

The Ying and Yang of Biotech Business Development

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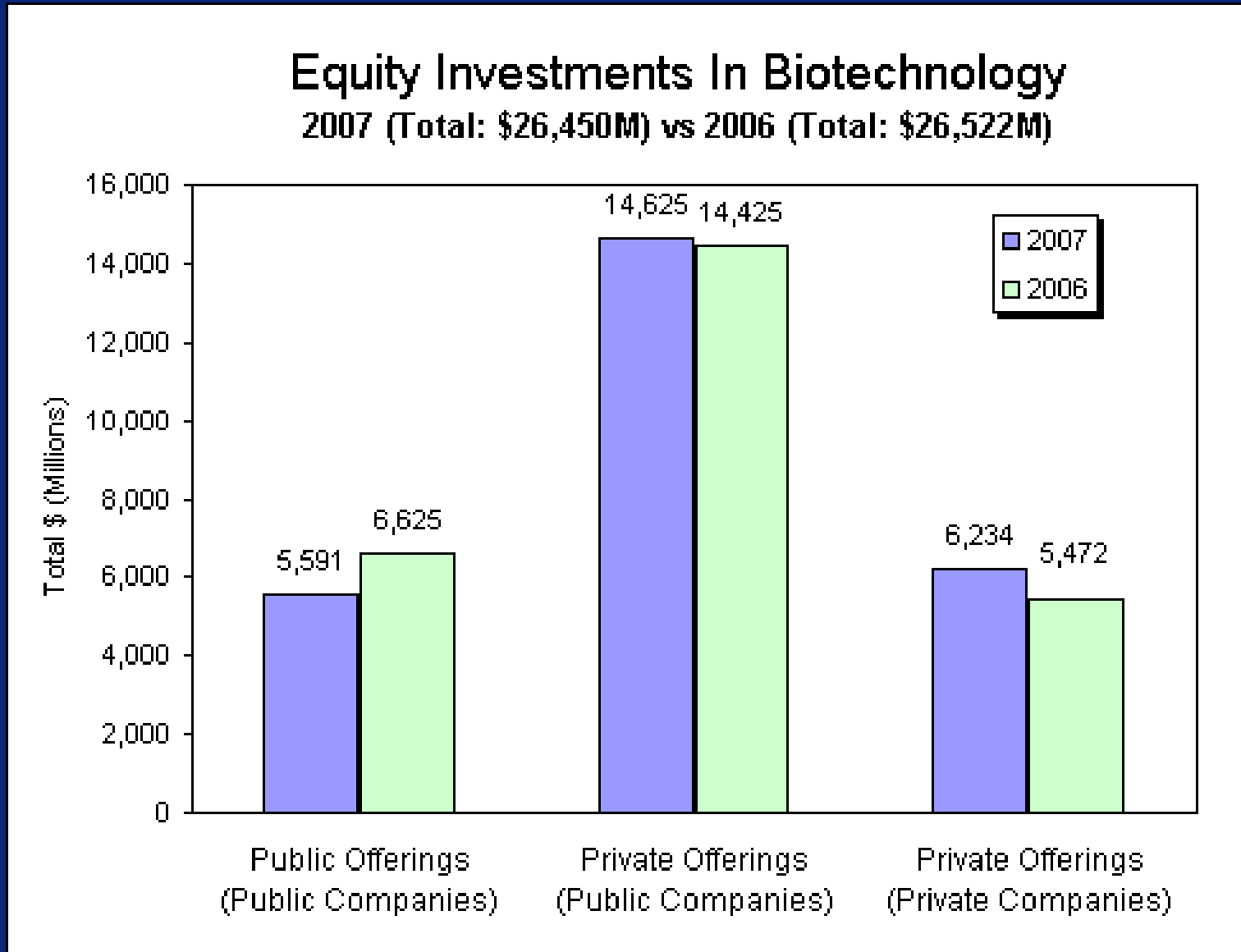
August 5, 2008



The Latest Trends in Biotech

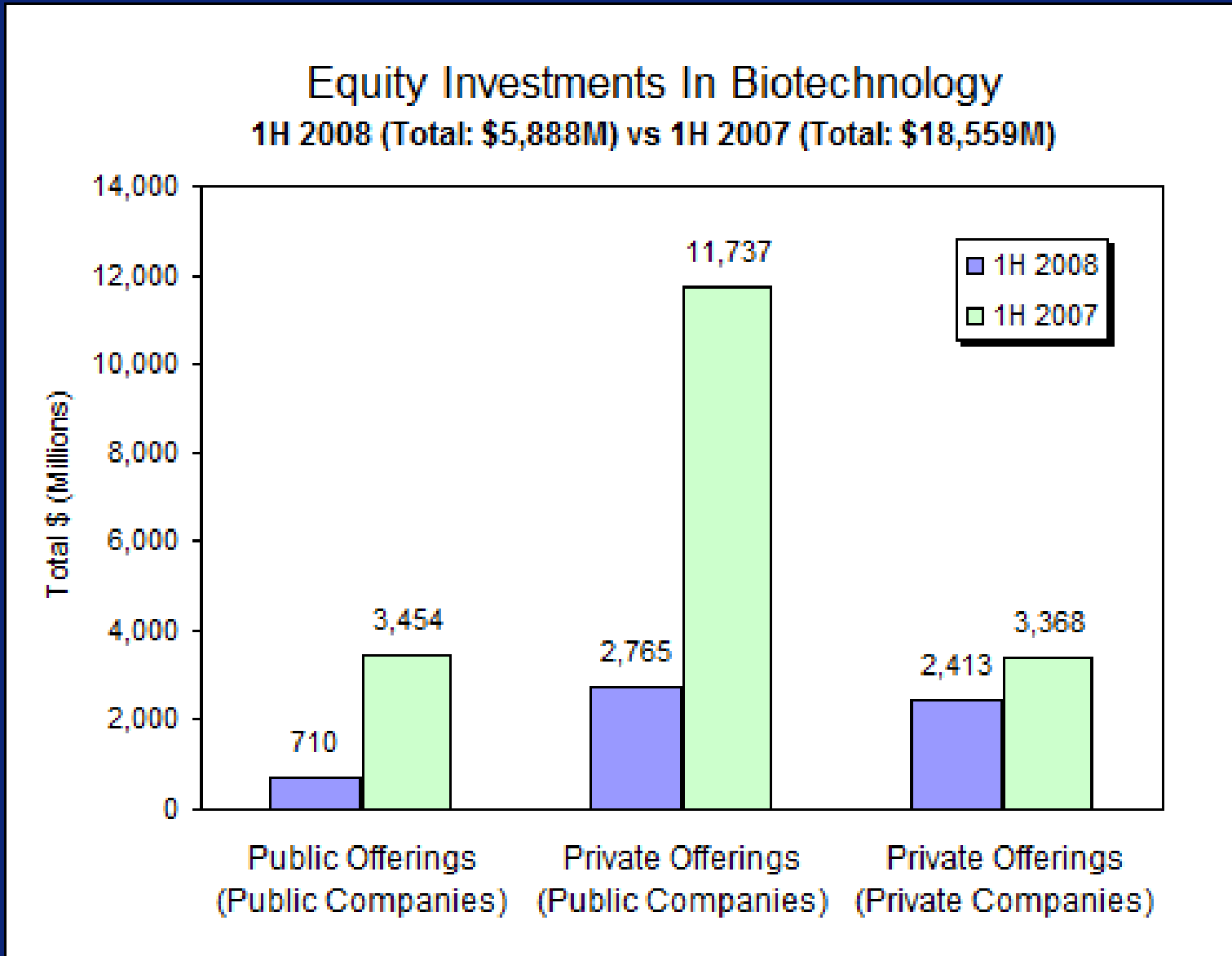
- Financing Environment
- Mergers & Acquisitions
- Big Ticket Alliances

Last Year was Strong...

