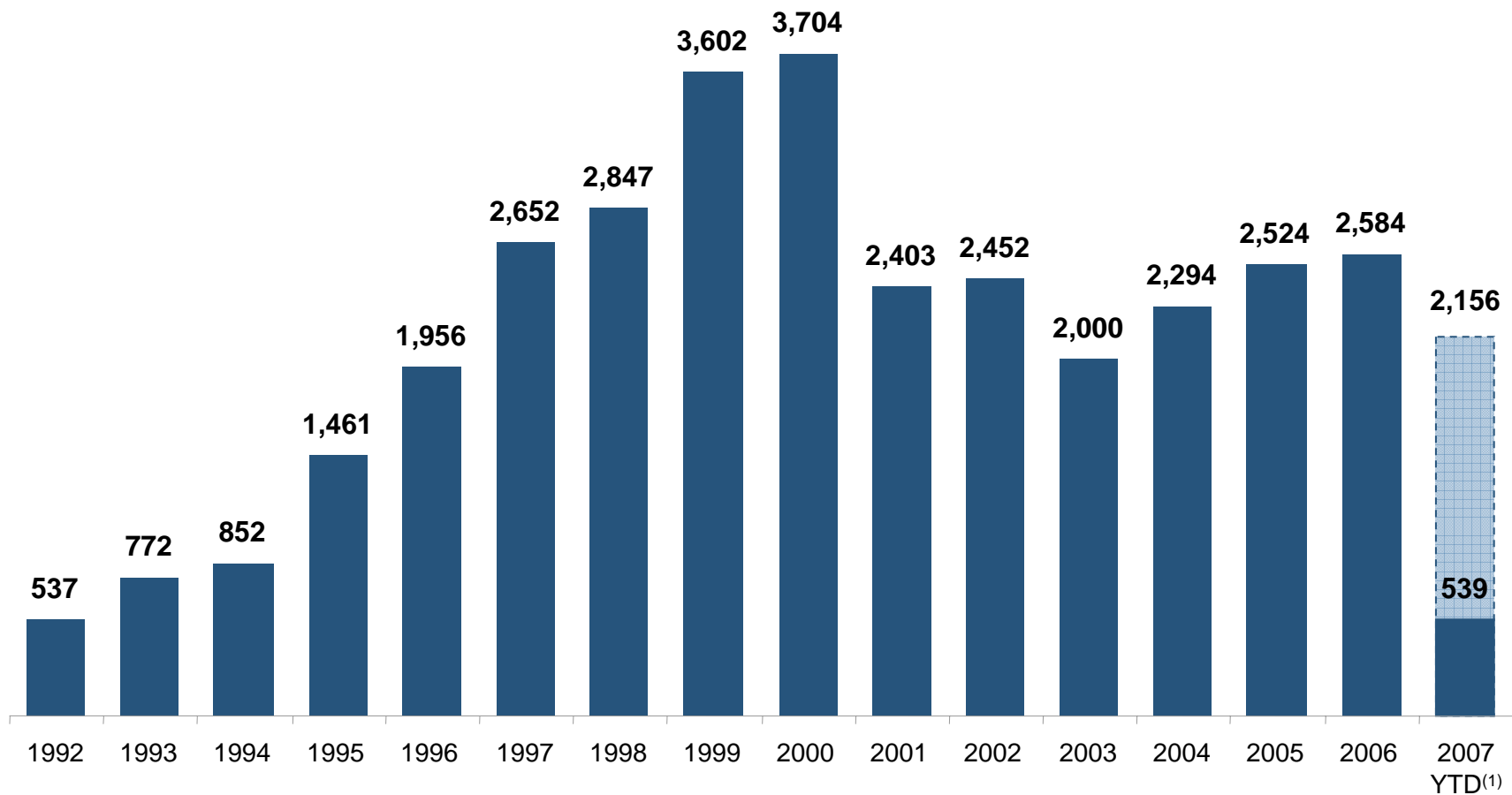
Western Europe Tech IPO Activity – Number of Transactions⁽¹⁾