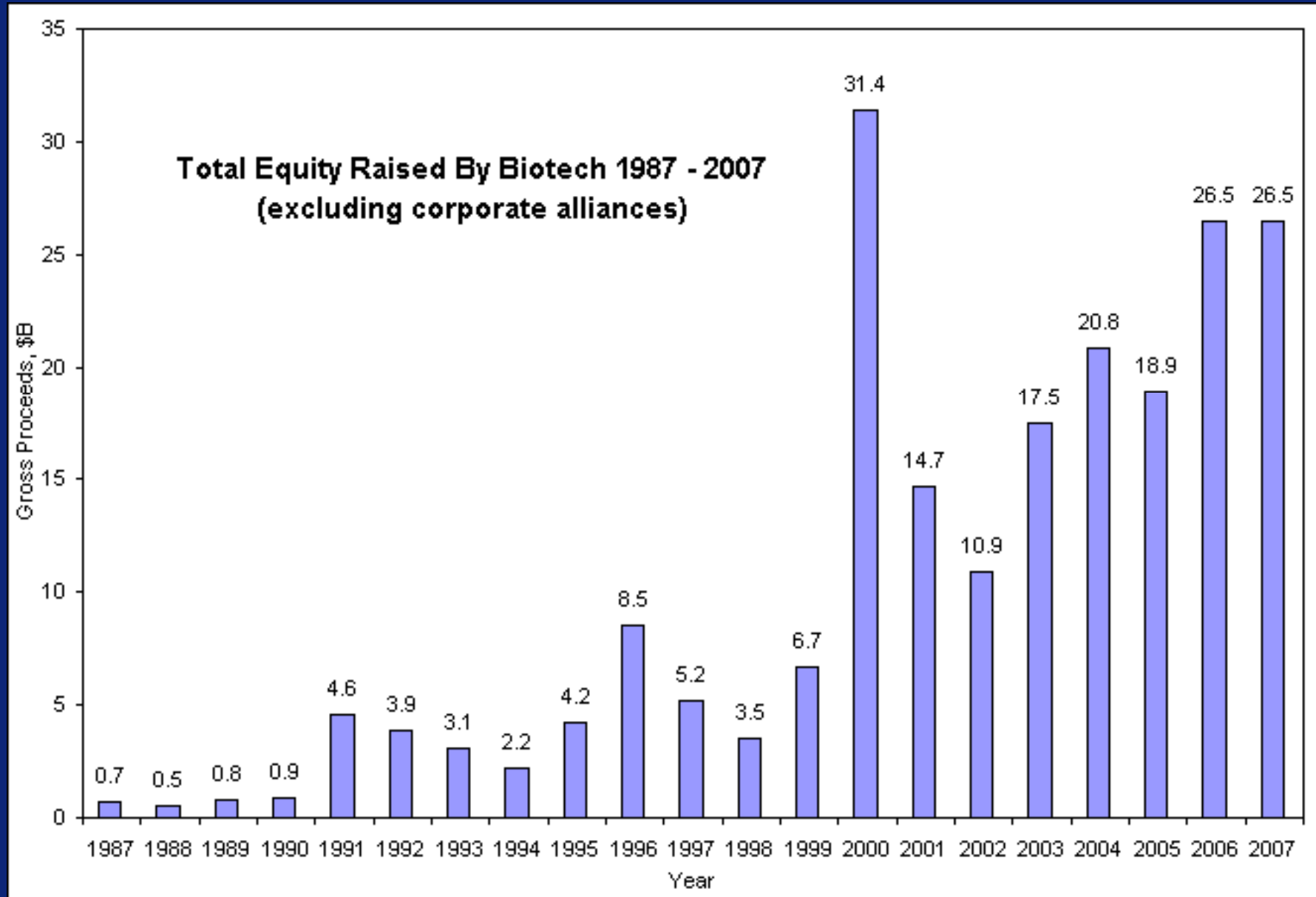


* Jennifer Van Brunt, Signals Magazine

...But 2008 is showing trouble



Historic Annual Finance Levels



- **Biotech Total Financings Down in 2008**
 - \$26.5 billion raised in 2007 duplicates 2006
 - But only \$5.8B in 1H08 (down 68% from '07)

- **US Stocks are Getting Hammered**
 - AMEX Biotech Index down 5% in 1H08
 - Recap Tracking of 227 Biotech Stocks*
 - Average 25% drop in 1H08
 - Median 39% drop in 1H08

- **IPO Window has Shut for US firms**
 - Last significant US IPO was November '07
 - Marks the Close of Window (since October '03)

* Signals Magazine (www.signalsmag.com)



Biotech Industry Trends

Recap Data on 227 Public Biotech Companies*

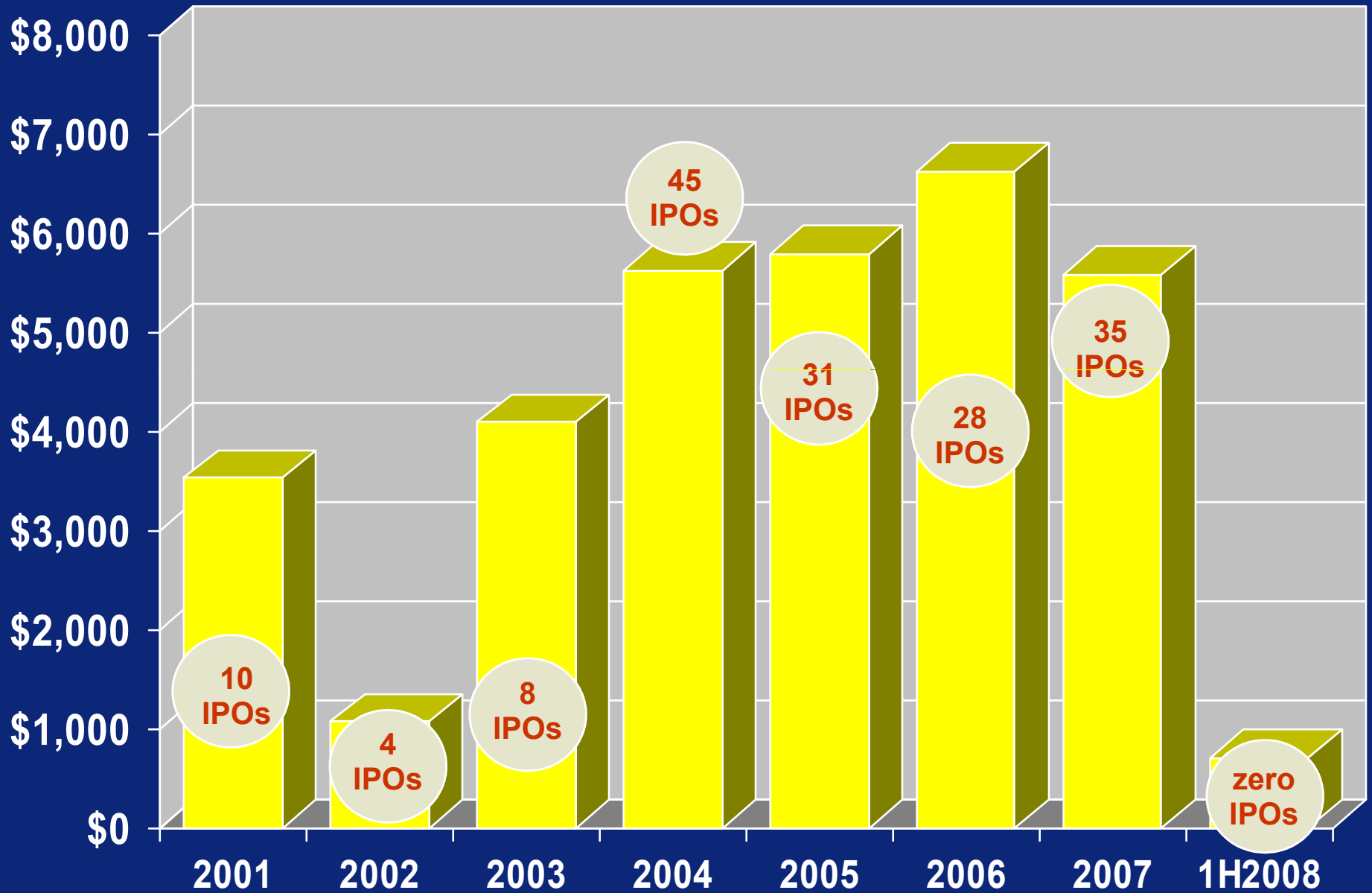
- Median Market Capitalization of \$178 million
 - Down from \$206M at end of Q108
 - Down from \$264M at end of Q207
- 35 companies with Market Cap > \$1 billion
- 6 companies with Market Cap > \$10 billion
- 85 companies with Market Cap < \$100M
- 47% of companies between \$100M - \$1B

* Signals Magazine (www.signalsmag.com)



IPO & Follow On Offerings

Amount Raised by Year (# IPOs)



Biotech IPO Market

- US Initial Public Offerings
 - No major IPOs have occurred since November 2007
 - 19 companies with current active S-1 filings with the SEC

<u>Company</u>	<u>Filed</u>	<u>Offering</u>
AutoGenomics	7/24/08	\$86.3M
Alimera Sci.	7/1/08	\$75M
Aldagen	5/9/08	\$80.5M
Codexis	4/14/08	\$100M
Fluidigm	4/14/08	\$86.25M
BioTrove	4/1/08	\$75M
Zogenix	3/20/08	\$86.25M
CyDex	3/12/08	\$50M
Phenomix	1/25/08	\$86.25M
Omeros	1/9/08	\$115M

<u>Company</u>	<u>Filed</u>	<u>Offering</u>
Prometheus	12/19/07	\$100M
Aegerion	11/20/07	\$86.25M
ChemoCentryx	11/9/07	\$57.5M
Xanodyne	11/9/07	\$86.25M
XDx	10/23/07	\$86.25M
Anacor	8/31/07	\$57.5M
Insys	8/17/07	\$86.25M
Talecris	8/27/07	\$1,000M
Cumberland	5/1/07	\$100M

* Jennifer Van Brunt, Signals Magazine

The Current Problem

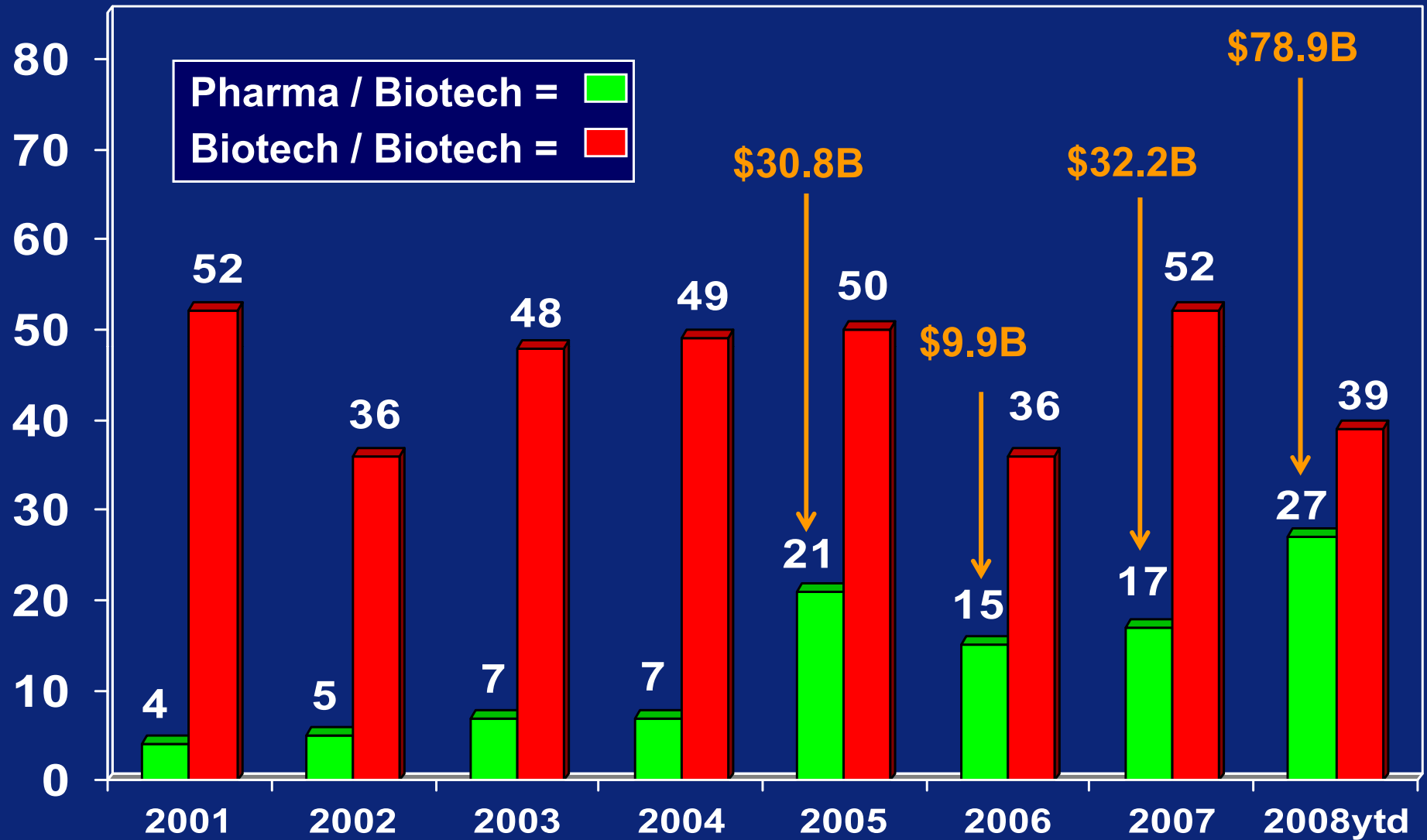
- Credit Crunch & Recession Fears
 - US Dollar Losing to the Euro
 - Increased Regulatory Scrutiny
 - Lack of 'Hype' Biotech Storyline
- *Sagging Biotech Stock Prices*
- *Lack of Interest from Wall Street*
- *M&A and Licensing Dominate*

The M&A Trend is a Push/Pull Phenomenon

- M&A has been major trend since 2004
 - Pharma acquiring Biotechs at high rate
 - Traditionally 4-7 acquisitions each year
 - Past 3-years >15 deals each year (high 21 in '05)
 - Biotech consolidation
 - Out: Reverse mergers to access public markets
 - In: Restructurings and mergers to maintain solvency