The Tech M&A Environment Is Stable But Flat

M&A Activity 1992 – 2006 Number Of Transactions⁽¹⁾

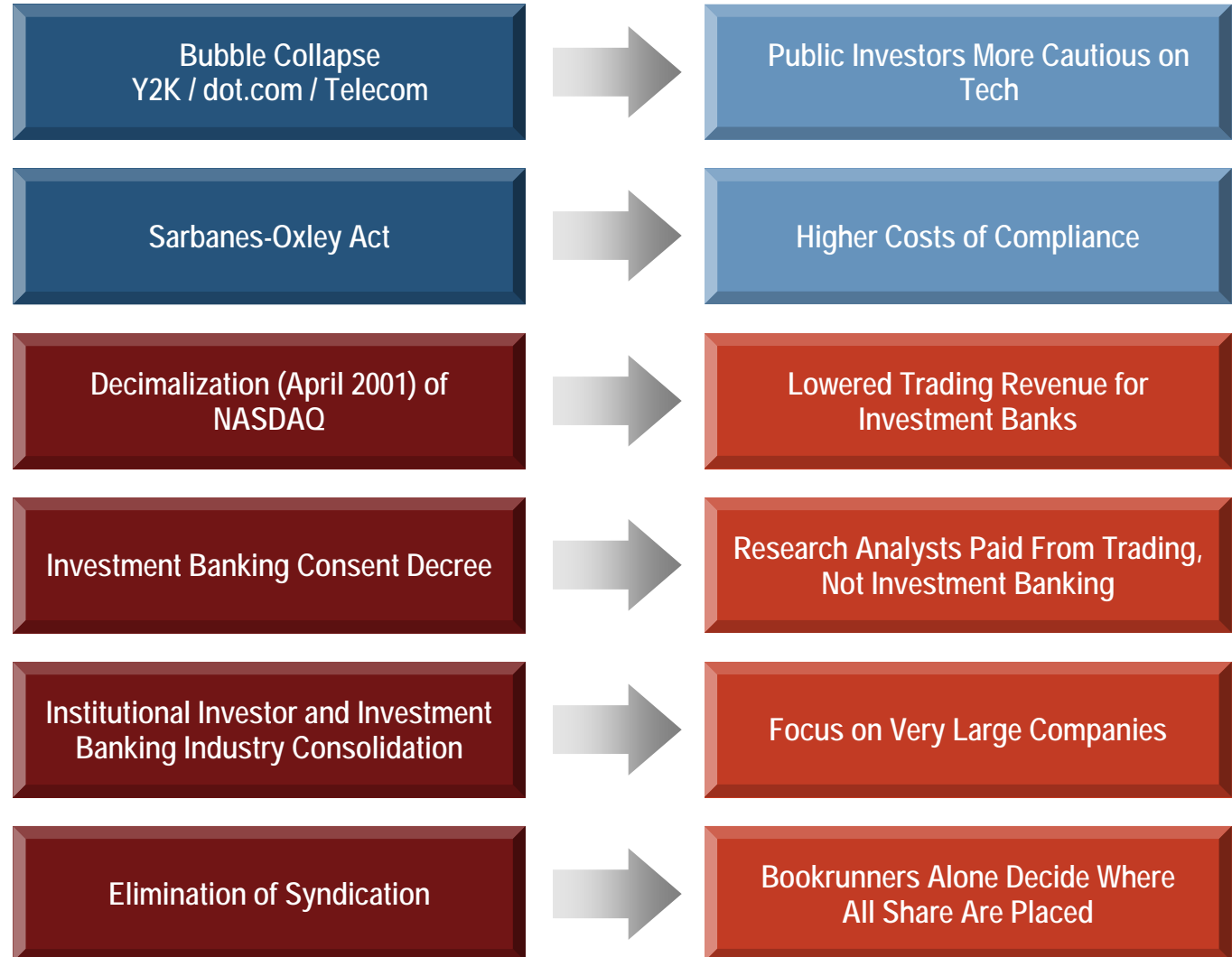
North America - IT, Media, Communications