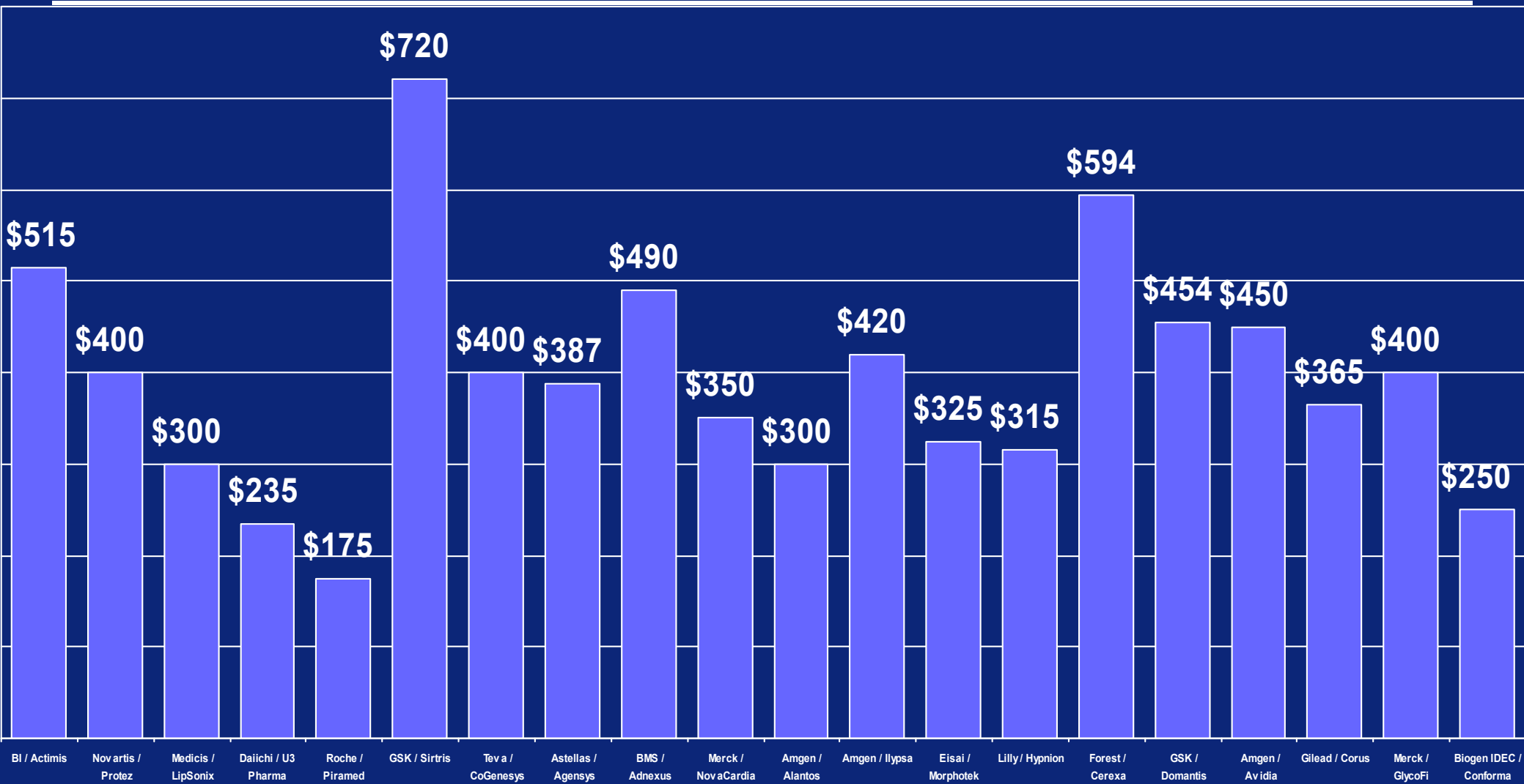
Biotech M&A by Year

Announced Number of Transactions





Premium Private Acquisitions



20 Selected Deals completed since May 2005

→ Average Valuation of \$392M



The Acquisition Wave

\$100M+ M&A Deals since 2004

Product/Pipeline Plays

MedImmune, Organon, Serono, Chiron, Millennium, ImClone, MGI Pharma, KOS, INAMED, Pharmion, New River, Myogen, Adams Respiratory ICOS, Abgenix, Vicuron, Reliant, Transkaryotic Therapies, ID Biomedical, TheraSense, Ilex, Eyetech, Tanox, Aspreva, Speedel, Atrix, Connetics, Lev, Cerexa, AnorMed, NeuTec, CNS, Angiosyn, Jerini, Actimis, AnorMed, ESP Pharma, Rinat Neuro, Tercica, CoTherix, Protez, Esprit, Corus, NovaCardia, Zeneus, Bioenvision, Aton, Hypnion, Idun, Conforma, Peninsula, KOSAN, Salmedix, Encysive, Inkin, Guilford, Piramed, Collective, Arrow, Syntonix

Platform Technology

Celltech, Tularik, Sirna Therapeutics, Cambridge Antibody, Sirtris, BioVeris, Acambis, Adnexus, Domantis, Avidia, Berna Biotech, CoGenesys, GlycoFi, Agensys, Morphotek, Corixa, Syrrx, U3 Pharma, Coley Pharmaceutical PowderMed, TransForm, KuDOS Pharmaceutical, ARIUS Research, Iomai, GlyCart, 454 Life Sciences, Mirus



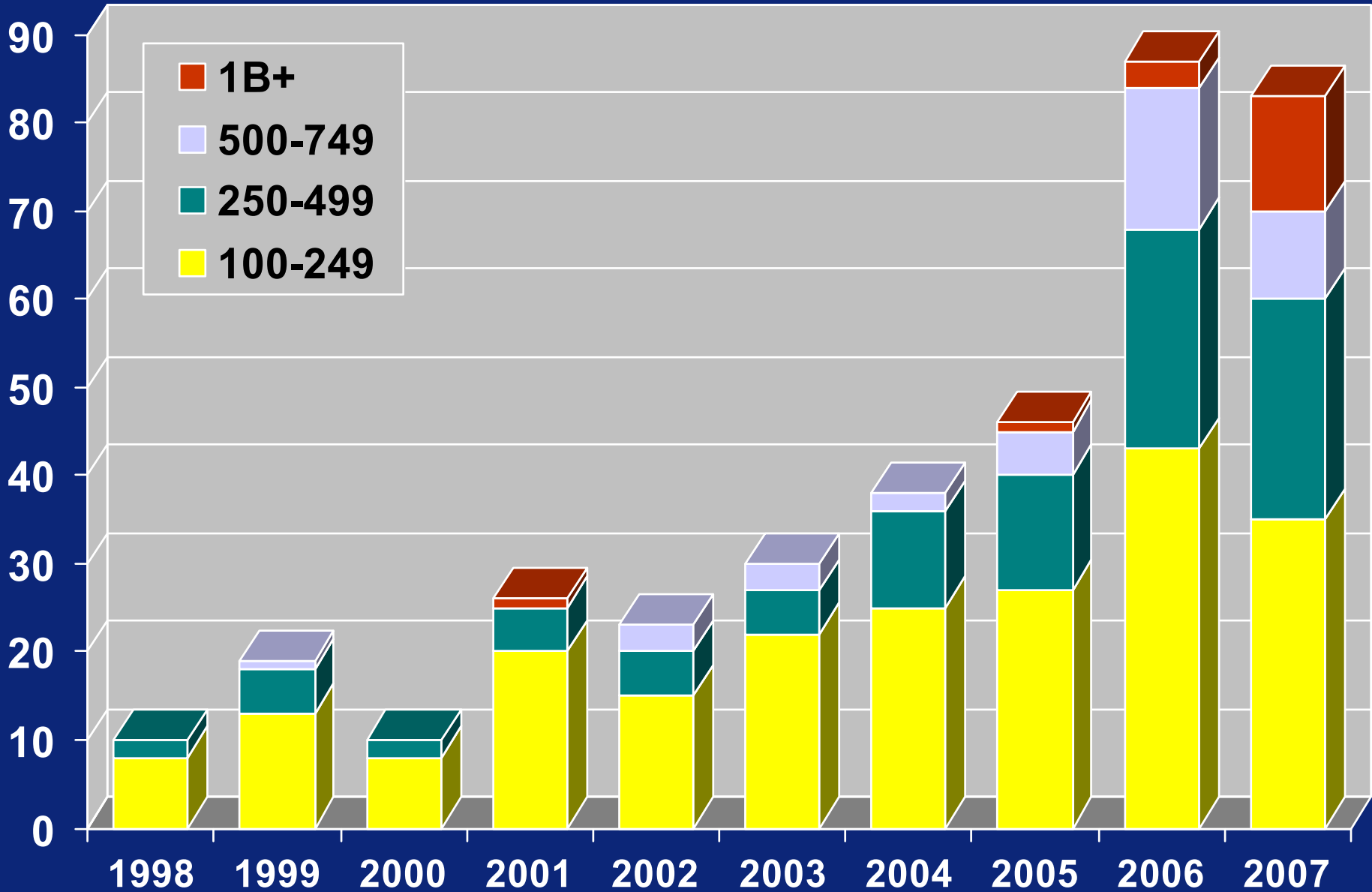
Big Ticket Alliances (\$100M+)

- At the same time, Pharma is showing a willingness to do 'Over-the-Top' Alliances
- There have now been 23 alliances announced with a total size greater than \$1 billion
 - First \$1B+ was BMS / IMCL in 2001
 - Next didn't occur until 2005 (AZ / AGIX)
 - 3 announced in 2006
 - 13 announced in 2007
 - And 5 more in 1H08



Big Ticket Alliances (\$100M+)

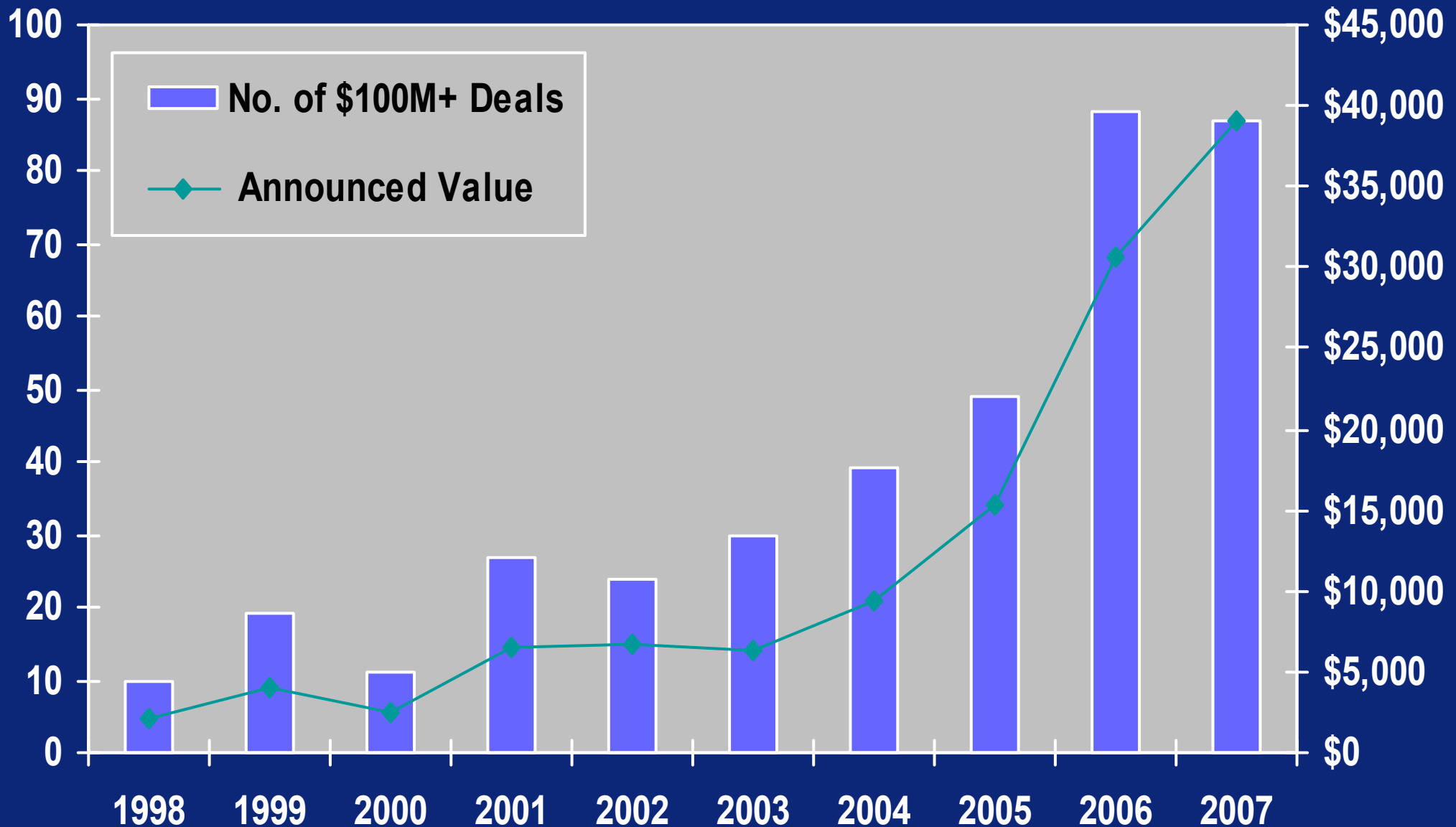
Number of Announced Deals by Total Size





Big Ticket Alliances (\$100M+)