Several Factors Have Negatively Impacted U.S. Tech Equity Markets

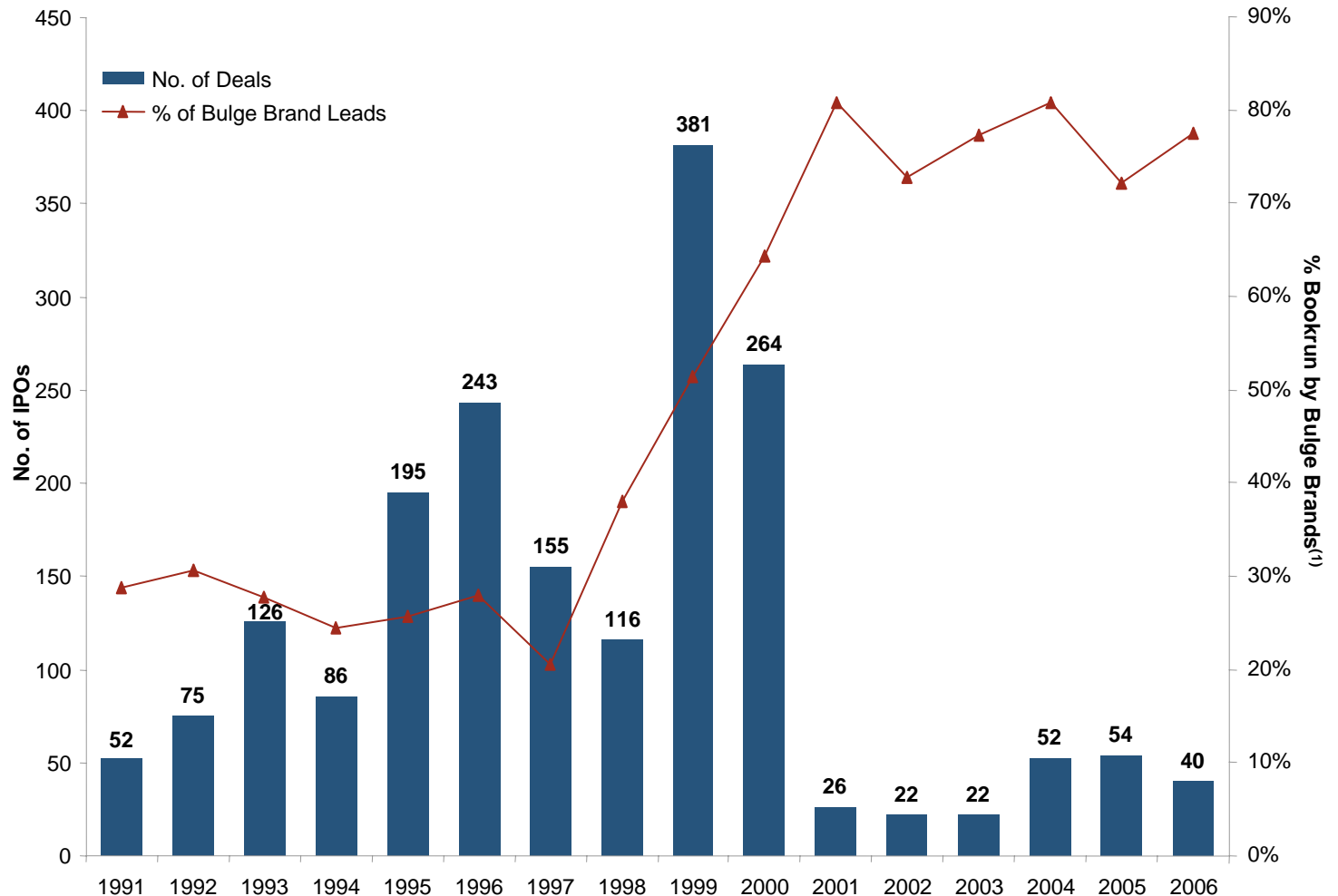
We are seeing positive movement in these first two factors