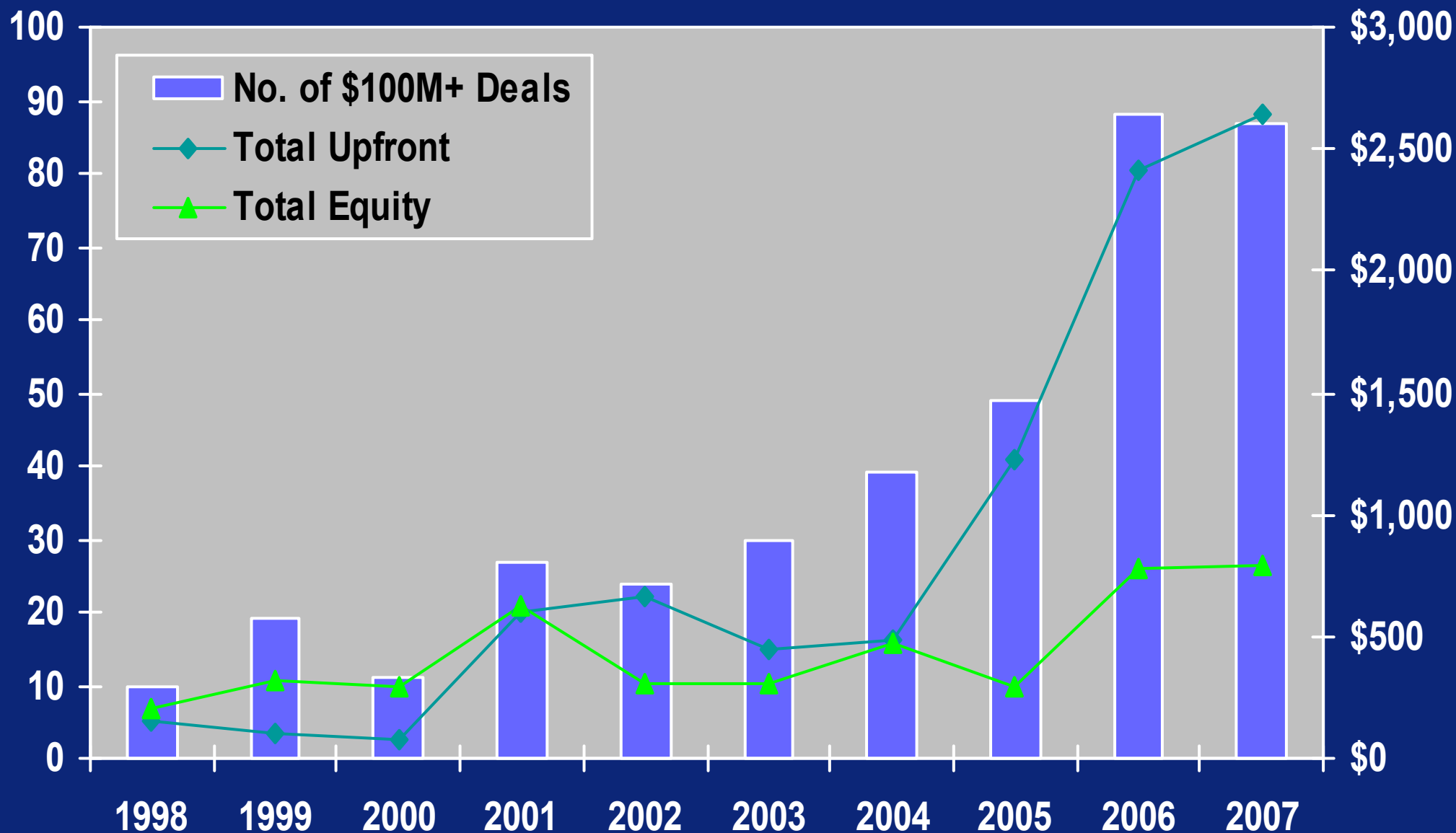
Number of \$100M+ Deals and Total Value





Big Ticket Alliances (\$100M+)

Total Value of Upfront Payments and Equity





Big Ticket Alliances (\$100M+)

5-Year Trend Analysis of Big Ticket Alliances

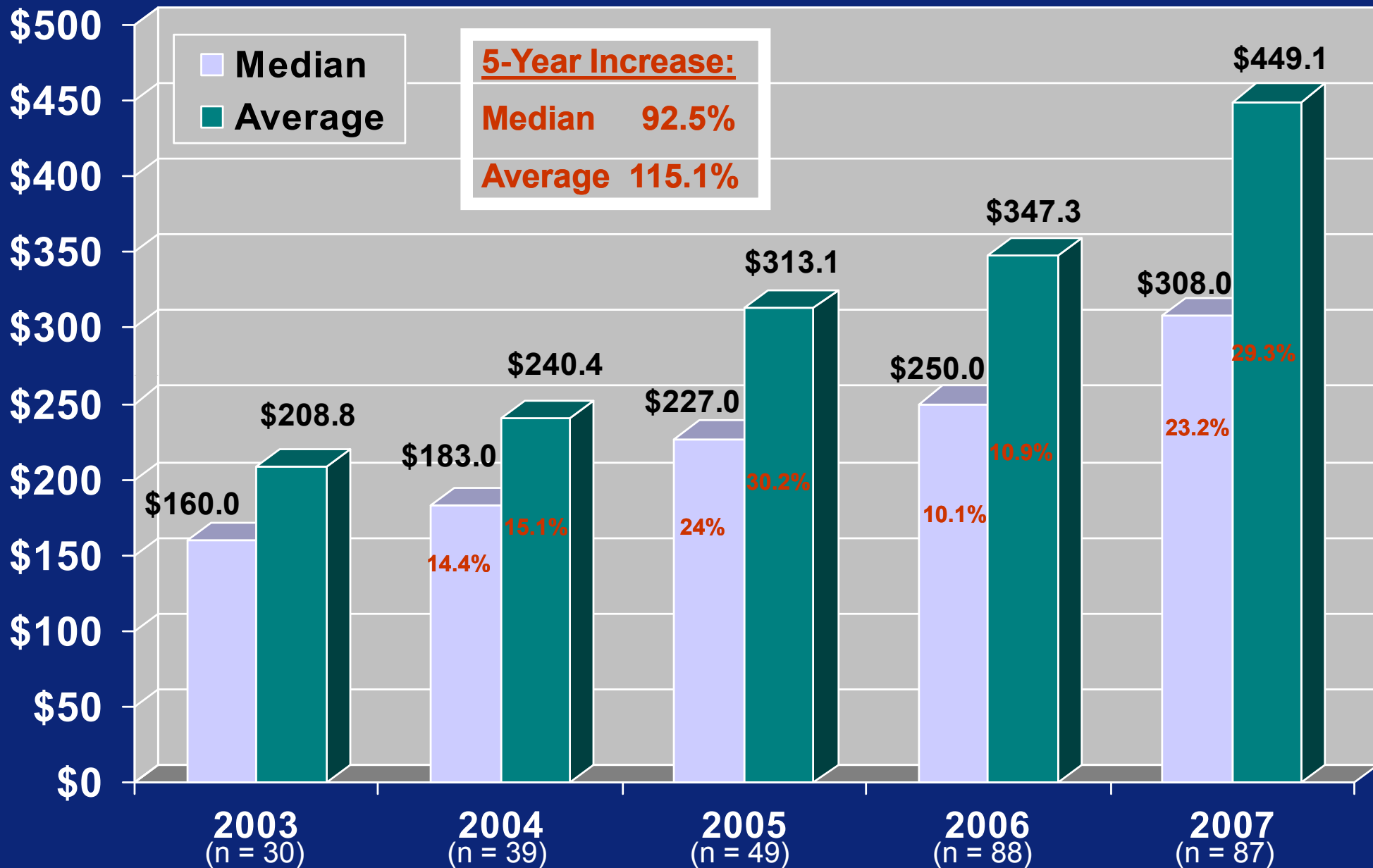
- Average Size Increased 115.1%
- Average Upfront Increased 87.6%
- Average Milestones Increased 129.6%

- Median Size Increased 92.5%
- Median Upfront Increased 127.3%
- Median Milestones Increased 125.1%



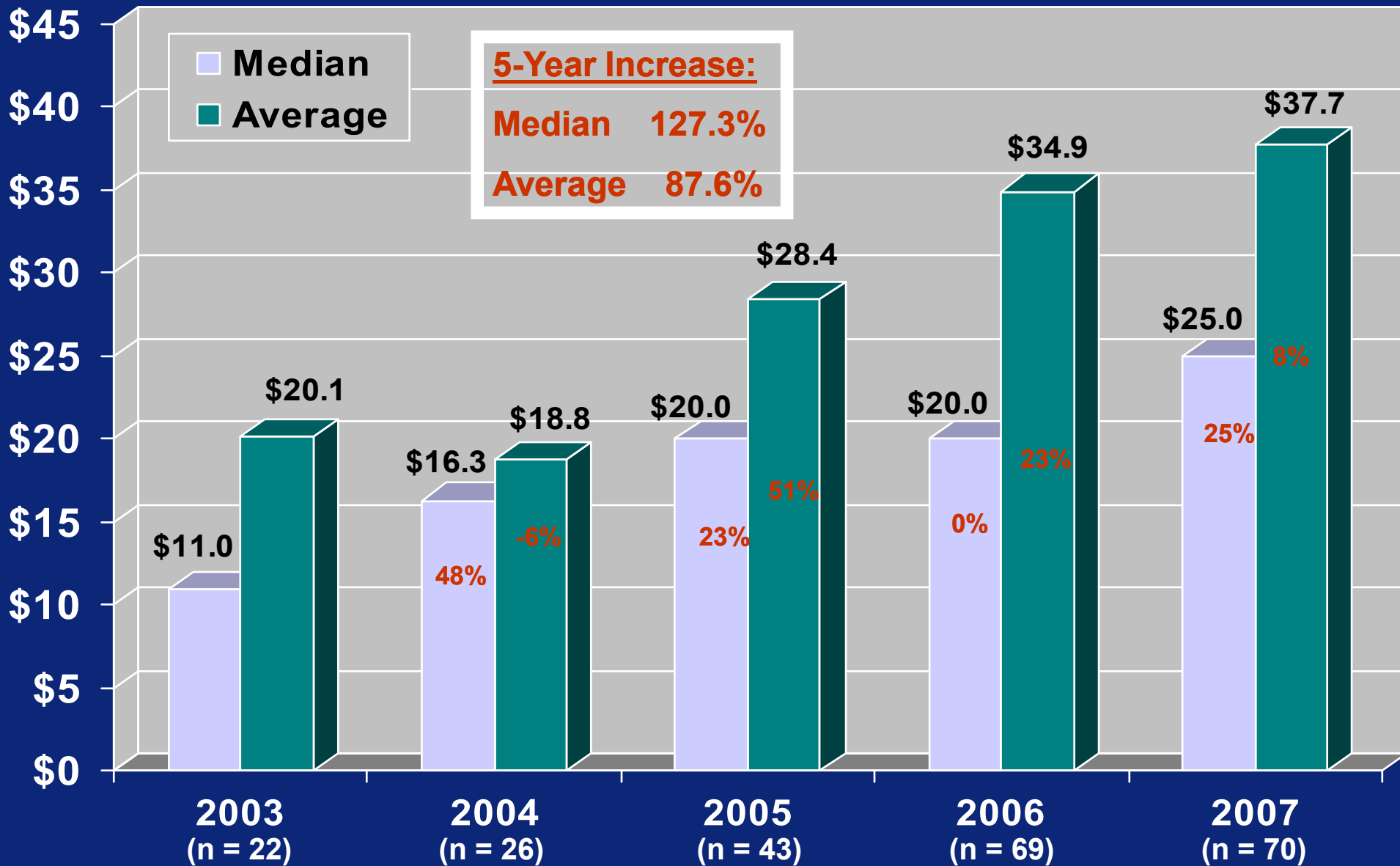
Big Ticket Alliances (\$100M+)

Average & Median Announced Size



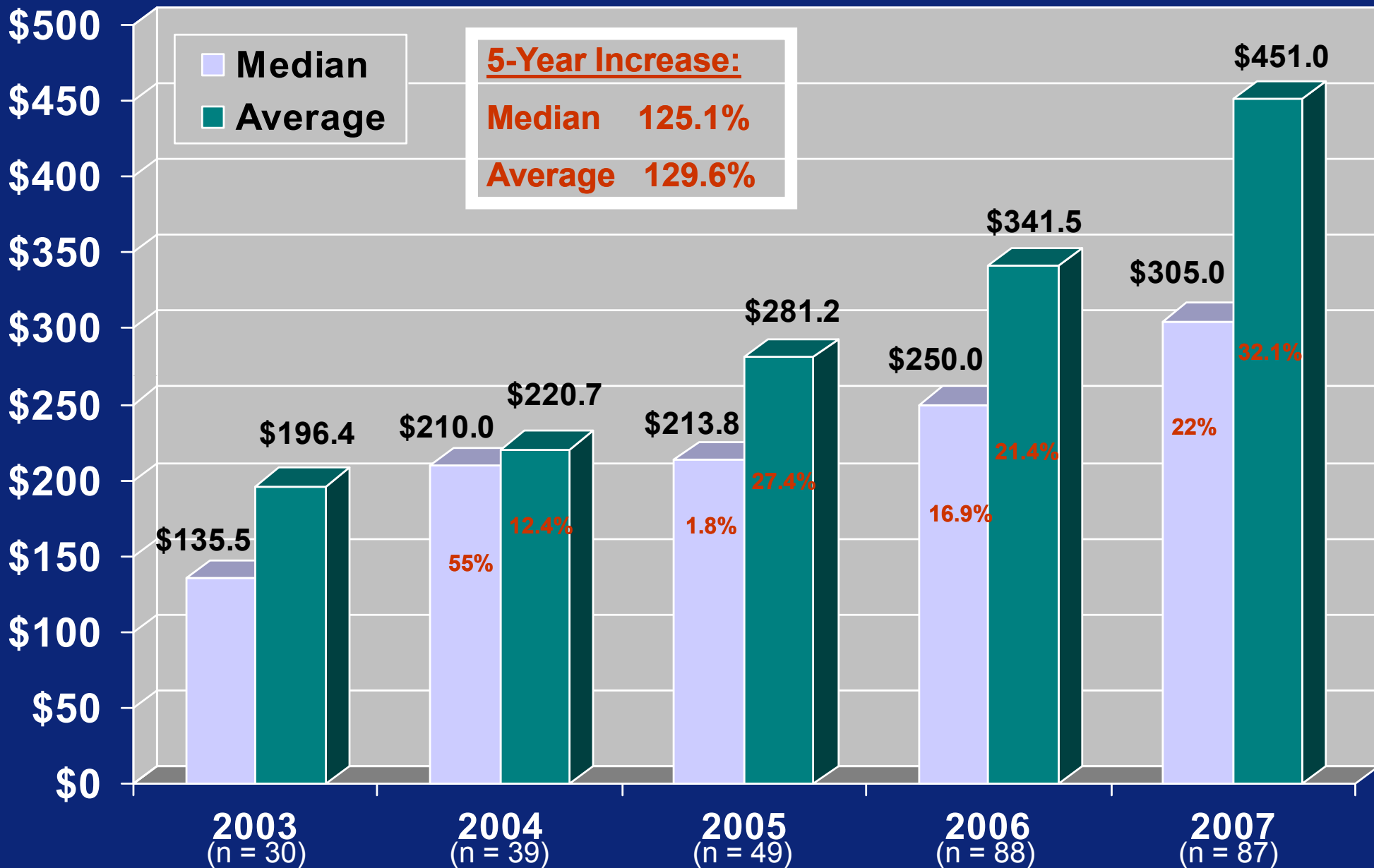
Big Ticket Alliances (\$100M+)

Average & Median Upfront Payments



Big Ticket Alliances (\$100M+)