Changes in the investment banking industry are a bigger part of the problem

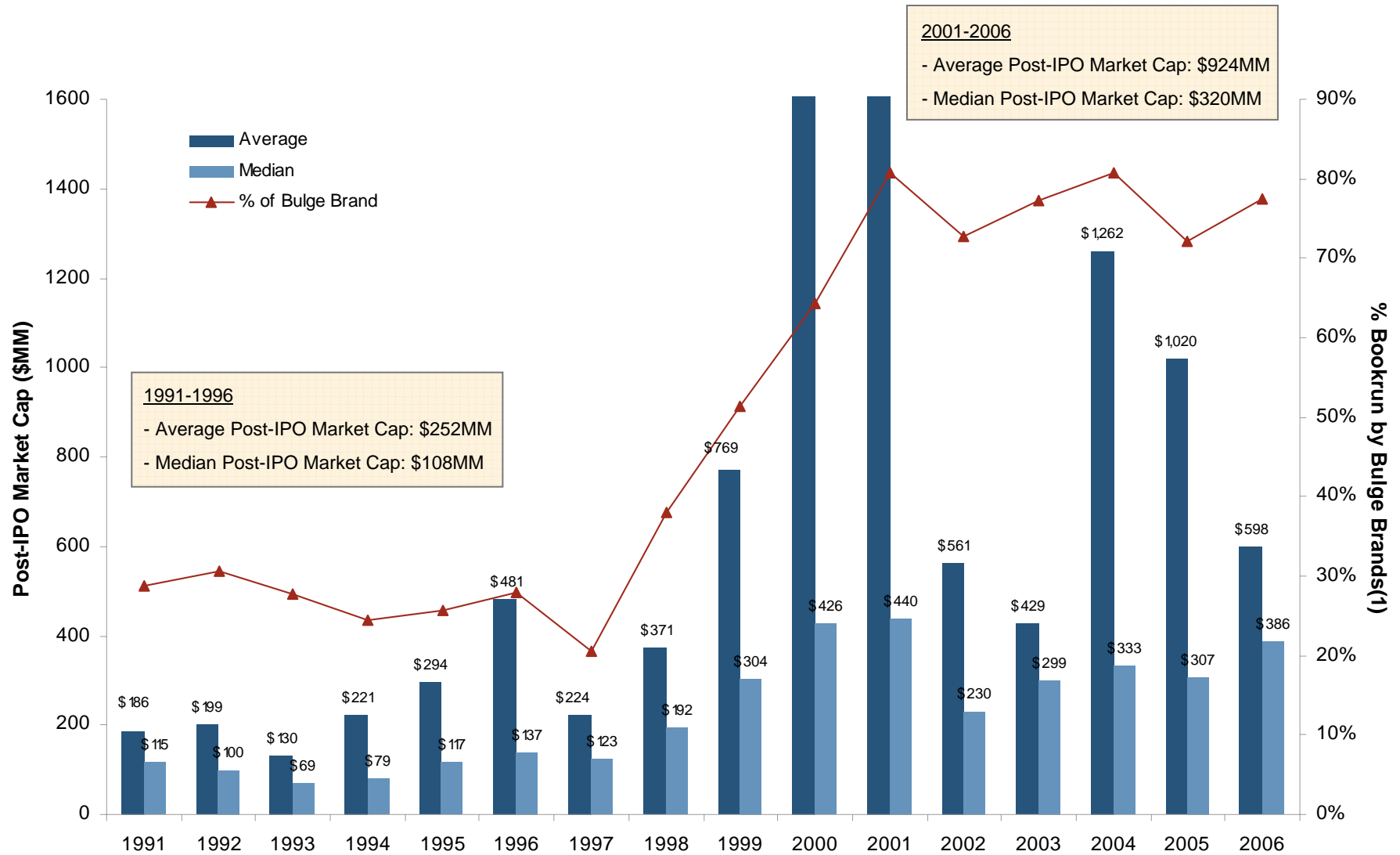


Bulge Bracket Banks Have Come To Dominate The Tech IPO Market, But This Has Not Had A Positive Effect On The Market

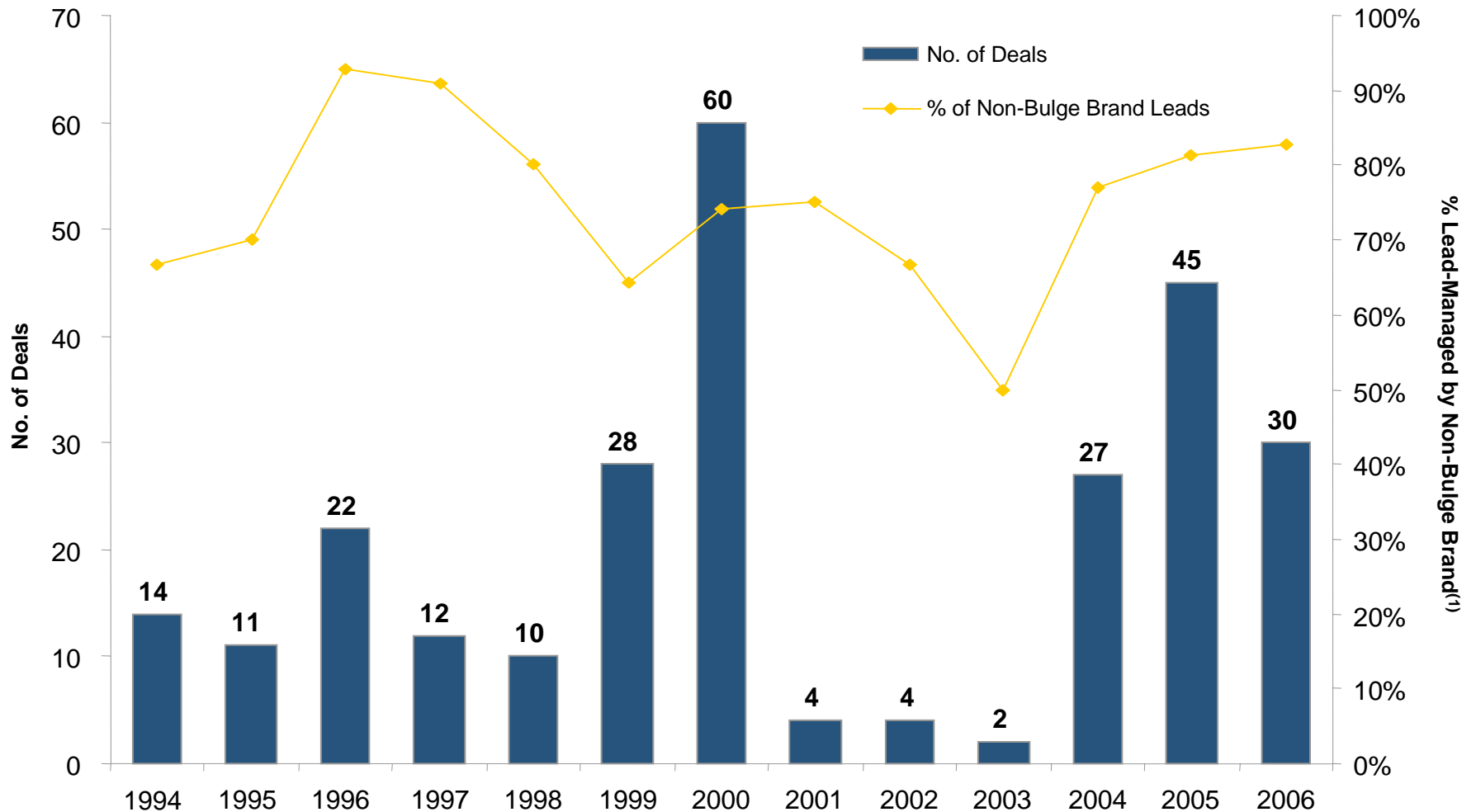
As the Tech IPO market heated up in the late 1990's, Bulge Brackets became more active. However, subsequent to the bubble, there has been no real recovery of the Tech IPO market, despite their maintaining a strong presence.



Bulge Bracket Banks Have Imposed A Higher Bar For IPOs Than At Any Time In Tech History



It's The Non-Bulge Firms, NOT The Bulge Brackets, That Are Leading The Resurgent Tech IPO Market In Europe



Recommendations For Improving The U.S. IT R&D Ecosystem

Improve Global Awareness
Among Policy Makers

- Read "The World is Flat"
- Travel to India & China

Reform To Reforms

- Sarbanes-Oxley
- Stock option expensing
- Corporate litigation

Improve K-12 STEM Education

- Encourage innovation and new ways of thinking about education

Remain A Magnet For Talent

- Open immigration
- "See Above" on reforms

Encourage Small Cap IPOs
Against M&A Exits

- "See Above" on reforms