Average & Median Milestone Totals





Early Stage Alliances

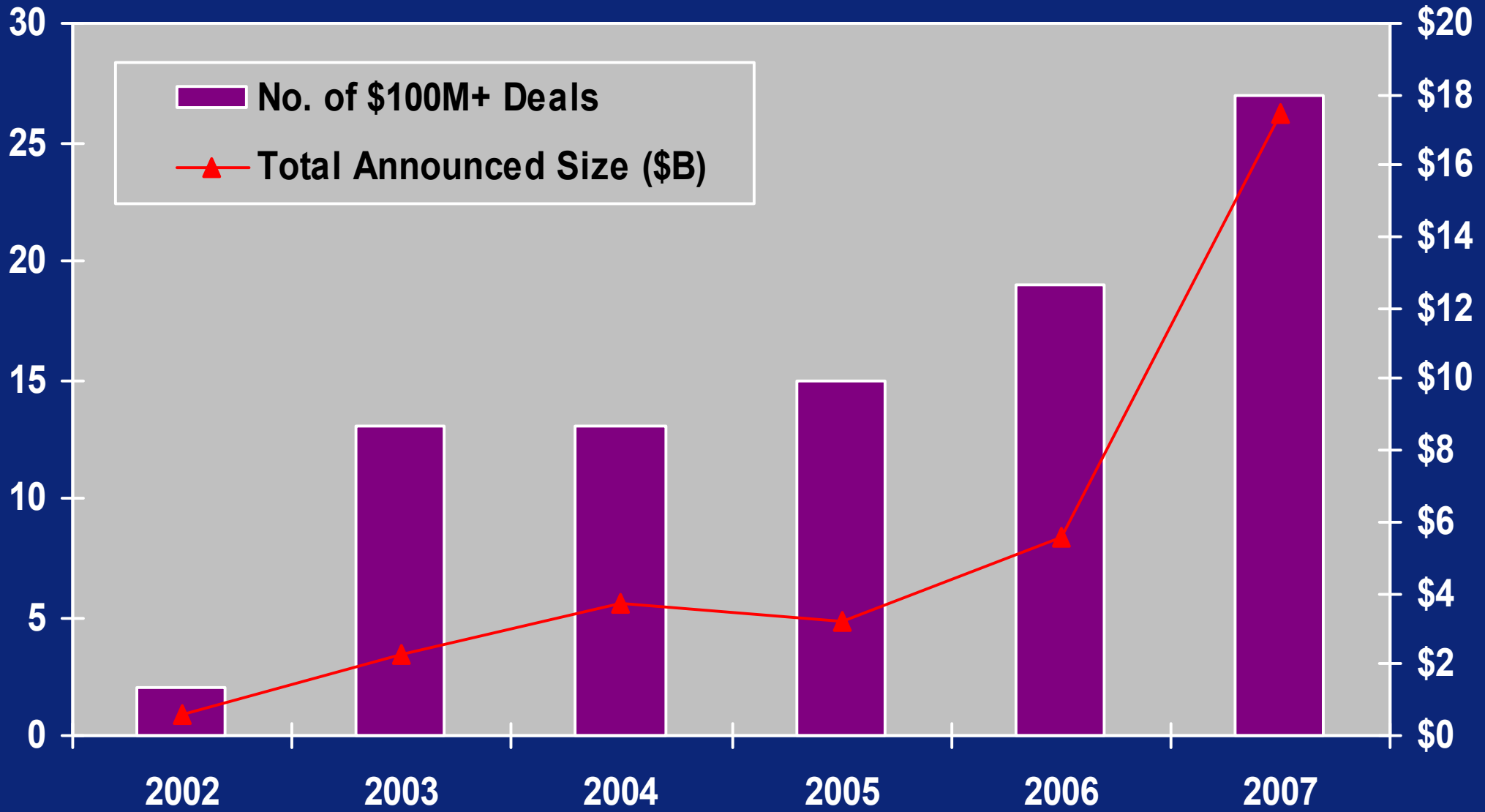
- Number of Big Ticket (\$100M+) Early Stage Deals has nearly doubled over the past 4 years
- At the same time, we have seen an increase in the number of Risk-Sharing deals and the introduction of other new partnership models

* **Early Stage = Discovery + Lead Stage Deals**



Big Ticket Alliances (\$100M+)

Early Stage Alliances (Discovery + Lead)

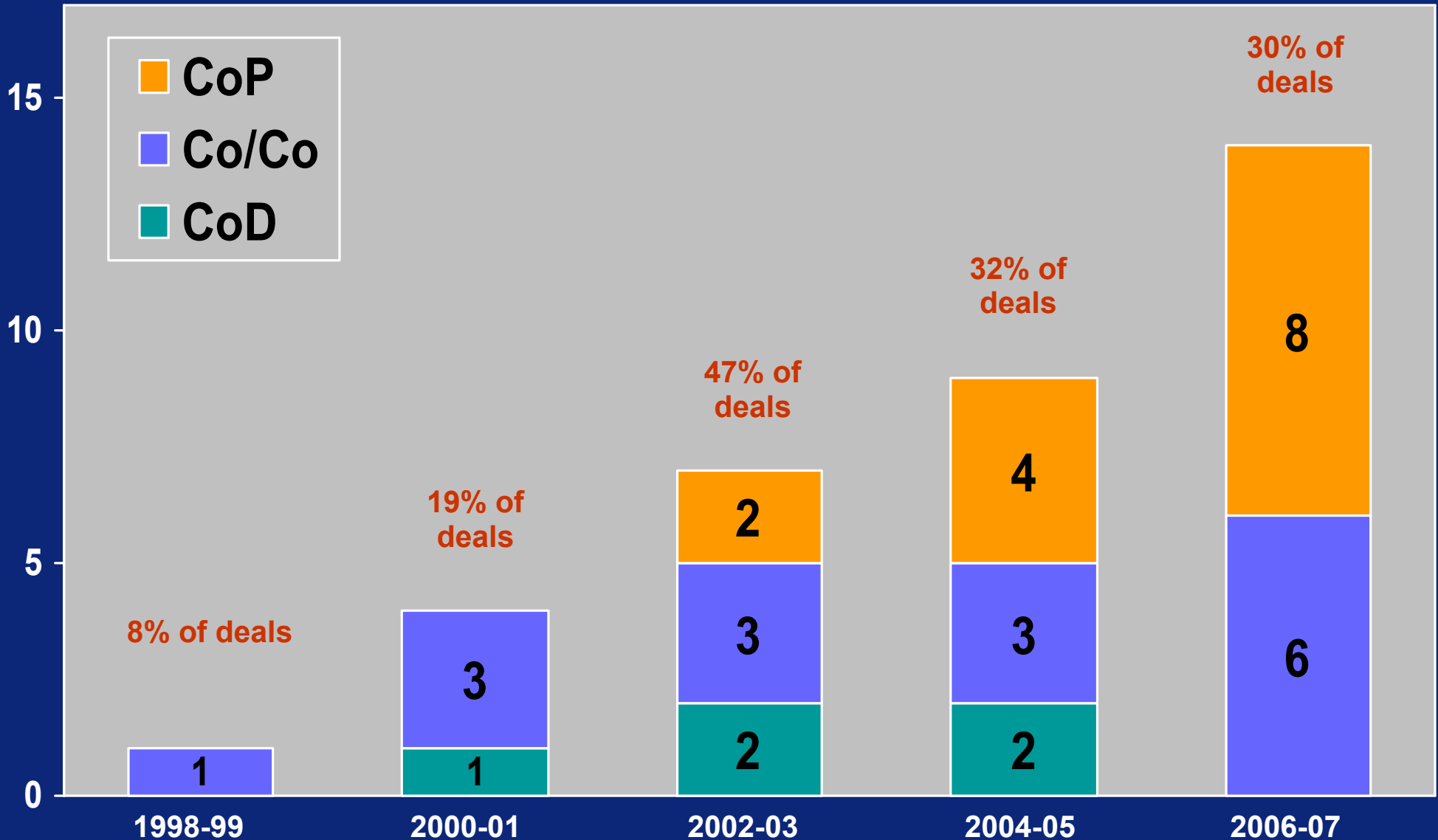


* As of 8/1/2008 - 9 deals,
\$6.2B Total Announced Size



Big Ticket Alliances (\$100M+)

Co-Development & Co-Promote at Early Stage



Trends in Early Stage Deal Terms: A Big Premium to Get the Deal, and a Sweet Back-End

VelociSuite Product Collaboration (11/07)

Regeneron

- \$85M Upfront Cash
- \$312M Equity Purchase - at \$26/share (51.6% premium to market)
- Ownership increased from 4% to 19%
 - Up to \$250M in Sales Milestones
- Sanofi funds up to \$475M in R&D over 5 yrs (\$75M in Yr 1, \$100M/yr after)

Sanofi-Aventis

Regeneron right to Co-Commercialize Products up to Maximum Detail Effort

50/50 US Profit Split & REGN receives 35-45% ROW Profits

Sanofi funds all development costs and Regeneron repays if the collaboration is profitable

REGN88 (IL-6R mAb) has started clinical trials in RA and DII4 mAb expected to enter clinic in mid-2008

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